

YPF SOCIEDAD ANONIMA  
Form 20-F  
April 04, 2019  
Table of Contents

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**FORM 20-F**

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)**  
**OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the fiscal year ended December 31, 2018**

**Commission file number: 1-12102**

**YPF Sociedad Anónima**  
**(Exact name of registrant as specified in its charter)**

**Republic of Argentina**  
**(Jurisdiction of incorporation or organization)**

**Macacha Güemes 515**

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**C1106BKK Ciudad Autónoma de Buenos Aires, Argentina**

**(Address of principal executive offices)**

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**Macacha Güemes 515**

**C1106BKK Ciudad Autónoma de Buenos Aires, Argentina**

**(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)**

**Securities registered or to be registered pursuant to Section 12(b) of the Act:**

<b>Title of Each Class</b>	<b>Name of Each Exchange on Which Registered</b>
<b>American Depositary Shares, each representing one Class D</b>	
<b>Share, par value 10 pesos per share Class D Shares</b>	<b>New York Stock Exchange New York Stock Exchange*</b>

\* Listed not for trading but only in connection with the registration of American Depositary Shares.  
**Securities registered or to be registered pursuant to Section 12(g) of the Act: None**

**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None**

The number of outstanding shares of each class of stock of YPF Sociedad Anónima as of December 31, 2018 was:

Class A Shares	3,764
Class B Shares	7,624
Class C Shares	40,422
Class D Shares	393,260,983
	393,312,793

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities

Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Note Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See definition of accelerated filer, large accelerated filer and emerging growth company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued  
by the International Accounting Standards Board:

Other

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes No

**Table of Contents**

**TABLE OF CONTENTS**

	<i>Page</i>
<u>Conversion Table</u>	4
<u>References</u>	4
<u>Disclosure of Certain Information</u>	4
<u>Forward-Looking Statements</u>	4
<u>Oil and Gas Terms</u>	5
<u>PART I</u>	7
<u>ITEM 1. Identity of Directors, Senior Managers and Advisers</u>	7
<u>ITEM 2. Offer Statistics and Expected Timetable</u>	7
<u>ITEM 3. Key Information</u>	7
<u>Selected Financial Data</u>	7
<u>Exchange Regulations</u>	10
<u>Risk Factors</u>	12
<u>ITEM 4. Information on the Company</u>	32
<u>History and Development of YPF</u>	32
<u>The Argentine Market</u>	36
<u>Business Organization</u>	37
<u>Upstream Overview</u>	38
<u>Downstream</u>	75
<u>Gas and Power</u>	85
<u>Research and Development</u>	95
<u>Competition</u>	96
<u>Environmental Matters</u>	97
<u>Property, Plant and Equipment</u>	103
<u>Insurance</u>	104
<u>Legal and Regulatory Framework and Relationship with the Argentine Government</u>	105
<u>ITEM 4A. Unresolved Staff Comments</u>	143
<u>ITEM 5. Operating and Financial Review and Prospects</u>	143
<u>Overview</u>	144
<u>Presentation of Financial Information</u>	144

<u>Segment Reporting</u>	144
<u>Summarized Statement of Comprehensive Income</u>	145
<u>Factors Affecting Our Operations</u>	145
<u>Critical Accounting Policies</u>	153

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**Table of Contents**

<u>Off-Balance Sheet Arrangements</u>	172
<u>Research and Development, Patents and Licenses, etc.</u>	172
<u>ITEM 6. Directors, Senior Management and Employees</u>	172
<u>Management of the Company</u>	172
<u>Board of Directors</u>	173
<u>Senior Management</u>	179
<u>The Audit Committee</u>	182
<u>Disclosure Committee</u>	184
<u>Compliance with New York Stock Exchange Listing Standards on Corporate Governance</u>	186
<u>Compensation of members of our Board of Directors</u>	187
<u>Supervisory Committee</u>	187
<u>Employee Matters</u>	191
<u>ITEM 7. Major Shareholders and Related Party Transactions</u>	193
<u>Related Party Transactions</u>	194
<u>Argentine Law Concerning Related Party Transactions</u>	194
<u>ITEM 8. Financial Information</u>	194
<u>Financial Statements</u>	194
<u>Legal Proceedings</u>	195
<u>Dividend Policy</u>	195
<u>Significant Changes</u>	195
<u>ITEM 9. The Offer and Listing</u>	195
<u>Shares and ADSs</u>	195
<u>Argentine Securities Market</u>	195
<u>ITEM 10. Additional Information</u>	201
<u>Memorandum and Articles of Association</u>	202
<u>Directors</u>	204
<u>Dividends</u>	205
<u>Amount Available for Distribution</u>	206
<u>Preemptive and Accretion Rights</u>	207
<u>Voting of the Underlying Class D Shares</u>	208
<u>Certain Provisions Relating to Acquisitions of Shares</u>	209
<u>Material Contracts</u>	211
<u>Exchange Regulations</u>	211

<u>Taxation</u>	211
<u>Argentine Tax Considerations</u>	211
<u>United States Federal Income Tax Considerations</u>	213

---

**Table of Contents**

<u>Documents on Display</u>	216
<u>ITEM 11. Quantitative and Qualitative Disclosures about Market Risk</u>	216
<u>ITEM 12. Description of Securities Other than Equity Securities</u>	218
<u>PART II</u>	219
<u>ITEM 13. Defaults, Dividend Arrearages and Delinquencies</u>	219
<u>ITEM 14. Material Modifications to the Rights of Security Holders and Use of Proceeds</u>	219
<u>ITEM 15. Controls and Procedures</u>	219
<u>ITEM 16.</u>	220
<u>ITEM 16A. Audit Committee Financial Expert</u>	220
<u>ITEM 16B. Code of Ethics</u>	220
<u>ITEM 16C. Principal Accountant Fees and Services</u>	221
<u>ITEM 16D. Exemptions from the Listing Standards for Audit Committees</u>	221
<u>ITEM 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers</u>	222
<u>ITEM 16F. Change in Registrant's Certifying Accountant</u>	222
<u>ITEM 16G. Corporate Governance</u>	222
<u>PART III</u>	222
<u>ITEM 17. Financial Statements</u>	222
<u>ITEM 18. Financial Statements</u>	223
<u>ITEM 19. Exhibits</u>	223



## **Table of Contents**

### **Conversion Table**

1 ton = 1 metric ton = 1,000 kilograms = 2,204 pounds

1 barrel = 42 U.S. gallons

1 ton of oil = approximately 7.3 barrels (assuming a specific gravity of 34 degrees API (American Petroleum Institute))

1 barrel of oil equivalent = 5,615 cubic feet of gas = 1 barrel of oil, condensate or natural gas liquids

1 barrel of oil, condensate or natural gas liquids = 0.159 cubic meters

1 kilometer = 0.63 miles

1 million Btu = 252 termies

1 cubic meter of gas = 35.3147 cubic feet of gas

1 cubic meter of gas = 10 termies

1,000 acres = approximately 4 square kilometers

### **References**

YPF Sociedad Anónima is a stock corporation organized under the laws of the Republic of Argentina ( Argentina ). As used in this annual report, YPF, the Company, we, our and us refer to YPF Sociedad Anónima and its consolidated companies or, if the context requires, its predecessor companies. YPF Sociedad Anónima or YPF S.A. refers to YPF Sociedad Anónima only. Repsol refers to Repsol S.A., its affiliates and consolidated companies. We maintain our financial books and records and publish our financial statements in Argentine pesos. In this annual report, references to pesos or Ps. are to Argentine pesos, and references to dollars, U.S. dollars or U.S.\$ are to United States dollars.

### **Disclosure of Certain Information**

In this annual report, references to Audited Consolidated Financial Statements are to YPF's audited consolidated statement of financial position as of December 31, 2018, 2017 and 2016, YPF's audited consolidated statements of comprehensive income for the years ended December 31, 2018, 2017 and 2016, YPF's audited consolidated statements of cash flows for the years ended December 31, 2018, 2017 and 2016, YPF's audited consolidated statements of changes in shareholders' equity for the years ended December 31, 2018, 2017 and 2016 and notes 1 to 34.

Unless otherwise indicated, the information contained in this annual report reflects:

for the subsidiaries that were consolidated using the global integration method at the date or for the periods indicated, 100% of the assets, liabilities and results of operations of such subsidiaries without excluding minority interests, and

for those joint operations whose results were consolidated using the proportional integration method, a *pro rata* amount of the assets, liabilities and results of operations for such joint operations at the date or for the periods indicated.

For information regarding consolidation, see Note 2.a to the Audited Consolidated Financial Statements.

Certain monetary amounts and other figures included in this annual report have been subject to rounding adjustments. Any discrepancies in any tables between the totals and the sums of the amounts are due to rounding.

### **Forward-Looking Statements**

This annual report, including any documents incorporated by reference, contains statements that we believe constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may include statements regarding the intent, belief or current expectations of us and our management, including statements with respect to trends affecting our financial condition, financial ratios, results of operations, business, strategy, geographic concentration, reserves, future hydrocarbon production volumes and the Company's ability to satisfy our long-term sales commitments from future supplies available to the Company, our ability to pay dividends in the future and to service our outstanding debt, dates or periods in which production is scheduled or expected to come on-stream, as well as our plans with respect to capital expenditures, business, strategy, geographic concentration, cost savings, investments and dividends payout policies. These statements are not a guarantee of future performance and are subject to material risks, uncertainties, changes and other factors which may be beyond our control or may be difficult to predict. Accordingly, our future financial condition, prices, financial ratios, results of operations, business, strategy, geographic concentration, production volumes, reserves, capital expenditures, cost savings, WACC (weighted average cost of capital) investments and ability to meet our long-term sales commitments or pay dividends or service our outstanding debt could differ materially from those

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## **Table of Contents**

expressed or implied in any such forward-looking statements. Such factors include, but are not limited to, currency fluctuations, inflation, the domestic and international prices for crude oil and its derivatives, the ability to realize cost reductions and operating efficiencies without unduly disrupting business operations, replacement of hydrocarbon reserves, environmental, regulatory and legal considerations, including the imposition of further government restrictions on the Company's business, changes in our business strategy and operations, our ability to find partners or raise funding under our current control, the ability to maintain the Company's concessions, and general economic and business conditions in Argentina, as well as those factors described in the filings made by YPF and its affiliates with the Securities and Exchange Commission, in particular, those described in Item 3. Key Information Risk Factors and Item 5. Operating and Financial Review and Prospects. YPF does not undertake to publicly update or revise these forward-looking statements even if experience or future changes make it clear that the projected results or condition expressed or implied therein will not be realized.

### **Oil and Gas Terms**

Oil and gas reserves definitions used in this annual report are in accordance with Regulations S-X and S-K, as amended by the U.S. Securities and Exchange Commission's (SEC) final rule, Modernization of Oil and Gas Reporting (Release Nos. 33-8995; 34-59192; FR-78; File No. S7-15-08; December 31, 2008) and relevant guidance notes and letters issued by the SEC's Staff.

The reported reserves contained in this annual report include only our proved reserves and do not include probable reserves or possible reserves.

The following terms have the meanings shown below unless the context indicates otherwise:

**acreage** : The total area, expressed in acres or km<sup>2</sup>, over which YPF has interests in exploration or production. Net acreage is YPF's interest in the relevant exploration or production area.

**basin** : A depression in the crust of the Earth formed by plate tectonic activity in which sediments accumulate. Continued sediment accumulation can cause further depression or subsidence.

**block** : Areas defined by concession contracts or operating contracts signed by YPF.

**concession contracts** : A grant of access for a defined area and time period that transfers certain entitlements to produce hydrocarbons from the host country to an enterprise. The company holding the concession generally has rights and responsibilities for the exploration, development, production and sale of hydrocarbons, and typically, an obligation to make payments at the signing of the concession and once production begins pursuant to applicable laws and regulations.

**crude oil** : Crude oil with respect to YPF's production and reserves includes condensate.

**field** : One or more reservoirs grouped by or related to the same general geologic structural feature or stratigraphic condition.

**formation** : The fundamental unit of lithostratigraphy. A body of rock that is sufficiently distinctive and continuous that it can be mapped.

**gas** : Natural gas.

**hydrocarbons** : Crude oil, natural gas liquids and natural gas.

**surface conditions** : Represents the pressure and temperature conditions at which volumes of oil, gas, condensate and natural gas liquids are measured for reporting purposes. It is also referred to as standard conditions. For YPF these conditions are 14.7 psi for pressure and 60 degrees Fahrenheit for temperature. All volume units expressed in this report are at surface conditions.

**Table of Contents****Abbreviations:**

bbbl	Barrels.
bbbl/d	Barrels per day.
bcf	Billion cubic feet.
bcf/d	Billion cubic feet per day.
bcm	Billion cubic meters.
bcm/d	Billion cubic meters per day.
boe	Barrels of oil equivalent.
boe/d	Barrels of oil equivalent per day.
cm	Cubic meter.
cm/d	Cubic meters per day.
dam <sup>3</sup>	Cubic decameters (thousand cubic meters).
GWh	Gigawatt hours.
HP	Horsepower.
km	Kilometers.
km <sup>2</sup>	Square kilometers.
liquids	Crude oil, condensate and natural gas liquids.
LNG	Liquefied natural gas.
LPG	Liquefied petroleum gas.
m	Thousand.
mbbl	Thousand barrels.
mbbl/d	Thousand barrels per day.
mcf	Thousand cubic feet.
mcf/d	Thousand cubic feet per day.
mcm	Thousand cubic meters.
mcm/d	Thousand cubic meters per day.
mboe	Thousand barrels of oil equivalent.
mboe/d	Thousand barrels of oil equivalent per day.
mm	Million.
mmbbl	Million barrels.
mmbbl/d	Million barrels per day.
mmboe	Million barrels of oil equivalent.
mmboe/d	Million barrels of oil equivalent per day.
mmBtu	Million British thermal units.
mmcf	Million cubic feet.
mmcf/d	Million cubic feet per day.
mmcm	Million cubic meters.
mmcm/d	Million cubic meters per day.
mtn	Thousand tons.
MW	Megawatts.
NGL	Natural gas liquids.
psi	Pound per square inch.
WTI	West Texas Intermediate.

**Table of Contents****PART I****ITEM 1. Identity of Directors, Senior Managers and Advisers**

Not applicable.

**ITEM 2. Offer Statistics and Expected Timetable**

Not applicable.

**ITEM 3. Key Information  
Selected Financial Data**

The following tables present our selected financial data. This information should be read in conjunction with our Audited Consolidated Financial Statements, and the information under Item 5. Operating and Financial Review and Prospects included elsewhere in this annual report.

Our Audited Consolidated Financial Statements are prepared in accordance with International Financial Reporting Standards ( IFRS ) as issued by the International Accounting Standards Board ( IASB ).

In this annual report, except as otherwise specified, references to \$, U.S.\$ and dollars are to U.S. dollars, and references to Ps. and pesos are to Argentine pesos.

Selected consolidated financial information contained in this annual report as of and for the years ended December 31, 2018, 2017 and 2016 has been derived from our Audited Consolidated Financial Statements included in this annual report. Selected consolidated financial information contained in this annual report as of December 31, 2015 and 2014 and for the years ended December 31, 2015 and 2014 have been derived from our audited consolidated financial statements as of and for the years ended December 31, 2015 and 2014 not included in this annual report.

**As of and for the year ended December 31,**  
**2018      2017      2016      2015      2014**  
**(in millions of pesos, except for per share**

**and per ADS data)**

<b>Consolidated Statement of Comprehensive Income Data <sup>(1)</sup>:</b>					
Revenues <sup>(2)</sup>	435,820	252,813	210,100	156,136	141,942
Costs	(359,570)	(211,812)	(177,304)	(119,537)	(104,492)
Gross profit	76,250	41,001	32,796	36,599	37,450
Administrative expenses	(13,922)	(8,736)	(7,126)	(5,586)	(4,530)
Selling expenses	(27,927)	(17,954)	(15,212)	(11,099)	(10,114)
Exploration expenses	(5,466)	(2,456)	(3,155)	(2,473)	(2,034)
Recovery / (Impairment) of property, plant and equipment	2,900	5,032	(34,943)	(2,535)	

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Other net operating results	11,945	(814)	3,394	1,682	(1,030)
Operating profit (loss)	43,780	16,073	(24,246)	16,588	19,742
Income from equity interests in associates and joint ventures	4,839	1,428	588	318	558
Net financial results	41,525	(8,798)	(6,146)	12,157	1,772
Net profit / (loss) before income tax	90,144	8,703	(29,804)	29,063	22,072
Income tax	(51,538)	3,969	1,425	(24,637)	(13,223)
Net profit / (loss) for the year	38,606	12,672	(28,379)	4,426	8,849
Total other comprehensive income for the year	172,600	21,917	27,414	43,758	16,276
Total comprehensive income / (loss) for the year	211,206	34,589	(965)	48,184	25,125

**Table of Contents**

**As of and for the year ended December 31,**  
**2018      2017      2016      2015      2014**  
**(in millions of pesos, except for per share**

**and per ADS data)**

**Earnings and dividends per share and per ADS**

Earnings per share and per ADS <sup>(4)</sup>	98.43	31.43	(72.13)	11.68	22.95
Dividends per share and per ADS (in pesos)	3.05	1.82	2.26	1.28	1.18
Dividends per share and per ADS <sup>(5)</sup> (in U.S. dollars)	0.08	0.10	0.15	0.14	0.14

**Consolidated Statement of Financial Position Data**

Cash and cash equivalents	46,028	28,738	10,757	15,387	9,758
Working capital <sup>(3)</sup>	29,446	19,564	4,760	(2,818)	(11,266)
Total assets	994,016	505,718	421,139	363,453	208,554

Total loans <sup>(6)</sup>	335,078	191,063	154,345	105,751	49,305
Shareholders' equity <sup>(7)</sup>	362,357	152,533	118,661	120,461	72,781

**Other Consolidated Financial Data**

Depreciation of property, plant and equipment and amortization of intangible assets	89,318	54,350	45,469	27,008	20,405
Cash used in acquisition of property, plant and equipment and intangible assets	88,293	59,618	64,160	63,774	50,213

- (1) The consolidated financial statements reflect the effect of the application of the functional and reporting currency. See Note 2.b.1 to the Audited Consolidated Financial Statements.
- (2) Revenues are net of payments on account of fuel transfer taxes and turnover taxes. Customs duties on hydrocarbon exports are disclosed in taxes, charges and contributions, as indicated in Note 21 to the Audited Consolidated Financial Statements. Royalties with respect to our production are accounted for as a cost of production and are not deducted in determining revenues. See Note 2.b.15 to the Audited Consolidated Financial Statements.
- (3) Working capital consists of consolidated total current assets minus consolidated total current liabilities as of December 31, 2018, 2017, 2016, 2015 and 2014.
- (4) Information has been calculated as detailed in Note 26 to the Audited Consolidated Financial Statements. Each ADS represents one Class D share.
- (5) Amounts expressed in U.S. dollars are based on the exchange rate as of the date of the dividend payment.
- (6) Total loans include non-current loans of Ps. 270,252 million, Ps 151,727 million, Ps. 127,568 million, Ps. 77,934 million and Ps. 36,030 million as of December 31, 2018, 2017, 2016, 2015 and 2014, respectively, and current loans of Ps 64,826 million, Ps. 39,336 million, Ps. 26,777 million, Ps. 27,817 million and Ps. 13,275 million as of December 31, 2018, 2017, 2016, 2015 and 2014, respectively. See Note 16 to the Audited Consolidated Financial Statements.
- (7) Our subscribed share capital as of December 31, 2018 is represented by 393,312,793 shares of common stock and divided into four classes of shares, with a par value of Ps. 10 and one vote per share. These shares are fully subscribed, paid-in and authorized for stock exchange listing. See Item 6. Directors, Senior Management and Employees' Compensation of members of our Board of Directors Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers and Note 2.b.10.iii to the Audited Consolidated Financial Statements in relation to shares purchased by YPF and allocated to our employees as part of our employee compensation plans.

For information regarding macroeconomic conditions such as exchange rates and inflation rates that affected our results of operations, see Item 3. Key Information Selected Financial Data Exchange Rates and Item 5. Operating and



Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions. In addition, for an explanation of our results of operations, see Item 5. Operating and Financial Review and Prospects Principal Income Statement Line Items Results of Operations.

**Table of Contents***Exchange Rates*

From April 1, 1991 until the end of 2001, the Convertibility Law (Law No. 23,928) established a fixed exchange rate which required the Central Bank to sell U.S. dollars at one peso per U.S. dollar. On January 6, 2002, the Argentine Congress enacted the Public Emergency and Foreign Exchange System Reform Law (Law No. 25,561, the Public Emergency Law ), formally putting an end to the Convertibility Law regime and abandoning the U.S. dollar-peso parity. The Public Emergency Law, which had been periodically extended and expired on December 31, 2017, by virtue of Law No. 27,200, had granted the National Executive Office the power to set the exchange rate between the peso and foreign currencies and to issue regulations related to the foreign exchange market. Following a brief period during which the Argentine government established a temporary dual exchange rate system pursuant to the Public Emergency Law, the peso has been allowed to float freely against other currencies since February 2002, although the government has the power to intervene by buying and selling foreign currency for its own account, a practice in which it engages on a regular basis. The annual rate of devaluation of the peso was approximately 101.4% from December 31, 2017 to December 31, 2018, based on the period-end exchange rates for U.S. dollars as of December 31, 2018 and 2017. See Risk Factors Risks Relating to Argentina Our business is largely dependent upon economic conditions in Argentina.

By means of Decree No. 27/2018 dated January 11, 2018, the Free Exchange Market (Mercado Libre de Cambios - MELI ) was created, as a replacement of the Free Single Exchange Market (Mercado Unico Libre de Cambios - MULC ), for purposes of providing additional flexibility to the market, to enable competition and allow for the entry of new operators into the foreign exchange market, thus reducing systemic costs. Exchange operations will be conducted through the MELI by financial entities and other participants authorized by the Central Bank to conduct regular transactions or purchase and sale of foreign currency, gold coins or deliverable gold bars and travelers checks, and transfers and similar analogous foreign exchange operations.

Pursuant to Communication A 6,443 of the Central Bank, which became effective on March 1, 2018, companies from any sector of the economy which operate on a regular basis in the MELI may act as an exchange agency, as long as they comply with the sole requirement of registering their electronic signature in the Exchange operators registry .

Currently, the Central Bank may intervene the foreign exchange market by selling dollars into the market when the exchange rate is above 44 pesos per dollar and by buying dollars from the market when the exchange rate falls below 34 pesos per dollar which range was subject to a daily adjustment of 3% per month through the end of 2018, and is currently subject to a daily adjustment of 2% per month (1.75% per month for the second quarter of 2019), while the area within such range is considered to be a non-intervention zone.

The following table sets forth the annual high, low, average and period-end exchange rates for U.S. dollars for the periods indicated, expressed in nominal pesos per U.S. dollar, based on rates quoted by the Central Bank. The Federal Reserve Bank of New York does not report a noon buying rate for the Argentine peso.

<b>Year ended December 31,</b>	<i>Low</i>	<i>High</i>	<i>Average<sup>(1)</sup></i>	<i>Period End</i> <i>(pesos per U.S. dollar)</i>
2014	6.54	8.56	8.23	8.55
2015	8.73	13.76	9.39	13.01
2016	13.07	16.04	14.78	15.85
2017	15.17	18.83	16.76	18.77

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2018	18.42	40.90	29.32	37.81
<b>Month</b>				
September 2018	36.99	40.90	38.59	40.90
October 2018	36.20	40.34	37.12	36.20
November 2018	35.49	38.88	36.46	38.02
December 2018	36.89	38.57	37.89	37.81
January 2019	37.04	37.93	37.41	37.04
February 2019	37.20	40.04	38.41	39.00
March 2019 <sup>(2)</sup>	39.45	43.70	39.87	43.59

Source: Central Bank

- (1) Calculated using the average of the exchange rates on the last day of each month during the period (for annual periods), and the average of the exchange rates on each day during the period (for monthly periods).
- (2) Through March 28, 2019.

## **Table of Contents**

No representation is made that peso amounts have been, could have been or could be converted into U.S. dollars at the foregoing rates on any of the dates indicated.

## **Exchange Regulations**

Prior to December 1989, the Argentine foreign exchange market was subject to exchange controls. From December 1989 until April 1991, Argentina had a freely floating exchange rate for all foreign currency transactions, and the transfer of dividend payments in foreign currency abroad and the repatriation of capital were permitted without prior approval of the Central Bank. From April 1, 1991, when the Convertibility Law became effective, until December 21, 2001, when the Central Bank closed the foreign exchange market, the Argentine peso was freely convertible into U.S. dollars.

On December 3, 2001, the Argentine government imposed a number of monetary and currency exchange control measures through Decree No. 1,570/01, which included restrictions on the free disposition of funds deposited with banks and tight restrictions on transferring funds abroad (including the transfer of funds to pay dividends) without the Central Bank's prior authorization subject to specific exceptions for transfers related to foreign trade.

In June 2003, the Argentine government set restrictions on capital flows that came into Argentina, which mainly consisted of a prohibition against the transfer abroad of any funds until 180 days after their entry into the country.

On June 9, 2005, by means of Decree No. 616/2005, the National Executive Office established that (a) all inflows of funds into the domestic foreign exchange market arising from foreign debts incurred by individuals or entities of the private sector, excluding foreign trade financing and primary issuances of debt securities admitted to public offering and authorized to be listed and/or traded on self-regulatory markets; and (b) all inflows of funds of non-residents channeled through the local foreign exchange market to be applied to: holdings of local currency, acquisition of all types of financial assets or liabilities in the financial or non-financial private sector, to the exclusion of direct foreign investment and primary issuances of debt securities and shares admitted to public offering and authorized to be listed and/or traded in self-regulatory markets, and investments in Government securities acquired in secondary markets must meet the following requirements: (i) the funds entering the country may only be transferred out of the local foreign exchange market at the expiration of a term of 365 calendar days counted as beginning on the date the funds were received in Argentina; (ii) the proceeds of the foreign exchange settlement of the funds received in Argentina must be credited to an account in the local banking system; (iii) a registered, non-transferable and non-interest bearing deposit equivalent to 30% of the amount involved in the relevant transaction is to be maintained for a term of 365 calendar days in the conditions prescribed by the regulations (the Mandatory Deposit); and (iv) the Mandatory Deposit is to be made in U.S. dollars and held in a financial institution in Argentina. The Mandatory Deposit shall not accrue interest nor any other type of benefits and it shall not be used to secure credit facilities of any type. There are various exceptions to the requirements of Decree No. 616/2005, including but not limited to, those detailed below.

However, Resolution No. 3/2015 issued by the Ministry of Budget and Public Finances reduced the Mandatory Deposit percentage created by Decree No. 616/2005 from 30% to 0% and reduced the period in which the incoming funds must remain in Argentina from 365 calendar days to 120 calendar days. Moreover, in January 2017, the Ministry of Treasury reduced the holding period of the Mandatory Deposit from 120 calendar days to 0 calendar days. As a result of these two changes to the regulations, the Mandatory Deposit is currently not required.

On August 8, 2016, the Central Bank of the Argentine Republic ( BCRA or Central Bank ) established a new exchange rate regime through Communication A 6,037, substantially modifying existing exchange regulations and facilitating access to the MULC. On May 19, 2017, the Central Bank issued Communication A 6,244 which, effective as of July 1, 2017, significantly modified and relaxed all the regulations that regulated the operation of the MULC. By

virtue of this last Communication, all the rules that regulated the exchange operations were replaced by this new regulation, including - among others- the exchange rate transaction, the general position of changes, the provisions adopted by Decree No. 616/2005, and maintaining the validity of the regulations related to information regimes, surveys or follow-ups related to such topics.

## Table of Contents

In addition, through Communication A 6,401 of December 26, 2017, the Central Bank replaced the information regimes and surveys established by Communications A 3,602 and A 4,237 with a unified regime, applicable from the corresponding information as of December 31, 2017.

The information required will be used exclusively for statistical purposes, framed in the provisions of the Law on Statistics and Census No. 17,622. According to the new regime, individuals and legal entities, assets and other universal residents are subject (for example: trusts, joint ventures, business collaboration groups, cooperation consortiums or other multilateral associative contracts), which are not included in the category of General Government according to the definition of the Sixth Edition of the Balance of Payments Manual of the International Monetary Fund.

Three sample levels were contemplated, whose participants will be determined each calendar year based on: 1) the sum of the flows of external assets and liabilities during the previous calendar year; and 2) the balance of holdings of external assets and liabilities at the end of the previous calendar year: a) Main sample: any individual or legal entity for which the sum of the flows of external assets and liabilities during the previous calendar year, or the balance of external assets and liabilities at the end of that calendar year reaches or exceeds the equivalent of U.S.\$ 50 million; b) Secondary sample: any individual or legal entity for which the sum of the flows of external assets and liabilities during the previous calendar year, or the balance of external assets and liabilities at the end of that calendar year, is between the equivalent of U.S.\$ 10 million and U.S.\$ 50 million; and c) Complementary sample: any individual or legal entity for which the sum of the flows of external assets and liabilities during the previous calendar year, or the balance of external assets and liabilities at the end of that calendar year is between the equivalent of U.S.\$ 1 million and U.S.\$ 10 million. For the rest of the individuals or legal entities, the declaration will be optional. In the three samples, an annual declaration must be presented and, in the first case, an advance for each of the quarters. External assets and liabilities must be reported according to the following classification: (i) shares and equity interests; (ii) non-negotiable debt instruments; (iii) negotiable debt instruments; (iv) financial derivatives; and (v) land, structures and real estate.

Additionally, Decree No. 893 dated November 1, 2017, in order to improve the competitiveness of Argentine exports, make financing conditions more flexible and improve financial predictability, repealed the mandatory entry and settlement of export currencies, as well as the obligation to negotiate the currencies so that the exporter could have access to the collection of export refunds. In accordance with the aforementioned decree, Communication A 6,363 of the Central Bank dated November 10, 2017 repealed the sections and other provisions related to the entry and settlement of foreign currency from exports.

Pursuant to Communication A 6,436, which became effective on January 20, 2018, the Central Bank derogated all foreign exchange regulations (except for those which were explicitly exempt therefrom), and substituted them with the following:

Any individual or entity may freely conduct operations through MELI.

All transactions involving foreign exchange must be carried out through an authorized financial entity.

Timing restrictions to operate in MELI were eliminated.

Persons subjects to these regulations must comply with the information requirements of the Foreign Assets and Liabilities Survey , even in those cases where they have not deposited any amounts through MELI or if they do not anticipate accessing such market for any transactions subject to reporting.

The obligation to settle foreign exchange transactions was eliminated; however, the intervening financial entity must continue to keep records thereof.

The intervening financial entities must satisfy the applicable regulations relating to anti-money laundering, financing of terrorist activities and other illegal activities.

Foreign exchange transactions shall be conducted at the exchange rate determined by the applicable parties. As a result, as of the date of this annual report, the Argentine government has eliminated the restrictions on access to the MELI and there are no limitations for the repatriation of investments by non-residents, without prejudice to the fact that new exchange control policies could be established in the future.

## **Table of Contents**

For more information regarding current foreign exchange restrictions and control regulations, you should seek advice from your legal advisors and read the applicable rules mentioned herein, as well as their amendments and complementary regulations, which are available at the website: <http://www.infoleg.gob.ar/>, or the Central Bank's website: [www.bcra.gob.ar](http://www.bcra.gob.ar), as applicable. Information contained on these websites is not part of, and shall not be deemed to be incorporated into, this annual report. See also Item 3. Key Information Risk Factors Risks Relating to Argentina We may be exposed to fluctuations in foreign exchange rates.

### **Risk Factors**

*The risks and uncertainties described below are those known by us as of the date of this report. However, such risks and uncertainties may not be the only ones that we could face. Additional risks and uncertainties that are unknown to us or that we currently think are immaterial also may impair our business operations.*

#### **Risks Relating to Argentina**

*The Argentine Republic owns 51% of the shares of the Company.*

The Argentine Republic owns 51% of the shares of the Company (see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law ), and consequently, the federal government is able to determine all matters requiring approval by a majority of shareholders, including the election of a majority of directors. We cannot assure you that the decisions taken by our controlling shareholder or its interests, would not differ from your interests as a shareholder, including pricing policy of all our main products, and thus affect our operational decisions (see additionally The result of the next presidential and provincial elections that will take place in 2019 could generate uncertainty in the Argentine economy and, consequently, in our businesses and the results of our operations; Our domestic operations are subject to extensive regulation , and Limitations on local pricing in Argentina may adversely affect our results of operations. ) In addition, according to the Argentine Constitution, presidential elections take place every four years. Argentina's national election for president and vice-president will take place in October 2019, and other relevant local and federal elections will also take place in 2019. Accordingly, changes in government or its policies may occur. We cannot assure you if and when any such changes may occur, nor the impact they may have on our business.

*Our business is largely dependent upon economic conditions in Argentina.*

Most of our operations, properties and customers are located in Argentina, and, as a result, our business is to a large extent dependent upon economic conditions prevailing in Argentina. The changes in economic, political and regulatory conditions in Argentina and measures taken by the Argentine government have had and are expected to continue to have a significant impact on us. You should make your own assessment about Argentina and prevailing conditions in the country before taking an investment decision in us.

The Argentine economy has experienced significant volatility in past decades, including numerous periods of low or negative growth and high and variable levels of inflation and currency devaluation. No assurances can be given that the rate of growth experienced over past years will be achieved in future years or that the national economy will not suffer recession. If economic conditions in Argentina were to slow down, or contract, if inflation were to accelerate further, or if the Argentine government's measures to attract or retain foreign investment and international financing in the future to incentivize domestic economy activity are unsuccessful, such developments could adversely affect Argentina's economic growth and in turn affect our financial health and results of operations.



Argentina has confronted and continues to confront inflationary pressures. According to inflation data published by the National Statistics Institute (*Instituto Nacional de Estadística y Censos*) ( INDEC ), in 2018 the consumer price index ( CPI ) and the wholesale price index increased by 47.6% and 73.5%, respectively and the three-year cumulative inflation rate has exceeded 100% causing Argentina to be now considered as a hyperinflationary economy. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions .

Additionally, during 2018 certain macroeconomic variables also suffered and continue to face considerable pressure during 2019, which in turn affected the development of the domestic economy. Among other variables, Argentina had increasing interest rates (where the BADLAR averaged 34.3% during 2018), the Argentine peso suffered a 101% devaluation during the December 2017-December 2018 period, preliminary GDP (gross domestic product) growth rate during 2018 was negative 2.5%, and Argentina's country risk climbed to 817.27 points on December 31, 2018 from 350.97 on December 29, 2017.

Argentine economic conditions are dependent on a variety of factors, including, but not limited to, the following:

domestic production, international demand and prices for Argentina's principal commodity exports;

stability and competitiveness of the Argentine peso against foreign currencies;

competitiveness and efficiency of domestic industries and services;

**Table of Contents**

levels of consumer consumption;

foreign and domestic investment and financing;

adverse external economic shocks;

changes in economic or fiscal policies that may be adopted by the National Government;

labor disputes and work stoppages, which may affect various sectors of the Argentine economy;

the level of expenditure by the National Government and the difficulty of reducing the fiscal deficit;

the level of unemployment, which affects consumption;

political instability; and

interest and inflation rates.

The political parties opposed to the current administration maintained the majority of seats in both houses of the National Congress in the last elections, so the new administration should generate political consensus with the opposition to carry out their economic proposals. This situation generates more uncertainty regarding the ability of the National Government to get approval for new measures to be implemented. We cannot predict exactly if this situation could generate an adverse change in our financial condition and result of our operations.

The Argentine economy is also sensitive to local political developments. Despite significant measures taken by the Argentine government that was elected on December 10, 2015 such as reforms in the INDEC, the elimination of exchange restrictions, the elimination or reduction of export taxes on certain products (although these restrictions were reinstated in September 2018), the adjustment of gas and electricity prices, tax reform and IMF financing, among others. Argentina's economy continues to face challenges. Inflation remains a challenge for Argentina given its persistent nature in recent years and also considering its high levels during 2018. The Argentine Government has announced its intention to reduce the primary fiscal deficit as a percentage of GDP over time and reduce the Government's reliance on Central Bank financing. If the measures adopted by the Macri administration are not able to resolve the structural inflationary disruptions of Argentina, the current inflationary levels could subsist and have a negative impact on the economic and financial conditions of Argentina, and as such affect our operations and financial situation.

On May 8, 2018, President Macri announced that the Argentine government would begin negotiations with the IMF with the goal of acquiring a stand-by line of credit that would grant Argentina access to IMF financing. On June 8, 2018, the key points of the agreement were made public, which consist of a stand-by loan for U.S.\$ 50 billion, subject to strict adjustments, mainly due to fiscal and political concerns, to which the national government will be subject for the upcoming years. On June 22, 2018 the IMF made an initial disbursement of U.S.\$ 15.0 billion. In addition, on

September 26, 2018, Argentina published a new agreement with the IMF. This new agreement supported the three-year stand-by agreement, approved on June 20, 2018 and includes an increase in available IMF funds of U.S.\$ 19.0 billion through the end of 2019. It also raises the maximum loan amount available, to U.S.\$ 57.1 billion through 2021. The funds available under the program will no longer be treated as preventive reserves, as the Argentine government has indicated that they intend to use IMF financing as budget support. The IMF-supported economic plan aims to strengthen the Argentine economy by focusing on four key pillars: (a) restore market confidence; (b) protect society's most vulnerable sectors; (c) strengthen the credibility of the Central Bank's inflation targeting framework; and (d) progressively lessen the strains on the balance of payments. There are no guarantees on the impact that the IMF loan will have on the Argentine economy or on the assets, economic and financial situation of Argentine companies.

Some of the commitments assumed by the National Government, as counterpart of the IMF loan consist of: reduction of the primary fiscal deficit, reaching a surplus in 2021, staggered reduction of inflation until 2021, greater power of the BCRA to establish inflation targets with an anticipation of three years and a reduction of the stock of titles of the BCRA proportionate to a level of capital that guarantees its financial autonomy, among others. The agreement includes a social clause according to which, in case the social situation worsens, the National Government can deviate from the objectives to reduce the fiscal deficit and increase social spending for the protection of the most vulnerable sectors.

On October 26, 2018, IMF approved the extension of the stand-by agreement in an amount of approximately U.S.\$ 5.6 billion. The IMF approved the first review of Argentina's performance under the new stand-by agreement and authorized a new transfer of approximately U.S.\$ 5.7 billion. In turn, a new disbursement schedule was established and the amounts to be disbursed for 2018 and 2019 were expanded. Under this new schedule, the expected disbursements through the end of 2018 were raised from U.S.\$ 6 billion to U.S.\$ 13.4 billion. On December 19, 2018, the IMF approved a new disbursement of U.S.\$ 7.6 billion, which together with the previous two disbursements reached a total amount of U.S.\$.

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**Table of Contents**

28.3 billion for the year 2018. In April 2019, Executive Board of the IMF will plan the following disbursement. We cannot predict exactly what measures will be adopted to comply with the agreements concluded with the IMF or their consequences on the Argentine economy, in general and if this could generate an adverse change in our financial condition and result of our operations.

On September 2018, the Central Bank established a new monetary policy with the aim of reducing the inflation rate. The Central Bank committed not to increase the monetary base until June 2019 and defined the ranges for an intervention zone and a non-intervention zone applicable to the exchange rate through the end of 2018. On October 2018, the lower limit of the non-intervention zone was established at an exchange rate of 34 pesos per dollar and the higher limit was set at 44 pesos per dollar, with a daily adjustment of 3% per month through the end of 2018. If the exchange rate rises above the maximum or falls below the minimum values of the area of intervention, the BCRA will purchase or sell foreign currency in an amount of up to U.S.\$ 50 to U.S.\$ 150 million per day, respectively. Within the non-intervention zone, the exchange rate fluctuates freely. During the last quarter of 2018, the exchange rate has remained within the non-intervention zone, although approaching the lower limit.

On December 5, 2018, BCRA established that the limits of the non-intervention zone will be updated daily at a monthly rate of 2% between January 1 and March 31, 2019. On March 14, 2019, BCRA announced that the new limits of the non-intervention zone for the second quarter of 2019 will be updated daily at a monthly rate of 1.75%. Likewise, this new monetary policy scheme is consistent with the goals of the Ministry of Finance of achieving a primary fiscal balance in 2019, and a surplus in 2020. For its part, BCRA will not carry out further transfers to the Treasury, thus eliminating this source of monetary issuance and reinforcing the BCRA's commitment to a decreasing inflation over time. During January and February 2019, inflation remained at high levels, where the CPI increased by 2.9% and 3.8%, respectively, on a month-to-month basis. In addition, as of March 28, 2019, the peso was valued at Ps. 43.59 per U.S.\$1.00, an increase of approximately 15.3% compared to December 31, 2018

If, despite the measures adopted by the Macri administration, these measures fail to address Argentina's structural inflationary imbalances, the current levels of inflation may continue or increase and have an adverse effect on Argentina's economy and, indirectly, on our business, financial condition and results of operations. Inflation can also lead to an increase in Argentina's debt and have an adverse effect on Argentina's ability to service its debt, mainly in the medium and long term when most inflation-indexed debt matures. In addition, weaker fiscal results could have a material adverse effect on the Government's ability to access long term financing, which, in turn, could adversely affect Argentina's economy and financial condition. Furthermore, considering the Government's macroeconomic program, the Argentine Republic may not be able or willing to access international or domestic capital markets, and Argentina's ability to service its outstanding public debt could be adversely affected, and consequently adversely affect Argentina's economic and our financial health and results of operations. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions.

Argentina's economy is also vulnerable to adverse developments affecting its principal trading partners. A deterioration of economic conditions in Brazil, Argentina's main trading partner, and a deterioration of the economies of Argentina's other major trading partners, such as China or the United States, could have a material adverse impact on Argentina's balance of trade and adversely affect Argentina's economic growth and, consequently, may adversely affect our financial health and results of operations. Furthermore, a significant devaluation of the currencies of our trading partners or trade competitors may adversely affect the competitiveness of Argentina and consequently adversely affect Argentina's economic and our financial health and results of operations.

On the other hand, a substantial increase in the value of the Peso against the U.S. dollar would adversely affect Argentina's economic competitiveness. A significant real appreciation of the Peso would adversely affect exports and increase the trade deficit, which could have a negative effect on GDP growth and employment, as well as reduce the

Argentine public sector's revenues by reducing tax collection in real terms, given its current heavy reliance on taxes on exports.

Additionally, as a consequence of the emergency measures which the Argentine government adopted during or after the 2001-2002 Argentine economic crisis, foreign shareholders of companies with operations in Argentina began arbitration proceedings against the Argentine government before the International Centre for Settlement of Investment Disputes ( ICSID ) pursuant to the arbitration regulations of the United Nations Commission on International Trade Law ( UNCITRAL ). Outstanding claims against the Argentine government before ICSID under UNCITRAL regulations may entail new awards against the Argentine government, which in turn could have a substantially adverse effect on the Argentine government's ability to implement reforms and to foster economic growth. We cannot assure you that in the future the Argentine government will not breach its obligations. If the Argentine government were to default on its debt payment obligations, this would probably result in an impairment of economic activity, an increase in interest rates, additional pressure on the foreign exchange market and an increase in inflation rates, which in turn could adversely affect our operations and financial position. Likewise, if Argentina's access to international private financing or financing from multilateral organizations was

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**Table of Contents**

restricted, or the inflows of foreign direct investments was limited, it is possible that Argentina will be unable to comply with its obligations and financing from multilateral financial entities may be limited or become unavailable. Additionally, a limitation on Argentina's ability to obtain financing in international markets may have, in the future, an adverse effect on our ability to access international credit markets at standard market rates in order to finance our operations.

***The result of the next presidential and provincial elections that will take place in 2019 could generate uncertainty in the Argentine economy and, consequently, in our businesses and the results of our operations.***

Argentina's national election for president and vice-president will take place in October 2019, and other relevant local and federal elections will also take place in 2019. The impact that the electoral process and its results could have on the policies and the economy of Argentina is uncertain. Additionally, it is not possible to predict the measures that may be adopted by the Macri administration or by any potential new administration at the national or provincial level, which could have a substantially adverse effect on the economy or the ability of Argentina to comply with its obligations that could affect our financial condition and results of operations. We cannot guarantee that current programs and policies that apply to the oil and gas sector will continue in place in the future. See **Risks relating to Our Business** **Limitations on local pricing in Argentina may adversely affect our results of operations** and **Risks relating to Our Business** **We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.**

***Certain risks are inherent in any investment in a company operating in an emerging market such as Argentina.***

According to an MSCI (Morgan Stanley Capital International) release, Argentina is considered a **border market** and from May 2019 will be considered an **emerging market**. The investing in emerging markets generally carries risks. These risks include political, social and economic instability that may affect Argentina's economic results which can stem from many factors, including the following:

high interest rates;

abrupt changes in currency values;

high levels of inflation;

exchange and capital controls;

wage and price controls;

regulations to import equipment and other necessities relevant for operations;

changes in governmental economic or tax policies; and

political and social tensions.

In particular, we continue to actively manage our schedule of work, contracting, procurement and supply-chain activities to effectively manage costs. However, price levels for capital and exploratory costs and operating expenses associated with the production of crude oil and natural gas can be subject to external factors beyond our control including, among other things, the general level of inflation, commodity prices and prices charged by the industry's material and service providers, which can be affected by the volatility of the industry's own supply and demand for such materials and services. In the past, we and the oil and gas industry generally experienced an increase in certain costs that exceeded the general trend of inflation.

Any of these factors, as well as volatility in the capital and foreign exchange markets, may adversely affect our financial condition and results of operations or the liquidity, trading markets and value of our securities.

**Table of Contents**

***Failure to adequately address actual and perceived risks of institutional deterioration and corruption may adversely affect Argentina's economy and financial condition.***

A lack of a solid and transparent institutional framework for contracts with the Argentine government and its agencies and corruption allegations have affected and continue to affect Argentina. Argentina ranked 85 of 180 in the Transparency International's 2018 Corruption Perceptions Index and 117 of 190 in the World Bank's Doing Business 2018 report.

As of the date of this annual report, there are various ongoing investigations into allegations of money laundering and corruption being conducted by the Office of the Argentine Federal Prosecutor, including the largest such investigation, known as Los Cuadernos de las Coimas (the Notebooks Investigation) which have negatively impacted the Argentine economy and political environment. Depending on how long it takes to close said investigations and their results, companies involved in the investigations may be subject to, among other consequences, a decrease in their credit ratings, claims filed by their investors, and may further experience restrictions in their access to financing through the capital markets, together with a decrease in their income. Additionally, as the criminal cases against the companies involved in the investigations move forward, said companies may be restricted from rendering services or may face new restrictions, due to their customers' internal standards. These adverse effects could restrict these companies' ability to conduct their operating activities and to meet their financial obligations. As a consequence of the above, the number of suppliers available for our operations may be reduced and, as such, have an adverse effect on our commercial activities and results of operations.

Recognizing that the failure to address these issues could increase the risk of political instability, distort decision-making processes and adversely affect Argentina's international reputation and ability to attract foreign investment, the Argentine Government has announced several measures aimed at strengthening Argentina's institutions and reducing corruption. These measures include the reduction of criminal sentences in exchange for cooperation with the government in corruption investigations, increased access to public information, the seizing of assets from corrupt officials, increasing the powers of the Anticorruption Office (*Oficina Anticorrupción*) submitting a project for a new public ethic law, among others. The government's ability to implement these initiatives is uncertain as it would be subject to independent review by the judicial branch, as well as legislative support from opposition parties.

We cannot give any assurance that the implementation of these measures by the Argentine government will be successful in stopping institutional deterioration and corruption.

***The Argentine economy has been adversely affected by economic developments in other markets.***

Financial and securities markets in Argentina, and also the Argentine economy, are influenced by economic and market conditions in other markets worldwide, including those relating to a potential trade war between China and the United States. Although economic conditions vary from country to country, investors' reactions to events occurring in one country sometimes demonstrate a contagion effect in which an entire region or class of investment is disfavored by international investors.

Consequently, there can be no assurance that the Argentine financial system and securities markets will not continue to be adversely affected by events in developed countries' economies or events in other emerging markets, which could in turn, adversely affect the Argentine economy and, indirectly, our business, financial condition and results of operations, and the market value of our ADSs.

***The implementation of new export duties, other taxes and import regulations could adversely affect our results.***



In the past, the Argentine government established export taxes on certain hydrocarbon products by Law No. 25,561 of Public Emergency, for a period of five years. That period was extended for five more years by Law No. 26,732. The second extension expired on January 7, 2017 and was not extended. As a result, export duties on hydrocarbon products ceased to apply.

However, on September 4, 2018, Decree No. 793/2018 was published which establishes an export duty of 12% on the export for consumption of all merchandise included in tariff positions of the Common Mercosur Nomenclature through December 31, 2020. This export duty may not exceed 4 pesos per U.S. dollar of the taxable value or the official FOB price, as applicable. For merchandise which does not constitute primary sector products, the duty may not exceed 3 pesos per U.S. dollar of the taxable value or the official FOB price, as applicable. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation.

We cannot assure you that taxes and import/export regulations of this nature will not be modified in the future or that other new taxes or import/export regulations will not be imposed.

***We may be exposed to fluctuations in foreign exchange rates.***

Our results of operations are exposed to currency fluctuations, and any devaluation of the peso against the U.S. dollar and other hard currencies may adversely affect our business and results of operations (See Risks relating to Our Business Limitations on local pricing in Argentina may adversely affect our results of operations. ). The value of the peso has fluctuated significantly in the past, such as in January 2014 when the Argentine peso declined approximately 23% against the U.S. dollar and in December 2015 when the value of Argentine Peso decreased approximately 40% against the U.S. dollar. During 2018, the value of the Argentine Peso reached its minimum value on September 2018 when the value of the Argentine Peso fell to 40.90 per U.S.\$1.00, a decrease of approximately 118%

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**Table of Contents**

against the U.S. dollar compared to December 31, 2017. As of December 31, 2018, the value of the Argentine Peso amounted to Ps. 37.81 per U.S.\$1.00 which represented a year-over-year depreciation of approximately 101%. As of March 28, 2019, the peso was valued at Ps. 43.59 per U.S.\$1.00, an increase of approximately 15% compared to December 31, 2018. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions for additional information. The main effects of the devaluation of the Argentine peso on our net profit are related to (i) deferred income tax related mainly to fixed assets, which we expect would have a negative effect; (ii) current income tax; (iii) increased depreciation and amortization resulting from the remeasurement in pesos of our fixed and intangible assets; (iv) exchange rate differences as a result of our exposure to the peso, which we expect would have a positive effect due to the fact that our functional currency is the U.S. dollar and (v) higher revenues because domestic prices in Argentina for our main products are principally based on international prices quoted in U.S. dollars (See Risks relating to Our Business We are exposed to the effects of fluctuations in the prices of oil, gas and refined products. and Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions ). In addition, regarding our financial position the majority of our debt is denominated in currencies other than the peso; consequently, a devaluation of the peso against such currencies will increase the amount of pesos we need to cope with in the terms of loans.

We are unable to predict whether, and to what extent, the value of the peso may further depreciate or appreciate against the U.S. dollar and how any such fluctuations could affect our business.

***Variations in interest rates and exchange rate on our current and/or future financing arrangements may result in significant increases in our borrowing costs.***

Under our financing arrangements, we are permitted to borrow funds to finance the purchase of assets, incur capital expenditures, repay other obligations and finance working capital. As of December 31, 2018, approximately 18% of our total debt is sensitive to changes in interest rates, mainly those prevailing in the domestic market. See Item 11. Quantitative and Qualitative Disclosures about Market Risk Interest rate exposure. Consequently, variations in interest rates could result in significant changes in the amount required to cover our debt service obligations and in our interest expense, thus affecting our results and financial condition. In addition, interest and principal amounts payable pursuant to debt obligations denominated in or indexed to U.S. dollars are subject to variations in the Argentine peso/U.S. dollar exchange rate that could result in a significant increase in peso terms in the amount of the interest and principal payments in respect of such debt obligations.

***We could be subject to exchange and capital controls.***

In the past, Argentina imposed exchange controls and transfer restrictions substantially limiting the ability of companies to retain foreign currency or make payments abroad. Beginning in 2011, additional foreign exchange controls have been imposed that restrict or limit purchases of foreign currency and transfers of foreign currency abroad. Since 2011, oil and gas companies (including YPF), among other entities, were required to repatriate 100% of their foreign currency export receivables.

In December 2015, the new administration eliminated certain exchange controls imposed by the previous administration, such as (i) the requirement that foreign currency be deposited and exchanged in Argentina in respect of finance transactions outside Argentina, and (ii) the requirement that 30% of funds in U.S. dollars held in Argentina be frozen pursuant to Decree No. 616/05. Additionally, through BCRA Communication A 6244, the Central Bank derogated the regulations relating to restrictions on exchange rate transactions, settlement of foreign exchange transactions, and the provisions of Decree No. 616/05, except for those regulations relating to information regimes, surveys or similar informational matters relating to foreign exchange transactions. Following these changes, the Argentine Peso fell to Ps. 12.99 per U.S.\$ 1.00, as of December 31, 2015, a decrease of approximately 52% compared

to December 31, 2014. Between December 16, 2015 and December 31, 2015, the peso decreased approximately 40% against the U.S. dollar. As of December 31, 2018, the Argentine Peso fell to Ps. 37.81 per U.S.\$ 1.00 which represented a year-over-year depreciation of approximately 101%. As of March [ ], 2019, the peso fell to Ps. [ ] per U.S.\$ 1.00, an increase of approximately [ ]% compared to December 31, 2018. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Repatriation of Foreign Currency.

## **Table of Contents**

There can be no assurance that future regulatory changes related to exchange and capital controls will not adversely affect our financial condition or results of operations, our ability to meet our obligations denominated in foreign currency or our ability to execute our financing and capital expenditure plans.

***Our access to international capital markets and the market price of our shares are influenced by the perception of risk in Argentina and other emerging economies.***

According to an MSCI (Morgan Stanley Capital International) release, Argentina is considered a border market and from May 2019 will be considered an emerging market. Economic and market conditions in Argentina and in other emerging market countries, especially those in Latin America, influence the market for securities issued by Argentine companies. Volatility in securities markets in Latin America and in other emerging market countries may have a negative impact on the trading value of our securities and on our ability and the terms on which we are able to access international capital markets. Moreover, regulatory and policy developments in Argentina that occurred in recent years, including the enactment of the Expropriation Law, as well as the litigation of the Argentine government with Holdout Bondholders have led to considerable volatility in the market price of our shares and ADSs. See Our business is largely dependent upon economic conditions in Argentina. We cannot assure that the perception of risk in Argentina and other emerging markets may not have a material adverse effect on our ability to raise capital, including our ability to refinance our debt at maturity, which would negatively affect our investments plans and consequently our financial condition and results of operations, and also have a negatively impact on the trading values of our debt or equity securities. We can give no assurance as to potential adverse impact of the factors discussed above on our financial condition and/or results of operations. See Item 4. Information on the Company History and Development of YPF.

## **Risks Relating to our Business**

***We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.***

Most of our revenue in Argentina is derived from sales of refined products (mainly gasoline and diesel) and, to a lesser extent, natural gas. International prices for oil and oil products are volatile and, since the liberalization of the domestic market at the end of 2017, the prices of our oil products, are strongly influenced by conditions and expectations of world supply and demand, among other factors. Volatility and uncertainty in international prices for crude oil, oil products will most likely continue. With respect of our pricing policy of fuels see Limitations on local pricing in Argentina may adversely affect our results of operations.

In terms of investments, we budget capital expenditures related to exploration, development, refining and distribution activities by considering, among other things, current and expected local and international market prices for our hydrocarbon products. In general terms, we had come from domestic prices for crude oil higher than international benchmark prices, however during 2017 we entered into a convergence process towards to international prices that finally occurred in October 2017 when prices were liberalized (see Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions ).

Nevertheless, due to various factors (including, but not limited to, the abrupt variation in the exchange rate and the increase in international prices of oil and the consequent difficulties to pass-through the corresponding variation to domestic prices) the intended liberalization could not be fully realized during 2018. Accordingly, we cannot guarantee that the liberalization of oil and fuel prices in the domestic market may finally operate in the future due to various factors such as, domestic demand, macroeconomic and political conditions prevailing in Argentina or potential new regulatory or legal limitations. The international price of crude oil has fluctuated significantly in the past and, if crude oil prices in the domestic market drop for an extended period (or if prices for certain products do not match cost increases), this could negatively affect the economic viability of our drilling projects. These reductions could lead to

changes to our development plans, which could lead to the loss of proved developed reserves and proved undeveloped reserves and could also adversely affect our ability to improve our hydrocarbon recovery rates, find new reserves, develop unconventional resources and carry out certain of our other capital expenditure plans. In turn, these changes in conditions could have an adverse effect on our financial condition and results of operations. Additionally, they could also have an impact on our operating assumptions and estimates and, as a result, affect the recovery value of certain assets.

**Table of Contents**

Furthermore, we may be required to further write down the carrying value of our properties if estimated oil and gas prices decline or if we have substantial downward adjustments to our estimated reserves, increases in our operating costs, increases in the discount rate, among others. See additionally Item 5. Operating and Financing Review and Prospects Critical Accounting Policies for information regarding our sensitivity analysis related to impairment. In addition, if a reduction in our capital expenditures materializes, including the capital expenditures of our domestic competitors, it would likely have a negative impact on the number of active drilling rigs, workovers and pulling equipment in Argentina, alongside related services, thus affecting the number of active workers in the industry. We are unable to predict whether, and to what extent, the potential consequences of such measures could affect our business, have an impact on our production and consequently affect our financial condition and results of operations.

***Our domestic operations are subject to extensive regulation.***

The Argentine oil and gas industry is subject to government regulation and control. As a result, our business is to a large extent dependent upon regulatory and political conditions prevailing in Argentina and our results of operations may be adversely affected by regulatory and political changes in Argentina. (see Limitations on local pricing in Argentina may adversely affect our results of operations and We are exposed to the effects of fluctuations in the prices of oil, gas and refined products ). Although recently the Argentine government has promoted and tried to implement policies seeking to have domestic prices converge with those of international markets, we may face risks and challenges relating to government regulation and control of the energy sector, including those set forth below and elsewhere in these risk factors:

limitations on our ability to increase local prices or to reflect the effects of higher domestic taxes, increases in production costs or increases in international prices of crude oil and other hydrocarbon fuels and exchange rate fluctuations on our domestic prices. See Limitations on local pricing in Argentina may adversely affect our results of operations ;

new export duties, similar taxes or regulations on imports;

limitations on hydrocarbon export volumes, driven mainly by the requirement to satisfy domestic demand;

in connection with the Argentine government's policy to provide absolute priority to domestic demand, regulatory orders to supply natural gas and other hydrocarbon products to the domestic retail market in excess of previously contracted amounts, or at prices lower than those related to import parity or those we may obtain if regulated margins were not being imposed or suggested. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Natural gas ;

in connection with the former and current incentive programs established by the Argentine government for the oil and gas industry, such as the Natural Gas Additional Injection Stimulus Program and the Investment in Natural Gas Production from Non-Conventional Reservoirs Stimulus Program ( Gas Plan ) (see A significant percentage of our cash flow from operations is derived from counterparties

that are governmental entities ) and cash collection of balances with the Argentine government, which are additionally subject to the risk of potential changes in current regulations that could affect our projections or profitability. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Natural gas ;

legislation and regulatory initiatives relating to hydraulic stimulation and other drilling activities for unconventional oil and gas hydrocarbons, which could increase our cost of doing business or cause delays and adversely affect our operations;

restrictions on imports of products which could affect our ability to meet our delivery commitments or growth plans, as the case may be; and

the implementation or imposition of stricter quality requirements for petroleum products in Argentina. In past years, the Argentine government has made certain changes in regulations and policies governing the energy sector to give absolute priority to domestic supply at stable prices in order to sustain economic recovery. As a result of the above-mentioned changes, for example, on days during which a gas shortage occurs, exports of natural gas (which are also affected by other government curtailment orders) and the provision of gas supplies to industries, electricity generation plants and service stations selling compressed natural gas are interrupted for priority to be given to residential consumers. The Expropriation Law has declared achieving self-sufficiency in the supply of hydrocarbons as well as in the exploitation, industrialization, transportation and sale of hydrocarbons, a national public interest and a priority for Argentina. In addition, its stated goal is to guarantee socially equitable economic development, the creation of jobs, the increase of the competitiveness of various economic sectors and the equitable and sustainable growth of the Argentine provinces and regions. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law, and Risks Relating to Argentina The Argentine Republic owns 51% of the shares of the Company.

**Table of Contents**

We cannot assure you that changes in applicable laws and regulations, or adverse judicial or administrative interpretations of such laws and regulations, will not adversely affect our results of operations. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government.

***Limitations on local pricing in Argentina may adversely affect our results of operations.***

Due to regulatory, economic and government policy factors, our domestic gasoline, diesel, natural gas and other fuel prices have sometimes differed substantially from prevailing international and regional market prices for such products, and our ability to increase prices in connection with international price increases or domestic cost increases, including those resulting from the peso devaluation, has been limited from time to time. In general terms, we had come from domestic prices for crude oil higher than international benchmark prices, however during 2017 we entered into a convergence process towards international prices that finally occurred in October 2017 when prices were liberalized, see Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions.

As a result of the liberalization of the domestic market, our pricing policy for fuels contemplates several factors such as international crude oil prices and, refining spreads, processing and distribution costs, biofuel prices, exchange rate, local demand and supply, competition, inventories, withholding tax on exports, local taxation, and domestic margins for our products, among others. Nevertheless, due to various factors (including, but not limited to, the abrupt variation in the exchange rate and the increase in international prices of oil and the consequent difficulties to pass-through the corresponding variation to domestic prices) the intended liberalization could not be fully realized during 2018. Accordingly, we cannot guarantee that the liberalization of oil and fuel prices in the domestic market may finally operate in the future due to various factors such as, domestic demand, macroeconomic and political conditions prevailing in Argentina, the interests of our controlling shareholder, or potential new regulatory or legal limitations (see Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions ).

On the other hand, Argentina has faced and continues to face high inflationary pressures, which the Argentine Government continues to approach through different measures. The Government has the objective of reducing inflation, in line with the agreement with IMF and pursuant to the new policies put in place by the BCRA. Consequently, and taking into account the impact of the increase in the price of fuels in the aforementioned inflation, we cannot guarantee that we will be able to increase our fuel prices to compensate for the general increases in costs or import prices. (See Our business is largely dependent upon economic conditions in Argentina. )

Regarding natural gas markets, revenues we obtain as a result of selling natural gas in Argentina (including amounts received through the Gas Plan, see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Natural gas and MINEM Resolution No. 46/2017 ) are subject to government regulations and could be negatively affected, principally considering the evolution of gas prices for residential consumers which in turn are still subject to subsidies and the evolution of sale price to electric generation plants. The prices that we are able to obtain for our hydrocarbon products affect the viability of investments in new exploration, development and refining and, as a result, the timing and amount of our projected capital expenditures for such purposes. We budget capital expenditures by taking into account, among other things, market prices for our hydrocarbon products. For additional information on domestic pricing for our products, see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation.

***A significant percentage of our cash flow from operations is derived from counterparties that are governmental entities.***



In the normal course of business and considering that we are the primary oil and gas company in Argentina, our portfolio of clients and suppliers includes both private sector and governmental entities. All material transactions and balances with related parties as of December 31, 2018 are set forth in Note 31 to the Audited Consolidated Financial Statements, including, among others, accounts receivables with SGE (related to the Natural Gas Stimulus Programs), Ministry of Transport (related to compensation for providing gas oil to public transport at a differential price) and Aerolineas Argentinas (related to the provision of jet fuel).

**Table of Contents**

As of December 31, 2018, the accounts receivable balance corresponding to the Natural Gas Additional Injection Stimulus Program reflects twelve months of accrued, unpaid payments for year 2017, representing Ps. 27.0 billion. As of the date of this annual report, we have not received additional payments related to amounts accrued and unpaid as of December 31, 2018 under such program. However, on February 28, 2019, the SGE notified YPF the amount of the compensation owed to it, estimated in compliance with Resolution No. 97/2018, which amounted to U.S.\$ 758 million. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government MINEM Resolution No. 97/2018.

As of December 31, 2018, the accounts receivable corresponding to the Stimulus Program for Investments in Developments of Natural Gas Production from Unconventional Reservoirs reflects twelve months of accrued, unpaid payments, representing Ps. 1.2 billion. As of the date of this annual report, we have received payments of Ps. 0.3 billion related to amounts accrued and unpaid as of December 31, 2018 under such program.

Additionally, because of the variation in the exchange rate, natural gas producers and distributors began a process of renegotiation of the specific agreements signed pursuant to the Terms and Conditions for the Provision of Natural Gas to Gas Distributors through Networks (the Terms and Conditions ) (see Item 4. Information on the Company Exploration and Production Delivery commitments Natural gas supply contracts) , where prices were denominated in dollars. The renegotiation process included two main aspects: i) payments of the debts arising from the differences between the exchange rate paid by the distributors and the exchange rate which had been originally agreed (for the period between April and September 2018), and ii) the applicable price for gas during the period between October and December 2018. On November 16, 2018, through Decree No. 1,053/18 the Argentine Government assumed on an exceptional basis, the payment of the daily differences which accrued monthly between the price of gas purchased by the distributors and the valid tariffs during the period between April 1, 2018, and March 31, 2019, exclusively arising from exchange rate variations and corresponding to the natural gas volumes delivered in that same period. The conditions are as follows:

30 monthly consecutive installments starting on October 1, 2019, which will be determined by using the BNA effective interest rate for 30-day deposits in Argentine currency ( electronic board ).

The installments will be collected by distributors, who will immediately pass it through to producers.

Distributors and producers must adhere to the system and expressly waive any action or complaint.

As of the date of this annual report, the complementary regulations for the application of the foregoing conditions to distributors and producers are pending issuance by the ENARGAS. See additionally Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Tariff renegotiation.

If certain governmental counterparties were (i) not able to pay or redeem such accrued amounts in cash or cash equivalents, or (ii) only able to make such payments or redemptions through delivery of financial instruments which: (a) may delay collection of working capital payments in excess of our estimates, (b) are subject to change in their listing value, or (c) are denominated a currency other than the origin of the credit, our financial condition and results of operations could be adversely affected.

***We are subject to direct and indirect import and export restrictions, which have affected our results of operations and caused us to declare force majeure under certain of our export contracts.***

The Argentine Hydrocarbons Law No. 17,319, allows for hydrocarbon exports as long as they are not required for the domestic market and are sold at reasonable prices. In the case of natural gas, Law No. 24,076 and related regulations require that the needs of the domestic market be taken into account when authorizing long-term natural gas exports.

In the past, the Argentine authorities have adopted a number of measures that have resulted in restrictions on exports of natural gas from Argentina. Due to the foregoing, we have been obliged to sell a part of our natural gas production previously destined for the export market in the local Argentine market and have not been able to meet our contractual gas export commitments in whole or, in some cases, in part, leading to disputes with our export clients and forcing us to declare force majeure under our export sales agreements. We believe that the measures mentioned above constitute force majeure events, although no assurance can be given that this position will prevail.

See Item 4. Information on the Company Exploration and Production Delivery commitments Natural gas supply contracts, Item 4. Information on the Company Exploration and Production The Argentine natural gas market, and Item 8. Financial Information Legal Proceedings.

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**Table of Contents**

Crude oil exports, as well as the export of most of our hydrocarbon products, currently required prior authorization from the SGE pursuant to the regime established under S.E. Resolution No. 241-E/17, as amended and supplemented by other regulation. Oil companies seeking to export crude oil or LPG must first demonstrate that the local demand for such product is satisfied or that an offer to sell the product to local purchasers has been made and rejected. Oil refineries seeking to export diesel must also first demonstrate that the local demand for diesel is duly satisfied.

In addition, on March 21, 2017, Decree No. 192/2017 was published in the Official Gazette of the Republic of Argentina (the Official Gazette), which created the Oil and its Byproducts Import Operations Registry (the Registry) and set forth that the MINEM (through the Secretariat of Hydrocarbon Resources) would be responsible controlling the Registry. The Registry involved import operations of: (i) crude oil and (ii) certain other specific byproducts listed in section 2 of the decree. By means of this regulation, any company that wished to perform such import operations was obligated to register such operation in the Registry and to obtain authorization from MINEM before the import took place. According to this decree, MINEM had to set the methodology applicable to issue import authorizations, which will be based in the following criteria: (a) lack of crude oil with the same characteristics offered in the domestic market; (b) lack of additional treatment capacity in domestic refineries with domestic crude oil; and (c) lack of byproducts listed in section 2 of the decree offered in the domestic market. This regime exempted any import by CAMMESA in order to supply power plants with the main purpose of technical supply to the Inter-connection Argentinean System (Sistema Argentino de Interconexión or SADI). On November 24, 2017, Decree No. 962/2017 was published in the Official Gazette amending Decree No. 192/2017 by providing that the Registry would be in effect until December 31, 2017. Decree No. 962/2017 provided that the need for the Registry was temporary and therefore, since December 31, 2017, the import operations related to crude oil, gasoline, and diesel oil included in Decree No. 192/2017 are no longer subject to registration.

On August 22, 2018, the former Ministry of Energy and Mining issued Resolution No.104/2018, later modified by Resolution No. 9/2018 of the SGE, which established a new procedure to obtain authorizations to export natural gas. For more information, see Legal and Regulatory Framework and Relationship with the Argentine Government Natural gas export administration and domestic supply priorities.

We are unable to estimate how long these restrictions will be in place, or whether any further measures will be adopted that adversely affect our ability to export or import gas, crude oil and diesel or other products and, accordingly, our results of operations.

***Our reserves and production are likely to decline.***

Most of our existing oil and gas producing fields in Argentina are mature and, as a result, our reserves and production are likely to decline as reserves are depleted. Our production decreased in 2018 compared to 2017 by 4.5% and our reserves replacement ratio (increases in reserves in the year, net divided by the production of the year) was 178% in 2018, compared to 9% in 2017.

We face certain challenges in order to replace our proved reserves with other categories of hydrocarbons. However, the continuous comprehensive technical review of our oil and gas fields allows us to identify opportunities to rejuvenate mature fields and optimize new field developments in Argentine basins with the aim of achieving results similar to those achieved by mature fields in other regions of the world (which have achieved substantially higher recovery factors with the application of new technology). Additionally, we have been completing the renewal or extension of most of our concessions, allowing us to develop certain strategic projects related to water-flooding, enhanced oil recovery and unconventional resources, which represent an important opportunity not only for us but also for Argentina. We expect that unconventional development will require higher investment in future years, principally in connection with the Vaca Muerta formation. These investments are expected to yield economies of

scale, de risk undeveloped acreage and to significantly increase recovery rates from this resource play. Other resource plays, unconventional prospects, exist in Argentina and have positioned the country amongst the most attractive in terms of worldwide unconventional resource potential. Nevertheless, the financial viability of these investments and reserve recovery efforts will generally depend on the prevailing economic and regulatory conditions in Argentina, as well as the market prices of hydrocarbon products, and are also subject to material risks inherent to the oil and gas industry. See Our business plan includes future drilling activities for unconventional oil and gas reserves, such as shale oil and gas extraction, and if we are unable to successfully acquire and use the necessary new technologies and other support as well as obtain financing and venture partners, our business may be adversely affected.

***Our oil and natural gas reserves are estimates.***

Our oil and gas proved reserves are estimated using geological and engineering data to determine with reasonable certainty whether the crude oil or natural gas in known reservoirs is recoverable under existing economic and operating conditions. The accuracy of proved reserve estimates depends on a number of factors, assumptions and variables, some of which are beyond our control. Factors susceptible

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**Table of Contents**

to our control include drilling, testing and production after the date of the estimates, which may require substantial revisions to reserves estimates; the quality of available geological, technical and economic data used by us and our interpretation thereof; the production performance of our reservoirs and our recovery rates, both of which depend in significant part on available technologies as well as our ability to implement such technologies and the relevant know-how; the selection of third parties with which we enter into business; and the accuracy of our estimates of initial hydrocarbons in place, which may prove to be incorrect or require substantial revisions. Factors mainly beyond our control include changes in prevailing oil and natural gas prices, which could have an effect on the quantities of our proved reserves (since the estimates of reserves are calculated under existing economic conditions when such estimates are made); changes in the prevailing tax rules, other government regulations and contractual conditions after the date estimates are made (which could make reserves no longer economically viable to exploit); and certain actions of third parties, including the operators of fields in which we have an interest.

Information on net proved reserves as of December 31, 2018, 2017 and 2016 was calculated in accordance with SEC rules and FASB's ASC 932, as amended. Accordingly, crude oil prices used to determine reserves were calculated each month, for crude oils of different quality produced by us.

As previously discussed, we had come from domestic prices for crude oil higher than international benchmark prices, however during 2017 we entered into a convergence process towards to international prices that finally occurred in October 2017 when prices were liberalized. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions. Nevertheless, due to various factors (including, but not limited to, the abrupt variation in the exchange rate and the increase in international prices of oil and the consequent difficulties to pass-through the corresponding variation to domestic prices) the intended liberalization could not be fully realized during 2018. Accordingly, we cannot guarantee that the liberalization of oil and fuel prices in the domestic market may finally operate in the future due to various factors such as, domestic demand, macroeconomic and political conditions prevailing in Argentina or potential new regulatory or legal limitations. As a result, for calculations of our net proved reserves as of December 31, 2018, the Company considered the realized prices for crude oil in the domestic market taking into account the effect of export taxes as in effect as of each of the corresponding years (until 2020, in accordance with Decree No. 793/2018). For the years beyond the mentioned periods, the Company considered the unweighted average price of the first-day-of-the-month for each month within the twelve-month period ended December 31, 2018, which refers to the Brent prices adjusted by each different quality produced by the Company. In connection with natural gas prices used for estimation of reserves, the Company considered the realized prices in the domestic market according to the SEC and FASB's ASC 932 rules, but also taking into account the effect of certain market regulations which were put in place mainly during the second half of 2018.

The international price of crude oil has fluctuated significantly in the past. If these prices decrease significantly in the future or if domestic prices are set lower than in international markets, our future calculations of estimated proved reserves would be based on lower prices. This could result in our having to remove non-economic reserves from our proved reserves in future periods. Assuming all other factors remain constant, if commodity reference prices for crude oil used in our year-end reserve estimates were decreased by 10%, our total proved reserves as of December 31, 2018 would decrease by approximately 2%. On the other hand, assuming all other factors remain constant, if market prices for natural gas used in our year-end reserve estimates were decreased by 10%, our total proved reserves as of December 31, 2018 would decrease by approximately 1%. Furthermore, assuming all other factors remain constant, if costs used in our year-end reserve estimates were increased by 10% for crude oil and natural gas, our total proved reserves as of December 31, 2018 would decrease by approximately 2%. However, if we combine the 3 above mentioned effects, our total proved reserves as of December 31, 2018 would decrease by approximately 7%. In addition, as a result of the prices used to calculate the present value of future net revenues from our proved reserves, in accordance with SEC rules, which are similar to the calculation of proved reserves described above, the present value of future net revenues from our proved reserves will not necessarily be the same as the current market value of our

estimated crude oil and natural gas reserves.

As a result of the foregoing, measures of reserves are not precise and are subject to revision. Any downward revision in our estimated quantities of proved reserves could adversely impact our financial results by leading to increased depreciation, depletion and amortization charges or impairment, which could reduce earnings and shareholders' equity. See We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.

***Oil and gas activities are subject to significant economic, environmental and operational risks and to seasonal fluctuation of demand.***

Oil and gas exploration and production activities are subject to particular economic and industry-specific operational risks, some of which are beyond our control, such as production, equipment and transportation risks, as well as natural hazards and other uncertainties, including those relating to the physical characteristics of onshore and offshore oil or natural gas fields. Our operations may be curtailed, delayed or cancelled due to bad weather conditions, mechanical difficulties, shortages or delays in the delivery of equipment, compliance

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**Table of Contents**

with governmental requirements, fire, explosions, blow-outs, pipe failure, abnormally pressured formations, and environmental hazards, such as oil spills, gas leaks, ruptures or discharges of toxic gases. In addition, we operate in politically sensitive areas where the native population has interests that from time to time may conflict with our production or development objectives. If these risks materialize, we may suffer substantial operational losses and disruptions to our operations and harm to our reputation. Additionally, if any operational incident occurs that affects local communities and ethnic communities in nearby areas, we will need to incur in additional costs and expenses in order to return affected areas to normality and to compensate for any damages we may cause. These additional costs may have a negative impact on the profitability of the projects we may decide to undertake. Drilling may be unprofitable, not only with respect to dry wells, but also with respect to wells that are productive but do not produce sufficient revenues to return a profit after drilling, operating and other costs are taken into account.

Furthermore, historically our results have been subject to seasonal fluctuations of demand during the year, in the case of natural gas, particularly as a result of increased demand during the colder winter months. During 2018, mainly due to the increase in the natural gas supply in the domestic market, and also taking into account that GDP decline had a negative impact in demand, forced us to reduce natural gas output thorough the temporary stop of certain wells gas production, as well as the reinjection of the hydrocarbon. Based on this new scenario, and new regulations and agreements, domestic gas prices were negatively impacted. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Seasonality and Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Natural Gas Tariffs.

We could be subject to fluctuations in non-winter season in our sales volumes and consequently our level of natural gas production could be negatively affected potentially resulting in market prices lower than expected, thus affecting our result of operations and financial conditions.

***Our acquisition of exploratory or productive acreage and crude oil and natural gas reserves is subject to heavy competition.***

We face intense competition in bidding for crude oil and natural gas production areas, especially those areas with the most attractive crude oil and natural gas reserves or prospects. As a result, the conditions under which we would be access new exploratory or productive areas could be adversely affected.

***Our business plan includes future drilling activities for unconventional oil and gas reserves, such as shale oil and gas extraction, and if we are unable to successfully acquire and use the necessary new technologies and other support as well as obtain financing and venture partners, our business may be adversely affected.***

Our ability to execute and carry out our business plan depends upon our ability to obtain financing at a reasonable cost and on reasonable terms. We have identified drilling locations and prospects for future drilling opportunities of unconventional oil and gas reserves, such as the shale oil and gas in the Vaca Muerta formation. These drilling locations and prospects represent a part of our future drilling plans. Our ability to drill and develop these locations depends on a number of factors, including seasonal conditions, regulatory approvals, negotiation of agreements with third parties, commodity prices, costs, access to and availability of equipment, services and personnel and drilling results. In addition, the drilling and exploitation of unconventional oil and gas reserves depends on our ability to acquire the necessary technology and hire personnel and other support needed for extraction or obtain financing and venture partners to develop such activities. Furthermore, in order to implement our business plan, including the development of our oil and natural gas exploration activities and the development of refining capacity sufficient to process increasing production volumes, we will need to raise significant amounts of debt capital in the financial and capital markets. We cannot guarantee that we will be able to obtain the necessary financing or obtain financing in the international or local financial markets at reasonable cost and on reasonable terms to implement our new business plan



or that we would be able to successfully develop our oil and natural gas reserves and resources (mainly those related to our unconventional oil and gas business plan). Because of these uncertainties, we cannot give any assurance as to the timing of these activities or that they will ultimately result in the realization of proved reserves or meet our expectations for success, which could adversely affect our production levels, financial condition and results of operations.

***We may not have sufficient insurance to cover all the operating hazards to which we are subject.***

As discussed under Oil and gas activities are subject to significant economic, environmental and operational risks and to seasonal fluctuation of demand and We may incur significant costs and liabilities related to environmental, health and safety matters, our exploration and production operations are subject to extensive economic, operational, regulatory and legal risks. We maintain insurance covering us against certain risks inherent in the oil and gas industry in line with industry practice, including loss of or damage to property and equipment, control-of well incidents, loss of production or income incidents, removal of debris, sudden and accidental seepage pollution, contamination and clean up and third-party liability claims, including personal injury and loss of life, among other business risks. However, our insurance coverage is subject to deductibles and limits that in certain cases may be materially exceeded by our liabilities. In addition, certain of our insurance policies contain exclusions that could leave us with limited coverage in certain events. See Item 4.

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**Table of Contents**

Information on the Company Insurance. In addition, we may not be able to maintain adequate insurance at rates or on terms that we consider reasonable or acceptable or be able to obtain insurance against certain risks that materialize in the future. If we experience an incident against which we are not insured, or the costs of which materially exceed our coverage, it could have a material adverse effect on our business, financial condition and results of operations.

***Argentine oil and gas production concessions and exploration permits are subject to certain conditions and may be cancelled or not renewed.***

As modified by Law No. 27,007, the Hydrocarbons Law provides for oil and gas concessions to remain in effect for 25 years as from the date of their award, 35 years for unconventional concessions and 30 years for offshore concessions. It further provides that concession terms may be extended for periods of up to 10 years each. The authority to extend the terms of current and new permits, concessions and contracts has been vested in the governments of the provinces in which the relevant area is located (and the federal government in respect of offshore areas beyond 12 nautical miles). In order to be eligible for an extension of a concession, under the modifications of Law No. 27,007, concessionaires must (i) have complied with their obligations, (ii) be producing hydrocarbons in the concession under consideration and (iii) submit an investment plan for the development of such areas as requested by the competent authorities up to a year prior to the termination of each term of the concession.

Our extension of concessions includes, among others, certain level of investment and activity commitment in certain periods. Non-compliance with the obligations and standards set out under the Hydrocarbons Law or agreements with the competent authorities, as applicable, may also result in the imposition of fines and in the case of material breaches, following the expiration of applicable cure periods, the revocation of the concession or permit.

We cannot provide assurances that any of our concessions will be extended as a result of the consideration by the relevant authorities of the investment plans we would submit in the future for the development of the areas as of the date of requesting the extension periods for our relevant areas, or other requirements will not be imposed on us in order to obtain extensions as of the date of expiration. Additional royalty payments of 3%, up to a maximum of 18%, are provided for in extensions under Law No. 27,007. The termination of, or failure to obtain the extension of, a concession or permit, or its revocation, could have a material adverse effect on our business and results of operations.

***We may incur significant costs and liabilities related to environmental, health and safety matters.***

Operations in the oil and gas industry in which we participate, including those related to our mining and use of sand for purposes of our oil and gas operations, are subject to a wide range of environmental, health and safety laws and regulations in the countries in which we operate. These laws and regulations have a substantial impact on our operations and those of our subsidiaries and could result in material adverse effects on our financial position and results of operation. A number of events related to environmental, health and safety matters, including changes in applicable laws and regulations, adverse judicial or administrative interpretations of such laws and regulations, changes in enforcement policy, the occurrence of new litigation or development of pending litigation, and the development of information concerning these matters, could result in new or increased liabilities, capital expenditures, reserves, losses and other impacts that could have a material adverse effect on our financial condition and results of operations. For instance, on October 2018, we had a major spill in the area of Bandurria Sur caused by a blowout (decontrol of well), see Item 4. Upstream overview Exploration & Production Activity in Argentina Unconventional Region Bandurria Sur . In addition, the Company's sand mining operations and hydraulic stimulation may result in silica-related health issues and litigation that could have a material adverse effect on the Company in the future. See Item 8. Financial Information Legal Proceedings and Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Argentine Environmental Regulations.

Environmental, health and safety regulation and jurisprudence in Argentina is developing at a rapid pace and no assurance can be provided that such developments will not increase our cost of doing business and liabilities, including with respect to drilling and exploitation of our unconventional oil and gas reserves. In addition, due to concern over the risk of climate change, a number of countries have adopted, or are considering the adoption of, new regulatory requirements to reduce greenhouse gas emissions, such as carbon taxes, increased efficiency standards or the adoption of cap and trade regimes. Argentina recently issued new rules which began to phase-in more stringent regulations to lower the amount of sulfur contained in diesel and gasoline fuels that will result in an increase in our investments and relative costs for such production in 2019 and following years, thus potentially affecting our results of operations depending on the future prices of fuels. Furthermore, if additional requirements were adopted in Argentina, these requirements could make our products more expensive as well as shift hydrocarbon demand toward relatively lower-carbon sources such as renewable energies.

Furthermore, water is an essential component of both the drilling and hydraulic fracturing processes. Consequently, the Company regularly disposes of the fluids produced from oil and gas production operations directly or through the use of third party vendors. Increased regulation or limitations to the use of water for our operations, or increased scrutiny or limitations on the injection of produced water through injection wells (which could also result in increased litigation), could adversely affect our operation and our financial condition.

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**Table of Contents**

***We may be responsible for significant costs and liabilities depending on the outcome of the reorganization proceedings involving our YPF Holdings subsidiaries and the alter ego claims filed by the Liquidating Trust.***

As discussed in Note 27 to the Audited Consolidated Financial Statements, on June 17, 2016, Maxus Energy Corporation, Tierra Solutions Inc., Maxus International Energy Company, Maxus (US) Exploration Company and Gateway Coal Company (collectively, the Maxus Entities ), subsidiaries of YPF Holdings, Inc., filed for reorganization proceedings in Wilmington, Delaware under Chapter 11 of the U.S. Bankruptcy Code. In conjunction with those proceedings, the Maxus Entities entered into an agreement with YPF along with its subsidiaries YPF Holdings Inc., CLH Holdings Inc., YPF International S.A. and YPF Services USA Corp (collectively, the YPF Entities ) to settle any and all claims held by Maxus against the YPF Entities, including any alter ego claims, all of which claims the YPF Entities believe are without merit, and to release the YPF entities of any and all claims held by the Maxus Entities (the Agreement ).

The Agreement provided for a payment of U.S.\$ 130 million to the Maxus Entities ( Settlement Payment ) and for the provision of a U.S.\$63.1 million debtor-in-possession loan ( DIP Loan ) by YPF Holdings Inc.

However, on March 28, 2017 the Maxus Entities and the Creditors Committee submitted an alternative restructuring plan (the Alternative Plan ) which does not include the Agreement with the YPF Entities. Under the Alternative Plan, a Liquidating Trust may submit alter ego claims and any other claim belonging to the insolvent s estate against the Company and the YPF Entities. The liquidating trust would be financed by Occidental Chemical Corporation in its capacity as creditor of the Maxus Entities. As YPF did not approve such Alternative Plan and the Alternative Plan did not contemplate the implementation of the originally submitted Agreements, on April 10, 2017 YPF Holdings, Inc. sent a note informing that this situation constituted an event of default under the loan granted under the Agreement with YPF and the YPF Entities.

Together with the approval of the financing offered by Occidental under the Alternative Plan, the Judge ordered the repayment of the outstanding amounts (approximately U.S.\$ 12.2 million) under the terms of the DIP Loan, which were subsequently received.

On May 22, 2017, the Bankruptcy Court of the District of Delaware issued an order confirming the Alternative Plan submitted by the Creditors Committee and the Maxus Entities. The effective date of the Alternative Plan was July 14, 2017, as the conditions set forth in Article XII.B of the Alternative Plan were met. On July 14, 2017, the Maxus Energy Corporation Liquidating Trust (the Liquidating Trust ) was created.

On June 14, 2018, the Liquidating Trust filed a lawsuit against the Company, YPF Holdings, CLH Holdings, Inc., YPF International and other companies not-related to YPF, claiming alleged damages in an amount up to US\$ 14 billion, principally in connection with alleged claims purportedly related to corporate restructuring transactions the Company engaged in several years ago (the Claim ). The lawsuit was filed before the United States Bankruptcy Court for the District of Delaware.

On October 19, 2018, the Company, together with the other companies of the Group that are part of the Claim, filed a motion requesting dismissal of the Claim ( Motion to Dismiss ).

On November 21, 2018, the Liquidating Trust filed its objection to the Motion to Dismiss filed by the Company together with the other companies of the Group that are part of the Claim, and to the one filed by the companies not related to YPF and which are part of the Claim.

On December 10, 2018, the Company, together with the other companies of the Group that are part of the Claim, exercised their right of reply regarding the presentation made by the Liquidating Trust

On January 22, 2019, the hearing regarding the Motion to Dismiss was held in the Bankruptcy Court.

On February 15, 2019, the Bankruptcy Court ordered the dismissal of the Motions to Dismiss filed by the Company, together with the other Group companies and the other defendant companies not related to YPF.

On March 1, 2019, the Company, together with the other companies of the Group that are part of the Claim, filed an appeal to the resolution dated February 15, 2019.

## **Table of Contents**

As described in Note 27 to the Audited Consolidated Financial Statements, according to the preliminary status of the lawsuit, the complexity of the demand and the evidence that has to be submitted by both parties, the Company will continuously reevaluate the evolution of the described circumstances as they happen and its impact on the results and the financial condition of the Company.

Depending on the final outcome of these matters, including the alter ego claims, our financial condition and results of operation could be materially and adversely affected. See Item 8. Financial Information Legal Proceedings.

### ***We face risks relating to certain legal proceedings.***

As described under Item 8. Financial Information Legal Proceedings, we are party to a number of labor, commercial, civil, tax, criminal, environmental and administrative proceedings that, either alone or in combination with other proceedings, could, if resolved in whole or in part adversely to us, result in the imposition of material costs, fines, judgments or other losses. While we believe that we have provisioned such risks appropriately based on the opinions and advice of our external legal advisors and in accordance with applicable accounting rules, certain loss contingencies, particularly those relating to environmental matters, are subject to change as new information develops and it is possible that losses resulting from such risks, if proceedings are decided in whole or in part adversely to us, could significantly exceed any accruals we have provided.

In addition, we may be subject to undisclosed liabilities related to labor, commercial, civil, tax, criminal or environmental contingencies incurred by businesses we acquire as part of our growth strategy, that we may not be able to identify or that may not be adequately indemnified under our acquisition agreements with the sellers of such businesses, in which case our business, financial condition and results of operation may be materially and adversely affected.

### ***Our business depends to a significant extent on our production and refining facilities and logistics network.***

Our oil and natural gas field facilities, refineries and logistics network are our principal production facilities and distribution network on which a significant portion of our revenues depends. Although we insure our properties on terms we consider prudent and have adopted and maintain safety measures, any significant damage, accident or other production stoppage at our facilities or network could materially and adversely affect our production capabilities, financial condition and results of operations.

For instance, on April 2, 2013, our facilities in the La Plata refinery were hit by a severe and unprecedented storm, recording over 400 mm of rainfall. The rainfall set a new record for the area and disrupted refinery systems, causing a fire that affected the Coke A and Topping C units in the refinery. This incident temporarily affected the crude processing capacity of the refinery, which had to be stopped entirely during certain days.

In addition, on March 21, 2014, a fire occurred at the Cerro Divisadero crude oil treatment plant, located 20 kilometers from the town of Bardas Blancas in the province of Mendoza. The Cerro Divisadero plant, which has six tanks, four of which are for processing and two are for dispatch of treated crude oil, concentrates the production of ten fields in the Malargue area. This constitutes a daily production of approximately 9,200 barrels of oil as of the date of the incident. The new oil treatment plant was put into production in December 2016.

### ***We could be subject to organized labor action.***

Our operations have been affected by organized work disruptions and stoppages in the past and we cannot assure you that we will not experience them in the future, which could adversely affect our business and revenues, especially in

the context of activity reduction. Labor demands are commonplace in Argentina's energy sector and unionized workers have blocked access to and damaged our plants in the recent past. Our operations were affected occasionally by labor strikes in recent years. See We are exposed to the effects of fluctuations in the prices of oil, gas and refined products. and Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions.

***We may not be able to pay, maintain or increase dividends.***

On April 29, 2016, our shareholders approved a dividend of Ps. 889 million (Ps. 2.26 per share or ADS), which was paid during July 2016. On April 28, 2017, our shareholders approved a dividend of Ps. 716 million (Ps.1.82 per share or ADS), which was paid during December 2017. On April 27, 2018, our shareholders approved a dividend of Ps. 1,200 million (Ps.3.05 per share or ADS), which was authorized and paid during December 2018. On March 7, 2019, our Board of Directors proposed the creation of a reserve for dividend of Ps. 4,800 million. Our

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**Table of Contents**

next shareholder s meeting, to be held on April 26, 2019, will consider this proposal. Notwithstanding the foregoing, our ability to pay, maintain or increase dividends is based on many factors, including our net income, capital expenditures required under our investment plans, future debt service payments, working capital needs, legal or contractual restrictions, and general economic and financial conditions. A change in any of these factors could affect our ability to pay, maintain or increase dividends, and the exact amount of any dividend paid may vary from year to year.

***Our performance is largely dependent on recruiting and retaining key personnel***

Our current and future performance, the successful implementation of our strategy and the operation of our business are dependent upon the contributions of our senior management and our highly skilled team of engineers and other employees. Our ability to continue to rely on these key individuals is dependent on our success attracting, training, motivating and retaining key management and commercial and technical personnel with the necessary skills and experience. There is no assurance that we will be successful in retaining and attracting key personnel and the replacement of any key personnel who were to leave could be difficult and time consuming.

The Expropriation Law provides that the National Executive Office, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. Consequently, the Argentine government has the majority of votes which allows it to appoint the majority of members of our board of directors at the General Shareholder s meeting. See The Argentine Republic owns 51% of the shares of the Company and Our business is largely dependent upon economic conditions in Argentina. The loss of the experience and services of key personnel or the inability to recruit suitable replacements or additional staff could have a material adverse effect on our business, financial condition and our results of operations.

***We could be subject to information technology system failures, network disruptions, and breaches in data security which could negatively affect our business, financial position, results of operations, and cash flows.***

As dependence on digital technologies is expanding, cyber incidents, including deliberate attacks or unintentional events have been increasing. Computers and telecommunication systems are used to conduct our exploration, development and production activities and have become an integral part of our business. We use these systems to analyze and store financial and operating data and to communicate internally and with outside business partners. Cyber-attacks could compromise our computer and telecommunications systems and result in disruptions to our business operations or the loss of our data. In addition, computers control oil and gas production, processing equipment, and distribution systems and are necessary to deliver our production to market.

Although we are continuously increasing our security policy to the industrial systems, reinforcing the defenses in case of denial of service and increasing the monitoring of suspicious activities, our technologies, systems, networks, and those of our business partners have been and may continue to be the target of cyber-attacks or information security breaches, which could lead to disruptions in critical systems (for example, SCADAs, DCS Systems), unauthorized release of confidential or protected information, corruption of data or other disruptions of our business operations. In addition, certain cyber incidents, such as surveillance, may remain undetected for an extended period.

As cybersecurity threats continue to evolve, we may be required to expend additional resources to continue to modify or enhance our protective measures or to investigate or remediate any cybersecurity or information technology infrastructure vulnerabilities. During the second half of 2018, in accordance with international standards, we have organized and implemented a Cyber Risk Management Center and a Computer Security Incident Response Team to monitor and mitigate cyber security threats.



We have also updated our internal cyber incident response procedures and processes, as well as performed on the last quarter of 2018 a major cyber-tabletop exercise that was part of the cyber security awareness program.

The Company's reputation is an important corporate asset. An operating incident, significant cybersecurity disruption or other similar adverse event, may have a negative impact on our reputation, which in turn could make it more difficult for us to compete successfully for new opportunities or could reduce consumer demand for the company's branded products.

During 2018, we have been the target of many attempted attacks and were exposed to malware infections like other companies in the industry, which did not result in a significant loss or a negative impact in our operations. There can be no assurance that the Company will not incur such losses in the future. The Company's risk and exposure to these matters cannot be fully calculated nor mitigated because of, among other things, the evolving nature of these threats.

**Table of Contents**

A cyber-attack involving our information systems and related infrastructure, or those of our business partners, could disrupt our business and negatively impact our operations in a variety of ways, including but not limited to:

unauthorized access to seismic data, reserves information, strategic information, or other sensitive or proprietary information could have a negative impact on our ability to compete for oil and gas resources;

data corruption or operational disruption of production-related infrastructure could result in a loss of production, or accidental discharge;

disruption of our operations, communications, or processing of transactions or the loss of, or damage to, sensitive information, facilities, infrastructure and systems which are essential to our business and operations which, in turn, could have a material adverse effect on our business, financial position, results of operations, and cash flows;

a cyber-attack on a service provider could result in supply chain disruptions, which could delay or halt our major development projects;

a cyber-attack on our accounting or accounts payable systems could expose us to liability to employees and third parties if their sensitive personal information is obtained.

***Our derivative risk management activities could result in financial losses.***

As of the date of this annual report, the Company, through our subsidiary Metrogas, has entered into derivative financial instruments with quotation in active markets (contracts of future exchange rate in dollars). We could be exposed to adverse variations in the price of the assets underlying the derivative contract, which would in turn affect our results of operations and financial condition. In addition, any failure in the performance of their obligations by our counterparties to any of these agreements could also have a material adverse effect on the Company's results of operations.

***Our actual production could differ materially from our forecasts.***

From time to time, we provide forecasts of expected quantities of future oil and gas production and other financial and operating results. These forecasts are based on a number of estimates and assumptions, including that none of the risks associated with our oil and gas operations summarized in this Item 3. Key Information Risk Factors occur. Production forecasts, specifically, are based on assumptions such as expectations of production from existing wells, the level and outcome of future drilling activity, the level of gas demand, and the absence of facility or equipment malfunctions, adverse weather effects, or downturns in commodity prices or significant increases in costs, which could make certain drilling activities or production uneconomical. Should any of these estimates prove inaccurate, or should our development plans change, actual production could be materially and adversely affected.

***We have limited control over the day to day activities carried out on properties which we do not operate.***

Some of the properties in which we have an interest are operated by other companies and involve third-party working interest owners. As a result, we have limited ability to influence or control the day to day operations of these companies and third-parties, including their compliance with environmental, safety and other regulations, which, in turn, could have a material adverse effect on our business, financial position, results of operations, cash flows and/or our reputation.

***We could be affected by violations to anticorruption, anti-bribery, anti-money laundering and other national and international regulations.***

We are subject to anticorruption, anti-bribery, anti-money laundering and other national and international regulations. We are required to comply with the regulations of Argentina and various jurisdictions where we conduct operations. Although we have internal policies and procedures designed to ensure compliance with applicable anti-fraud, anti-bribery and anti-corruption laws and sanctions regulations, potential violations of anti-corruption laws could be identified on occasion as part of our compliance and internal control processes. In case such issues arise, we plan to attempt to act promptly to learn relevant facts, conduct appropriate due diligence, and take any appropriate remedial action to address the risk. Given the size of our operations and the complexity of the production chain, there can be no assurance that our internal policies and procedures will be sufficient to prevent or detect all inappropriate practices, fraud or violations of law by our employees, directors, officers, partners, agents and service providers or that such persons will not take actions in violation of our policies and procedures (or otherwise in violation of the relevant anti-corruption laws and sanctions regulations) for which we or they may be ultimately held responsible. Violations of anti-bribery and anti-corruption laws and sanctions regulations could have a material adverse effect on our business, reputation, results of operations and financial condition. In addition, we may be subject to one or more enforcement actions, investigations and proceedings by authorities for alleged infringements of these laws. These proceedings may result in penalties, fines, sanctions or other forms of liability and could have a material adverse effect on our reputation, business, financial condition and results of operations.

**Table of Contents**

***If we fail to comply with the covenants set forth in our credit agreements and indentures, or upon the occurrence of a change of control, we may be required to repay our debt.***

Under the terms of our credit agreements and indentures, if we fail to comply with the covenants set forth thereunder or if we fail to cure any breach thereof during a specified period of time, we will be in default of our obligations, which in turn would limit our capacity of borrowing. To the extent we default on any of our obligations, we would expect to actively pursue formal waivers from the corresponding counterparties to these agreements, in order to avoid the acceleration of any amounts owed thereunder. However, if the corresponding waivers are not timely obtained, in accordance with the terms of our credit and indentures certain creditors may declare the principal and accrued interest on amounts owed to them as due and immediately payable, resulting in acceleration of other outstanding debt due to cross default provisions, which in turn could have a material adverse effect on our business, financial condition and results of operations.

In addition, upon the occurrence of a change of control, we may be required to make an offer to purchase certain outstanding notes at a price of 101% of their principal amount plus accrued and unpaid interest, and our other debt may be subject to mandatory prepayment. Our source of funds for any such mandatory prepayment will be available cash or other sources, including borrowings, sales of assets or sales of equity. The sources of cash may not be adequate to permit us to immediately prepay our indebtedness upon a change of control, which in turn may result in an event of default under certain agreements governing our indebtedness.

**Risks Relating to Our Class D Shares and ADSs**

***The market price for our shares and ADSs may be subject to significant volatility***

The market price of our ordinary shares and ADSs may fluctuate significantly due to a number of factors, including, among others, our actual or anticipated results of operations and financial condition; speculation over the impact of the Argentine government as our controlling shareholder on our business and operations, investor perceptions of investments relating to Argentina and political and regulatory developments affecting our industry or the Company. In addition, recent regulatory and policy developments in Argentina, including the passage of the Expropriation Law, as well as the litigation of the Argentine government with Holdout Bondholders (see **Risks Relating to Argentina** Our business is largely dependent upon economic conditions in Argentina ), have led to considerable volatility in the market price of our shares and ADSs. For example, the price of our ADSs has varied from U.S.\$54.58 on January 5, 2011 to U.S.\$ 9.57 on November 16, 2012. The price hit a high closing price of U.S.\$ 36.99 on July 1, 2014, but subsequently fell to U.S.\$ 12.83 on January 20, 2016. During 2017 the price of our ADSs reached a maximum of U.S.\$ 26.16 but, mainly due to the Argentine economic conditions, decreased to a minimum value of U.S.\$ 12.31 on December 24, 2018. As of March 28, 2019, our ADSs reached a price of 13.69 U.S.\$. See **Item 9. The Offer and Listing**. We cannot assure you that concerns about factors that could affect the market price of our ordinary shares as previously mentioned may have a material adverse effect on the trading values of our securities.

***Certain strategic transactions require the approval of the holder of our Class A shares or may entail a cash tender offer for all of our outstanding capital stock.***

Under our by-laws, the approval of the Argentine government, the sole holder of our Class A shares, is required to undertake certain strategic transactions, including a (i) merger; (ii) the transfer to third parties of all the exploitation rights granted to YPF pursuant to the Hydrocarbons Law, applicable regulations thereunder or the Privatization Law- if such transfer would result in the total suspension of the Company's exploration and production activities-;(iii) the voluntary dissolution of the Company, (iv) the transfer of the legal or fiscal domicile of the Company outside Argentina. This approval would also be necessary in connection with an acquisition that would result in the purchaser

holding 15% or more of our capital stock, 20% or more of the outstanding Class D shares, or a majority of our capital stock.

According to our by-laws, the transactions described in (iii) and (iv) above also require the prior approval of the Argentine congress through enactment of a law.

In addition, our by-laws also provide that in order to carry out an acquisition that results in the purchaser holding 15% or more of our capital stock or 20% or more of the outstanding Class D shares, such purchaser would be required to make a public tender offer for all of our outstanding shares and convertible securities, which could discourage certain investors from acquiring significant stakes in our capital stock. See Item 10. Additional Information Certain Provisions Relating to Acquisitions of Shares .

***Restrictions on the movement of capital out of Argentina may impair your ability to receive dividends and distributions on, and the proceeds of any sale of, the Class D shares underlying the ADSs.***

The government is empowered, for reasons of public emergency, as defined in Article 1 of Law No. 25,561, to establish the system that will determine the exchange rate between the peso and foreign currency and to impose exchange regulations. Although the transfer of funds abroad in order to pay dividends currently does not require Argentine Central Bank approval, restrictions on the movement of capital to and from Argentina may, if imposed, impair or prevent the conversion of dividends, distributions, or the proceeds from any sale of Class D shares, as the case may be, from pesos into U.S. dollars and the remittance of the U.S. dollars abroad.

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**Table of Contents**

Under the terms of our deposit agreement with the depository for the ADSs, the depository will convert any cash dividend or other cash distribution we pay on the shares underlying the ADSs into U.S. dollars, if it can do so on a reasonable basis and can transfer the U.S. dollars to the United States. If this conversion is not possible for any reason, including regulations of the type described in the preceding paragraph, the deposit agreement allows the depository to distribute the foreign currency only to those ADR holders to whom it is possible to do so. If the exchange rate fluctuates significantly during a time when the depository cannot convert the foreign currency, you may lose some or all of the value of the dividend distribution.

***We are traded on more than one market and this may result in price variations; in addition, investors may not be able to easily move shares for trading between such markets.***

Trading in the ADSs or Class D Shares underlying ADSs in the United States and Argentina, respectively, will use different currencies (U.S. dollars on the New York Stock Exchange ( NYSE ) and Argentine pesos on the Mercado de Valores de Buenos Aires ( S&P Merval ), and take place at different times (resulting from different trading platforms, different time zones, different trading days and different public holidays in the United States and Argentina). The trading prices of the Class D Shares underlying ADSs on these two markets may differ due to these and other factors. Any decrease in the price of the Class D Shares underlying ADSs on the S&P Merval could cause a decrease in the trading price of the ADSs on the NYSE. Investors could seek to sell or buy the Class D Shares underlying ADSs to take advantage of any price differences between the markets through a practice referred to as arbitrage. Any arbitrage activity could create unexpected volatility in both our share prices on one exchange, and the ADSs available for trading on the other exchange. In addition, holders of ADSs will not be immediately able to surrender their ADSs and withdraw the underlying Class D Shares for trading on the other market without effecting necessary procedures with the depository. This could result in time delays and additional cost for holders of ADSs.

***Under Argentine law, shareholder rights may be different from other jurisdictions.***

Our corporate affairs are governed by our by-laws and by Argentine corporate law, which differ from the legal principles that would apply if we were incorporated in a jurisdiction in the United States or in other jurisdictions outside Argentina. In addition, rules governing the Argentine securities markets are different and may be subject to different enforcement in Argentina than in other jurisdictions.

***Actual or anticipated sales of a substantial number of Class D shares could decrease the market prices of our Class D shares and the ADSs.***

Sales of a substantial number of Class D shares or ADSs by any present or future relevant shareholder could decrease the trading price of our Class D shares and the ADSs.

***You may be unable to exercise preemptive, accretion or other rights with respect to the Class D shares underlying your ADSs.***

Holders of ADSs may not be able to exercise the preemptive or accretion rights relating to the shares underlying the ADSs (see Item 10. Additional Information Preemptive and Accretion Rights ) unless a registration statement under the U.S. Securities Act of 1933 (the Securities Act ) is effective with respect to those rights or an exemption from the registration requirements of the Securities Act is available. We are not obligated to file a registration statement with respect to the shares relating to these preemptive rights, and we cannot assure you that we will file any such registration statement. Unless we file a registration statement or an exemption from registration is available, holders may receive only the net proceeds from the sale of their preemptive rights by the depository or, if the preemptive rights cannot be sold, they will be allowed to lapse. As a result, U.S. holders of Class D shares or ADSs may suffer

dilution of their interest in our company upon future capital increases.

In addition, under the Argentine General Corporations Law, foreign companies that own shares in an Argentine corporation are required to register with the Superintendence of Corporations (Inspección General de Justicia) ( IGJ ) in order to exercise certain shareholder rights, including voting rights. If you own our Class D shares directly (rather than in the form of ADSs) and you are a non-Argentine company and you fail to register with IGJ, your ability to exercise your rights as a holder of our Class D shares may be limited.

***You may be unable to exercise voting rights with respect to the Class D shares underlying your ADSs at our shareholders meetings.***

The depositary will be treated by us for all purposes as the shareholder with respect to the shares underlying ADSs. A holder of ADRs representing the ADSs being held by the depositary will not have direct shareholder rights and may exercise voting rights with respect to the Class D shares represented by the ADSs only in accordance with the deposit agreement relating to the ADSs. There are no

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**Table of Contents**

provisions under Argentine law or under our by-laws that limit the exercise by ADS holders of their voting rights through the depository with respect to the underlying Class D shares. However, there are practical limitations on the ability of ADS holders to exercise their voting rights due to the additional procedural steps involved in communicating with these holders. For example, holders of our shares will receive notice of shareholders' meetings through publication of a notice in an official gazette in Argentina, an Argentine newspaper of general circulation and the bulletin of the Buenos Aires Stock Exchange and will be able to exercise their voting rights by either attending the meeting in person or voting by proxy. ADS holders, by comparison, will not receive notice directly from us. Instead, in accordance with the deposit agreement, we will provide the notice to the depository. If we ask it to do so, the depository will mail to holders of ADSs the notice of the meeting and a statement as to the manner in which instructions may be given by holders. To exercise their voting rights, ADS holders must then instruct the depository on how to vote with regards to the Class D shares represented by their ADSs. Due to these procedural steps involving the depository, the process for exercising voting rights may take longer for ADS holders than for holders of Class D shares, if no such instructions are received, the depository shall vote the Class D shares represented by ADSs in accordance with the recommendations of the Board of Directors made to all holders of shares.

***Shareholders outside of Argentina may face additional investment risk from currency exchange rate fluctuations in connection with their holding of our Class D shares or the ADSs.***

We are an Argentine company and any future payments of dividends on our Class D shares will be denominated in Argentine pesos. The peso has historically and recently fluctuated significantly against many major world currencies, including the U.S. dollar. A devaluation of the Argentine peso would likely adversely affect the U.S. dollar or other currency equivalent of any dividends paid on our Class D shares and could result in a decline in the value of our Class D shares and the ADSs as measured in U.S. dollars.

#### **ITEM 4. Information on the Company History and Development of YPF**

##### ***Overview***

YPF is a corporation (*sociedad anónima*), incorporated under the laws of Argentina for a limited term. Our address is Macacha Güemes 515, C1106BKK Ciudad Autónoma de Buenos Aires, Argentina and our telephone number is (011-54-11) 5441-2000. Our legal name is YPF Sociedad Anónima and we conduct our business under the commercial name YPF.

We are Argentina's leading energy company, operating a fully integrated oil and gas chain with leading market positions across the domestic upstream, downstream and gas and power segments. Our upstream operations consist of the exploration, development and production of crude oil, natural gas and LPG. Our downstream operations include the refining, marketing, transportation and distribution of oil and a wide range of petroleum products, petroleum derivatives, petrochemicals, LPG and bio-fuels. Additionally, we are active in the gas separation and natural gas distribution sectors both directly and through our investments in several affiliated companies and in power generation through YPF Energía Eléctrica S.A. (YPF EE), a company that we jointly control with GE EFS Power Investments B.V. (GE), a subsidiary of EFS Global Energy B.V. (both corporations indirectly controlled by GE Energy Financial Services, Inc.) (see Item 4. Information on the Company Gas and Power YPF in Power Generation). In 2018, we had consolidated revenues of Ps. 435,820 million and consolidated net profit of Ps. 38,606 million.



Beginning in the 1920s and until 1990, both the upstream and downstream segments of the Argentine oil and gas industry were effectively monopolies of the Argentine government. During this period, we and our predecessors were owned by the state, which controlled the exploration and production of oil and natural gas, as well as the refining of crude oil and marketing of refined petroleum products. In August 1989, Argentina enacted laws aimed at the deregulation of the economy and the privatization of Argentina's state-owned companies, including us. Following the enactment of these laws, a series of presidential decrees were promulgated, which required, among other things, us to sell majority interests in our production rights to certain major producing areas and to undertake an internal management and operational restructuring program.

In November 1992, the Argentine government enacted the Privatization Law (Law No. 24,145), which established the procedures for our privatization. In accordance with the Privatization Law, in July 1993, we completed a worldwide offering of 160 million Class D shares that had previously been owned by the Argentine government. As a result of that offering and other transactions, the Argentine government's ownership interest in our capital stock was reduced from 100% to approximately 20% by the end of 1993.

In January 1999, Repsol YPF acquired 52,914,700 Class A shares (14.99% of our shares) which were converted to Class D shares. Additionally, on April 30, 1999, Repsol YPF announced a tender offer to purchase all outstanding Class A, B, C and D shares (the Offer). Pursuant to the Offer, in June 1999, Repsol YPF acquired an additional 82.47% of our outstanding capital stock. Repsol YPF acquired additional stakes in us from minority shareholders and other transactions in 1999 and 2000.

**Table of Contents**

Repsol YPF owned approximately 99% of our capital stock from 2000 until 2008, when Petersen Energía ( PEISA ) acquired 15% of our capital stock, from Repsol YPF. On May 3, 2011, PEISA exercised an option to acquire, from Repsol YPF, shares or ADSs representing 10.0% of our capital stock and on May 4, 2011, Repsol YPF acknowledged and accepted such exercise. See Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law and Item 7. Major Shareholders and Related Party Transactions, for a detail of our current major shareholders.

On May 3, 2012, the Argentine Congress passed the Expropriation Law. Among other matters, the Expropriation Law provided for the expropriation of 51% of the share capital of YPF represented by an identical stake of Class D shares owned, directly or indirectly, by Repsol YPF and its controlled or controlling entities. The shares subject to expropriation, which have been declared of public interest, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. See Item 3. Key Information Risk Factors Risks Relating to Argentina The Argentine Republic owns 51% of the shares of the Company. As of the date of this annual report, the transfer of the shares subject expropriation between the National Executive Office and the provinces that compose the National Organization of Hydrocarbon Producing States was still pending. According to Article 8 of the Expropriation Law, the distribution of the shares among the provinces that accept their transfer must be conducted in an equitable manner, considering their respective levels of hydrocarbon production and proved reserves. To ensure compliance with its objectives, the Expropriation Law provides that the National Executive Office, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. In addition, in accordance with Article 9 of the Expropriation Law, each of the Argentine provinces to which shares subject to expropriation are allocated must enter into a shareholder s agreement with the federal government that will provide for the unified exercise of its rights as a shareholder. See Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law, Item 7. Major Shareholders and Related Party Transactions. See Item 3. Key Information Risk Factors Risks Relating to Our Business We face risk relating to certain legal proceedings .

In addition, on February 25, 2014, the Republic of Argentina and Repsol reached an agreement (the Repsol Agreement ) in relation to compensation for the expropriation of 200,589,525 of YPF s Class D shares pursuant to the Expropriation Law under the Repsol Agreement. Repsol accepted U.S.\$5.0 billion in sovereign bonds from the Republic of Argentina and withdrew judicial and arbitral claims it had filed, including claims against YPF, and waived additional claims. YPF and Repsol also executed a separate agreement (the Repsol Arrangement ) on February 27, 2014, pursuant to which YPF and Repsol each withdrew, subject to certain exclusions, all present and future actions and/or claims based on causes occurring prior to the date of execution of Repsol Arrangement arising from the expropriation of the YPF shares owned by Repsol pursuant to the Expropriation Law, including the intervention and temporary possession for public purposes of YPF s shares. YPF and Repsol agreed to withdraw reciprocal actions and claims with respect to third parties and/or pursued by them and to grant a series of mutual indemnities, which at the time were subject to certain conditions precedent. The Repsol Arrangement entered into force the day after Repsol notified YPF that the Repsol Agreement had entered into force. The Repsol Agreement was ratified on March 28, 2014 at a Repsol general shareholders meeting and approved by the Argentine Congress by Law No. 26,932 enacted by Decree No. 600/2014. On May 8, 2014, YPF was notified of the entry into force of the Repsol Agreement. As of that date, the expropriation pursuant to the Expropriation Law was concluded, and as a result the Republic of Argentina is definitively the owner of 51% of the capital stock of each of YPF and YPF GAS S.A.

We are strongly committed to the country s energy development and seek to lead the transformation of the industry within the context of industry change at an international level.

In order to achieve our vision of being a company that generates sustainable, profitable and accessible energy for our customers, YPF's strategy is based on the following pillars:

Extract the maximum value from conventional fields

Develop and achieve efficient costs in shale operations

Partner with leading companies worldwide

Expand our power generation capacity in order to become a major player in the sector

Maintain a financial management discipline of the corporate portfolio

Create a new supply chain organization in order to modernize the procurement processes, contracts and associated logistics

Incorporate technology and innovation in all business segments to improve productivity and service to our customers

Implement a transformation program that modernizes the company, enhances efficiency and seeks growth initiatives that support our vision

Reduce the company's specific CO2 emissions in the upcoming years as part of our commitment to sustainability. The investment plan related to our growth needs to be accompanied by an appropriate financial plan, whereby we intend to reinvest earnings, search for strategic partners and raise debt financing at levels we consider prudent for companies in our industry. Consequently,

## **Table of Contents**

the financial viability of these investments and hydrocarbon recovery efforts will generally depend, among other factors, on the prevailing economic and regulatory conditions in Argentina, the ability to obtain financing in satisfactory amounts at competitive costs, as well as the market prices of hydrocarbon products. See Item 3. Key Information Risk Factors Risks Relating to Argentina. and Item 5. Factors Affecting Our Operations for additional information regarding 2018 activity.

### ***Upstream Operations***

As of December 31, 2018, we held interests in 132 oil and gas fields in Argentina. According to the Ministry of Energy and Mining, in 2018 these assets accounted for approximately 46.4% of the country's total production of crude oil, excluding NGLs, and approximately 37.4% of its total natural gas production, including NGLs.

We had proved reserves, as estimated as of December 31, 2018, of approximately 638 mmbbl of oil, including condensates and NGLs, and approximately 2,481 bcf of gas, representing aggregate reserves of approximately 1,080 mmboe as of such date, compared to approximately 480 mmbbl of oil, including condensates and NGLs, and approximately 2,520 bcf of gas, representing aggregate reserves of approximately 929 mmboe as of December 31, 2017.

In 2018, we produced approximately 83 mmbbl of oil (approximately 227 mbbbl/d), including condensates, approximately 14 mmbbl of NGLs (approximately 39 mbbbl/d), and approximately 542 bcf of gas (approximately 1,484 mmcf/d), representing a total production of approximately 193 mmboe (approximately 530 mboe/d), compared to approximately 83 mmbbl of oil (approximately 228 mbbbl/d), including condensates, approximately 19 mmbbl of NGLs (approximately 50 mbbbl/d), and approximately 567 bcf of gas (approximately 1,556 mmcf/d), representing a total production of approximately 202 mmboe (approximately 555 mboe/d) in 2017.

### ***Downstream Operations***

We are Argentina's leading refiner with operations conducted at three wholly-owned refineries with combined annual refining capacity of approximately 116 mmbbl (319.5 mbbbl/d). See Downstream Refining division. We also own a 50% equity interest in Refinería del Norte, S.A. ( Refinor ), an entity jointly controlled with and operated by Petrobras Energía S.A., which has a refining capacity of 26.1 mbbbl/d.

Our retail distribution network for automotive petroleum products as of December 31, 2018 consisted of 1,591 YPF-branded service stations, of which we own 113 directly and through our 100%-owned subsidiary Operadora de Estaciones de Servicios S.A. ( OPESSA ), and we estimate we held approximately 35.8% of all gasoline service stations in Argentina.

We are one of the leading petrochemical producers in Argentina and in the Southern Cone of Latin America, with operations conducted through our Ensenada industrial complex ( CIE ) and Plaza Huincul site. In

addition, Profertil S.A. ( Profertil ), a company that we jointly control with Agrium Holdco Spain S.L. ( Agrium ), is one of the leading producers of urea in the Southern Cone.

***Gas and Power Operations***

We are the largest producer of natural gas in Argentina with total natural gas sales of 14,486 mmcm in 2018. As of November 2018, our market share was 29.9%, according to ENARGAS.

We participated in eight power generation plants with an aggregate installed capacity of 1,819 MW with YPF EE, a company that we jointly control with GE EFS Power Investments B.V. ( GE ), a subsidiary of EFS Global Energy B.V. (both corporations indirectly controlled by GE Energy Financial Services, Inc).

We are the operator of UTE Escobar (a joint venture formed by YPF and IEASA), which operates an LNG Regasification Terminal ( LNG Escobar ). Additionally, the gas liquefaction services agreement was signed with the barge called Tango FLNG , which will operate in Bahía Blanca and is expected to start operating in the second quarter of 2019. See Gas and Power Argentine natural gas supplies. We also distribute natural gas through our subsidiary Metrogas a natural gas distribution company in the capital region and southern suburbs of Buenos Aires, and one of the main distributors in Argentina. During 2018, Metrogas distributed approximately 20.8 mmcm (or 733.4 mmcf) of natural gas per day to 2.4 million customers. See Item 4 Information on the Company Gas and Power Natural Gas Distribution.

For a chart illustrating our organizational structure, including our principal subsidiaries, please see Note 1 to the Audited Consolidated Financial Statements.

**Table of Contents**

The map below illustrates the location of our productive basins, refineries, storage facilities and crude oil and multi-product pipeline networks as of December 31, 2018.

**Table of Contents**

For a description of our principal capital expenditures and divestitures, see Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources Capital investments, expenditures and divestitures.

**The Argentine Market**

Argentina is the second largest producer of natural gas and the fourth largest producer of crude oil in Central and South America, based on 2017 production, according to the 2018 edition of the BP Statistical Review of World Energy, published in June 2018.

In response to the economic crisis of 2001 and 2002, the Argentine government, pursuant to the Public Emergency Law, established export taxes on certain hydrocarbon products. In subsequent years, in order to satisfy growing domestic demand and abate inflationary pressures, this policy was supplemented by constraints on domestic prices, temporary export restrictions and subsidies on imports of natural gas and diesel. As a result, until 2008, local prices for oil and natural gas products had remained significantly below those prevalent in neighboring countries and international commodity exchanges.

In 2012, Argentina's GDP experienced a slowdown, with GDP increasing 1.9% on an annual basis compared to the preceding year according to the methodology of calculation prevailing until March 2014. On March 27, 2014, the Argentine government announced a new method of calculating GDP using 2004 as the base reference year (as opposed to 1993, which was the base reference year under the prior method of calculating GDP). However, on January 7, 2016 through Decree No. 55/2016, the new leadership of INDEC issued a report declaring a national statistical emergency. INDEC stated that since 2006 its administration has been irregular and due to that they revised the published data from 2005 to 2015. As a result of this revision, the GDP growth rate for 2013 and 2014 was revised from 2.9% to 2.4% and from 0.5% to a decline rate of 2.5%, respectively. As of the date of this annual report, Argentina's provisional GDP growth rate for 2016, the provisional GDP growth rate for 2017 and the preliminary GDP growth rate for 2018 published by INDEC were negative 1.8%, positive 2.7% and negative 2.5%, respectively.

Driven by economic expansion and stable domestic prices, energy demand has increased significantly during last years, outpacing energy supply (which, in the case of oil, declined). As a result of a high number of power outages caused by the consumption increase, the Ministry of Energy requested that the National Executive Office declare a National Electric System Emergency through December 31, 2017. This decree instructs the Minister of Energy to develop and propose measures and to ensure adequate power supplies. Also, the Ministry of Energy and Mining established new seasonal reference prices for power and energy in the Wholesale Electricity Market ( MEM ). See Item 4 Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Electricity.

In 2003, Argentina's net exports of diesel amounted to approximately 1,349 mcm, while in 2018 its net imports of diesel amounted to approximately 2,170 mcm, according to preliminary information provided by the SGE. Significant investments in the energy sector are being carried out, and additional investments are expected to be required in order to support continued economic growth, as the industry is currently operating near full capacity.

Demand for diesel in Argentina exceeds domestic production. In addition, prior to the decline in international oil prices, the import prices of refined products have been in general substantially higher than the average domestic sales prices of such products, rendering the import and resale of such products less profitable. As a result, from time to time in the past, service stations experience temporary shortages and are required to suspend or curtail diesel sales.

With regard to the analysis of prior periods, until recently, the applicable domestic prices of petroleum products were established for the short term mainly on the basis of negotiations between Producers and Refiners of the country, without keeping a direct or specific reference with respect to the international quotations of such products. That is, the

domestic market was decoupled from the international market in terms of prices, which was evidenced in certain periods with movements of prices in meanings (or values) substantially different from those observed in the international market. Notwithstanding the foregoing, the local market started a process to achieve an orderly transition towards international prices.

In January 2017, the Producers and Refiners reached a new agreement (the Transitional Agreement ) for the aforementioned transition, in which a price path was established for the commercialization of oil in the domestic market, with the objective of achieving parity with international markets during the course of 2017. This took place during the last quarter of 2017, taking into account the internalization costs in the domestic market of the referred products, the expected margins and the demand, among other factors. After the completion of the 2017 Transitional Agreement, according to Argentina's Ministry of Energy and Mining, the hydrocarbons market in Argentina became a liberalized market, and oil and fuel prices must be set by the free market and, thus, fluctuate. This decision formally ended the transition to international oil price parity. Nevertheless, due to various factors (including, but not limited to, the abrupt variation



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**Table of Contents**

in the exchange rate and the increase in international prices of oil and the consequent difficulties to pass-through the corresponding variation to domestic prices) the intended liberalization could not be fully realized during 2018. Accordingly, we cannot guarantee that the liberalization of oil and fuel prices in the domestic market may finally operate in the future due to various factors such as, domestic demand, macroeconomic and political conditions prevailing in Argentina or potential new regulatory or legal limitations.

In connection with the matters set forth above, during the second quarter of 2018, the MINEM and the refining companies entered into a price stability agreement with a compensatory account, whereby refining companies undertook not to make changes in the prices of their products -net of fuel taxes- in force as of the date of the agreement, during the months of May and June. Moreover, at the beginning of June, a supplemental agreement was entered into, which established a Brent referent price for oil purchase transactions between refining and producing companies, and an increase in the final prices of fuel and gasoil as of June 2, 2018, which included the variation of tax on liquid fuels, carbon dioxide tax and the prices of biofuels in force at that date.

However, in view of the volatility and significant change in the variables which gave rise to the price stability agreements, YPF informed the MINEM of its decision to implement, as of 1 July, 2018, the commercial policies applicable to the changes in the applicable variables, both for the determination of its products sale prices and for the purchase of crude oil, in a manner consistent with the evolution of the business environment in general and that of customers in particular, in accordance with the regulatory framework and applicable regulations. Consequently, on June 30, 2018, the price stabilization agreements ceased to be in force for YPF.

On December 6, 2018, YPF requested that the SGE set the guidelines to implement the mechanics necessary for the recovery of the margins not reflected in the fuel price for the term during which the price stabilization agreement was in effect. As of the date of this annual report, the Company has not received a response to such request.

See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions,

**Business Organization**

As of December 31, 2018 we conducted our business according to the following organization:

Upstream segment, which consists of our Exploration and Production activity;

Downstream segment, which consists of our Refining and Marketing , Chemicals and Logistic activities;

Gas and Power segment, which consists of our Natural Gas Distribution and Electricity Generation activity;  
and

Central Administration and other segment, which consists of our remaining activities.

For a description related to the activities developed by each business segment see Note 5 to our Audited Consolidated Financial Statements.

Substantially all of our operations, properties and customers are located in Argentina. See Upstream Overview Main properties. Additionally, we market lubricants and specialties in Brazil and Chile, and carry out exploration activities in Chile and Bolivia.

**Table of Contents**

The following table sets forth revenues and operating profit for each of our business segments for the years ended December 31, 2018, 2017 and 2016:

	<b>For the year ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	<b>(in millions of pesos)</b>		
Revenues <sup>(1)</sup>			
Upstream			
Revenues from sales	3,108	739	18,745
Revenue from intersegment sales <sup>(2)</sup>	207,480	115,955	95,398
<b>Total Upstream</b>	<b>210,588</b>	<b>116,694</b>	<b>114,143</b>
Gas and Power			
Revenues from sales	91,176	56,805	26,514
Revenue from intersegment sales	7,862	4,075	3,212
<b>Total Gas and Power</b>	<b>99,038</b>	<b>60,880</b>	<b>29,726</b>
Downstream			
Revenues from sales	338,042	195,321	162,538
Revenue from intersegment sales	1,688	988	925
<b>Total Downstream</b>	<b>339,730</b>	<b>196,309</b>	<b>163,463</b>
Central Administration and Others			
Revenue from sales	8,363	2,534	2,303
Revenue from intersegment sales	13,186	7,133	7,447
<b>Total Central Administration and Others</b>	<b>21,549</b>	<b>9,667</b>	<b>9,750</b>
Less inter-segment sales and fees	(235,085)	(130,737)	(106,982)
<b>Total Revenues</b>	<b>435,820</b>	<b>252,813</b>	<b>210,100</b>
Operating profit (Loss)			
Upstream	22,483	3,877	(26,845)
Gas and Power	16,786	3,259	2,008
Downstream	7,818	15,813	3,093
Central Administration and Others	(6,055)	(4,400)	(1,615)
Consolidation adjustments	2,748	(2,476)	(887)
<b>Total Operating Profit (loss)</b>	<b>43,780</b>	<b>16,073</b>	<b>(24,246)</b>

(1) Revenues are net of payment of a fuel transfer tax and turnover tax. Customs duties on hydrocarbon exports are disclosed in Taxes, charges and contributions, as indicated in Note 21 to the Audited Consolidated Financial Statements. Royalties with respect to our production are accounted for as a cost of production and are not

deducted in determining revenues. See Note 2.b.15 to the Audited Consolidated Financial Statements.

- (2) Intersegment revenues of crude oil to Downstream are recorded at transfer prices that reflect our estimate of Argentine market prices.

**Upstream overview**

YPF Upstream is focused on actively managing the decline of the conventional fields and delivering profitable growth driven by unconventional projects.

Smoothing the decline rate in conventional fields is based on reservoir management improvement, accelerated implementation of improved oil recovery (IOR) and enhanced oil recovery (EOR) and the deployment of technology to optimize operations in real time while reducing downtime. We plan to continue to de-risk projects based on recent successful results in tertiary recovery.

## **Table of Contents**

During recent years, we have been working in mature areas that present profitable opportunities to increase the recovery factor by employing techniques including infill wells, extension of secondary recovery, and tertiary recovery testing. We are focused on identifying new opportunities in both infill potential and improved sweep efficiency in our mature fields. These efforts are guided by subsurface modeling conducted by in-house multidisciplinary teams. Furthermore, we place a strong emphasis on surveillance and conformance activities to improve current mature water injection projects. Tertiary recovery is being pursued with polymer and surfactant water-flooding in mature reservoirs in the Golfo de San Jorge, Cuyana and Neuquina basins.

Continuous technical reviews of our oil and gas fields allow us to identify opportunities to rejuvenate mature fields and optimize new field developments in Argentine basins in order to achieve similar recovery factors that mature fields have already reached in other regions of the world, with the application of new technologies.

## **Staying the Path of Unconventional Resources**

In line with the production growth objective driven by unconventional projects, we continued extending our leadership in this area with the full development in La Amarga Chica block announced on December 2018. La Amarga Chica has become the third project where YPF and its partners successfully achieve massive development, after Loma Campana and El Orejano. Planning for a growth in production is supported by a strong portfolio with competitive breakeven prices.

The international and local scenarios challenge us to adjust our efficiency and costs to be competitive. To drive down the breakeven price of our projects we are focused on increasing well productivity and improving operation efficiency in order to reduce development cost and operative expenses.

During 2018, we reaffirmed our commitment to the objective of growing our production and reserves through the development of unconventional resources, which we began in 2013. More than 600 wells were drilled with Vaca Muerta shale as the target, mostly in the Loma Campana field in association with Chevron, continuing the massive development that began in 2013. The remaining wells were targeted to continue the development phase in the El Orejano block in association with Dow Chemical, the Narambuena project in association with Chevron, the La Amarga Chica pilot in association with Petronas, the Bandurria Sur pilot in association with SPM Argentina S.A., the Bajada de Añelo pilot in association with Shell, and the Rincon del Mangrullo, Aguada de la Arena and La Ribera pilots where YPF holds 100% of the working interest in those blocks. The purpose of these projects is to determine the potential of Vaca Muerta as a shale oil/gas reservoir.

The development of unconventional resources in the Vaca Muerta formation demands significant capital investment. As we rapidly progress on our learning curve, substantially improving productivity and reducing well cost by 7% in 2018 compared to 2017, we expect to continue yielding savings due to operational optimizations, economies of scale and increasing well productivity through a better understanding of the subsurface and the use of new technologies.

In this context, our controlled technological-based company of YPF (Y-TEC) has contributed providing: innovative laboratory and operational techniques and protocols; better understanding of the rocks behavior; improvements in reservoir simulation and modelling tools; drilling and completion products; among others. See Research and Development.

Nevertheless, the financial viability of these investments and resource recovery efforts will depend on the prevailing economic and regulatory conditions, as well as the market prices of hydrocarbons in Argentina. See Item 3. Key Information Risk Factors. and Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations for additional information regarding 2019 activity.

Tight sands in Rincón del Mangrullo and Aguada de la Arena also contributed to the increase of natural gas production and reserves in 2018. Six wells were drilled in these marine tight sands, maintaining gas production at 3.8 mmcm/d.

Since 2016, we have been supplying domestic sand as proppant (to be injected in the hydraulic stimulation that allows for the development of unconventional hydrocarbons) and finalized the sand processing plant.

In order to guarantee the self-supply of sand for YPF and facing a scenario of increasing demand in the domestic market, we have made investments to improve and expand our existing productive capacities (such as the construction of a new classification and furnace for drying said product), increase our transportation capacity (through the extension of railway terminals) to supply the production and comply with the new product mix (as part of our geology research and development plan).

**Table of Contents**

During 2017, we commenced testing of dissolvable plugs, chemical and mechanical diverters, frac sleeves, and different types of stimulation fluids, in connection with the completion of our shale gas/oil wells, seeking improved operational efficiency and well performance. We are continuing to study the data from these tests, analyzing the results of productivity in the medium term. Many of these activities were carried out, and continue to be supported by Y-TEC.

**Main properties**

Our production is concentrated in the following basins in Argentina: Neuquina, Golfo San Jorge, Cuyana, Noroeste and Austral.

Our domestic operations are subject to certain risks. See Item 3. Key Information Risk Factors.

In 2018, 2017 and 2016, we finalized agreements related to the acquisition and development of properties that are part of our core business. In connection with those agreements, see Notes 3 and 29.b to the Audited Consolidated Financial Statements.

In addition, in connection with the extension of concessions, see Note 29.a to the Audited Consolidated Financial Statements.

The following table sets forth information regarding our developed and undeveloped acreage by geographic area as of December 31, 2018:

	As of December 31, 2018			
	Developed <sup>(1)</sup>		Undeveloped <sup>(2)</sup>	
	Gross <sup>(3)</sup>	Net <sup>(4)</sup>	Gross <sup>(3)</sup>	Net <sup>(4)</sup>
	(thousands of acres)			
South America	1,258	953	31,891	17,645
Argentina	1,258	953	31,346	17,322
Rest of South America <sup>(5)</sup>			545	323
Total	<b>1,258</b>	<b>953</b>	<b>31,891</b>	<b>17,645</b>

- (1) Developed acreage is spaced or assignable to productive wells.
- (2) Undeveloped acreage encompasses those leased acres on which wells have not been drilled or completed to a point that would permit the production of economic quantities of oil or gas regardless of whether such acreage contains proved reserves.
- (3) A gross acre is an acre in which we own a working interest.
- (4) Net acreage equals gross acreage after deducting third-party interests.
- (5) Relates to Colombia, Bolivia and Chile. In the case of Colombia, YPF and its partners notified the Colombian National Hydrocarbons Agency ( ANH ) of the decision to relinquish the COR 12 and COR 33 blocks. In Bolivia, YPF's net undeveloped surface acreage totaled 147,000 acres. Finally, in Chile, YPF's net undeveloped surface acreage totaled 3,000 acres needed to finish the testing of one exploration well.

Except for the information provided in the next paragraph, as of December 31, 2018, none of our exploration permits considered as a whole, which include undeveloped acreage, will expire in 2019 in accordance with the Hydrocarbons Law and complementary provincial laws. In addition, according to Law No. 27,007 that amended the Hydrocarbons

Law, all national offshore permits and offshore hydrocarbon production concessions that did not have association agreements with ENARSA as of the date of the new law reverted and were transferred to the SGE. Permits and concessions granted prior to Law No. 25,943 will be exempt from this provision. In September 2015, the National Executive Office and YPF began negotiating the conversion of association agreements signed with ENARSA. On December 29, 2017 YPF filed a note before the Ministry of Energy confirming its willingness to negotiate the conversion of association agreement related to the Area identified as ENARSA 1 . In the same note, YPF informed that it communicated its decision not to convert the association agreements related such Areas to the Operators of Areas ENARSA 2 and ENARSA 3 . On October 19, 2018 YPF officially filed another note to the SGE to negotiate the conversion of the association agreement related to the area identified as ENARSA 1 ; as of the date of this annual report, negotiations related to this note are ongoing. YPF currently participates in three offshore blocks



**Table of Contents**

in association with ENARSA, which represent approximately 55% of our net exploratory undeveloped acreage. We cannot guarantee that as a result of such negotiations we would not decide to relinquish to the SGE part or all of the acreage included in our current association with ENARSA. With the exception of the above, none of our exploration permits are regulated by Law No. 27,007. See Legal and Regulatory Framework and Relationship with the Argentine Government Law No. 27,007 (amendment of the Hydrocarbons Law) Exploration and Production.

However, as a result of the expiration in 2019 of the first, second or third exploration terms of certain of our exploration permits (according to the original terms of the Hydrocarbons Law, which applied to our existing exploration permits), we would be required to relinquish a fixed portion of the acreage related to each such expiring permit, as set forth in the Hydrocarbons Law, as long as exploitable quantities of oil or gas are not discovered in such areas (in which case we may seek to obtain a declaration of their commercial viability from the relevant authorities, and the related areas would then be subject to exploitation concessions). Additionally, and depending on the circumstances that could arise in each case (for instance, the state of exploratory activity in a certain area), we could request an extension of the expiration of the exploration permit, which would be subject to the approval of the respective governing authority. As a result, if no discoveries are made in 2019, we would be required to relinquish approximately 3,542 km<sup>2</sup> of exploratory undeveloped acreage (approximately 8.2% of our 43,055 km<sup>2</sup> of net exploratory undeveloped acreage as of December 31, 2018) during 2019.

Additionally, based on information available as of the date of this annual report, if we fail to make any discoveries or to engage in new activity that could extend the expirations of the exploration permits, we could be required or could decide to relinquish a maximum of approximately 6,126 km<sup>2</sup> of exploratory undeveloped acreage (approximately 14.2% of our 43,055 km<sup>2</sup> of net exploratory undeveloped acreage as of December 31, 2018) during 2020 and 2021.

According to the Hydrocarbons Law, we are entitled to decide, according to our best interest, which acreage related to each exploration permit to keep if we remain within the required relinquishment percentage. Therefore, the areas to be relinquished consist usually of acreage where drilling has not been successful and are considered non-core lease acreage.

Except as described above, we do not have any material undeveloped acreage related to our production concessions expiring in the near term.

See Legal and Regulatory Framework and Relationship with the Argentine Government Law No. 27,007 (amendment of the Hydrocarbons Law) for a description of new terms that apply to new production concessions or exploration permits, other than those already governed by previous laws.

**Argentine Exploration Permits and Exploitation Concessions**

Based on 2017 production, Argentina is the second largest producer of natural gas and the fourth largest producer of crude oil in Central and South America, according to the 2018 edition of the BP Statistical Review of World Energy published in June 2018. Oil has historically accounted for the majority of the country's hydrocarbon production and consumption, although the relative share of natural gas has increased rapidly in recent years.

The following table shows our gross and net interests in productive oil and gas wells in Argentina by basin, as of December 31, 2018:

*Wells<sup>(1)</sup>*

<i>Basin</i>	<i>Oil</i>		<i>Gas</i>	
	<i>Gross</i>	<i>Net</i>	<i>Gross</i>	<i>Net</i>
Onshore	13,487	11,923	2,135	1,563
Neuquina	4,733	3,798	1,908	1,381
Golfo San Jorge	7,770	7,228	75	75
Cuyana	818	753	0	0
Noroeste	46	24	90	45
Austral	120	120	62	62
Offshore	0	0	91	46
<b>Total</b>	<b>13,487</b>	<b>11,923</b>	<b>2,226</b>	<b>1,609</b>

- (1) A gross well is a well in which we own a working interest. A net well is deemed to exist when the sum of fractional ownership working interests in gross wells equals one. The number of net wells is the sum of the fractional working interests owned in gross wells expressed as whole numbers and fractions of whole numbers

## **Table of Contents**

As of December 31, 2018, we held 132 exploration permits and production concessions in Argentina. We directly operate 99 of them, including 20 exploration permits and 79 production concessions.

Exploration permits: As of December 31, 2018, we held 24 exploration permits in Argentina, 21 of which were onshore exploration permits and 3 of which were offshore exploration permits. We had 100% ownership of 11 onshore permits, and our participating interests in the remainder varied between 50% and 70%. Our participating interests in the 3 offshore permits varied between 30% and 35%.

Production concessions: As of December 31, 2018, we had 108 production concessions in Argentina. We had a 100% ownership interest in 63 production concessions, and our participating interests in the remaining 45 production concessions varied between 7% and 98%.

In addition, we have 36 crude oil treatment plants and 12 pumping plants where oil is processed and stored. The purpose of these plants is to receive and treat oil from different fields prior to shipment to our refineries and/or commercialization to third parties, as applicable. See Item 3. Key Information Risk Factors Risks Relating to Our Business Our business depends to a significant extent on our production and refining facilities and logistics network.

In connection with our principal properties, see Exploration & Production Activity in Argentina. Production for each of the last three fiscal years by geographic area and by field containing 15% or more of our total proved reserves are set forth under Oil and gas production, production prices and production costs.

Approximately 92% of our proved crude oil reserves in Argentina are concentrated in the Neuquina (52%) and Golfo San Jorge (40%) basins, and approximately 85% of our proved gas reserves in Argentina are concentrated in the Neuquina (75%), and Austral (10%) basins.

## **Joint ventures and contractual arrangements in Argentina**

As of December 31, 2018, we participated in 8 exploration and 36 production joint ventures and contractual arrangements (26 of which were not operated by us) in Argentina. Our interests in these joint ventures and contractual arrangements ranged from 7% to 93%, and our obligations to share exploration and development costs varied under these agreements. In addition, under the terms of some of these joint ventures, we have agreed to indemnify our joint venture partners in the event that our rights with respect to such areas are restricted or affected in such a way that the purpose of the joint venture cannot be achieved. For a list of the main exploration and production joint ventures in which we participated as of December 31, 2018, see Note 24 to the Audited Consolidated Financial Statements. We are also a party to a number of other contractual arrangements that arose through the renegotiation of service contracts and risk contracts and their conversion in exploitation concessions and exploration permits, respectively.

## **Oil and Gas Reserves**

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible (from a given date forward, from known reservoirs, and under existing economic conditions, operating methods and government regulations) prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within reasonable time. In some cases, substantial investments in new wells and related facilities may be required to recover proved reserves.

Information on net proved reserves as of December 31, 2018, 2017 and 2016 was calculated in accordance with the SEC rules and Financial Accounting Standards Board ( FASB ) Accounting Standards Codification ( ASC ) 932, as amended. Accordingly, crude oil prices used to determine reserves were calculated each month for crude oils of different quality produced by the Company. Consequently, to calculate our net proved reserves as of December 31, 2018, the Company considered the realized prices for crude oil in the domestic market taking into account the effect of export taxes as in effect as of each of the corresponding years (until 2020, in accordance with Decree No. 793/2018). For the years beyond the mentioned periods, the Company considered the unweighted average price of the first-day-of-the-month for each month within the twelve-month period ended December 31, 2018, which refers to the Brent prices adjusted by each different quality produced by the Company.

## **Table of Contents**

Additionally, since there are no benchmark market natural gas prices available in Argentina, the Company considered the realized prices in the domestic market according to the SEC and FASB's ASC 932 rules, but also taking into account the effect of certain market regulations which were put in place mainly during the second half of 2018.

Notwithstanding the foregoing, commodity prices have changed significantly since 2016. See Item 3. Key Information Risk Factors Risks Relating to Our Business Our oil and natural gas reserves are estimates and Item 3. Key Information Risk Factors Risks Relating to Our Business Our reserves and production are likely to decline.

Net reserves are defined as that portion of the gross reserves attributable to the interest of YPF after deducting interests owned by third parties. In determining net reserves, the Company excludes from its reported reserves royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in the underlying production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation, or are substantially equivalent to a production or severance tax, the related reserves are not excluded from the reported reserves despite the fact that such payments are referred to as royalties under local rules. The same methodology is followed in reporting our production amounts.

Gas reserves exclude the gaseous equivalent of liquids expected to be removed from the gas on concessions and leases, at field facilities and at gas processing plants. These liquids are included in net proved reserves of NGLs.

### ***Technology used in establishing proved reserves additions***

YPF's estimated proved reserves as of December 31, 2018 are based on estimates generated through the integration of available and appropriate data, utilizing well-established technologies that have been demonstrated in the field to yield repeatable and consistent results. Data used in these integrated assessments include information obtained directly from the subsurface via wellbore, such as well logs, reservoir core samples, fluid samples, static and dynamic pressure information, production test data, and surveillance and performance information. The data utilized also include subsurface information obtained through indirect measurements, including high quality 2-D and 3-D seismic data, calibrated with available well control. Where applicable, geological outcrop information was also utilized. The tools used to interpret and integrate all this data included both proprietary and commercial software for reservoir modeling, simulation and data analysis. In some circumstances, where appropriate analog reservoir models are available, reservoir parameters from these analog models were used to increase the reliability of our reserves estimates.

For further information on the estimation process of our proved reserves, see Internal controls on reserves and reserves audits.

### ***Net Proved Developed and Undeveloped Reserves as of December 31, 2018***

The following table sets forth our estimated net proved developed and undeveloped reserves of crude oil, NGLs and natural gas at December 31, 2018.

**Table of Contents**

	Oil <sup>(1)</sup> (mmbbl)	NGL (mmbbl)	Natural Gas (bcf)	Total <sup>(2)</sup> (mmboe)
<b>Proved Developed Reserves</b>				
<b>Consolidated Entities</b>				
South America				
Argentina	339	41	1,915	722
North America				
United States				
Total Consolidated Entities	339	41	1,915	722
<b>Equity-Accounted Entities</b>				
South America				
Argentina				
North America				
United States				
Total Equity-Accounted Entities				
<b>Total Proved Developed Reserves</b>	<b>339</b>	<b>41</b>	<b>1,915</b>	<b>722</b>

	Oil <sup>(1)</sup> (mmbbl)	NGL (mmbbl)	Natural Gas (bcf)	Total <sup>(2)</sup> (mmboe)
<b>Proved Undeveloped Reserves</b>				
<b>Consolidated Entities</b>				
South America				
Argentina	243	15	566	358
North America				
United States				
Total Consolidated Entities	243	15	566	358
<b>Equity-Accounted Entities</b>				
South America				
Argentina				
North America				
United States				
Total Equity-Accounted Entities				
<b>Total Proved Undeveloped Reserves</b>	<b>243</b>	<b>15</b>	<b>566</b>	<b>358</b>

	Oil <sup>(1)</sup> (mmbbl)	NGL (mmbbl)	Natural Gas (bcf)	Total <sup>(2)</sup> (mmboe)
<b>Total Proved Reserves <sup>(2) (3)</sup></b>				
<b>Consolidated Entities</b>				
Developed Reserves	339	41	1,915	722
Undeveloped Reserves	243	15	566	358
Total Consolidated Entities	582	56	2,481	1080
<b>Equity-accounted entities</b>				

Developed Reserves

Undeveloped Reserves

Total Equity-Accounted Entities

<b>Total Proved Reserves</b>	<b>582</b>	<b>56</b>	<b>2,481</b>	<b>1080</b>
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- (1) Includes crude oil (oil and condensate).
- (2) Volumes of natural gas in the table above and elsewhere in this annual report have been converted to barrels of oil equivalent at 5,615 cubic feet per barrel.
- (3) Proved crude oil and NGL reserves of consolidated entities include an estimated approximately 83 mmbbl of crude oil and 8 mmbbl of NGLs in respect of royalty payments which, as described above, are a financial obligation or are substantially equivalent to a production or similar tax. Proved natural gas reserves of consolidated entities include an estimated approximately 288 bcf in respect of such payments.

## **Table of Contents**

For information regarding changes in our estimated proved reserves during 2018, 2017 and 2016, see Note 35 to the Audited Consolidated Financial Statements.

The paragraphs below explain in further detail the most significant changes in our proved undeveloped reserves during 2018, 2017 and 2016.

### **Changes in our proved undeveloped reserves during 2018**

YPF had estimated a volume of net proved undeveloped reserves of 358 mmboe at December 31, 2018, which represented approximately 33% of the 1080 mmboe total reported proved reserves as of such date. This compares to estimated net proved undeveloped reserves of 266 mmboe as of December 31, 2017 (approximately 29% of the 929 mmboe total reported proved reserves as of such date).

The 35% total net increase in net proved undeveloped reserves in 2018 is mainly attributable to:

Extensions and discoveries, which added 149 mmboe (238 bcf of Gas and 107 mmbbl of Oil) of proved undeveloped reserves mainly from shale oil and gas projects from Vaca Muerta formation at Neuquina basin.

New economic conditions with higher gas and oil average prices and lower operating costs which resulted in a 48 mmboe Proved Undeveloped Reserves incorporation mainly from oil and gas fields of Neuquina basin (15 mmboe) and oil fields from Golfo San Jorge basin (33 mmboe).

New improved recovery projects, adding approximately 9 mmboe of proved undeveloped secondary recovery reserves. Most important additions belong to Golfo San Jorge and Neuquina basins.

This was partially offset by:

Ongoing successful development activities related to proved undeveloped reserves projects, which allowed a transfer of approximately 67 mmboe to proved developed reserves. The main contributions are related to Development Wells (58 mmboe) mainly in Neuquina basin and improved recovery projects (9 mmboe) mainly in Golfo San Jorge and Neuquina basins.

Change of development strategy in certain areas which resulted in a downwards revision of 43 mmboe from previous projects, mainly from Neuquina, Austral and Golfo San Jorge basins.

Some primary and improved recovery oil projects development schedules were modified or canceled, resulting in a 5 mmboe proved undeveloped reserves reduction, mainly in Austral, Golfo San Jorge and Cuyana basins.



Changes in gas compression projects which resulted in a 5 mmboe reduction of proved undeveloped reserves, mainly from Neuquina basin.

YPF's total capital expenditures to continue the development of reserves was approximately U.S.\$ 936 million during 2018, of which U.S.\$ 655 million was allocated to projects related to proved undeveloped reserves.

As of December 31, 2018, we did not have material amounts of proved undeveloped reserves in individual fields or countries that have remained undeveloped for five years or more after being disclosed as proved undeveloped reserves.

***Changes in our proved undeveloped reserves during 2017***

YPF had estimated a volume of net proved undeveloped reserves of 266 mmboe at December 31, 2017, which represented approximately 29% of the 929 mmboe total reported proved reserves as of such date. This compares to estimated net proved undeveloped reserves of 298 mmboe as of December 31, 2016 (approximately 27% of the 1,113 mmboe total reported proved reserves as of such date).

The 11% total net decrease in net proved undeveloped reserves in 2017 is mainly attributable to:

Ongoing successful development activities related to proved undeveloped reserves projects, which allowed a transfer of approximately 82 mmboe to proved developed reserves. Main contributions are related to development wells (62 mmboe) mainly in Neuquina basin, improved recovery projects (9,5 mmboe) mainly in Golfo San Jorge and Neuquina basins, and Gas Compression Projects (9,5 mmboe) in Austral and Neuquina basins.

New economic conditions with lower gas and oil average prices and higher operating costs affected scheduled projects economics, resulting in a 20 mmboe proved undeveloped reserves reduction mainly from oil fields of Neuquina basin (-16 mmboe) and Golfo San Jorge basin (-3 mmboe).

Some primary and improved recovery oil projects development schedule was modified or canceled, resulting in a 2,5 mmboe proved undeveloped reserves reduction, mainly in Neuquina and Golfo San Jorge basins.

**Table of Contents**

This was partially offset by:

Extensions and discoveries, which added 54 mmboe (219 bcf of Gas and 12 mmbbl of Oil) of proved undeveloped reserves mainly from Neuquina and Austral basins.

New improved recovery projects, adding approximately 21 mmboe of proved undeveloped secondary recovery reserves. Most important additions belong to Golfo San Jorge and Neuquina basins.

New project studies in Golfo San Jorge and Neuquina basins added approximately 5 mmboe of proved undeveloped reserves.

The extension of Rincón del Mangrullo and Magallanes fields' concessions resulted in approximately 4 mmboe reserves addition in proved undeveloped reserves.

YPF's total capital expenditure to continue the development of reserves was approximately U.S.\$1,113 million during 2017, of which U.S.\$ 693 million was allocated to projects related to proved undeveloped reserves.

As of December 31, 2017, we did not have material amounts of proved undeveloped reserves in individual fields or countries that have remained undeveloped for five years or more after being disclosed as proved undeveloped reserves.

***Changes in our proved undeveloped reserves during 2016***

YPF had estimated a volume of net proved undeveloped reserves of 298 mmboe at December 31, 2016, which represented approximately 27% of the 1,113 mmboe total reported proved reserves as of such date. This compares to estimated net proved undeveloped reserves of 337 mmboe as of December 31, 2015 (approximately 27% of the 1,226 mmboe total reported proved reserves as of such date).

The approximately 11% net decrease in net proved undeveloped reserves in 2016 is mainly attributable to:

Ongoing successful development activities related to proved undeveloped reserves projects, which allowed a transfer of approximately 116 mmboe to proved developed reserves. Main contributions are related to development wells (75 mmboe), mainly in the Neuquina basin, improved recovery projects (14 mmboe), mainly in the Golfo San Jorge and Neuquina basins, and gas compression projects in the Neuquina basin (12 mmboe).

New economic conditions with lower average oil prices that affected the economics of scheduled projects, resulting in a reduction of proved undeveloped reserves of 45 mmboe, mainly from the oil fields of the Golfo San Jorge basin (-16 mmboe), the Neuquina basin (-14 mmboe) and the Austral basin (-12 mmboe).

In the Golfo San Jorge basin, the development schedules of several primary and improved recovery oil projects were modified or canceled, resulting in a reduction of proved undeveloped reserves of 20 mmboe.

This was partially offset by:

Extensions and discoveries, which added 80 mmboe (242 bcf of gas and 29 mmbbl of oil) of proved undeveloped reserves, mainly from the Neuquina basin.

New project studies, which added approximately 12 mmboe of proved undeveloped reserves, mainly from the Neuquina basin.

New improved recovery projects, adding approximately 30 mmboe of proved undeveloped secondary recovery reserves. The most important additions belong to the Golfo San Jorge and Neuquina basins. The acquisition of interests in the Rio Neuquén gas field located in the Neuquina basin resulted in the addition of approximately 11 mmboe of proved undeveloped reserves.

YPF's total capital expenditure to continue the development of reserves was approximately U.S.\$ 2,930 million during 2016, of which U.S.\$ 1,214 million was allocated to projects related to proved undeveloped reserves.

As of December 31, 2016, we did not have material amounts of proved undeveloped reserves in individual fields or countries that have remained undeveloped for five years or more after being disclosed as proved undeveloped reserves.

#### **Internal controls on reserves and reserves audits**

All of our oil and gas reserves held in consolidated companies have been estimated by our petroleum engineers. In order to meet the high standard of reasonable certainty, reserves estimates are stated taking into consideration additional guidance as to reservoir economic producibility requirements, acceptable proved area extensions, drive mechanisms and improved recovery methods, marketability under existing economic and operating conditions and project maturity.

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**Table of Contents**

Where applicable, the volumetric method is used to determine the original quantities of petroleum in place. Estimates are made by using various types of logs, core analysis and other available data. Formation tops, gross thickness and representative values for net pay thickness, porosity and interstitial fluid saturations are used to prepare structural maps to delineate each reservoir and isopachous maps to determine reservoir volume. Where adequate data is available and where circumstances are justified, material-balance and other engineering methods are used to estimate the original hydrocarbon in place.

Estimates of ultimate recovery are obtained by applying recovery factors to the original quantities of petroleum in place. These factors are based on the drive mechanisms inherent in the reservoir, analysis of the fluid and rock properties, the structural position of the reservoir and its production history. In some instances, comparisons are made with similar production reservoirs in the areas where more complete data is available.

Where adequate data is available and where circumstances are justified, material-balance and other engineering methods are used to estimate ultimate recovery. In these instances, reservoir performance parameters such as cumulative production, production rate, reservoir pressure, gas to oil ratio behavior and water production are considered in estimating ultimate recovery.

In certain cases where the above methods could not be used, proved reserves are estimated by analogy to similar reservoirs where more complete data are available.

To control the quality of reserves booking, a process has been established that is integrated into the internal control system of YPF.

This process to manage reserves booking is centrally controlled and has the following components:

- (a) The Reserves Audit ( RA ) is separate and independent from the Upstream segment. RA s activity is overseen by YPF s Audit Committee, which is also responsible for supervising the procedures and systems used in the recording of and internal control over the Company s hydrocarbon reserves. The primary objectives of the RA are to ensure that YPF s proved reserves estimates and disclosure are in compliance with the rules of the SEC, the FASB, and the Sarbanes-Oxley Act, and to review annual changes in reserves estimates and the reporting of YPF s proved reserves. The RA is responsible for preparing the information to be publicly disclosed concerning YPF s reported proved reserves of crude oil, NGLs, and natural gas. In addition, the RA is also responsible for providing training to personnel involved in the estimation of reserves and reporting process within YPF. The RA is managed by and staffed with individuals that have an average of more than 20 years of technical experience in the petroleum industry, including in the classification and categorization of reserves under the SEC guidelines. The RA staff includes several individuals who hold advanced degrees in either engineering or geology, as well as individuals who hold bachelor s degrees in various technical studies. Several members of the RA are registered with or affiliated to the relevant professional bodies in their fields of expertise.
- (b) The Reserves Auditor, who has headed the RA since June 2017, is responsible for overseeing the preparation of the reserves estimates and reserves audits conducted by third party engineers. The current Reserves Auditor has over 35 years of experience in geology and geophysics, reserves estimate, project development, finance and general accounting regulations. Prior to becoming the Reserves Auditor, he was the general manager in E&D, and before that he worked as the Director for Exploration at YPF. He holds a degree in geology from the National University of Patagonia, and postgraduate courses at IAE Austral University. Consistent with our internal control

system requirements, the Reserves Auditor's compensation is not affected by changes in reported reserves.

- (c) A quarterly internal review by the RA of changes in proved reserves submitted by the Upstream business segment and associated with properties where technical, operational or commercial issues have arisen.
- (d) A Quality Reserve Coordinator ( QRC ) is assigned to each Upstream business segment of YPF to ensure that there are effective controls in the estimation of proved reserves and approval process of the estimates of YPF and the timely reporting of the related financial impact of proved reserves changes. Our QRCs are responsible for reviewing proved reserves estimates. The qualification of each QRC is made on a case-by-case basis with reference to the recognition and respect of such QRC's peers. YPF would normally consider a QRC to be qualified if such person (i) has a minimum of 5 years of practical experience in petroleum engineering or petroleum production geology, with at least three years of such experience in charge of the estimation and evaluation of reserves, and (ii) has either (A) obtained, from a college or university of recognized stature, a bachelor's or advanced degree in petroleum engineering, geology or other related discipline of engineering or physical science, or (B) received, and is maintaining in good standing, a registered or certified professional engineer's license or a registered or certified professional geologist's license, or the equivalent thereof, from an appropriate governmental authority or professional organization.
- (e) A formal review through technical review committees to ensure that both technical and commercial criteria are met prior to the commitment of capital to projects.

**Table of Contents**

- (f) Our internal audit team examines the effectiveness of YPF's financial controls, which are designed to ensure the reliability of reporting and safeguarding of all the assets and examines YPF's compliance with the law, regulations and internal standards.
- (g) All volumes booked are submitted to a third party reserves audit on a periodic basis. The properties selected for a third party reserves audit in any given year are selected on the following basis:
- i. all properties on a three-year cycle; and
  - ii. recently acquired properties not submitted to a third party reserves audit in the previous cycle and properties with respect to which there is new information which could materially affect prior reserves estimates.

For those areas submitted to a third party reserves audit, YPF's proved reserves figures have to be within 7% or 10 mmboe of the third party reserves audit figures for YPF to declare that the volumes have been ratified by a third party reserves audit. In the event that the difference is greater than the tolerance, YPF will re-estimate its proved reserves to achieve this tolerance level or should disclose the third party figures. YPF has adopted the above-mentioned procedure by approving the corresponding internal policy.

In 2018, Gaffney, Cline & Associates audited certain YPF operated and non-operated areas in the Neuquina, Golfo San Jorge, Austral and Cuyana basins of Argentina. These audits were performed as of December 31, 2018, and the audited fields contain in aggregate, according to our estimates, approximately 365 mmboe proved reserves (161 mmboe of which were proved undeveloped reserves) as of such date, which represented approximately 34% of our proved reserves and 45% of our proved undeveloped reserves as of December 31, 2018. Copies of the related reserves audit reports are filed as an exhibit to this annual report.

We are required, in accordance with Resolutions No. 324/06 and 69/16 of the Argentine Secretariat of Hydrocarbon Resources, to annually file by March 31 details of our estimates of our oil and gas reserves and resources with the Argentine Secretariat of Hydrocarbon Resources, as defined in that resolution and certified by an external auditor. The aforementioned certification and external audit only have the meaning established by Resolutions No. 324/06 and 69/16 and are not to be interpreted as a certification or external audit of oil and gas reserves under SEC rules. We last filed such a report for the year ended December 31, 2017. Estimates of our oil and gas reserves filed with the Argentine Secretariat of Hydrocarbon Resources are materially higher than the estimates of our proved oil and gas reserves contained in this annual report mainly because: (i) information filed with the Argentine Secretariat of Hydrocarbon Resources includes all properties of which we are operators, irrespective of the level of our ownership interests in such properties; (ii) information filed with the Argentine Secretariat of Hydrocarbon Resources includes other categories of reserves and resources that are not included in this annual report, which are different from estimates of proved reserves consistent with the SEC's guidance contained in this annual report; and (iii) the definition of proved reserves under Resolutions No. 324/06 and 69/16 is different from the definition of proved oil and gas reserves established in Rule 4-10(a) of Regulation S-X. Accordingly, all proved oil and gas reserve estimates included in this annual report reflect only proved oil and gas reserves consistent with the rules and disclosure requirements of the SEC.

***Oil and gas production, production prices and production costs***

The following table shows our crude oil (including oil and condensate), NGL, and gas production on an as sold and annual basis for the years indicated. In determining net production, we exclude royalties due to others, whether

payable in cash or in kind, where the royalty owner has a direct interest in such production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation or are substantially equivalent to a production or severance tax, they are not excluded from our net production amounts despite the fact that such payments are referred to as royalties under local rules. This is the case for our production in Argentina, where royalty expense is accounted for as a production cost.

**Table of Contents**

<i>Oil and Condensate Production</i> <sup>(1)</sup>	2018	2017	2016
		(mmbbl)	
<b>Consolidated Entities</b>			
South America			
Argentina	83	83	90
North America			
United States			*
Total Consolidated Entities	83	83	90
<b>Equity-Accounted Entities</b>			
South America			
Argentina			
North America			
United States			
Total Equity-Accounted Entities			
<b>Total Oil Production</b> <sup>(2)</sup>	<b>83</b>	<b>83</b>	<b>90</b>
<i>NGL Production</i> <sup>(1)</sup>	2018	2017	2016
		(mmbbl)	
<b>Consolidated Entities</b>			
South America			
Argentina	14	19	19
North America			
United States			
Total Consolidated Entities	14	19	19
<b>Equity-Accounted Entities</b>			
South America			
Argentina			
North America			
United States			
Total Equity-Accounted Entities			
<b>Total NGL Production</b> <sup>(3)</sup>	<b>14</b>	<b>19</b>	<b>19</b>
<i>Natural Gas Production</i> <sup>(1)</sup>	2018	2017	2016
		(bcf)	
<b>Consolidated Entities</b>			
South America			
Argentina	461	475	457
North America			
United States			*



Total Consolidated Entities	461	475	457
<b>Equity-Accounted Entities</b>			
South America			
Argentina			
North America			
United States			
Total Equity-Accounted Entities			
<b>Total Natural Gas Production</b> <sup>(4)</sup> <sup>(5)</sup>	<b>461</b>	<b>475</b>	<b>457</b>

**Table of Contents**

<i>Oil Equivalent Production</i> <sup>(1)</sup> <sup>(6)</sup>	2018	2017	2016
	(mmboe)		
<b>Consolidated Entities</b>			
Oil and Condensate	83	83	90
NGL	14	19	19
Natural Gas	82	85	81
<b>Equity-Accounted Entities</b>			
Oil and Condensate			
NGL			
Natural Gas			
<b>Total Oil Equivalent Production</b>	<b>179</b>	<b>187</b>	<b>190</b>

\* Not material (less than 1).

- (1) Loma La Lata Central and Loma La Lata Norte (southern and northern parts of the Loma La Lata field) in Argentina contain approximately 17% of our total proved reserves expressed on an oil equivalent barrel basis. Oil and condensate production in these fields was approximately 8, 6 and 6 mmbbl for the years ended December 31, 2018, 2017 and 2016, respectively. NGL production in these fields was approximately 5, 8 and 8 mmbbl for the years ended December 31, 2018, 2017 and 2016, respectively. Natural gas production in the Loma La Lata field was 109, 127 and 132 bcf for the years ended December 31, 2018, 2017 and 2016, respectively.
- (2) Crude oil production for the years ended in December 31, 2018, 2017 and 2016 includes an estimated 12, 12 and 13 mmbbl, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax. Equity-accounted entities production of crude oil in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax is not material.
- (3) NGL production for the years ended in December 31, 2018, 2017 and 2016 includes an estimated 2, 2 and 2 mmbbl, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax. Equity-accounted entities production of NGL in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax is not material.
- (4) Natural gas production for the years December 31, 2018, 2017 and 2016 includes an estimated 61, 64 and 60 bcf, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax. Equity-accounted entities production of natural gas in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax is not material.
- (5) Does not include volumes consumed or flared in operations (whereas sale volumes shown in the reserves table included in Supplemental Information on Oil and Gas Exploration and Production Activities Oil and Gas Reserves include volumes consumed in operations).
- (6) Volumes of natural gas have been converted to barrels of oil equivalent at 5,615 cubic feet per barrel.

The composition of the crude oil produced by us in Argentina varies by geographic area. Almost all crude oil produced by us in Argentina has very low or no sulfur content. We sell substantially all the crude oil we produce in Argentina to our Refining and Marketing business segment. Most of the natural gas produced by us is of pipeline quality. All of our gas fields produce commercial quantities of condensate, and substantially all of our oil fields produce associated gas.



**Table of Contents**

The following table sets forth the average production costs and average sales price by geographic area for 2018, 2017 and 2016:

<i>Production costs and sales price</i>	<i>Total</i>	<i>Argentina</i>	<i>United States</i>
		<i>(Ps/boe)</i>	
<b>Year ended December 31, 2018</b>			
Lifting costs	348.68	348.68	
Local taxes and similar payments <sup>(1)</sup>	22.92	22.92	
Transportation and other costs	97.77	97.77	
<b>Average production costs</b>	<b>469.37</b>	<b>469.37</b>	
Average oil sales price	1,774.87	1,774.87	
Average NGL sales price	1,052.96	1,052.96	
Average natural gas sales price <sup>(2)</sup>	739.49	739.49	
<b>Year ended December 31, 2017</b>			
Lifting costs	228.68	228.68	
Local taxes and similar payments <sup>(1)</sup>	7.49	7.49	
Transportation and other costs	48.19	48.19	
<b>Average production costs</b>	<b>284.36</b>	<b>284.36</b>	
Average oil sales price	888.48	888.48	
Average NGL sales price	368.07	368.07	
Average natural gas sales price <sup>(2)</sup>	477.00	477.00	
<b>Year ended December 31, 2016</b>			
Lifting costs	195.80	196.30	121.66
Local taxes and similar payments <sup>(1)</sup>	8.35	8.37	
Transportation and other costs	38.93	39.02	32.81
<b>Average production costs</b>	<b>243.08</b>	<b>243.70</b>	<b>154.47</b>
Average oil sales price	861.74	863.25	510.01
Average NGL sales price	222.71	223.35	50.35
Average natural gas sales price <sup>(2)</sup>	417.95	418.00	193.08

(1) Does not include *ad valorem* and severance taxes, including the effect of royalty payments which are a financial obligation or are substantially equivalent to such taxes, in an amount of approximately Ps. 162.08 per boe, Ps. 89.67 per boe and Ps. 86.82 per boe for the years ended December 31, 2018, 2017 and 2016, respectively.

(2) Includes revenues from the Gas Plan.

**Drilling activity in Argentina**

The following table shows the number of wells drilled by us or consortiums in which we had a working interest in Argentina during the periods indicated.



**Table of Contents**

<i>Wells Drilled in Argentina</i>	<i>For the Year Ended December 31,</i>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b><u>Gross wells drilled</u> <sup>(1)</sup></b>			
Exploratory productive	15	17	19
Oil	10	10	14
Gas	5	7	5
Dry	6	2	12
Total	21	19	31
Development productive	444	483	697
Oil	313	325	504
Gas	131	158	193
Dry	1	4	2
Total	445	487	699
<b><u>Net wells drilled</u> <sup>(2)</sup></b>			
Exploratory productive	11	14	14
Oil	7	7	11
Gas	4	6	3
Dry	5	1	9
Total	16	15	23
Development productive	321	363	548
Oil	237	247	409
Gas	84	116	139
Dry	1	4	2
Total	322	367	550

(1) Gross wells include all wells in which we have an interest.

(2) Net wells equal gross wells after deducting third-party interests.

**Exploration & Production Activity in Argentina**

During 2018, our main exploratory and development activities in Argentina have had the following principal focus:

**1. Operated Areas Exploratory Activities**

During 2018, our exploratory activities in Argentina were mainly focused on:

**1.1 Onshore**Unconventional activities

We continued the regional exploration of shale oil and gas to determine its productivity in different areas of the Neuquina Basin. During 2018, five wells targeting Vaca Muerta Formation (Fm), one well to Agrio Fm and one workover to Los Molles Fm. have been drilled. The workover was positive and as of the date of the annual report, three Vaca Muerta wells and one Agrio well are pending completion and the other two wells are currently being drilled.

## Table of Contents

Continuing the exploration of different source rocks, two workovers were done to evaluate the potential of the shale oil and gas in Tierra del Fuego Province. The result of the first one was below expectation and the second workover is still ongoing.

*Tight gas:* Exploration of tight gas continued during 2018 in Estación Fernández Oro, Loma La Lata-Sierra Barrosa and Los Caldenes Blocks. Positive results were obtained in three wells and the other two are pending completion.

## Conventional activities

### Neuquina Basin:

A total of seven wells targeting conventional oil and gas reservoirs were drilled in the basin, obtaining two positive results in Chachahuén Block and one in Valle del Río Grande (all of them oil wells).

Results in two other wells were below expectations (Los Caldenes Block and Malargüe). As of the date of this annual report, two others are pending completion.

From the results obtained in Chachahuén, we have notified the Mendoza Province of our decision to convert the Chachahuén Exploration Permit into an Evaluation Area and to extend the permit until February 2020. We are still waiting for the final approval from the province.

Having fulfilled all commitments in Payún Oeste Block, in 2017 we requested that the Mendoza province allow commercial exploitation of the area. However, in 2018, considering all results obtained, we decided not to continue with the exploratory periods. Consequently, we sent a new note to the Mendoza Province informing of our decision to relinquish the block.

During 2018, five new exploration blocks have been awarded in this basin:

Mendoza Province: Puesto Pozo Cercado Occidental, CN III Norte, CN VII/A and Los Parlamentos.

Río Negro Province: Cerro Manrique

### Golfo San Jorge basin

During 2018, eight exploration wells were drilled in the Golfo San Jorge basin. The exploration activity targeted conventional oil and gas and tight gas reservoirs with negative results in two tight gas



wells in Los Perales Block (gas) and positive results in one conventional well in El Trébol-Escalante Block. There are five wells pending completion.

#### Cuyana basin

3 wells targeting conventional oil were drilled in Mesa Verde Block, two showing positive results and one below expectation.

Having fulfilled all commitments in CCyB 17/B and considering the obtained results, we decided not to continue with the exploratory periods and, as a result, the block was relinquished to the Mendoza Province. As of the date of this annual report, we are still awaiting response from the province.

#### Austral basin

Drilling activities took place in Tierra del Fuego Province:

Positive results were obtained in one oil well drilled in Tierra del Fuego Fracción E Block.

Negative results came from one well drilled in Los Chorrillos Block (conventional oil).

Two oils and one gas wells are pending completion as of the date of this annual report.

## **Table of Contents**

During 2018, one new exploration block has been awarded in Tierra del Fuego: CA-12 Bloque I.

### **Seismic**

During 2018, seismic 3D data covering 450 km<sup>2</sup> was recorded in Cerro Manrique Block and 580 km of 2D seismic was registered in Chelforó (both in Río Negro Province, Neuquina basin).

After performing the survey, seismic data processing will be carried out for subsequent interpretation. The purpose of recording and processing the seismic data is to fulfil commitments and to identify new exploration opportunities.

### **1.2 Offshore:**

According to the amendments to the Hydrocarbons Law adopted by Law No. 27,007, all exploration permits owned by ENARSA will be transferred to the Secretariat of Energy. YPF currently participates in three offshore blocks in association with ENARSA (E1 block: YPF 35%, E2 block: YPF 33% and E3 block: YPF 30%) with total acreage of 23,700 km<sup>2</sup>. In September 2015, the National Executive Office and YPF began negotiating the conversion of association agreements signed with ENARSA. On December 29, 2017 YPF filed a note before the Ministry of Energy confirming its willingness to negotiate the conversion of association agreement related to the Area identified as ENARSA 1 . In the same note, YPF informed that it communicated its decision not to convert the association agreements related such Areas to the Operators of Areas ENARSA 2 and ENARSA 3 . On October 19, 2018 YPF officially filed another note to the SGE to negotiate the conversion of the association agreement related to the area identified as ENARSA 1 ; as of the date of this annual report, negotiations related to this note are ongoing. As of December 31, 2018, we do not have registered assets in these blocks. See Legal and Regulatory Framework and Relationship with the Argentine Government Law No. 27,007 (amendment of the Hydrocarbons Law) for a description of new terms which apply to new production concessions or exploitation permits.

### **Non-Operated Areas Exploratory Activities**

During 2018, one workover and nine exploration wells have been drilled in non-operated blocks:

CNQ-7 and CNQ-7A: a total of six conventional oil wells were drilled by Pluspetrol: three with positive results, two below expectations and one is still pending completion.

Agua Salada: two wells were drilled by Tecpetrol with positive results.

Aguaragüe: one gas well targeting the Noa Paleozoica Formation was drilled by Tecpetrol with negative results.

Aguada Pichana Este: one exploratory workover was done by Total showing negative results.

### **Development Activities**

During 2018, our development activities in Argentina were mainly focused, according to the organizational structure in force in 2018, on the following regions and blocks:

#### **Unconventional Region**

During 2018, Unconventional Regional production was 98.6 mboe/d, representing 18.6% of YPF's total production.



**Table of Contents**

*Unconventional Region and Vaca Muerta Formation*

1 Aguada de Castro; 2 Aguada Pichana Occidental; 3 Aguada Pichana Oriental; 4 Bajada de Añelo; 5 La Calera; 6 Lindero Atravesado; 7 Loma del Molle; 8 Pampa Las Yeguas I; 9 Pampa de las Yeguas II Norte; 10 Pampas de las Yeguas II Sur

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**Table of Contents**

**Loma Campana Area:**

On July 16, 2013, YPF and Chevron signed an investment project agreement for the joint exploitation of unconventional hydrocarbons in Neuquén Province.

During 2018, 37 horizontal wells were put into production, achieving a performance that, on average, met the expectations set by the Type Well for the Organico target and above expectations for the Cocina target (the deeper productive interval within Vaca Muerta formation). The well design ranges, from 1,500 m of lateral length and 18 frac stages to 3,200 m of lateral length and 40 frac stages (while the space between frac stages was maintained at 80 m).

The current development strategy consists of drilling Cocina and Organico targets in order to maximize drainage area (Cocina target had been set aside until 2017). Also, the first infill well to the Cocina was put on production with promising early performance, opening an opportunity to develop this target in areas where only wells to the Organico (productive interval within Vaca Muerta formation) were drilled. A longer lateral well of 3,200 m of lateral length was successfully completed (40 stages) and put into production in August 2018.

Geosteering has been included as a standard in order to determine the incremental productivity gain from navigating within a desired target zone.

Due to continued improvements in our drilling performance, drilling time was reduced by 26% between 2015 and 2018. An average drilling time of 35 days to drill a 4,700 m measured depth ( MD ) well was achieved during 2015, with an improvement to 29 days for a 4,800 m MD in 2016 and an improvement to 22 days for a 5,000 m MD in 2017 and further improvement to 26 days for a 5,500 m MD in 2018. This reduction in drilling time is also reflected in drilling costs of an average well cost reduction of 2% between 2017 and 2018 for horizontal wells and a reduction in development cost of 15% during the same period.

In 2018 various pilots were executed in an effort to reduce our development cost through economically improving EUR (Estimated Ultimate Recovery) or reducing well cost with a minimal or negligible impact to well EUR. The executed key pilots to achieve this objective were:

**High Density Completion:** a two well pilot was executed on a single location to understand the impact on well productivity and well cost of reducing distance between frac stages to 60m (increasing number of stages per well), reaching 10 clusters per stage and the injection of 100% of Slick Water (SW).

**Well Spacing:** A three well pilot was executed to understand the impact on well productivity and interference by increasing well spacing from 300m to 400m within the same target and 200m between different targets.

**Cocina Infill:** As mentioned above, a Cocina well between depleted Organico wells was completed and put into production with results according to the expected curve of the well type. The success of this type of strategy could lead to an increase in drilling and completion activity of more than 50 wells in the field.

Activity in this area in 2018 involved a gross investment of U.S.\$ 376 million in drilling and completion (D&C) and U.S.\$ 39 million in production facilities.

**La Amarga Chica Area:**

On December 10, 2014, YPF and PETRONAS E&P ARGENTINA S.A., an affiliate of PETRONAS E&P Overseas Ventures Sdn. Bhd ( PEPOV ) of Malaysia, executed a Project Investment Agreement (the Investment Agreement )

aiming to perform joint exploitation of unconventional hydrocarbons in the La Amarga Chica area in the Neuquén province. YPF will be the operator of the area.

The Pilot Plan, comprising 30 wells in three years, started in May 2015. At the end of the first phase, a total of six horizontal and three vertical wells were drilled, with results over performing previous expectations. Based on those positive results, PETRONAS E&P ARGENTINA S.A. agreed to continue co-investing in a second phase of the pilot project. By the end of 2016, four additional horizontal wells from this phase were drilled, reaching a total of nine drilled wells during 2016, with a drilling rig fully dedicated to the project. During 2017, 12 horizontal wells were drilled, completing phase 2 of the project and paving the way for the final phase of the project. Six of those wells were put into production with the expected performance. All of the drilled horizontal drains were standardized at 1,500m long except for two wells that reached 2,000m. An improvement in performance of drilling (time and cost) is still observed, with drilling time and well cost being reduced by 22% and 11%, respectively, between 2017 and 2018. This drilling and completion activity developed during 2018 comprised a total gross investment of U.S.\$ 138 million, with an additional U.S.\$ 38 million expended on production facilities.

## **Table of Contents**

During the pilot phase, the lateral length of the wells was increased to 2,500m in PAD33 and a new landing zone was drilled (LZ 2.5). A pilot of High Density Completion was executed in PAD30, increasing the number of fracture stages in two wells (spacing between stages was reduce to 60m), and larger fluid volumes (2,000cm per stage). The LACH-49 well drilled in a zone considered as low maturity, performed above expectations, opening new drilling prospects in this sector of the field. An intensive data acquisition plan that considers Pressure, Volume, Temperature ( PVT ), Diagnostic Fracture Injection Testing ( DFITs ), static gradients and fluid samples for geochemistry studies is ongoing. The first water disposal well was put into operation as part of the water management plan for the field.

At the beginning of 2018, YPF and PETRONAS E&P ARGENTINA S.A., an affiliate of PETRONAS E&P Overseas Ventures Sdn. Bhd ( PEPOV ) of Malaysia, ratified their intention to continue with the pilot in the area. During 2018, the pilot phase of the LACH project was completed (7 wells were drilled, initial results behave according to expectations) and the third phase was initiated, where both companies considered the drilling of 10 horizontal wells and the construction of new facilities and installations in order to transport the shale oil production derived from the area.

By December 2018, the development phase of the Shale Oil Field started, reaching a production curve higher than expected.

By the end of 2018, the total oil production increased to 1,599 cm/d (135% higher than December 2017) with a total of 35 wells in production.

In 2019, a pilot test of five wells will evaluate five different landing zones and well spacing and stimulation design.

### **Bandurria Sur Area:**

On July 5, 2017, YPF and SPM Argentina S.A. executed an agreement defining the main terms and conditions for the joint development of a shale oil pilot in two phases. YPF will be the operator of the area.

Prior to the agreement, between 2012 and early 2016, YPF drilled and completed three vertical and two horizontal wells.

Three additional horizontal wells were drilled during 2017 in the South East ( SE ) area of the block. The objective of these wells was to test productivity in different landing zones within the Vaca Muerta organic-rich section. Two of the wells were completed with performance exceeding expectations.

During 2018, YPF and SPM drilled one vertical well, one vertical plus side track, and six horizontal wells distributed in three pads located in the northwest, center and southeast of the block. The objective of the vertical well/section was data acquisition (core and full suite of logs) for reservoir characterization. The objective of the horizontal wells was to test Vaca Muerta productivity across different fluid windows in different landing zones. The horizontal wells have between 1,500m and 2,000m of lateral length and between 20 and 38 frac stages.

On July 18, 2018, by means of Decree No. 1,020/18, the National Executive Office of the Province of Neuquén, authorized the assignment of participation foreseen in the definitive agreements.

All horizontal wells were recently connected for production. Initial results are in line with the estimated type curve.

On October 10, 2018, we had a major spill in the area of Bandurria Sur caused by a blowout (decontrol of well). For this reason, the provincial government decided to revoke the environmental licences for the pad 8 and 9 (this last one

containing the uncontrolled well). As of the date of this annual report the pad 8 has already normalized and continues the scheduled perforation activities and with respect to the pad 9 we continue the remediations activities.

The plan for 2019 is to start factory mode development in the southeast corner of the block while derisking of the center and western areas continues.



## **Table of Contents**

### **Bajo del Toro Area:**

Between 2012 and 2015, YPF and its partners (EOG Resources Inc, successor to Enron Oil & Gas Company, and Gas y Petróleo de Neuquén) drilled one slanted and two vertical exploratory wells. One of the vertical wells and the slanted well were completed (with 6 and 8 frac stages respectively) and proved oil production from the whole organic-rich section of the Vaca Muerta Formation. The other vertical well was used for reservoir characterization and for microseismic monitoring of the slanted well. Between 2016 and 2017 the joint venture was dissolved, and part of the block reverted to the province.

On January 17, 2018, YPF, Bajo del Toro I S.R.L. and Statoil Argentina B.V- Sucursal Argentina entered into an agreement defining the main terms and conditions for the joint development of a shale oil pilot in Bajo del Toro block, being YPF as the operator of the area.

During 2018, the joint venture continued with the characterization and evaluation of Vaca Muerta initiated in 2012, placing a pad in the southwestern area of the block. The pad included one vertical pilot section plus a side-track horizontal drain and one horizontal well. The objective of the horizontal drain/well was to test productivity in different landing zones. The objective of the vertical pilot section was data acquisition (core and full suite of logs) for reservoir characterization.

The horizontal drains/wells have 2,000 m of lateral length and are currently being completed. The plan includes 33 frac stages in each of the laterals.

Additionally, on October 12, 2018, by Decree No. 1,755/18, the province of Neuquén approved the assignment of a portion of the concession in favor of Statoil, thereby satisfying the conditions precedent set forth in the agreement.

The plan for 2019 is to evaluate all potential landing zones in the central area of the block. The vertical wells drilled during the initial exploratory phase were used for landing zone selection. The wells will have 2,500 m of lateral drain. Microseismic monitoring is planned for all the wells.

### **El Orejano Area:**

On September 23, 2013, YPF and Dow Europe Holding B.V. and PBB Polisur S.A. (our current 50% partner in the area) signed an agreement relating to the joint development of an unconventional gas pilot project in the Neuquén Province.

The Project has been in the development phase since July 2016, and three targets are being drilled and produced. Through December 2018, 96 wells have been drilled and 81 wells have been put on line. During 2018, 10 horizontal wells were drilled, and 15 wells were put into production with a gross investment of U.S.\$ 122 million in D&C and U.S.\$ 6 million in production facilities

Drilling time and well cost were reduced by 10% and 11%, respectively, between 2017 and 2018, with a reduction in development cost of 16% in the same period.

February 2017 marked the startup of the UPS2 (Unidad de Separación Primaria 2), with the treatment and the separation capacity being upgraded to 4 mmcm/d. A 16-inch Loop was built in the gas sale pipeline to Gas Pacífico Sale Point to increase gas transport capacity. A wellhead compression pilot began by the end of 2016 (2,900 HP installed) and the central compression is planned for 2019.

Currently, a distance of less than 300m for wells at the same level (Cocina) is under evaluation due to the evidence of lower growth of the fracture wing, according to microseismic monitoring observations.

Due to restrictions in gas treatment and evacuation capacity, in 2018 the production had a cap of 5.2 mmcm/d. The facilities to increase the treatment and evacuation capacity is expected to be available during 2019.

By the end of 2018, the total field gas production was 4.3 mmcm/d (12% higher than December 2017).

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**Table of Contents****Rincón del Mangrullo Area:**

In the Mulichinco formation at the Rincón del Mangrullo concession, Pampa Energía S.A. ( Pampa Energía ) acquired 50% of the working interest during 2015. By the end of 2018, 124 wells (109 directed wells and 15 horizontal wells) were drilled in these marine tight sands, achieving an average gas production of 3.5 mmcm/d through a pipeline that connects to the Loma La Lata facilities.

During 2018, five horizontal wells were drilled in a very tight zone and one vertical well in a tight zone was drilled with a standard design of 1,000 m lateral length and 7 frac stages for the first one. Drilling time and well cost were reduced by 10% and 6%, respectively, between 2017 and 2018, with a total investment of U.S.\$ 47 million in D&C, and an additional U.S.\$ 10 million expended on production facilities.

On the other hand, the Vaca Muerta Formation in this block is 100% owned by YPF. During 2017, one vertical pilot well and three horizontal wells were drilled targeting the Vaca Muerta formation. The objective of the vertical well was data acquisition and landing zone definition. The objective of the horizontal wells was to test productivity in three different landing zones across the Vaca Muerta organic rich section. The three horizontal wells were put into production by the end of September 2017. Two of the wells production levels have exceeded expectations and the other one, below expectations while the third has fallen short of meeting expectations.

During 2018, one vertical well was drilled and five more horizontal wells were drilled and stimulated in the block targeting the organic-rich section of Vaca Muerta. All the wells are pending completion, that is expected in 2019. In addition, a four-well PAD began to be drilled in 2018, which we expect to be completed and put into production in 2019.

**Aguada de la Arena Area:**

On May 13, 2016, YPF and Pampa Energía executed an agreement that subjects them to certain conditions precedent under which, upon closing of the acquisition by Pampa Energía of a controlling stake in Petrobras Argentina S.A ( PESA ). PESA will assign to YPF certain participating interests in two exploitation concessions in areas with gas production and significant gas development potential (tight and shale) located in the Neuquina basin, which shall be operated by YPF. The conditions previously mentioned, and the assignment to YPF of the participating interest were concluded during 2016. As a result, the participating interests acquired were: (i) a 33.33% participating interest in the Río Neuquén block located in the province of Neuquén and the province of Río Negro and (ii) an 80% participating interest in the Aguada de la Arena block located in the province of Neuquén. In addition, on February 23, 2017, YPF and PetroUruguay S.A. signed a definitive agreement for the transfer of a 20% participating interest in the Aguada de la Arena area. As a result, YPF has increased its participating interest in the Aguada de la Arena area to 100%.

By the end of 2016, 14 wells were operating in the Mulichinco formation. During 2017 and 2018 there was no activity in this formation.

During 2018, six horizontal wells were drilled, out of which three were completed with performance exceeding expectations (and the other three are expected to be completed during 2019).

Activity in this area in 2018 involved a gross investment of U.S.\$ 51.6 million in drilling and completion (D&C) and U.S.\$ 16 million in production facilities.

In 2019, a PAD of one vertical well and three horizontal wells from the pilot phase will be drilled, and nine horizontal wells will be put into production. An extended test is planned in the northeast area in order to evaluate the initial

productivity, determine the gas oil ratio (GOR) and to take a PVT sample to characterize the reservoir fluid (Dewpoint and Liquid Drop Out).

The field has restrictions on gas treatment and evacuation capacity. It is expected that the necessary facilities will be built during 2019. The accelerated development of the field was postponed to 2020 due to macroeconomic conditions related to the price of gas.

**La Ribera Area:**

This block, located in the center on the Neuquina basin, is 100% owned by YPF. The concession area comprises two separated regions: La Ribera I, covering 21.88 km<sup>2</sup>, and La Ribera II, covering 61.1 km<sup>2</sup>. Two vertical exploratory wells (one in each region) targeting the Vaca Muerta formation were drilled and completed in 2014. Both wells tested gas and condensate. During 2017, two horizontal wells targeting two landing zones in the Vaca Muerta organic-rich section were drilled and completed. These wells were connected in October 2017 and one of them has obtained results in accordance with expectations.

**Table of Contents**

During 2018, two horizontal wells were put in production showing a better performance than expected. Additionally, one vertical (with a horizontal sidetrack) and one horizontal wells were drilled. The objective of the vertical well was to identify the number of landing zones at the extreme east of the block and the objective of the two horizontal wells was to confirm productivity and test drilling capability for the longest Lateral Length achievable in the block (2,350m). The horizontal wells will be put in production during 2019.

**Chihuido de la Sierra Negra Sudeste Narambuena Area:**

During April 2014, YPF and subsidiaries of Chevron Corporation executed a new agreement with the objective of the joint exploration of unconventional hydrocarbons in Neuquén, within the area Chihuido de la Sierra Negra Sudeste Narambuena. During 2015, this activity began with the drilling and completion of two vertical wells that allowed for the defining of the location and landing zone for the horizontal well. This well was drilled at the end of 2015 and the beginning of 2016, covering 1,200m of lateral length at 2,400m of vertical depth, within the younger internal sequence of Vaca Muerta and becoming the first well in the basin with this objective. Subsequently, a third vertical well was drilled to delineate the extension of the area to the eastern sector of the block. By the drilling, completion and testing of these wells, the commitment for the initial phase of the project signed in April 2014 was fulfilled. During the second half of 2016, the joint venture between YPF and subsidiaries of Chevron Corporation continued the exploratory stage by evaluating the long-term tests of the horizontal well and third vertical well in this area located in the black oil window of the area. During 2018, there was no activity in the area.

**Non-Operated Areas Development Activities:****Aguada Pichana Este:**

This block is operated by Total S.A. YPF holds in this block a 27.2% working interest in the Mulichinco Formation, and a 22.50% working interest in the Vaca Muerta Formation.

Tight gas projects: during 2018, we continued with the tight gas development in Aguada Pichana Norte ( APN ) in the North of the block and three wells were drilled. Two of those wells were put into production in 2018 and produce as expected. The third one is still producing with high water cut and for an artificial lift system.

Shale projects: 19 shale gas wells were drilled in 2018. These wells are part of a pre-development and development project that includes around 60 wells that is expected to continue in the following years. All wells were connected in 2018 and obtained results in accordance with expectations. The drilling development project is planned to continue in 2019.

**Aguada San Roque block**

This block is operated by Total S.A., and YPF holds a 34.11% working interest.

Shale oil pilot project: two wells were completed and connected during first quarter of 2018 and obtained results in accordance with expectations. Furthermore, two additional shale oil wells were drilled in 2018 and will be connected in 2019.

**Aguada Pichana Oeste**

This block is operated by PAE, and YPF holds a 30% working interest in this block. One well began drilling operations during November 2017 and was put into production in 2018. Additionally, during 2018, six shale gas wells

were drilled, four of them were connected and the other two are planned for 2019. All the wells are producing better than expected. Drilling pilots are planned to continue in 2019.

**Pampa de las Yeguas**

This block is operated by EXXON, and YPF holds a 50% working interest in this block. One well has been drilled in 2017 and two more wells were drilled in 2018 as part of a pilot project. These three wells are expected to be connected during the first months of 2019.

**Table of Contents**

**La Calera**

This block is operated by Pluspetrol, and YPF holds a 50% working interest. One exploration well was connected during the first quarter of 2018 and produced better than expected. During the fourth quarter, the pilot project started. It includes the drilling of nine wells, three of them were drilled in 2018, which are not connected yet, and the rest are planned for 2019. On November 2, 2018, the province of Neuquén, by Decree No. 1,834/18, granted a non-conventional hydrocarbons exploitation concession to both companies. Drilling activities during 2019 will also include several predevelopment wells.

**Bajada de Añelo Area:**

This block is operated by O&G Developments Ltd. S.A., and YPF holds a 50% working interest in this block. On February 23, 2017, YPF and O&G Developments Ltd. S.A. (hereinafter O&G), an affiliate of Shell Compañía Argentina de Petróleo S.A., executed an agreement, through which YPF and O&G agreed on the main terms and conditions for the joint development of a shale oil and shale gas pilot in two phases.

Drilling activity in 2017 started in the southeast corner of the block with the first PAD of four wells. Three of the wells drilled in 2017 were abandoned because of operational issues. One of these wells has been connected and is producing better than expected. Eight wells were drilled in 2018 in two different PADs and will be connected in 2019. Drilling pilots are planned to continue in 2019. Their main objective is to study productivity and fluid windows.

**Table of Contents**

**Centro Region**

During 2018, Centro Region production was 161.3 mboe/d, representing 30.4% of YPF's total production.

***Centro Region***

1 Agua Salada ;2 Aguada Villanueva; 3 Al Norte de la Dorsal; 4 Al Sur de la Dorsal I; 5 Al Sur de la Dorsal II; 6 Al Sur de la Dorsal III; 7 Al Sur de la Dorsal IV; 8 Al Sur de la Dorsal V; 9 Al Sur de la Dorsal VI; 10 Al Sur de la Dorsal VII; 11 Anticlinal Campamento; 12 Dadin - Lote I; 13 Dadin - Lote II; 14 Dadin - Lote III; 15 Dos Hermanas; 16 Estacion Fernandez Oro; 17 La Yesera; 18 Lindero Atravesado; 19 Loma Campana ;20 Loma La Lata - SB; 21 Loma Negra; 22 Los Caldenes; 23 Meseta Buena Esperanza; 24 Octogono; 25 Ojo de Agua; 26 Rio Neuquén - NQN; 27 Rio Neuquén - RN.



**Table of Contents**

Octógono Block:

Continuing with the activity of 2017, during 2018 five wells were drilled in the northern area of the field targeting gas-bearing intervals in Lajas formation. Three had positive results and the other two are being studied for optimization.

In May 2018 we started the waterflooding in Campamento Dos field. We are injecting in two pilots in Challacó formation.

During 2019, we are planning three workovers in Basamento formation.

Al Norte de la Dorsal Block:

Guanaco field: During 2018, two wells were carried out (1 drilled in 2017 and completed in 2018 and one drilled and completed in 2018). One with positive result and the other is under study due to low productivity. No activity is planned for 2019.

Cerro Bandera Block:

On November 22, 2017, YPF entered into an assignment agreement with Oilstone Energia S.A., in respect of 100% of the exploitation concession in the Cerro Bandera area. YPF holds La Via field and the exploration concession in Vaca Muerta and Los Molles formations.

No rig activity was performed in 2018.

Anticlinal Campamento Block

During 2018, the gas well drilled in 2017 in Chachil formation, was completed with negative results. No drilling activity is expected during 2019.

Loma La Lata Sierra Barrosa Block:

Loma La Lata field: During 2018 we drilled 10 gas wells in Sierras Blancas formation (six vertical and four horizontal wells), of which six wells were completed, and four of which are already in production, with an achieved production rate according to expectations. The other four remaining completions are planned to be finished in the first quarter of 2019.

During 2019, we are planning to drill 17 wells targeting gas-bearing intervals in Sierras Blancas.

The goal of this project is to design a field development plan for Vaca Muerta formation in the western area of Loma La Lata Sierra Barrosa block. It was divided into stages. The first stage includes the drilling of six wells aiming to investigate a) the number of productive layers and their productivity, b) the type of fluid (oil or gas) and c) to get data to reduce uncertainty for future development. During 2018, the first two wells were drilled, and their completion is scheduled for the first quarter of 2019.

Aguada Toledo Sierra Barrosa field: Tight gas segment 5 (Lajas formation)

During 2018, seven wells were drilled in Lajas formation (1 was horizontal). One of the wells is in study phases and therefore not producing, while the rest are already in production.

Additionally, one well was drilled in Pre-Cuyano and Lajas formations. It produces from Pre-Cuyano and results were below than expectations.

No drilling activity is expected during 2019.

**Table of Contents**

Barrosa Norte tight gas field (Lajas formation)

One vertical gas well was drilled with positive results. This well is in production and its productivity is above the type well. No activity is planned for 2019.

Los Caldenes Block:

Manzano Grande field, oil target: In order to continue with the activity in the oil block, in 2018 we drilled two wells in the Manzano Grande block. They are currently in production.

Los Caldenes field, gas target: two developing wells were drilled during 2017. One completion was achieved during the first quarter of 2018.

Due to the lack of gas demand, the facilities to extract the gas (consisting of a connection with Pta. Entre Lomas) which were scheduled for 2019, were postponed to 2020.

Estación Fernández Oro ( EFO )

During 2018, several projects were completed that allowed an increase in production, treatment and compression capacities. With respect to drilling activity, we completed 28 gas wells targeting the Lajas formation, in general with positive results for the development wells.

The main objective of the activities conducted during 2018 was the expansion of the gas treatment capacities, the compression and transport plants. The most relevant projects were the following:

Construction and assembly of an LTS (Low Temperature Separator) EFO plant

Construction of a new gas pipeline for the sale of EFO plant to NEUBA I trunk gas pipeline

Expansion of the low and ultra-low pressure compression plant

Separator Revamp in Battery 2 ultra-low pressure Compressor Entry Scrubber and Expansion of the Gathering Network

The development of the gas field will continue during 2019, focusing on drilling activity, where 21 new wells are scheduled to be completed.

Rio Neuquén block:

During 2017, the four wells drilled in 2016 were completed, all of them above the average estimated production. An Integral Field Development Plan (FDP) was defined, considering appraisal, infill and development sub-projects. The goal of these projects is to define the optimum production rate. In any case, from the proposed plan investments will be made in facilities to increase the production capacity from 3.5 up to 5.5 million cubic meters per day. As a result of the FDP six wells were drilled during 2017 (2 of them were already completed, one of them with initial production

rate above the expected average and the other was an appraisal with results under expectations).

Following a proposed Integral FDP, during 2018, four wells were drilled and completed in 2017 (one well was for delimitation and the other three for development, all with positive results). During 2018 a total of 12 wells were drilled: (four of which were drilled in 2017 and completed in 2018, and the remaining eight were drilled and completed in 2018). Of those wells, there were three delineation wells, with satisfactory results and nine development wells, three with results according to the type well, three with few data production up to date, one currently in process of completion and two of them were finished in 2019 with positive results.

Works were carried out in the area that allowed to increase the compression capacity. The LP (low pressure) gathering network was built partially, following the development and location of new wells. The Gathering Ultra Low-Pressure Network will continue in 2019.

**Non-Operated Areas - Development Activities:**

Lindero Atravesado block:

This block is operated by Pan American Energy LLC. YPF holds a 37.5% working interest in this block.

**Table of Contents**

During 2018, one well with the Vaca Muerta formation objective, and three wells, in the Lajas Formation target, were connected and produced in accordance with expectations. In addition, two more wells were drilled in Quintuco Formation, where one of the wells is producing better than expected and the other is producing below expectations.

Loma Negra block:

This block is operated by CAPEX S.A. YPF holds a 35% working interest in this block.

During 2018, three wells were drilled and completed in the Loma de Maria Gas formation. These wells have been tested with gas production results over expectation, but none of them have been connected as of the date of this annual report. An additional well was drilled in the same area, but it is still pending completion.

In 2019, two wells are planned for El Latigo Field Oil Block as part of a Secondary Recovery Pilot Project. Finally, another well is planned to be drilled in the Loma de Maria Gas Block.

La Yesera block

This block is operated by CAPEX. YPF holds a 35% working interest in this block. During 2018 no drilling activity was performed. In 2019, one Side Track well is planned in Precuyo formation.

Agua Salada block

This block is operated by Tecpetrol. YPF holds a 30% working interest in this block.

During 2018 two wells were drilled in Cuyo Inferior, Punta Rosada and Loma Montosa formations: LA.a-6 and JdMo.a-2. The first one is producing better than expected while the second one is performing below expectations.

In 2019, two more appraisal wells will be drilled. One in Loma Azul block based on LA.a-6's positive results, and the other one in Loma Cortada block due to the positive results obtained from LCa.x-1 exploratory well.

**Table of Contents**

**Norte Region**

During 2018, Norte Region production was 136.6 mboe/d, representing 25.8% of YPF's total production.

***Norte Region***

1 Altiplanicie del Payún; 2 Barrancas; 3 Cajón de los Caballos - Sector Oriental; 4 Cañadón Amarillo; 5 Ceferino; 6 Cerro Fortunoso; 7 Cerro Hamaca; 8 Cerro Morado Este; 9 Chachahuén Sur; 10 Chihuido de la Salina; 11 Chihuido de la Salina Sur; 12 Chihuido de la Sierra Negra; 13 Confluencia Sur; 14 Don Ruiz; 15 El Manzano; 16 El Manzano Oeste (resto); 17 El Portón; 18 Filo Morado; 19 Gobernador Ayala; 20 Jagüel Casa de Piedra; 21 Jagüel Casa de Piedra; 22 Jagüel de Bara; 23 Jagüel de los Milicos; 24 La Ventana; 25 Las Manadas; 26 Llancanelo; 27 Llancanelo R; 28 Loma Amarilla; 29 Loma de la Mina; 30 Mesa Verde; 31 Paso de las Bardas Norte; 32 Puesto Hernández; 33 Puesto Molina Norte; 34 Puesto Pinto; 35 Puntilla del Huincan; 36 Rio Tunuyán; 37 Señal Cerro Bayo; 38 Señal Picada - Punta Barda; 39 Valle del Rio Grande; 40 Vizcacheras; 41 Volcán Auca Mahuida; 42 Zampal (zampal oeste);

## Table of Contents

### Operated Areas

#### *Barrancas block:*

The drilling activity during the last years focused in the following fields:

**Barrancas:** During 2018, the development of the northwest zone continued in order to expand the area discovered in 2014. The objective is the Barrancas formation. Three wells were drilled, but the results were below expectations. Given these results, this development project has been temporarily suspended to re-evaluate the opportunities of the field. In turn, the activity for the optimization of secondary recovery continued through three conversions to water injector and the re-intubation of a one injector well.

**Ugarteche:** The area restarted its activity in 2015 after 10 years without drilling. Until 2017, the project included four wells drilled in the Ugarteche Occidental area. During 2018, ten wells targeting oil were drilled and three workovers were made. The results were better than expected. The total remaining project activity is expected to be executed between 2019 and 2021.

**Estructura Cruz de Piedra:** During 2018, two oil wells were drilled, with results below expectations. Likewise, we continued the execution of the project of secondary recovery expansion towards the southwest of the field by repairing two producing wells and one water injector conversion. As results had been below expectations, the project has been temporarily suspended, while a re-evaluation is carried out.

#### *Mesa Verde block:*

In 2014, exploration well MV.x-1 revealed the Río Blanco formation to be a productive horizon. The exploitation concession of this block was obtained during the second half of 2016. This allowed us to drill an appraisal well, which confirmed the expansion of the field.

In 2017, the delineation and development continued with the drilling of nine wells (between advanced and development wells) with results according to expectations.

During 2018 the development of Zone 1 (Middle Zone) was completed through the drilling of seven wells and two workovers, with results as expected.

The mineralized area is not yet fully delineated. The project includes the study, delineation and development of Zone 2 (Eastern area of the block) and includes the future drilling of oil wells.

#### *La Ventana block:*

Between 2015 and 2017, a new integrated static-dynamic model of La Ventana Central was developed in Vacas Muertas. Through this study, a Secondary Recovery Optimization Project was created. The objective of the project aims to improve both the aerial and vertical efficiency of the Secondary Recovery Project through the drilling of 21 wells and 45 workovers during the upcoming years. The project began its first phase in 2018, with the drilling of three wells. In these wells, were made special profiles (log profiles) and crowns were made, to capture new information and reduce uncertainties of the project. Depending on the results obtained from these wells and the analysis of the information obtained, the rest of the drilling and workover activity will be carried out during the upcoming years, as well as the adequacy and revamping of the surface facilities.

Additionally, La Ventana was selected as part of a regional study to the Barrancas formation to develop EOR (tertiary recovery) with the objective of determining if it is convenient to start with a pilot project. During 2016, the identification of the SP formulation (Surfactant Polymer) compatible with the temperature and salinity of the formation was made. In 2018 the activity of SWTT (Single Well Tracer Test) was carried out, in order to test the SP formulation identified. Positive results were obtained confirming that a reduction in the range of 40% to 50% of the residual oil saturation can be achieved. A pilot of four patterns of secondary recovery with a five spot arrangement will be carried out, initiating well activity during 2019 and the injection of SP from 2020.



## **Table of Contents**

### *Vizcacheras block:*

During 2018, one well was drilled in Vizcacheras Mainfield with the objective of Papagayos Fm. whose productive results were as expected. In addition, one producer well targeting oil was drilled in the northern area of Cañada Dura, which was abandoned due to its classification as unproductive.

Additionally, Vizcacheras was selected as part of a regional study to the Barrancas formation to develop EOR (tertiary recovery) with the objective of determining whether it is convenient to start a pilot project. During 2016 the identification of the SP (Surfactant Polymer) formulation compatible with the temperature and salinity of the formation was made. During 2017 and 2018, two single well tracer tests were carried out to test the potential of the formulation. Positive results were obtained confirming that a reduction in a range of 40 to 50% of the residual oil saturation can be achieved. According La Ventana SP pilot results, other SP pilots are expected to start in Vizcacheras Block during 2021.

### *Llancanelo Block:*

During 2018, there was no drilling activity in this heavy oil field since the new corporate agreement within the joint venture was not achieved.

The behavior of the bottom heater in the well LI-2012(h), installed in 2017, continued to be evaluated. The aim of the heater is to improve the productivity of the well by increasing the mobility of the oil. The initial preliminary results were above productivity expectations, so we are evaluating to install heaters in other wells.

In 2019, we plan to drill four horizontal oil wells, two advanced horizontal oil wells and two multilateral oil wells of five horizontal branches each.

### *Cerro Fortunoso Block:*

During 2018, the development for secondary recovery of the Northern Block of the field was completed by drilling four water injector wells, three oil wells and two water conversions. The results obtained are in accordance with those expected.

In the Central East South Block, one injector well was drilled, five oil wells were repaired, and four wells were converted to injectors. The results obtained are in accordance with those expected.

In 2019 we plan to drill one well and the conversion of six more wells to complete the secondary recovery arrangement.

### *Valle del Río Grande Block:*

During 2018, after visualizing the development opportunity for the productive formation Neuquén Group in the Malal del Medio Oeste field, three advanced oil wells were drilled during the conceptualization stage to obtain information and delineate the size of the opportunity. The two wells that were drilled in the Northern Plunge of the structure were unproductive, while the well located in the South Sector was productive for oil.

With the results obtained in this stage of conceptualization, the project of delineation and development of this field is being reinterpreted and reformulated, and no activity is planned for 2019.

**Chihuido Sierra Negra Block:**

*Desfiladero Bayo:*

The Secondary Optimization project that started in 2016, which included injection well workovers, wellhead acids, the adequacy of the injection facilities (with the installation of a Water Injection Plant) to guarantee the water quality required, allowed the recovery of

**Table of Contents**

production to the expected volumes. During 2018, two producing wells were drilled and 14 workovers were made and the results obtained are in accordance with those expected. At the same time, the Polymer Injection Pilot Project continues. It started in 2016 and included drilling of producing wells, injector conversions, and the construction and assembly of a polymer injection plant. Polymer injection began in August 2016. As of the date of this annual report, a change in the vertical injection profile has been observed and is awaiting the oil response of this pilot. During 2018, in the Desfiladero Bayo East area, four wells were drilled to optimize the development and expand it to the northern part of the field. The results were as expected. Three appraisal wells were also drilled, but with negative results. As of the date of this annual report, another Polymer Injection Pilot is also being implemented. The drilling activity has been completed, and as of the date of this annual report the secondary recovery production baseline is being prepared. It is expected that the Polymer Injection Plant will be installed by the beginning of 2019.

*Puesto Molina:*

During 2017, the first appraisal well was drilled, achieving completion in 2018 in the Eastern Flank of the field where there is no production. As of the date of this annual report, the well is in production but with a high-water percentage, so the project is being reviewed and activity has been temporarily suspended.

*Chihuido Sierra Negra:*

During 2017, in this mature field, a 3D seismic survey on the western area was carried out and its results are still under review. Additionally, to evaluate tertiary recovery potential, a single well chemical tracer test (SWCTT) and log-inject-log operation (assay technique) was performed during 2018. It confirmed the prior positive results achieved in 2015 in displacing post water-flooding residual oil by an Alkali Surfactant Polymer formulation (ASP). During 2018 the main activities consisted of surveillance and maintenance of secondary recovery production project.

*Chachahuén Sur Block:*

During 2018, to complete the development of productive formations Rayoso Clástico Cycle 1, Cycle 2a and Cycle 3a, the drilling activity in the block continued with 52 new wells: 32 development oil producers, eight horizontal oil producers, three appraisals well, two extension wells and seven water injectors. The results were as expected, except in Cycle 1 which was below expectations. The secondary recovery project for Cycle 2a and Cycle 3a is also under execution and results continue to be as expected.

*Cerro Morado Este Block:*

In 2016, YPF discovered the Cerro Morado Este field with the drilling of the CMoE.x-1 well, which was productive in the Centenario formation.

During 2017 the delineation of the Cerro Morado Este field continued by drilling five extension wells.

In 2018 YPF obtained the exploitation concession of this field. Four evaluation wells were drilled with positive results to delimit and estimate the productivity of block. Other evaluation wells are scheduled to be drilled in 2019.

*Cañadón Amarillo Block:*

During 2018, three wells targeting oil were drilled corresponding to the Cañadón Amarillo Somero project (La Tosca and Chorreado in both the North and the South areas). The wells were drilled at the end of 2018 and are under evaluation. In addition, one gas appraisal well was drilled with positive results. Drilling of five new wells is planned

for 2019.

*Volcán Auca Mahuida and Las Manadas blocks:*

The development of the Centenario and Mulichinco formations continued. Five wells targeting oil were drilled during 2018 with results below expectations. Further appraisal and development wells are scheduled to be drilled in 2019.

## **Table of Contents**

### *Señal Picada Punta Barda block:*

Señal Picada Field: During 2018, four wells were drilled with results as expected (3 oil development producers and one water injector). Drilling of nine new wells is planned for 2019.

Punta Barda Field: During 2018, 14 wells were drilled with results as expected (10 oil development producers and four water injectors). 13 new wells are planned to be drilled during 2019.

## **Non Operated Areas**

### *Puesto Pinto (CNQ7/A) and Jagüel Casa de Piedra Blocks:*

During 2018, 29 oil producing wells and 10 water injection wells were drilled to the Centenario Formation with results as expected, to continue with the water flooding project started in 2006. Most of the new wells were located in border zones, to expand the productive area of the project. For 2019, 38 oil producer wells and 13 water injector wells are planned to be drilled. It is also planned to finish the construction of surface facilities for the expansion of the Polymer Injection Project, whose pilot was implemented in 2012.

### *Gobernador Ayala (CNQ7) Block:*

During 2018, 17 oil producing wells and nine water injection wells were drilled to the Centenario Formation with results as expected, to continue with the development of secondary recovery project in the area, and the development of the new field Jagüel Casa de Piedra Sur.

In 2019 we plan to drill 17 oil producer wells and four water injection wells in the block. During 2019, surface facilities are scheduled to be completed, and we also plan to start the injection of water in Jagüel Casa de Piedra Sur field.

### *Campo Durán Madrejones Block:*

In the period October 2017 - May 2018, two gas development wells were drilled in the Block and aimed at the Tupambi Bajo II Formation. The two wells resulted in the production of gas and condensate, as we expected.

Due to these results, Tecpetrol, the partner of the Joint Venture Aguaraque in which YPF holds a 53% working interest, proposes to drill two additional gas wells in 2019.

### *Confluencia Sur Block:*

Towards the middle of 2017, one well was drilled, with the objective of the Troncoso Inferior Formation with good results. There was no activity during 2018 and no activity is planned for 2019.

## **Sur Region**

During 2018, Sur Region production was 133.4 mboe/d, representing 25.2% of YPF's total production.

**Table of Contents**

*Sur Region*

1 Barranca Yankowsky; 2 Campamento Central Cañadón Perdido; 3 Cañadón de la Escondida - Las Heras; 4 Cañadón León; 5 Cañadón Vasco; 6 Cañadón Yatel; 7 Cerro Piedra Cerro Guadal Norte; 8 El Guadal Lomas del Cuy; 9 El Tordillo; 10 Escalante El Trébol; 11 La Tapera; 12 Lago Fuego; 13 Los Chorrillos; 14 Los Monos; 15 Los Perales Las Mesetas; 16 Magallanes; 17 Manantiales Behr; 18 Pico Truncado El Cordón; 19 Poseidon; 20 Puesto Quiroga; 21 Restinga Ali; 22 Rio Mayo; 23 Tierra del Fuego Frac. A (Cdon Piedra); 24 Tierra del Fuego Frac. B (San Sebastian); 25 Tierra del Fuego Frac. C (Cabeza de León); 26 Tierra del Fuego Frac. D (La Sara); 27 Tierra del Fuego Frac. E (Uribe)

## **Table of Contents**

### **Operated Areas**

#### El Trébol Escalante

During 2018, in El Trebol - Escalante, seven oil primary deep wells were drilled, with the objective of developing reserves in its three categories and incorporating new volumes, expanding the reserve, with positive results.

Additionally, we began with the implementation of the secondary optimization project in El Trébol Area. This optimization was proposed by drilling 13 wells (producers and injectors) closer to each other, thus improving the areal and vertical efficiency of the area. These drillings were carried out from existing locations, minimizing the environmental impact. Activity on the project started in the second half of 2018.

Additionally, 15 interventions were carried out with workover equipment, for optimizations of both primary and secondary production and injection. These low-cost activities will have an aggregate annual result higher than expected.

During 2019 we expect to continue to develop the area with deep wells and secondary recovery optimization.

#### Zona Central Cañadón Perdido

This block is located in the urban area of Comodoro Rivadavia.

Since 2016, there has been no drilling of wells, due to legal issues relating to a claim from a group of neighbors of the city regarding the extension of the Bella Vista Sur drilling project. The project was reformulated so that it can be executed in 2018, from another geographical location.

During 2018 two primary directed wells were drilled. Within the framework of this integral project, activity was carried out with 10 workovers to implement the secondary recovery of the block.

#### Restinga Alí

During 2018, three horizontal wells that navigate in the Glauconitic formation, were drilled in the offshore zone of the coast. These wells were put into production during 2019.

#### Manantiales Behr

During 2018, 43 wells were drilled (35 producers and eight injectors). The projected total production (EUR) associated with primary wells exceeds expectation, being positive in both gas and oil.

The Myburg block was one of the blocks with best results (9 producers and one injector). For this reason, activity in this area was accelerated for the year 2019.

The drilling of the eight injectors of the Grimbeek Norte block was ahead of schedule during the first half of 2018.

The activity associated with secondary projects in La Carolina and El Alba blocks was postponed to the last quarter of 2018 due to delays in the issuance of environmental permits by the application authority.

Progress was made with the manufacturing of five mobile Polymer Injection plants and associated facilities, which will allow us to advance the tertiary development of the GBKII and GBK Norte blocks during 2019.

The workover activity was accomplished in 55 primary wells, with positive results.

#### Cañadón Seco

During 2018, 14 wells were drilled (12 producers, where 3 operated above expectations, two in order with expectations and seven below expectation, and two injectors with positive injectivity). Furthermore, 34 workovers were executed, including 14 conversions into injectors (one of which could not be finalized due to bad well integrity), and 20 producers (nine with results below expectations, and 11 consistent with expectations). The drilling activity was concentrated in Cañadón Seco, Caleta Olivia and Mina El Carmen formation. Additionally, we continue the investigations in the D-129 geological formation (an important formation from which studies are demonstrating its potential and the results of the activities carried out so far encourage us to continue with the planned activities). During 2019 we plan to take samples of rock and fluids to characterize better the D129 Formation and decrease the risk of the area with a new project, to be able to propose a development plan in the medium term. From the point of view of improved recovery, the objective



## Table of Contents

continues to center on the geological formation of Cañadón Seco. Several projects were executed, some of them still ongoing, in which injection is expanded horizontally as well as vertically, improving the efficiency in the production-injector wells relationship. In addition, we continue to expand the secondary recovery in the Mina El Carmen Formation, which has the challenge of higher depth and injection pressures than those required for the Cañadon Seco formation.

### Barranca Baya

During 2018, 51 workovers (mainly secondary recovery objectives) were executed with results as expected.

We deepened the secondary recovery control, in addition to the integrity of the facilities, which allows us to obtain a better quality of the water that is injected into the formations. We also began expanding the deeper injection in Castillo formation, as well as the usual Bajo Barreal zone.

### Las Heras

During 2018, 11 workovers were executed, which include six conversions (one of which could not be finalized due to bad well integrity) into injectors with positive injectivity, and five producers (two with lower production than expected and three which met expectations). The activity was focused on the secondary recovery projects. The projects continued to be expanded both horizontal and vertically, incorporating both new layers to be flooded and optimizing the existing secondary recovery, with activity in cleaning injectors, re-layering and maintenance of the installation in the well.

### Lomas del Cuy

During 2018, in order to continue the development of D-129 formation in El Guadal Sur field, three advanced wells were drilled and tested, and we plan to drill three more during 2019.

Additionally, 29 workovers were executed with primary and secondary recovery objectives and we continue improving quality of water injection. The results were below expectations.

In 2019, we plan to conduct three new secondary recovery optimization studies in Estancia San Justo, Anticlinal Perales Sur and El Guadal Bat.2 aimed to be implemented in 2020.

### Los Perales - Las Mesetas

During 2018, two wells (including one injector and one producing well of polymer project) were drilled and 106 workovers were executed, with results as expected. The potential of this polymer project is important for the area and the company overall because the potential of production, the associated resources and the capacity for expansion is promising, not only in this field but also in other fields.

Secondary activity is present in all blocks; although we have injected water only in the Bajo Barreal geological formation. We have focused on maintaining the existing secondary and expanding projects from the vertical and aerial point of view, incorporating new layers and completing existing meshes. During 2018 17 water supply wells were intervened in order to provide the necessary water for the development of the field with mixed results.

The first polymer injection project was started in the Santa Cruz region in Los Perales Central Block III block. The project began on December 2017 with a first phase: Injectivity Test , aimed to reduce critical uncertainties. The

injection test was performed during 2018, using injection units provided by the companies TIORCO and NALCO. The project continues in 2019 to the next phase with two pilots, which include: drilling of 12 new wells, the workover of another 23 wells, the installation of two full modular Polymer Injection Units (constructed in France) and a water treatment unit (constructed by Water tectonics). Drilling activity started in January 2019 and injection activity is expected to begin during the second half of 2019.

#### Cañadón Yatel

During 2018, 23 wells were completed, 22 were drilled, and seven workovers (six of them initiated in 2017) were executed with results below expectations. Drilling activity was concentrated at the Estancia Cholita field mainly in southern and central blocks where the development of a new area that targets an oil zone in D-129 formation. We also changed the strategy of well completions, increasing from three to six hydraulic fractures per well on average.

## Table of Contents

The electrification of the block began in 2016 and continued during 2017 and 2018 allowing us to exploit the wells with greater reliability, minimizing downtime and reducing lifting costs. Electrification activities are planned to continue during 2019.

### Tierra del Fuego

Since 2016, the drilling activity in Tierra del Fuego focused on gas in the Lago Fuego field.

The main objective was the exploitation of the Springhill formation and the exploration of the Tobífera series. We drilled four wells during 2018 (2 core samples were taken during drill operation), and we completed four (1 depleted well was closed), where fracking and flow back programs are being analyzed in order to improve productivity. The results were below expectations. Additionally, source rock Pampa Rincon and Margas Chicas was studied.

Other activities in the San Sebastian field were aimed at improving the production of gas through the installation of compressors, dewatering artificial lift systems such as capillary injection and the optimization of the vertical performance with high water gas ratio wells. These activities slowed the declining output in the field, as expected.

### Non-Operated Areas - Development Activities:

#### Magallanes block:

On November 17, 2014, we agreed to extend the joint venture contract with ENAP Sipetrol Argentina S.A. in the Magallanes block. The objective of this agreement was to extend the rights and obligations of ENAP in the original joint venture agreement and confirm its role as operator, maintaining its 50% share until the end of the concession. On January 8, 2016, the Argentine government approved a concession extension through November 17, 2027. See Main Properties.

During 2017, we continued to develop an incremental production project, known as the PIAM-Magallanes Block Incremental Project. This project aims to increase the production capacity of the area by approximately 1.6 mmcm/d of gas with the startup originally expected in 2017, but effectively began in June 2018. During 2017, we signed an Engineering and Procurement Contract (EPC) to manage the engineering tasks. This project involves laying a marine pipeline and expanding compression capacity. The total value of the project was U.S.\$ 401.3 million.

#### El Tordillo and La Tapera-Puesto Quiroga blocks:

Beginning in January 2014, under an agreement with the province of Chubut related to the negotiation of an extension of YPF concessions there, we transferred 41% of our working interest in the joint venture, El Tordillo and La Tapera-Puesto Quiroga, to Petrominera Chubut S.E. As a result, our interest in the joint venture will decrease from 12.196% to 7.196% in 2020.

During 2016 and 2017, no Wells were drilled due to the low price of oil.

In 2017 a new agreement was signed with Chubut Province, in which the future compliance scheme of pending investments was established, under the agreement for the implementation of an activity commitment and investment in hydrocarbon areas of Chubut Province.

During 2018, in order to restore activity in the area, nine wells were drilled. In 2019 we plan to drill 17 wells incorporating additional drilling equipment, with a total of two drilling rigs.

**Properties and Exploration and Production Activities in Rest of South America**

1. **Bolivia:** On July 26, 2017, the formalization of the contract with YPFB originally signed in January 2017 was signed, to begin exploration work in Charagua, Bolivia, in a block that has a potential in natural gas resources. In addition, one exploration block was awarded in 2017 (Charagua Block). Activities to fulfil commitments have already started in 2018. YPF holds a 100% working interest in the Charagua Block. However, a partnership agreement has been signed by YPF and YPFB Chaco, whereby YPF would operate holding a 60% working interest and YPFB Chaco would hold 40%. As of the date of this annual report, both parties are still waiting for the Legislative Assembly of Bolivia to formalize the agreement.

**Table of Contents**

2. **Colombia:** Blocks COR 12 and COR 33 are located in the Cordillera Oriental basin, which we operate pursuant to authorization by the Colombian National Hydrocarbons Agency (Agencia Nacional de Hidrocarburos or ANH ). Our working interest is 60% in COR 12 and 55% in COR 33. The combined net acreage in these blocks is 700 km<sup>2</sup>. We and our partners informed the ANH of our decision to relinquish both blocks. As of the date of this annual report, the parties are in the process of formalizing and executing the final agreements for the relinquishment.
3. **Chile:** From the results obtained in San Sebastián Block we did not foresee any new exploratory opportunities so we:

Asked the National Authority for the commercial exploitation concession of only a portion of the area where wells with positive results had been drilled.

Informed the National Authority of our decision not to enter the Third Exploration Period, and to relinquish the rest of the area except for 3,000 acres needed to finish the testing of one exploration well. For this exception, we have requested a period of two years, starting on December 2017.

We started well testing during 2018 oil production at Carpintero x1, with results in line with expectations. However, it had to be closed from October 17, 2018 until January 17, 2019 as consequence of the Cullen spill.

Cullen spill (Chile): in storage facilities of YPF in Chile (Cullen plant), a hydrocarbon spill was detected in a pump room. The spill was controlled, and the sanitation tasks finished on November 18, 2018.

**Additional information on our current activities**

The following table shows the number of wells in the process of being drilled as of December 31, 2018.

<i>Number of wells in the process of being drilled</i>	<i>As of December 31, 2018</i>	
	<i>Gross</i>	<i>Net</i>
Argentina	42	33
Rest of South America		
<b>Total</b>	<b>42</b>	<b>33</b>

**Downstream**

During 2018, our downstream activities included crude oil refining and transportation, and the marketing and transportation of refined fuels, lubricants, LPG, and other refined petroleum products in the domestic wholesale and retail markets and certain export markets.

During 2018, the downstream segment was organized into the following divisions:

Refining Division (oil refining and petrochemical production);

Domestic Marketing (commercialization and marketing of refined products);

Chemicals Division (commercialization and marketing of petrochemical products);

Logistic (transportation of oil to refineries and distribution of refined and petrochemical products to be marketed in the different sales Channels); and

Trading Division (trading refined products and crude oil to international markets)

We market a wide range of refined petroleum products throughout Argentina through an extensive network of sales personnel, YPF-owned and independent distributors, and a broad retail distribution system. In addition, we export refined products, mainly from the port at La Plata. The refined petroleum products marketed by us include gasoline, diesel, jet fuel, kerosene, heavy fuel oil and other crude oil products, such as motor oils, industrial lubricants, LPG and asphalts.

**Table of Contents****Refining division**

We wholly own and operate three refineries in Argentina:

La Plata refinery, located in the province of Buenos Aires;

Luján de Cuyo refinery, located in the province of Mendoza; and

Plaza Huincul refinery, located in the province of Neuquén.

Our three wholly-owned refineries have an aggregate refining capacity of approximately 319,500 boe/d. The refineries are strategically located along our crude oil pipeline and product pipeline distribution systems. In 2018, our crude oil production, substantially all of which was destined to our refineries, represented approximately 82.3% of the total crude oil processed by our refineries, while in 2017 it was 78.6%. Through our stake in Refinor, we also own a 50% interest in a 26,100 boe/d refinery located in the province of Salta, known as Campo Durán.

The following table sets forth the throughputs and production yields for our three wholly-owned refineries for each of the three years ended December 31, 2018, 2017 and 2016:

	<b>For the Year Ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	<b>(mmboe)</b>		
Throughput crude	103.6	107.0	107.4
Throughput feedstock	4.7	4.3	4.0
Throughput crude and feedstock	108.3	111.2	111.4
<b>Production</b>			
Diesel	41.5	41.0	40.6
Motor gasoline	26.1	25.2	24.6
Petrochemical naphtha	7.4	7.9	7.6
Jet fuel	6.8	6.8	5.9
Base oils	0.8	1.0	1.0

	<b>For the Year Ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	<b>(thousands of tons)</b>		
Fuel oil	234	935	1,554
Coke	934	925	839
LPG	670	644	670
Asphalt	215	313	145

During 2018, our global refinery utilization amounted to 88.81%, compared to 91.73% in 2017, based on a nominal capacity of 319.5 mboe/d.

The La Plata refinery is the largest refinery in Argentina, with a nominal capacity of 189 mbbbl/d. The refinery includes three distillation units, two vacuum distillation units, two fluid catalytic cracking units, two coking units, a coker naphtha hydrotreater unit, a platforming unit, two diesel hydrofinishing units, a gasoline hydrotreater, an isomerization unit, an FCC (fluid cracking catalysts) naphtha splitter and desulfuration unit and a lubricants complex, in addition to a petrochemical complex that generates MTBE, TAME and aromatics compounds used for blending gasoline, and other chemical products for sale. The refinery is located at the port in the city of La Plata, in the province of Buenos Aires, approximately 60 km from the City of Buenos Aires. During 2018, the refinery processed approximately 160.6 mbbbl/d, with a capacity utilization rate of 84.96 % compared with 172.3 mbbbl/d processed in 2017, with a capacity utilization rate of 91.15 %. The lower capacity utilization compared to the previous year was a result of lower demand of fuel oil from power generation plants as there was more availability of natural gas in the period and scheduled maintenance stoppages in our industrial



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**Table of Contents**

complexes. The crude oil processed at the La Plata refinery, 84.83 % of which was YPF-produced in 2018, comes mainly from the Neuquina and San Jorge basins. Its crude oil supplies come from the Neuquina basin by pipeline and from the San Jorge basin by vessel, in each case to Puerto Rosales, and then by pipeline from Puerto Rosales to the refinery.

A new Coke A facility that allowed for an increase in the conversion capacity was officially started up in September 2016, and the test run was made in October 2016. The capacity of the new unit is 1,160 bbl/h of fresh feed pumped from the bottoms of the Topping and Vacuum units, providing the refinery with an increase in crude processing of 23,800 bbl/d, representing an increase of almost 12% in the capacity utilization rate. The production of this facility is a component for the blend to be used in the generation of diesel, motor gasoline and coke.

The Luján de Cuyo refinery has a nominal capacity of 105.5 mbb/d, the third largest capacity among Argentine refineries. The refinery includes two distillation units, a vacuum distillation unit, two coking units, one fluid catalytic cracking unit (FCCU), a platforming unit, a MTBE unit, an isomerization unit, an alkylation unit, an FCC naphtha splitter, a hydrocracking unit, an FCC naphtha hydrotreater unit and two gasoil hydrotreating units. During 2018, the refinery processed approximately 99.7 mbb/d, with a capacity utilization rate of 94.5% compared with 98.0 mbb/d processed in 2017, with a capacity utilization rate of 92.9%.

Due to its location in the western province of Mendoza and its proximity to significant distribution terminals we own, the Luján de Cuyo refinery has become the primary facility responsible for providing to the central and northwest provinces of Argentina with petroleum products for domestic consumption. The Luján de Cuyo refinery receives crude supplies from the Neuquina and Cuyana basins by pipeline directly into the facility. Approximately 78.4 % of the crude oil processed at the Luján de Cuyo refinery in 2018 (and 77.5% of the crude oil processed in this refinery in 2017) was produced by us. Most of the crude oil purchased from third parties comes from oil fields located in the provinces of Neuquén and Mendoza.

The Plaza Huincul refinery, located in the province of Neuquén, has an installed capacity of 25 mbb/d. During 2018, the refinery processed approximately 23.5 mbb/d, with a capacity utilization rate of 94.1%, compared with 22.8 mbb/d processed in 2017 with a capacity utilization rate of 91.2%.

The only products currently produced at the refinery are gasoline, diesel and jet fuel, which are sold primarily in nearby areas and in the southern regions of Argentina. Heavier products, to the extent production exceeds local demand, are blended with crude oil and transported by pipeline from the refinery to our facilities in La Plata for further processing. The Plaza Huincul refinery receives its crude supplies from the Neuquina basin by pipeline. In 2018, 19% of the refinery's crude supplies were purchased from other companies, while 100% of such supplies were produced by us in 2017.

According to Ministry of Energy regulations, sales of gasoline and diesel must be blended by biofuels. The gasoline requires a 12% blend of ethanol (Resolution No. 37/2016) and diesel requires a 10% blend of FAME (Resolution No. 1125/2013), the same blend request of 2017 and 2016.

Since 1997 and 1998, each of our refineries (La Plata, Luján de Cuyo, and Plaza Huincul) have been certified under International Organization for Standardization (ISO) 9001 (quality performance) and ISO 14001 (environmental performance). All of them are also certified under the OHSAS 18001 (occupational health and safety performance) standard. Inventories of industrial greenhouse gases and savings of CO<sub>2</sub> emissions equivalent (MDL projects) have been verified in accordance with ISO 14064 in the three refineries (2009 La Plata and Lujan de Cuyo; 2017 Plaza Huincul). The refineries maintain their systems under continuous improvement and revision by authorized organizations.

During 2018, the energy produced by renewable energy from the wind farm of Manantiales Behr (located in Chubut Province), represents 12% of the electricity consumption of the Luján de Cuyo and La Plata Refineries. This park was incorporated into the matrix of electricity consumption in July 2018 and is owned by YPF Energía Eléctrica (YPF EE) ( See Item 4. Information on the Company Gas and Power YPF in Power Generation. ).

***Marketing Division***

Our Marketing Division supplies gasoline, diesel, JET-A1 Fuel, lubricants, asphalts, LPG and other petroleum products throughout Argentina and other countries in the region. We supply several industries such as, retail, transport and agriculture.

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**Table of Contents**

During 2018, as a result of the macroeconomic situation in Argentina, there was a change in the performance of fuel sales. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions. During the second half, registration of new vehicles (0 Km) decreased by 33% compared to 2017. This resulted in a direct adverse effect on the performance of fuel sales.

YPF maintained its leading position in Argentina, reaching a market share of 57.9% for liquefied fuels.

YPF sells two types of gasoline: Infinia, a premium 98 octane gasoline, and Super, a regular 95 octane gasoline. As a result of a change in market behavior, the high values of mix in 2017 (34.7%) were difficult to maintain reaching an annual average mix during 2018 of 31.4%. In the second half of 2018, the mix fell to its lowest value in the month of November (26.0%). In December, the trend reverses, rising to 27.8%.

Our market share of Infinia and Super gasolines, according to our estimates, was 61.5% and 53.8%, respectively, as of December 31, 2018, compared with 61.3% and 52.4%, respectively, as of December 31, 2017. Our sales volume for Infinia was 1,643 mcm in 2018 (7.4% less than in 2017) and 3,590 mcm for Super in 2018 (7.4% higher than in 2017).

With respect to diesel, according to our own estimates, our market share of diesel (500 and 1500 ppm) and Infinia diesel (10 ppm) was 58.9% and 60.1%, respectively, as of December 31, 2018, compared with 56.5% and 57.6%, respectively, as of December 31, 2017. The greatest volume growth was in Infinia Diesel increasing 16.6% compared to 2017, as a consequence of the arrival of new vehicles to the country with the Euro 5 standard (with SCR technology) in the transport segment. Along with Infinia diesel (10 ppm), for which sales volume was 2,041 mcm in 2018 compared to 1,751 mcm in 2017, our diesel (500 and 1500 ppm) decreased sales volume of 5,853 mcm in 2018 compared to 5,946 mcm in 2017. This sales volume does not include bunker sales to the foreign market and sales to other companies. Accounting for such sales, sales volume of diesel (500 and 1500 ppm) increased 1.0% compared to 2017. Finally, sales volume of Infinia diesel reached 25.9% of total diesel sales volumes, up from 22.7% in 2017.

Our main competitors are still active in communication, promotions, loyalty cards and bank discounts.

Consequently, 2018 was a year during which YPF focused its efforts on three strategic pillars: construction of perceived quality, loyalty and closeness to the customer and the offer of a best value proposal for the customer.

In connection with the creation of perceived quality, this was implemented through YPF's authority program, which focuses its efforts on creating a strong relationship between the advisors and role models of the mobility, fuels and lubricants industry. In August 2018, the Infinia Communication Campaign was carried out. Additionally, we sponsored the main car competition categories in Argentina, with particular focus on GM's competition team (Super TC 2000).

As to the loyalty and closeness to the client pillar, YPF multiplied the efforts of the Serviclub program with proposals from alliances and special promotions during the World Cup and the creation of a campaign relating to reduced energy consumption through LED lightbulbs during October. In addition, we implemented special promotions during the summer and other regional campaigns aimed at specific targets such as millennials and women.

In connection with the value proposal pillar, in 2018 its main drivers were: alliances with benefit clubs, national and regional banks and discounts in fuel prices for members of the Serviclub program. During the year we also carried out several campaigns impacting three million customers (distribution of soccer balls in exchange for fidelity points or cash, and promotional activities within the Lollapalooza Festival), we sponsored sporting events (car racing, national soccer team), and we furthered our relationship with opinion leaders of fuel matters, automobile care and products for the vehicle.

The Domestic Marketing Division includes six main segments: Retail, Agriculture, Industry, Aviation, Lubricants and Specialties and LPG.

***Retail Division***

As of December 31, 2018, the Retail Division's sales network in Argentina consisted of 1,591 retail service stations, compared to 1,563 as of December 31, 2017. Of these, 113 are owned by YPF. The remaining 1,478 service stations are associated service stations. OPESSA, our wholly-owned subsidiary, actively operates 166 retail service stations, of which 88 are owned by YPF, 22 are leased to the Automóvil Club Argentino (ACA) and 56 are leased to independent owners. Additionally, YPF owns 50% of Refinor, a company operating 66 service stations.

## **Table of Contents**

According to our estimates, as of December 31, 2018, we were the main fuel retailer in Argentina, with 35.8% of the country's gasoline service stations, followed by Shell, Axion and Petrobras with 14.4%, 12.3% and 5.4%, respectively. During 2018, our market share in diesel and gasoline, marketed in all segments, increased from 56.1% to 58.0%, from December 31, 2017 to December 31, 2018.

Our convenience stores, YPF Full and YPF Full Express, are present in 492 and 70 points of sale, respectively, as of December 31, 2018. During 2018, we established 22 new sale points and implemented 80 new images in Full stores at service stations. Additionally, a modern oil change service shop called YPF Boxes is present in 299 service stations across the country.

During 2018, YPF successfully renewed contracts with the operators of retail associated service stations expiring within the year. We also signed in advance 31 target contracts with expiration in 2019, assuring a 22% market share for the Company. During this time, an aggressive infrastructure plan was carried out, mainly to install 70% more fuel-tanks and pumps compared to 2017.

In October 2018, YPF signed a new agreement with ACA allowing an extension in the lease of the retail service stations run by ACA through October 2027. This agreement includes 22 service stations owned by ACA and operated by OPESSA. This major event secures the maintenance of the 5.1% market share owned by ACA.

We highlight the opening of 40 new service stations to our net, consisting of 20 new stations built by YPF and 20 new added through lease contracts compared to the 35 incorporations during 2017.

During 2018, the operational process through which our customers have the possibility of requesting cash back in our stores, which consists of cash withdrawals from their debit accounts, has gained relevant importance. This cash is withdrawn directly from the employee's cash register which optimizes cash collection and increases savings by reducing costs of depositing cash in the bank.

As part of the + YPF program, on September, we awarded the best operators in the network with a training trip to Disney (Instituto Disney). This training focused on three pillars: excellence in leadership, employee commitment and quality service. In addition, in May, the POTENCIAR National Convention was held at the Costa Salguero site, where 1,645 people participated, including operators, heads of network stations and retail sales teams. This event was of great importance and it was resumed in 2018 after many years, whose main objective was to attract the network of YPF's operators to accompany and invest in service stations network for the next 10 years.

## ***Agriculture Division***

The Agriculture Division provides an extensive portfolio of products and services to agricultural producers, including agricultural advice, delivery and application of products at the consumption site, under a unified brand image, directly or through a network of 103 sale points (nine owned by YPF) with exclusive commercial areas in 19 provinces, offering diesel, fertilizers, lubricants, phytosanitaries, and ensiling bags, among other products. During 2018, YPF released eight new products (phytosanitaries, fertilizers and adjuvants), under the YPF brand. The agriculture division works through distribution agreements with leading local and international suppliers. This year our market share of fertilizers, according to our estimate, was 9.4% compare to 9.6% (2017).

YPF developed crop financing with instruments such as credit cards with local banks, for more than U.S. \$ 128 million. We accept different types of grains as payment (exchange), mainly soybean, but also corn, rice, wheat, sorghum, sunflower, barley and blueberries. Some soybeans are processed by third-party companies to obtain soybean oil, meal and hulls that we generally export. Furthermore, part of the soybean oil is processed into fatty acid methyl

esters ( FAME ) (a natural product added to commercial grade diesel), which covers approximately 11% of YPF's refinery needs. During 2018, we received approximately 1.2 million tons of grains, primarily soybeans (a decrease of 16% compared to 1.5 million tons in 2017, as a consequence of the severe draught in the first quarter of the year. Nevertheless, this decrease was less than in soybean production which was around 35%), that positions YPF among the top five exchangers in Argentina. As December 31, 2018 the revenue from these exports represented approximately U.S.\$ 257.6 million, a 30.7% decrease compared with 2017. It is worth noting that in 2018 YPF was the tenth exporter in the Argentine market of soybean meal and oil.

### ***Industry Division***

This division supplies the entire national industry and transport (ground) sectors, which require a broad portfolio of products and services to meet customer needs. The division develops specific solutions for mining, oil & gas, transport and general industries. We supply products such as fuels (diesel, gasoline, fuel oil), lubricants, coal, asphalts, paraffin and derivatives (sulfur, CO2, decanted oil, aromatic extract), either directly from our refineries to the point of consumption (more than 10,000 direct customers) through our own ground and waterway network, or through a network of 22 industrial distributors with national coverage (Mining, Oil & Gas and Asphalts).

## **Table of Contents**

Our mission is to promote efficiency in the value chains of the industries we serve through energy solutions, supplies and services. Accordingly, our strategy is based on close relationships with our clients and the development of innovative solutions focused on creating value for YPF and the region's industries.

During 2018 we continued to implement a control and traceability solution for the gasoline and lubricants consumption which was offered to all industrial segments customers to improve efficiency in bulk fuel management.

In the transport segment, we also entered into new commercial agreements (rental of the property and operation) with ConSer, ensuring the continuity of the commercialization of 2,500 cm per month of diesel.

We have entered into a commercial agreement with AGP (General Administration of Ports) in order to install a base of operations in the Port of CABA (Autonomous City of Buenos Aires).

Another highlight in the transport segment in 2018, was the steady growth of sales through the YER (YPF en ruta) fleet card, which resulted in an increase of 27% of volume sales compared to 2017, mainly as a result of certain incentive programs that were released. This card is designed to cover the supply and administration needs of vehicles of cargo and passengers.

In the mining segment, in 2018 we entered into an agreement with Sales de Jujuy S.A., for diesel supply, for a term of one year, with an estimated demand of 600 cm per month of diesel. This year it was possible to close the deal of supply with renewable energies to Mina Aguilar (1400 MW / year). Finally, a pilot test of Veladero (Barrick) supply with LNG is being initiated.

Through the general industries segment, we accompany the implementation of Strategic Special Operations for Argentina, such as: G-20, Youth Olympic Games 2018 and the First Stage Antarctic Campaign 2018-2019.

As a result of a drop in the Argentinian market, during 2018 YPF asphalt sales were 244 thousand tons (68 thousand tons less than in 2017), reaching a market share of 42.1% (2.6% less than 2017).

### ***Aviation Division***

The Aviation Division provides JET-A1 Fuel in 52 airports and AVGas-100LL Fuel in 41 airports across Argentina. We have highly developed logistics that include 150 trucks and a pipe line from La Plata Refinery to Ezeiza Airport, the most important airport in Argentina. In 2018 YPF invested approximately U.S.\$ 5,000,000 in new trucks and logistics equipment.

YPF has a 57% market share of JET-A1 in Argentina and is the second supplier of JET-A1 in Santiago de Chile's airport, with an 18% market share. Our sales volume for JET-A1 was 1,146 mcm in 2018, 8.1% higher than in 2017.

During 2018 the company entered into agreements for the supply of JET-A1 with all low-cost companies which started to operate in Argentina (Flybondi, Norwegian Argentina, JetSmart, Avianca Argentina, Grupo LASA). We expect this market to increase in the near future.

We also entered into new agreements with Turkish Airlines, Ethiopian Airlines and Norwegian UK for the supply of 100% JET-A1 volume during 2019. With American Airlines and KLM (with which we already had agreements during 2018) we completed a new agreement for the supply of 100% of their required volume during 2019.

### ***Lubricants and Specialties Division***

In the Lubricants market, YPF has a leading position. We manufacture a wide range of products including Motor Oil, Heavy Duty and Industrial lubricants in retail, wholesale and industrial markets through a net of dealers and distributors. In the La Plata industrial complex, we operate a modern and efficient manufacturing facility where we produce lubricants not only for the domestic market, but also for export. Our line of automotive lubricants, including mineral and synthetic oils, has received approval and recommendations from leading global automotive and engine manufacturers, including Ford, Volkswagen, Renault, Audi, Deutz, Cummins, Volvo, MAN Truck, GM, Porsche, Scania, Detroit Diesel and Caterpillar.



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## **Table of Contents**

During 2018, our sales of lubricants decreased by 5.7% compared to 2017. Sales to the domestic market fell by 7.3%, and sales to the foreign market increased by 6%. The reason for the drop in Lubricants sales was due to a collapse of the market, as a result of a severe economic recession in Argentina during 2018.

Exports are made to two large groups. On the one hand, we sell to our wholly-owned companies in the main markets of Brazil and Chile, where the volume sold increased 54% in Brazil compared to 2017, because exports were made to cover problems with the supply of premium materials, and increased 1% in Chile compared to the previous year. On the other hand, we export to our network of distributors located in Bolivia, Uruguay, Paraguay and Ecuador, where sales volume was 9% higher than in 2017.

YPF's strategy is to continue its leadership in the development of lubricants, to meet the latest generation OEMs (original equipment manufacturers) requirements for protection and performance needs in both passenger and heavy-duty vehicles, maintaining the leadership in a high-profitability lubricants market. Our market share as of December 31, 2018 was 39.4% (a decrease of 0.1% compared to 2017) according to information provided by the Secretary of Energy (formerly Ministry of Energy). The critical factors of competitiveness are the usage and referral agreements from the main OEMs (Ford, General Motors, Porsche and Scania) and reaching the customer with the best network and service coverage.

The sales of our passenger car motor oil (PCMO) line (Elaion is the most important brand for the automotive segment) reached 12.5 mcm in 2018, a decrease of 11.6% compared to 2017. With respect to our heavy-duty motor oil (HDMO) line (Extravida), 2018 sales decreased by 8.7% compared to the previous year.

In order to meet the technological update required by new vehicles that comply with the Euro 5 standard (with SCR technology) of mandatory use in the country for all new vehicles and complemented by the launch of Infinia Diesel and XV500 Extravida, we launched our Nitrous Oxides Reducing Agent (ARNox). Azul 32 is the commercial name of a new product used in vehicles that comply with the emission standard EURO 5 (serves to reduce emissions of gases into the environment). The sales of Azul 32 increased 47% compared to 2017.

Our quality controls ensure that the product reaches the customer in optimal conditions and complies with the strict standards determined by ISO 22241 for this product. Since 1995, Lubricants and Specialties has been awarded with ISO 9001: 2008, ISO 14001: 2004, OSHAS 18.001: 2007 ISO / TS 16949-Third certifications. Also, YPF has obtained for our Azul 32 API's certification as part of the American Petroleum Institute (API) Diesel Exhaust Fluid Certification Program.

### ***LPG Division***

We are engaged in the LPG wholesale business, which encompasses LPG storage, logistics and commercialization to domestic and foreign markets. We obtain LPG from natural gas processing plants and refineries, as well as from third parties. In addition to butane and propane, we also sell propellants used in the aerosols manufacturing processes.

During 2018, we sold approximately 35% of our LPG production to YPF Gas S.A. for the domestic market.

We are the largest LPG producer in Argentina, with sales in 2018 reaching approximately 616 mtn, compared with 579 mtn in 2017. Of this, approximately 371 mtn were sold in the domestic market, compared to 402 mtn in 2017. Our main clients in the domestic market are companies that sell LPG in cylinders or bulk packing to end-consumers, also providing LPG to households in some regions. Additionally, exports in 2018 reached approximately 245 mtn, compared to 177 mtn in 2017. The main destinations were Chile and Paraguay. Transportation of LPG to overseas customers is carried out by truck, pipeline and barges.

Total sales of LPG, excluding LPG used as petrochemical feedstock, were Ps. 9,282 million and Ps. 3,547 million in 2018 and 2017, respectively.

**Table of Contents**

We produced 569 mtn of LPG in 2018, not including LPG destined for petrochemical usage, and purchased LPG from third parties, as detailed in the table below:

	<i><b>Production and Purchases (mtn) 2018</b></i>
<i><b>LPG from Natural Gas Processing Plants (1)</b></i>	
<i>El Portón</i>	110.2
<i>San Sebastián</i>	23.0
<i>Loma Negra</i>	22.9
<i>Estación Fernández Oro</i>	4.9
<i><b>Total Upstream</b></i>	<b>161.0</b>
<i><b>LPG from Refineries and Petrochemical Plants</b></i>	
<i>La Plata refinery</i>	290.3
<i>Luján de Cuyo refinery</i>	93.8
<i>CIE</i>	23.8
<i><b>Total refineries and petrochemical plants (2)</b></i>	<b>407.9</b>
<i><b>LPG purchased from joint ventures (3)</b></i>	<b>16.3</b>
<i><b>LPG purchased from unrelated parties</b></i>	<b>23.4</b>
<i><b>Total</b></i>	<b>608.6</b>

- (1) San Sebastian, El Portón, Loma Negra and EFO are 100% owned by us; General Cerri belongs to a third party with which we have a processing agreement.
- (2) This production does not include LPG used as petrochemical feedstock (olefins derivatives, polybutenes and maleic).
- (3) Purchased from Refinor. We also have a 50% interest in Refinor, which produced 187.5 mtn of LPG in 2018. Regarding sales prices, the butane local market is regulated by the government. In April (Disposition No. 5-E/2018) the government updated Butane's maximum reference prices for the local market recognizing an improvement in sales prices. In the case of propane, although the market is also regulated by the government, local prices published by the former Ministry of Energy and Mining are referred to export parity.

**Chemicals Division**

Petrochemicals are produced at our petrochemical facilities in Ensenada and Plaza Huincul.

Petrochemical production operations in the Complejo Industrial Ensenada ( CIE ) are closely integrated to the refining activities at the La Plata refinery, allowing a flexible supply of feedstock, the efficient use of by-products, such as hydrogen, and the supply of aromatics to increase gasoline octane levels.



**Table of Contents**

The main petrochemical products and production capacities per year are as follows:

	<b>Capacity (tons per year)</b>
<i>CIE</i>	
BTX (Benzene, Toluene, Mixed Xylenes)	526,000
Orthoxylene	25,000
Cyclohexane	95,000
Solvents	66,100
MTBE	60,000
Butane I	25,000
Oxoalcohols	35,000
TAME	105,000
LAB (Linear Alkyl Benzene)	52,000
LAS (Linear Alkyl benzene Sulphonate)	32,000
PIB (Polyisobutylene)	26,000
Maleic Anhydride	17,500
<i>Plaza Huincul</i>	
Methanol	411,000

Natural gas, the raw material for methanol, is supplied by our Upstream business segment. The use of natural gas as a raw material allows us to monetize reserves, demonstrating the integration between the Chemical and the Upstream divisions.

In 2018 we signed an agreement with Methanex (one of the biggest global methanol producers) to produce nearly 110,000 tons of methanol in their Chilean facility, with YPF's natural gas as raw material. This additional production of methanol allowed us to increase our methanol sales by 52% compared to 2017, mainly through exports to the Brazilian market.

Raw materials for petrochemical production in the CIE, including virgin naphtha, propane, butane and kerosene, are supplied mainly by the La Plata refinery.

In 2018, 2017 and 2016, 67%, 84% and 80%, respectively, of our petrochemicals sales (including propylene), were made in the domestic market, while we exported to Mercosur countries, the rest of Latin America, Europe and the United States.

The La Plata petrochemical plant was certified under ISO 9001 (2018), ISO 14001 (2014), OHSAS 18001 (2014), ISO 50001 (2015) and the plant verified the inventory of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions under ISO 14064 (2011). The CIE laboratory was certified under ISO 17025 (2013). The methanol plant was certified under ISO 9001 (2016), ISO 14001 (2016) and OHSAS 18001 (2014).

The certification of our petrochemical business covers the following processes:

refining process of crude oil and production of gas and liquid fuels, base stocks for lubricants and paraffin, petroleum coke (green coke) and petrochemical products in the units of refining, conversion, lubricants,

aromatics, olefins PIB / Maleic and LAB / LAS, methanol production and storage.

**Table of Contents**

Management and development of our petrochemical business, planning and economic and commercial control, marketing and post-sale service of petrochemical products.

Additionally, we also own a 50% interest in Profertil, a joint venture with Nutrien, a worldwide leader in fertilizers, which initiated operations in 2001. Profertil has a production facility in Bahía Blanca which produces 1.3 million tons of urea and 750,000 tons of ammonia per year. In addition, Profertil markets other nutrients and special blends of prepared land to optimize soil performance.

**Logistic Division****Crude oil and products transportation and storage**

We have available for our use a network of five major pipelines, two of which are wholly-owned by us. The crude oil transportation network includes nearly 2,700 km of crude oil pipelines with approximately 640,000 barrels of aggregate daily transportation capacity of refined products. We have total crude oil tankage of approximately 7 mmbbl and maintain terminal facilities at five Argentine ports.

Information with respect to YPF's interests in its network of crude oil pipelines is set forth in the table below:

<i>From</i>	<i>To</i>	<i>YPF Interest</i>	<i>Length (km)</i>	<i>Daily Capacity (boe/d)</i>
Puerto Hernández	Luján de Cuyo refinery	100%	528	93,509
Puerto Rosales	La Plata refinery	100%	585	326,541
La Plata refinery	Dock Sud	100%	52	141,006
Brandsen	Campana	30%	168	120,700
Puerto Hernández/P. Huincul/Allen	Puerto Rosales	37%	888	232,000

We own two crude oil pipelines in Argentina. One connects Puerto Hernández to the Luján de Cuyo refinery (528 km), and the other connects Puerto Rosales to the La Plata refinery (585 km) and extends to Shell's refinery in Dock Sud at the Buenos Aires port (another 52 km). We also own a plant for the storage and distribution of crude oil in the northern province of Formosa with an operating capacity of 19,000 cm, and three tanks in the city of Berisso, in the province of Buenos Aires, with 90,000 cm of capacity. We own 37% of Oleoductos del Valle S.A., operator of an 888 km pipeline network, its main pipeline being a double 513 km pipeline that connects the Neuquina basin and Puerto Rosales.

We hold, through Oleoducto Transandino Argentina S.A. and Oleoducto Transandino Chile S.A., an interest of 36% and 18% respectively, in the 428 km trans Andean pipeline, which transported crude oil from Argentina to Concepción in Chile. This pipeline ceased operating on December 29, 2005, as a consequence of the interruption of oil exports resulting from decreased production in the north of the province of Neuquén. The book value of the assets related to this pipeline was reduced to their recovery value.

We also own 33.15% of Terminales Marítimas Patagónicas S.A., operator of two storage and port facilities: Caleta Córdova (province of Chubut), which has a capacity of 314,000 cm, and Caleta Olivia (province of Santa Cruz), which has a capacity of 246,000 cm. We also have a 30% interest in Oiltanking Ebytem S.A., operator of the maritime terminal of Puerto Rosales, which has a capacity of 480,000 cm, and of the crude oil pipeline that connects Brandsen (60,000 cm of storage capacity) to the Axion Energy Argentina S.R.L. (previously ESSO, a former subsidiary of ExxonMobil which was acquired by Bidas Corporation) refinery in Campana (168 km), in the province of Buenos Aires.

In Argentina, we also operate a network of multiple pipelines for the transportation of refined products with a total length of 1,801 km. We also own seventeen storage terminals for distribution of refined products and seven LPG storage terminals with an approximate aggregate capacity of 1,620,000 cm. Three of our storage and distribution terminals are annexed to the refineries of Luján de Cuyo, La Plata and Plaza Huincul. Ten of our storage and distribution terminals have maritime or river connections. We operate 52 airplane refueling facilities (40 of which are wholly-owned) with a capacity of 22,500 mcm, 123 manual fuel dispensers and 17 automatic fuel dispensers. These facilities provide a flexible countrywide distribution system and allow us to facilitate exports to foreign markets, to the extent allowed pursuant to government regulations. Products are delivered by an exclusive tanker truck fleet of approximately 2,400 units of which 28 are owned.

During the last year, after a national and international tender, and as the result of a bankruptcy process, YPF and Destilería Argentina de Petróleo S.A. ( DAPSA ) were awarded part of Oil Combustibles S.A. We acquired strategic assets that will be integrated to those already operated by YPF, especially the docks and fuel storage tanks located in the terminal located on the Paraná River that will allow us to expand the logistics capacity for future fuel exports, as well as for possible regional expansion. The network of Oil gas stations was acquired by DAPSA and Delta Patagonia S.A., as the result of the bankruptcy process mentioned before and an agreement with YPF. See Note 3 to the Audited Consolidated Financial Statements for additional information.



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**Table of Contents**

As of December 31, 2018, our logistics processes remain certified under ISO 9001, ISO 14001, OHSAS 18001, and ISO 39001 Standards.

***Trading Division***

Our Trading Division trades refined products and crude oil to international customers and purchase crude oil from domestic oil companies. The refined products traded are unleaded gasoline, diesel, fuel oil, LPG, light naphtha, virgin naphtha, MTBE, green coke, decanted oil and AVGAS, among others.

This division exports to different countries, principally to United States of America, Africa and Brazil, as well as to other countries. Sales to international customers for 2018 and 2017 were Ps. 13,244 million and Ps. 4,982 million, respectively. In 2018, refined products accounted for 53% of total sales, up from 49% in 2017. In 2018, 33% of total sales corresponded to marine fuels, down from 48% in 2017. In 2018 and 2017, sales volumes to customers outside Argentina consisted of 5.3 mmbbl and 3.0 mmbbl of refined products, respectively, and 2.0 mmbbl and 2.3 mmbbl of marine fuels, respectively.

For the domestic market, sales of crude oil totaled Ps. 2,073 million, or 1.1 mmbbl, in 2018 and Ps. 995 million, or 1.2 mmbbl, in 2017. Sales of marine fuels totaled Ps. 3,025 million, or 1.2 mmbbl, in 2018 and Ps. 1,726 million, or 1.2 mmbbl in 2017.

In addition, imports of low sulfur diesel, gasoline, alkylate and AVGAS in 2018 totaled 6.9 mmbbl, an increase of 49% compared with 4.6 mmbbl in 2017. The United States of America and Brazil were the principal origin of these imports.

Imports of fertilizers, agrochemicals and paraffin totaled 0.24 million tons in 2018, growing 47% compared with 0.16 million tons in 2017. China and Morocco were the principal origin of fertilizer imports.

In 2018, it was not necessary to import crude oil.

***Gas and Power***

During 2018, our Gas and Power activities included: (i) the commercialization and distribution of natural gas to third parties; (ii) the technical operation of LNG regasification in Bahía Blanca (until October 31, 2018) and Escobar terminals, through the contracting of two regasification vessels; and (iii) the generation of both conventional thermal electricity and renewable energy projects mainly developed by YPF Energía Eléctrica S. A.

***Delivery commitments***

We are committed to providing fixed and determinable quantities of crude oil and natural gas in the near future under a variety of contractual arrangements.

With respect to crude oil, we sell substantially all of our Argentine production to our Refining and Marketing business segment to satisfy our refining requirements. As of December 31, 2018, we were not contractually committed to deliver material quantities of crude oil to third parties in the future.

## Table of Contents

As of December 31, 2018, we were contractually committed to deliver 15.3 mmcm (or 539 bcf) of natural gas in the future, (without considering interruptible export supply contracts) of which approximately 8.8 mmcm (or 311 bcf) will have to be delivered from 2019 through 2021. According to our estimates as of December 31, 2018, our contractual delivery commitments for the next three years could be met with our own production and, if necessary, with purchases from third parties.

However, since 2004 the Argentine government has established regulations for both the export and domestic natural gas markets which have affected Argentine producers' ability to export natural gas. Consequently, since 2004 we have been forced in many instances to partially or fully suspend natural gas export deliveries that are contemplated by our contracts with export customers. On August 2018, the Ministry of Energy and Mining (predecessor to the SGE) ( MINEM ) issued Resolution No. 104/2018 which allows local producers to export to Chile natural gas under new procedures. See Item 4. Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Natural gas.

For information regarding regulations that have been affecting our operations see Item 4. Information on the Company Regulatory Framework and Relationship with the Argentine Government Market Regulation.

For information regarding claims arising from restrictions in the natural gas market see Item 8. Financial Information Legal Proceedings.

On November 29, 2017, natural gas producers (among them, YPF) and ENARSA, at the request of the MINEM, subscribed the Terms and Conditions.

The Terms and Conditions set forth the basic policies to guarantee the adequate supply of natural gas to Distributors, and consequently to the residential and commercial final consumers, the continuity of the gradual and progressive reduction of subsidies. The Terms and Conditions were entered into within the framework of the normalization process of the natural gas market, which provides that the Terms and Conditions will be effective during the transition period to normalization which is currently scheduled to run through December 31, 2019.

Among other provisions, the Terms and Conditions recognize the right to transfer the cost of acquiring gas to the tariff paid by users and consumers and establish the volume that each producer and each basin must make available on a daily basis to the distributors (who in turn may express their lack of interest in receiving such amounts before a certain cut-off date set forth in the Terms and Conditions) during each month. In addition, the Terms and Conditions: (i) set forth penalties for any party's non-compliance with their obligation to take or deliver gas, (ii) set maximum gas prices in U.S. dollars for each basin for the two-year period from the execution of the Terms and Conditions, which were significantly higher than those prevailing until this agreement, (iii) include payment guidelines for the purchases made by the distributors to the producers and (iv) they include guidelines for early termination in the event of certain breaches by the parties. Pursuant to the Terms and Conditions, during the transition period ENARSA assumed the obligation to supply the demand corresponding to areas where the subsidies of residential gas consumption set forth in section 75 of Law No. 25,565 (corresponding to the areas of lower price of residential gas charged to users and consumers) are applicable.

The Terms and Conditions constitute guidelines for all parties in the negotiation of their respective individual agreements; however, the terms and conditions are guidelines and not obligations of the parties who entered into the Terms and Conditions. Entering the Terms and Conditions allows YPF to have predictability over its demand since natural gas for residential consumers is no longer dispatched according to priorities established in Resolution No. 1410/2010 but following the proportions and maximum quantities set forth in the Terms and Conditions annexes, compelling distribution companies to acquire natural gas for peak demand in the spot market.

On December 29, 2017, MINEM Resolution No. 508-E/2017 was published. This establishes the procedure for the compensation of lower revenues than the Licensees of the Natural Gas Distribution Service for User Networks See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Natural Gas.

During 2018, the natural gas market was deeply affected by the adverse situation of the Argentine economy and was also characterized by excess supply compared to domestic demand at certain times of the year, which impacted the production of natural gas resulting in the temporary closure of production in some locations, as well as in the reinjection of hydrocarbon. Based on this new scenario and new regulations (see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Natural Gas Tariffs. ) and agreements, a reduction in natural gas sales prices in dollar terms, can be seen in relation to the prices established in 2017.

See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions and Seasonality.

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**Table of Contents**

The devaluation of the Argentine Peso, among other impacts, triggered a renegotiation process of the agreements reached under the Terms and Conditions entered into on November 29, 2017 at request of the MINEM, to partially moderate the impact of passing through the effects of devaluation on tariffs to end users while keeping the contractual relations between parties. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Natural Gas Tariffs.

This situation also caused the Local Distribution Companies ( LDC ) to incur debts with producers due to the difference between contractually agreed natural gas prices nominated in U.S.\$ and the tariffs that LDCs charge to end users which are denominated in pesos.

As natural gas prices were not passed to end users pursuant to the regulatory framework, the Argentine government issued Decree No. 1053/2018 which set forth that differences caused by the variations in the exchange rate between natural gas prices and tariffs will be assumed by the Argentine Government. Differences and interest were to be paid in 30 installments to LDCs beginning in October 2019, and thereafter the LDCs must make overdue payments to producers. Additionally, LDCs and producers agreed to waive all their claims relating to these differences. ENARGAS is responsible for application of the decree and its regulation is still pending. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Natural Gas.

The above mentioned decree also set forth that from April 2019 onwards, differences generated as result of exchange rate variation shall not be passed through to final consumers. YPF is analyzing the potential courses of action available to it, in order to protect its rights and obligations under the law and the regulatory framework. See Item 4. Risk Factors Risks Relating to Our Business We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.

The natural gas market for power generation also suffered different changes:

On August 1, 2018, the MINEM issued Resolution No. 46/2018 lowering natural gas price reference for electric generation by approximately 20% and instructed Compañía Administradora del Mercado Mayorista Eléctrico S.A. (CAMMESA), a government-controlled company, in charge of the electricity dispatch that concentrate the purchase of natural gas and fuels for power generation, to acquire combustibles through competitive processes.

In September 2018, CAMMESA, decided to purchase most of the natural gas to be consumed between September and December through an electronic bidding process. The bids were on a spot basis, not having either Take or Pay or Delivery or Pay obligations therefore there are not penalties for not delivering. Prices further decreased, but the process cannot be taken as a term firm price parameter as there were no obligations to deliver or to take the natural gas and the bidding conditions imposed a maximum price.

On November 6, 2018, the SGE issued Resolution No. 70/2018 that gave back to power generators the ability to purchase their own natural gas supply. Most of the power generator recovered the ability to do so, therefore, prices of natural gas purchased under the bidding processes decreased further because of the competition for demand in the low consumption season and in an environment with oversupply and economic recession.

At the end of December 2018, the government decreased again the natural gas price reference for power generation by between 16% and 8% based on the supply basin of origin, with Neuquina basin being the most affected. Some days later, CAMMESA called for another bidding process under the same conditions. The term of this bidding was one year and again established maximum prices not related to free market pricing mechanisms. This bidding process resulted in even lower natural gas prices for generation. However, this cannot be considered a parameter due to the conditions of the bidding.

*Natural gas supply contracts*

The Argentine government has established regulations for both the international and domestic natural gas markets, which have affected the ability of producers in Argentina to export natural gas. Our principal supply contracts are briefly described below.

We were committed to supplying a daily quantity of 125 mmcf/d (or 3.5 mmcm/d) to the Methanex plant in Cabo Negro, Punta Arenas, in Chile (under three original agreements entered into on January 5, 1995, March 11, 1997 and November 13, 2001, which expire between 2017 and 2025). Pursuant to instructions from the Argentine government, deliveries have been interrupted since 2007. In connection with these contracts, the Company signed three new agreements with Methanex through which YPF eliminated all contractual obligations and past and future potential claims related to the original agreements through 2018. The first agreement was signed in 2011, through which YPF committed to investments in Upstream. The second one was signed in 2012, through which YPF committed to temporarily exporting gas to Chile and importing methanol as the final product ( Gas Tolling Agreement ), receiving the approval from the Argentine government. A new Gas Tolling Agreement was signed in December 2016, through which YPF committed to supplying a

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**Table of Contents**

total volume of 4 bcf (115 mmcm) of gas to Methanex through April 2018. The new Gas Tolling Agreement was signed by YPF and Methanex and presented for approval of the Argentine government to temporarily export gas and import methanol. An addendum to the Gas Tolling Agreement was signed on December 4, 2017 by YPF and Methanex, pursuant to which YPF has the option to supply 1 mmcm/d until September 2018 or until reaching a total amount of 115 mmcm whatever comes first. Each cubic meter delivered, reduces proportionally the commitment of YPF to deliver natural gas according to the 1997 Agreement, from January 1 to December 31, 2019. The Gas Tolling Agreement as well as the addendum (both approved by MINEM through Resolution No. 502/2017) states that if the volumes of the addendum are completely delivered, the commitment established in 1997 Agreement, is considered fulfilled. However, no sanction could apply to YPF if the company decides not to fulfill the volumes mentioned in the addendum. During 2018, YPF delivered 113 mmcm of natural gas to Methanex fulfilling the agreement reached during 2017. Because of this operation and various renegotiations agreements with Methanex all contractual obligations and potential claims related to the original agreements entered into on January 5, 1995 and March 11, 1997 and the contractual obligations and potential claims through 2018 were settled, including those related to the agreement entered on November 13, 2001.

Additionally, in November 23, 2018 Methanex and YPF entered into an agreement to suspend through December 31, 2019 the contractual obligations under the 2001 agreement and establishing contractual conditions for deliveries until that date under the provisions of Resolution No. 104/2018, which was approved by SGE on March 6, 2019. We were engaged in a 15-year contract signed in 2003 with Gas Valpo, a natural gas distributor, to supply 35 mmcf/d (or 1 mmcm/d) through the Gas Andes pipeline linking Mendoza, Argentina to Santiago, Chile, which has a transportation capacity of 353 mmcf/d (or 10 mmcf/d) (designed capacity with compression plants). As regulations changed, this contract was modified to an interruptible contract and subsequently terminated in 2018.

We have a 21-year contract (entered into in 1999) to deliver 93 mmcf/d (or 2.63 mmcm/d) of natural gas to Innergy Soluciones Energéticas, a Chilean distribution company that distributes natural gas to residential and industrial clients through a natural gas pipeline (with a capacity of 318 mmcf/d or 9 mmcm/d) connecting Loma La Lata in Neuquén, Argentina with Chile. The contract was modified to reduce its deliver or pay obligation, not to exceed an annual quantity of 20 mmcm with a daily basis of 7.1 mmcf/d (or 0.2 mmcm/d).

In 2018, YPF renegotiated the 1999 Agreement with Innergy. The parties agreed to suspend the contract until both parties reach a new natural gas sales agreement.

As a result of these negotiations, the parties entered into an interruptible agreement under the provisions of Resolution No. 104/2018 pursuant to which YPF will deliver to Innergy up to 1.5 mmcm of natural gas per day. For more information, see Legal and Regulatory Framework and Relationship with the Argentine Government Natural gas export administration and domestic supply priorities.

Because of certain regulations implemented by the Argentine government, we could not meet our export commitments and were forced to declare force majeure under our natural gas export sales agreements, although certain counterparties have rejected our position. See Item 4. Information on the Company Exploration and Production The Argentine natural gas market and Item 8. Financial Information Legal Proceedings. Because of actions taken by the Argentine government, through measures described in greater detail under Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Natural gas, during recent years we have been forced to reduce the export volumes authorized to be provided under the relevant agreements and permits.

In August 2018, MINEM issued Resolution No. 104/2018 which established a new procedure to export natural gas under six different modalities and without the obligation to re-import the exported volumes. This resolution derogates

Resolution No. 299/98 and its modifications and establishes that all the export permits, issued under the abovementioned resolution, must undergo the proceedings established under the new ruling and are subject and conditioned to the security of local market supply. Resolution No 104/2018 also derogates Resolution No. 265/2004, Resolution No. 883/2005 and Resolution No. 8/2017. See Item 4. Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Natural gas.

During 2018 YPF has entered into sales agreements with most of the main potential natural gas consumers from Chile (Colbún S. A., Gas VALPO S. A., Aprovisionadora Global de Combustibles S. A., ENEL Generación Chile S. A., Innergy Soluciones Energéticas S. A. and Methanex S. A.) and is currently negotiating with other potential customers from that country and Brazil. Most of the agreements are under the interruptible alternative provided in Resolution No.104/2018. See for more information Legal and Regulatory Framework and Relationship with the Argentine Government Natural gas export administration and domestic supply priorities.

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**Table of Contents*****The Argentine natural gas market***

We estimate (based on preliminary reports of amounts delivered by gas transportation companies) that natural gas consumption in Argentina totaled approximately 1,801 bcf (or 51.03 bcm) in 2018. We estimate that the number of users connected to distribution systems throughout Argentina was approximately 8.81 million as of October 31, 2018.

In 2018, we sold approximately 28.5 % of our natural gas to local residential distribution companies, approximately 0.5 % to compressed natural gas end users, approximately 30.5 % to industrial users (including our affiliates, Mega and Profertil), approximately 32.7 % to power plants and 7.8 % to YPF downstream operations. Sales were affected by increased consumption by residential consumers during winter months (June to August). During 2018, approximately 80% of our natural gas sales proceeded from the Neuquina basin.

During the past few years, the Argentine government has taken many steps aimed to satisfy domestic natural gas demand, including pricing, export regulations, higher export taxes and domestic market injection requirements. These regulations were applied to all Argentine producers, affecting natural gas production and exports from every producing basin. See Item 4. Information on the Company Exploration and Production Delivery commitments Natural gas supply contracts. Argentine producers such as YPF complied with the Argentine government's directions to curtail exports to supply gas to the domestic market, whether such directions are issued pursuant to resolutions or otherwise. Resolutions adopted by the Argentine government provide penalties for non-compliance. Rule SSC No. 27/2004 issued by the Undersecretary of Fuels ( Rule 27 ), for example, punishes the violation of any order issued thereunder by suspending or revoking the production concession. Resolutions No. 659 and No. 752 also provide that producers not complying with injection orders will have their concessions and export permits suspended or revoked and state that pipeline operators are prohibited from shipping any natural gas injected by a non-complying exporting producer.

The Argentine government began suspending natural gas export permits pursuant to Rule 27 in April 2004, and in June 2004 the Argentine government began issuing injection orders to us under Resolution No. 659. Thereafter, the volumes of natural gas required to be provided to the domestic market under the different mechanisms described above have continued to increase substantially. See additionally Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Natural gas export administration and domestic supply priorities.

On January 8, 2017, Law No. 26,732, which establishes export duties on hydrocarbon exports, ceased to be in force. As a result, export duties are no longer imposed on natural gas exports.

See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Natural gas for additional information on these and other related regulations.

***Argentine natural gas supplies***

Most of our proved natural gas reserves in Argentina (approximately 75% as of December 31, 2018) are situated in the Neuquina basin, which is strategically located in relation to the principal market of Buenos Aires and is supported by sufficient pipeline capacity during most of the year. Accordingly, we believe that natural gas from this region has a competitive advantage compared to natural gas from other regions. The capacity of the natural gas pipelines in Argentina has proven in the past to be inadequate at times to meet peak-day winter demand, and there is no meaningful storage capacity in Argentina. Since privatization, local pipeline companies have added capacity, improving their ability to satisfy peak-day winter demand, but no assurances can be given that this additional capacity will be sufficient to meet demand.



In order to bridge the gap between supply and demand, especially with respect to peak-day winter demand, the Argentine government has entered into gas import agreements.

YPF has provided regasification services to IEASA (formerly ENARSA) under certain agreements since May 2008. The agreement between the parties required YPF to provide a regasification vessel moored in a jetty belonging to Compañía MEGA, S.A. in Bahía Blanca. Such agreement has been further extended and renegotiated to last until October 31, 2018 date on which the agreement has ended and the regasification vessel left the jetty.

Since the beginning of its operations, this regasification vessel has converted 23.54 bcm (or 831.18 bcf) of LNG into natural gas, which has been injected into a pipeline which feeds the Argentine national network. Most of this volume was supplied during the peak winter demand period. In 2018, until completion of the contract on October 31, 2018 natural gas injected into the network amounted to approximately 1.69 bcm (or 59.5 bcf).

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## **Table of Contents**

In addition to regasification activities, YPF is the operator of UTE Escobar (a joint venture formed by YPF and IEASA, which operates an LNG Regasification Terminal ( LNG Escobar ) located in Escobar at km 74.5 of the Paraná River in the province of Buenos Aires. UTE Escobar has executed agreements with Excelerate Energy to provide and operate a 151 mcm (or 533 mcf) regasification vessel moored at the LNG Escobar terminal with the capacity to supply up to 20 mmcm/d (or 700 mmcf/d) of natural gas.

During 2018, UTE Escobar worked with Excelerate Energy towards increasing the regasification capacity.

Since the beginning of its operations, this regasification vessel has converted 18.35 bcm (or 647.4 bcf) of LNG into natural gas, which has been injected into the Argentine network. In 2018, natural gas injected into the network amounted to approximately 1.85 bcm (or 65.3 bcf).

During 2018, YPF entered into two agreements: a charter agreement for a liquefaction barge, which will be named Tango FLNG , with Exmar Energy Netherlands B.V. ( Exmar ); and a liquefaction services agreement with Exmar Energy Services B.V. (both companies are affiliated with Exmar N.V.). The agreements have a term of 10 years, with an investment by YPF of up to approximately U.S.\$ 20 million.

Through these agreements, YPF will be able to produce an approximate volume of 500,000 tons per year of LNG by taking natural gas from its deposits throughout the country. It will allow YPF to export this natural resource to different international markets, including Asia, Europe and regional markets. This is the first floating LNG export project in Latin America, the third in the world, which will make Argentina part of the select group of LNG exporting countries. The barge has a storage capacity of 16,100 m3 LNG and liquefaction capacity of 2.5 mm3/d of natural gas.

The Tango FLNG is the first barge of its kind, it will operate in Bahía Blanca and is expected to begin operations during the second quarter of 2019.

### ***Natural gas transportation and storage capacity***

Natural gas is delivered by us through our own gathering systems to the five trunk lines operated by Transportadora de Gas del Norte S.A and Transportadora de Gas del Sur S.A. from each of the major basins. The capacity of the natural gas transportation pipelines in Argentina is mainly used by distribution companies. A major portion of the available capacity of the transportation pipelines is booked by firm customers, mainly during the winter, leaving capacity available for interruptible customers to varying extents throughout the rest of the year.

We have utilized natural underground structures located close to consuming markets as underground natural gas storage facilities, with the objective of storing limited volumes of natural gas during periods of low demand and selling such natural gas during periods of high demand. Our principal gas storage facility, Diadema, is located in the Patagonia region, near Comodoro Rivadavia city. The injection of natural gas into the reservoir started in January 2001.

### ***Other investments and activities***

#### ***NGLs***

YPF participated in the development of its affiliate Compañía Mega S.A. ( MEGA ) to increase its ability to separate liquid petroleum products from natural gas.

YPF owns 38% of MEGA, while Petrobras and Dow Chemical have stakes of 34% and 28%, respectively.

MEGA operates:

A separation plant, which is located in the Loma La Lata field, in the province of Neuquén.

An NGL fractionation plant, which produces ethane, propane, butane and natural gasoline and is in the city of Bahía Blanca in the province of Buenos Aires.

A pipeline that links both plants and that transports NGLs.

Transportation, storage and port facilities near the fractionation plant.

**Table of Contents**

MEGA's maximum annual production capacity is 1.62 million tons of natural gasoline, LPG and ethane. YPF is MEGA's main supplier of natural gas. The production of the fractionation plant is used in the petrochemical operations of PBBPolisur, S.A. (PBB), owned by Dow Chemical Company, and exported by tanker to Petrobras and other relevant clients.

Pursuant to Decree No. 2067/08 and Resolutions No. 1982/2011 and 1991/2011 of ENARGAS, since December 1, 2011, MEGA had been required to pay, monthly, a fee of Ps. 0.405 per cubic meter of natural gas it purchases. This requirement had a significant impact on the operations of Mega and was challenged in the Argentine federal courts. On October 27, 2015, the Argentine Supreme Court ruled on the legal proceedings filed by Mega covering the period up to the issuance of Law No. 26,784 (November 13, 2012). It ruled that Decree No. 2067/08 was unconstitutional and did not apply to Mega.

In addition, on February 25, 2013, MEGA filed another action requesting that the federal courts declare the unconstitutionality of Articles 53 and 54 of Law No. 26,784, which included within the provisions of Law No. 26,095 the fee created by Decree No. 2067/08 and ENARGAS regulations.

On April 1, 2016, the Argentine Government issued Resolution No. 28, which provided for the suspension of the application of the fee created by Decree No. 2067/08 and related ENARGAS regulations effective as of the date of issuance.

On April 25, 2018, a federal lower court ruled that Articles 53 and 54 of Law No. 26,784 were unconstitutional and were not applicable to MEGA. The Argentine Government appealed such decision before the Federal Chamber of Appeals but later withdrew the appeal. Thereafter, the Federal Chamber issued a resolution confirming the Argentine Government's withdrawal of the appeal and, consequently, the April 25, 2018 ruling was upheld. Therefore, this conflict has been definitively resolved in favor of MEGA.

*Electricity market generation***The Argentine Electricity Market**

Argentina's energy demand in 2018 was almost like its energy demand in 2017, only increased 0.3% according to CAMMESA. During 2018, domestic consumption increased 1.8% and exports increased more than 405%.

To satisfy this energy demand, Argentina's overall power generation in 2018 was 0.75% greater than power generation in 2017, according to CAMMESA. In 2018, 63.8% of Argentina's power generation came from thermal power plants, 29.1% from hydroelectric power plants, 4.7% from nuclear power plants, 2.4% from renewable energy sources and 0.25% from spot imports from Uruguay, Brazil, Paraguay and Chile (343.5 Gwh). Those spot imports were used to satisfy peak demand hours without capacity reserves and non-used wind energy from Uruguay.

Peak capacity demand reached its maximum in February 2018 (26,320 Mw), but maintaining 1,895 Mw of capacity reserve for security of the electrical system.

Thermal power plants consumed 874,773 mmcm of diesel oil, a decrease of 37.4% compared to 2017, 565,022 tons of fuel oil, a 56.1% decrease compared to 2017, and 18.03 bcm of natural gas, an 5.3% increase compared to 2017.

The average electricity price was Ps. 2,117.5/MWh, an 80.4% increase compared to 2017, while the annual average marginal cost of production was Ps. 1,996/MWh, also a 35.49% increase compared to 2017 due to an improvement in the efficiency of power plants and to a lower consumption of liquid fuels.

In 2017, Resolution No. 19/2017 of the Secretariat of Electric Energy replaced Resolution No. 95/13 and defined a new remuneration method for available power and generated energy, allowed the power generation plants to increase the profitability and reliability of the generation of energy. This resolution established remuneration based on the available power by type of technology (gas turbine, steam turbine, combined cycles, hydroelectric) and remuneration for energy generated and operated. Likewise, additional remuneration was established as incentive to efficiency. The payment of these concepts is done in cash and denominated in dollars. This resolution remained in force during 2018.

In Resolution SEE 287 - E / 2017 of May 10, 2017, the Ministry of Energy instructed CAMMESA to call interested parties to offer new thermal generation of technology: a) combined cycle or b) cogeneration, with compromise to be available to meet the demand in the wholesale electric market, contribute to the reduction of costs and to the increase of the reliability in the Argentine Electrical System.

**Table of Contents**

On March 1, 2019, Resolution No. 1/2019 of the Secretary of Renewable Resources and Electric Market which derogated Resolution No. 19/2017 of the former Secretary of Electric Energy, effective as of March 1, 2019, and among other aspects provided for new mechanisms for payment of guaranteed power availability and generation by Generators, Co-generators and Self-generators from MEM (excluding binational hydroelectric generators, nuclear generators and Generators, Co-generators and Self-generators from MEM whose generating units had been committed as part of agreements for purposes of supplying the MEM from such regime). The prices for power and generation during the six months during which electric demand is lower which were approved by Resolution No. 1/2019 are approximately 20% lower in dollar terms than those set forth in Resolution No. 19/2017.

*YPF in Power Generation*

On August 1, 2013, because of the spinoff of the assets of PlusPetrol Energy S.A., YPF Energía Eléctrica S.A ( YPF EE ), was created to continue the power generation operations and businesses of Central Térmica Tucumán and Central Térmica San Miguel de Tucumán.

During 2018, YPF EE participated in the following power generation plants with an aggregate net installed capacity of 1,819 MW:

a 100% interest in Central Térmica Tucumán (447 MW combined cycle) through YPF EE, in which we have a 100% interest;

a 100% interest in Central Térmica San Miguel de Tucumán (382 MW combined cycle) through YPF EE, in which we have a 100% interest; and

a 100% interest in Loma Campana Este (17 MW motogenerators) through YPF EE, in which we have 100% interest;

a 100% interest in Loma Campana I (105 MW gas turbine) through YPF EE, in which we have a 100% interest;

a 100% interest in La Plata Cogeneración (128 MW gas turbine) through YPF EE, in which we have a 100% interest;

a 100% interest in Manantiales Behr (99 MW gas turbine) through YPF EE, in which we have a 100% interest;

a 100% interest in Loma Campana II (107 MW gas turbine) through YGEN, in which we have a 100% interest;

a 100% interest in El Bracho (267 MW gas turbine) through YGEN II, in which we have a 100% interest;

a 30% interest in Central Dock Sud (797.5 MW combined cycle and 72 MW gas turbines), directly and through Inversora Dock Sud S.A., in which we have a 30% interest.

Additionally, YPF EE owns assets that are part of Filo Morado Partnership, which has an installed capacity of 63 MW. However, the relevant facilities have not been in operation since November 2008.

In addition to YPF EE, YPF also owns and operates power plants supplied with natural gas produced by itself, which produce power to supply upstream and downstream activities:

Los Perales power plant (74 MW), which is in the Los Perales natural gas field;

Chihuido de la Sierra Negra Power Plant (40 MW); and

Plaza Huincul Power Plant (40 MW).

In 2018, YPF EE generated 5,247 GWh with its two combined cycle plants. Central Térmica Tucumán's production was 3,031 GWh, and Central Térmica San Miguel de Tucumán's production was 2,216 GWh. Additionally, Central Dock Sud generated 1,215 GWh considering YPF EE's stake. Energy produced by both combined cycle plants in Tucumán was 0.9% lower in 2018 compared to 2017. Also, the energy produced by Central Dock Sud in 2018 decreased by 20.11%. Throughout August there was a failure in the DSUDTG09 compressor's fixed parts which caused important damage both in the compressor itself as well as in the vanes of the gas turbine. The turbine resumed its operation in December 2018.

On November 7, 2017, YPF EE reached the commercial operating date of an important new thermal power generation plant, Central Térmica Loma Campana (105 MW gas turbine), which is in Añelo, Neuquén. This additional generation plant was designed with the objective of supplying YPF's internal energy demand all over the country. In 2018 this power plant generated 432 GWh. Throughout February there was a booster stall in the gas turbine LCAMTG01 that caused the failure in the compressor's fixed and mobile parts, leading to the subsequent replacement of the compressor. Such failure lasted for approximately 20 days. Also, throughout the months of February and March a failure in the cooling system of the gas turbine LCAMTG02 due to low flow appeared, causing the subsequent redesign of the cooling towers. Such failure lasted for approximately 40 days.

## Table of Contents

At the beginning of 2018 YPF EE bought the cogeneration plant in La Plata from Central Puerto S.A (128 MW), which generated 874 Gwh in 2018.

Within the framework of Secretary of Electrical Energy (S.E.E.) Resolution No. 21/2016, YPF EE, together with a subsidiary of General Electric, decided to engage in two projects for the development and operation of two power plants.

One project consists of a new 107 MW thermal power plant located at Loma Campana in Neuquén Province, Argentina. The project has succeeded in obtaining a purchase price agreement at the second round of the power capacity auction established through S.E.E. Resolution No. 21/2016 and the reference terms issued by CAMMESA. The commercial operating date of this power plant was on November 30, 2017, generating 395 GWh during 2018.

The second project consists of a new 267 MW thermal power plant located at El Bracho in Tucumán Province, Argentina. The project has succeeded in obtaining a purchase price agreement at the first round of the power capacity auction established through S.E.E. Resolution No. 21/2016 and the reference terms issued by CAMMESA. The project reached the commercial operating date on January 27, 2018, generating 545 GWh during that year.

Both projects involved an aggregate investment of U.S.\$ 307.9 million, and the total shareholders' contribution was U.S.\$ 88.4 million (approximately U.S.\$ 58.9 million payable by YPF EE), with the remainder of the investment amount, U.S.\$ 219.5 million financed by financial institutions.

Additionally, in order to, to support YPF's operations, YPF EE owns Loma Campana East, which consists of 12 Jenbacher engines financed by a bank lease from Supervielle bank. It is located in Añelo, Province of Neuquén, and built on land owned by YPF. During 2018, these engines generated 34 GWh.

As a consequence of Law No. 27,191 related to renewable energy, YPF EE started in 2016 the construction of its renewable generation project, Manantiales Behr Wind Farm (99 MW), near Comodoro Rivadavia in the Chubut province, in order to supply the percentage of YPF total demand with clean generation that will be required by law in 2018. This project reached the commercial operating date of the first 46.2 MW on July 24, 2018, completing on December 24, 2018, generating 150 GWh during this period.

The energy produced by YPF EE and Central Dock Sud (8,891 GWh in total, considering YPF EE's stake in Central Dock Sud) represented 6.5% of Argentina's electricity generation in 2018.

In addition, pursuant to Law No. 27,191, the Ministry of Energy and Mining launched in August 2017 the Plan RenovAr 2.0, an auction for 1,200 MW for the construction of renewable energy generation plants, in which YPF EE was awarded with the construction of the Cañadón Leon Wind Farm, a project of another 99 MW of clean generation, in the Santa Cruz province. Under the terms of the auction, this project will allow YPF EE to have another power purchase agreement with CAMMESA. This project is expected to be finished during the second quarter of 2020.

As far as efficient energy generation is concerned, YPF EE won the award of two projects at the second round of the cycle closure and cogeneration plants auction established through S.E.E. Resolution No. 287/2017. One project consists of a new 72 MW cogeneration plant located in the Buenos Aires province. The other implies the closure of the open cycle of the El Bracho thermal power plant in Tucumán (198 MW).

In addition, and pursuant to Resolution No. 281-E/2017, YPF EE was awarded dispatch priority for two additional renewable generation projects, Los Teros Wind Farm (122.6 MW) and Los Teros II Wind Farm (49.8 MW). These projects will allow YPF EE to commercialize renewable energy in the private market (Mercado a Término de Energías



Renovables (MATER ). Los Teros I is expected to be finished by the end of 2019 and Los Teros II during the second quarter of 2020.

With all these projects in its portfolio, among others, YPF EE pursues to be one of the strongest competitors in the electrical generation market in Argentina. For this purpose, YPF EE established negotiations with GE Energy Financial Services during 2017 in order to redistribute its share capital, trusting that the entrance of the strategic partner will hasten the growth of the company in the country.

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**Table of Contents**

On December 14, 2017, the Board of Directors of the Company approved the terms of a memorandum of understanding signed with GE Energy Financial Services, Inc. ( GE EFS ) which established the framework conditions under which the parties would agree to the capitalization of YPF EE. This Agreement, established that GE EFS intended to contribute capital through a vehicle company and subscribe for shares of YPF EE in order to have a shareholding of 25% of its capital stock.

On February 6, 2018, the conditions of the definitive and binding agreement entered into by YPF with EFS Global Energy B.V. ( GE ) and GE Capital Global Energy Investments B.V., companies indirectly controlled by GE EFS, which established the conditions for the capitalization of YPF EE (the Share Subscription Agreement ). The Share Subscription Agreement established that GE, subject to compliance with certain preceding conditions, would subscribe for shares of YPF EE to have a shareholding of 24.99% of its capital stock and jointly control this company with YPF.

The contribution would be U.S.\$ 310 million, composed as follows:

Subscription price of U.S.\$ 275 million:

U.S.\$ 135 million as of the closing date of the transaction; and

U.S.\$ 140 million 12 months after the closing date of the transaction.

Contingent price of up to the maximum sum of U.S.\$ 35 million subject to the evolution of the prices of Resolution No. 19/17 (33.33% as of 24 months from the closing date of the transaction and 16.67% each subsequent year).

On March 20, 2018, GE, a subsidiary of EFS Global Energy B.V. (both corporations indirectly controlled by GE Energy Financial Services, Inc.), subscribed for shares of YPF EE in an amount equal to 24.99% of YPF EE s capital stock through a cash contribution of U.S.\$ 275 million, plus a contingent payment for up to U.S.\$ 35 million. This cash contribution will allow YPF EE a more accelerated development of its business plan. As of the date of the subscription of YPF EE shares by GE, GE and YPF have joint control of YPF EE.

See Note 3 to the Audited Consolidated Financial Statements for additional information.

*Natural gas distribution*

We currently hold a 70% stake in Metrogas S.A. ( Metrogas ), a natural gas distribution company in the capital region and southern suburbs of Buenos Aires, and one of the main distributors in Argentina. During 2018, Metrogas distributed approximately 20.8 mmcm (or 733.4 mmcf) of natural gas per day to 2.4 million customers in comparison to approximately 20.4 mmcm (or 719.7 mmcf) of natural gas per day to 2.4 million customers in 2017. During May 2013, we, through our subsidiary YPF Inversora Energética S.A. ( YPF Inversora Energética ), gained 100% ownership of Gas Argentino S.A. ( GASA ), the controlling company of Metrogas, by acquiring shares representing the remaining 54.7% interest in GASA not already owned by us. In 2016, GASA and YPF Inversora Energética were both merged into us and dissolved without liquidation.

Additionally, on December 28, 2016, YPF has received from Metrogas a copy of the note received by it from ENARGAS, requesting it to adjust Metrogas equity structure in line with the term provided for in Emergency Law No. 25,561 and in compliance with Section 34 of Law 24,076. In this regard, it should be noted that YPF indirectly acquired 70% of Metrogas equity, which transaction was approved by ENARGAS Resolution No. I/2,566 dated April 19, 2013; and, following the merger with YPF Inversora Energética S.A. and Gas Argentino S.A., is the holder of 70% of Metrogas shares.

On March 30, 2017, YPF filed an appeal for reconsideration requesting to overrule the ENARGAS Note and render a new decision setting a reasonable timeframe consistent with the current reality of the gas market to comply with the provisions set forth article 34 of Law 24,076.

On June 15, 2017, YPF submitted to ENARGAS a tentative schedule for the process of adapting its equity interests in Metrogas, which was expanded in detail on July 3, 2017.

On April 5, 2018, ENARGAS rejected the reconsideration petition filed by YPF on March 30, 2017. Said decision was notified to YPF on April 6, 2018, by means of ENARGAS Resolution No. 313/2018.

YPF requested access to the proceedings, which was granted by ENARGAS on September 10, 2018, which in turn enabled the Company to file a timely appeal.

## **Table of Contents**

On October 8, 2018, YPF filed an appeal with the SGE. As of the date of this annual report, this appeal is pending resolution.

### *Metrogas tariff issues*

The Emergency Law published in the Official Gazette on January 7, 2002, modified the legal framework in force for license contracts of public services.

The main provisions of Emergency Law that have an impact on the License duly granted to MetroGAS by the National Government and that modified express provisions of the Gas Law were the following: pesification of tariffs that were fixed in convertible dollars at the exchange rate specified in the Convertibility Law (Law No. 23,928), the prohibition of tariff adjustments based on any foreign index, thus not allowing the application of the international index specified in the Regulatory Framework (US Producer Price Index-PPI) and the renegotiation of the License granted to the Company in 1992.

Moreover, the Emergency Law established the beginning of a renegotiation process of public utility services agreements granted by the PEN without detriment to the requirements that utility services companies must go on complying with all their obligations.

The Emergency Law, which was originally to be due in December 2003, was extended several times until December 31, 2017. The terms for renegotiating licenses and public services concessions were also extended. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Public Emergency. In the framework of the renegotiation process, the Company signed a series of agreements with different entities representing the National Government.

For the agreements signed in 2017 and 2018, see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Natural Gas Tariffs.

## **Seasonality**

For a description of the seasonality of our business, see Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Seasonality.

## **Research and Development**

At the end of 2013, YPF created YPF Tecnologia S.A. ( Y-TEC ), a highly specialized company focusing on research and development ( R&D ) activities. YPF holds an interest stake of 51% and CONICET, a state-owned research and development organization, holds an equity interest of 49%.

All lines of R&D carried out by Y-TEC are strategically aligned with the needs of YPF. The Board of Directors of Y-TEC consists of three directors appointed by YPF and two directors appointed by CONICET; additionally, the Chairman and the General Manager of Y-TEC are appointed by YPF.

For the operations of Y-TEC, five hectares from the National University of La Plata ( UNLP ) were acquired, and a 13,000 m2 building consisting of 47 labs and 12 experimental plants was recently built. The staff and the equipment moved into the new building in June 2016. More than 300 professionals work in the new building creating innovative solutions for the energy sector.

The main goals of Y-TEC are: to generate high-impact technological solutions, provide high quality technical and laboratory support services and lead the fast implementation in the industry of existing innovative technologies.

Y-TEC explores opportunities throughout the actual and future energy sector. This is a broad and diversified strategy approach that covers core areas such as Unconventional Resources, Mature Fields and Petrochemical, as well as New Energies, Future Mobility and Environmental Sustainability.

The new R&D portfolio consists of 51 projects and more than 100 technical assistance and specialized services.

In 2018, U.S.\$23.7 million was allocated to R&D activities, and U.S.\$0.56 million (YPF's working interest) was invested in new equipment.

## **Table of Contents**

Y-TEC believes in the value of liaising with technological partners to reinforce regional leadership, adopting the open innovation concept. This concept allows us to reduce technological risk, shorten the time to have the product on the market and minimize costs.

Since 2016, we have opened more than twenty Innovation Spaces. These are areas promoted by Y-TEC to complement scientific capacities in public and private institutions and allow the development of high impact technological products for the national energy industry. Knowledge, experience and state-of-the-art equipment are brought together by Y-TEC and CONICET.

In exploration and production of unconventional resources, R&D efforts are focused on reducing the development field cost, by the design, development and application of very specific technologies. Our most important challenges include simulation and modeling tools design and development, measuring and monitoring solutions, tailored made fluids and smart proppants, additives and chemical products for optimizing drilling, completion and production operations.

To optimize production from mature fields, we focused on increasing the recovery factor by the development of enhanced oil recovery technologies and the development of new processes and materials to reduce the operational costs of our facilities, to increase their run life and integrity.

Regarding oil products refining and marketing, we applied our technological knowledge to optimize refinery operations and improve product quality, with a strong focus on the achievement of energy efficiency and environmental improvements. In the petrochemical business, R&D activities are mainly focused on the development of new products with higher added value, such as special solvents, fertilizers and several agricultural products.

Renewable energy is a strategic R&D area. Energy storage based on li-ion technologies, solar energy (photovoltaics and thermal), hydrogen production, bioenergy and energy efficiency are among the greatest challenges.

Supporting the process of transformation initiated by YPF and in line with the advancement of digital technologies, we created in Y-TEC the first Center of Excellence in Analytics (COE, fully dedicated to running data science projects across all YPF businesses.

The COE combines, under one single department, data scientists, process modeling experts and IT professionals to provide integrated solutions to O&G industry. With this initiative, YPF is set at the forefront of other companies in the country by enhancing the use of the data to improve performance, protect assets and discover new businesses. The main goals of the COE are: to lead the company cultural revolution by making data analytics accessible to all levels of the organization; to promote a vision of one team overseeing synergies and the integration of different data science projects and to multiply value by prioritizing projects that can give the highest return on investment.

## **Competition**

In our Upstream business, we encounter competition from major international oil companies and other domestic oil companies in acquiring exploration permits and production concessions. Our Upstream business may also encounter competition from oil and gas companies created and owned by certain Argentine provinces, including La Pampa, Neuquén, Santa Cruz and Chubut. See Legal and Regulatory Framework and Relationship with the Argentine Government Overview and Legal and Regulatory Framework and Relationship with the Argentine Government Law No. 26,197. However, changes introduced in the Hydrocarbons Law through Law No. 27,007 (2014) limit the ability of provincial companies to possess future exclusive rights over permits and concessions, which supports competition in the Argentine oil and gas industry. See Legal and Regulatory Framework and Relationship with the Argentine

Government Law No. 27,007, (amendment of the Hydrocarbons Law). Moreover, during the last several years we have made a comprehensive move to secure, either by renewing, extending and converting through mechanisms provided in the Law, the majority of such permits and concessions in Argentina considered valuable in the long term.

In our Downstream businesses, we face competition from domestic and international oil companies. In our export markets, we compete with numerous oil and trading companies. We operate in a dynamic market in the Argentine downstream industry and the crude oil and natural gas production industry. Crude oil and most refined products prices are subject to international supply and demand and, in certain cases, to Argentine regulations.

See Item 3. Key Information Risk Factors Risks Relating to Our Business Limitations on local pricing in Argentina may adversely affect our results of operations , Item 3. Key Information Risk Factors Risks Relating to Our Business We are exposed to the effects of fluctuations in the prices of oil, gas and refined products , and Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Natural Gas Tariffs.

## **Table of Contents**

We continuously assess the external environment and our competitive position to adjust our business strategies and plans to create and sustain competitive advantage.

### **Environmental Matters**

#### ***YPF-Argentine operations***

YPF carries forward its mission to produce and provide energy focus on environmental care, trying to minimize the impact, looking enhance the positive effects associated with its work and prioritizing the protection of workers, the environment and the community in general.

We reaffirmed that commitment on environmental management during 2018 through the approval of our Operational Excellence Policy which replaced and upgraded our Environmental Protection and Health Preservation Policy. Environmental management is built upon a strong corporate culture of security and protection, and it is deployed through a management system focused on occupational risks, the mitigation of industrial risks and integration of the principles of process safety to control the risks and the impacts. This management system and its application is certified according to standards OHSAS 18001 (Safety) and ISO 14001 (Environment) in the major industrial centers of the company.

All the company's segments are constantly upgrading their integrated management systems and major environmental parameters are subject to reporting and monitoring as a means to evaluate our performance and implement any necessary improvements.

Our operations are subject to a wide range of laws and regulations relating to the general impact of industrial operations on the environment, including air emissions and waste water, the disposal or remediation of soil or water contaminated with hazardous or toxic waste, fuel specifications to address air emissions and the effect of the environment on health and safety. We have made and will continue to make expenditures and investments in order to warrant the reliability and integrity of our assets and operations and to comply with these laws and regulations as well. In Argentina, local, provincial and national authorities are moving towards more stringent enforcement of applicable laws. In addition, since 1997, Argentina has been implementing regulations that require our operations to meet stricter environmental standards that are comparable in many respects to those in effect in the United States and in countries within the European Community. These regulations establish the general framework for environmental protection requirements, including the establishment of fines and criminal penalties for their violation. We have undertaken measures to achieve compliance with these standards and are undertaking various abatement and remediation projects, the more significant of which are discussed below. We cannot predict what environmental legislation or regulation will be enacted in the future or how existing or future laws will be administered or enforced. Compliance with more stringent laws or regulations, as well as more vigorous enforcement policies of regulatory agencies, could require additional expenditures in the future by us, including the installation and operation of systems and equipment for remedial measures, and could affect our operations generally. In addition, violations of these laws and regulations may result in the imposition of administrative or criminal fines or penalties and may lead to personal injury claims or other liabilities.

Simultaneously, we have in place comprehensive risk management policies in connection with our assets, processes, businesses and projects, integrating, at all stages of their life cycle, criteria and preventive actions for environmental protection, safety, health, quality, integrity and reliability. We operate not only in strict compliance with policies, rules and procedures, within Argentina's current legal and regulatory framework, but also proactively adopting reference standards in the absence of legislation.



As an example of our work towards best practices in the industry, we have implemented an investment plan aimed at improving the quality of fuels. Resolution No. 5/2016 of the Secretary of Hydrocarbon Resources set new specifications for sulfur content in fuels. In 2019 the first change in the sulfur content in gasoline will come into effect, for which work in respect of the gasoline blending process in the La Plata Refinery and Luján de Cuyo Refinery is being conducted. This Resolution establishes that as of 2022 sulfur specifications will be adjusted for Degree 2 of Gasoil and Gasoline oil. Hence, investments are being made since 2018 in order to comply with these new specifications: the development of a new unit of coke petrol hydrotreatment, the revamping of the magnaforming units and the FCC petrol hydrotreatment in La Plata Industrial Complex and the revamping of the hydrotreatment of petrol and a new gasoil desulphurizing unit in Luján de Cuyo Refinery. These units are expected to begin estimations by the end of 2021.

In La Plata Industrial Complex an ambitious plan of effluents adequacy is being followed since 2014, including drain fluids segregation and raft building which also allows us to strengthen the resilience of our facilities to the new climatic conditions of the region. Furthermore, connection works for the discharge of security torches are being completed according to the Resolution No. 231/96 of the Environmental Policies Office of Buenos Aires Province.

## **Table of Contents**

In Logistics, the integrity plan for tanks and pipelines is developed annually to ensure their tightness.

Annually, plans are developed across business units to comply with different Security and Environmental Resolutions. Works based on Resolutions No. 785/05 and Resolution No. 404/94 are performed on tanks and inspections of pipes according to Resolution No. 1460/06 are carried out as well. Following regulations of the Buenos Aires Province's Organization for Sustainable Development, we also do pressure container inspections.

In addition to the projects mentioned above, we have begun to implement a broad range of environmental projects in the domestic Exploration and Production, Refining & Marketing and Chemicals segments, such as increasing the capacity of biological treatment in the La Plata refinery, a new flare in the Luján de Cuyo refinery, wastewater treatment and fire protection facilities, new flare in CIPH, improvement of fireproofing in existing facilities and implementation of bottom loading systems in terminals.

We and several other industrial companies operating in the La Plata area have entered into a community emergency response agreement with three municipalities and local hospitals, firefighters and other health and safety service providers to implement an emergency response program. This program is intended to prevent damages and losses resulting from accidents and emergencies, including environmental emergencies. Similar projects and agreements were developed at other refineries and harbor terminals as well. During 2016, we implement a similar program in the Luján de Cuyo area.

In 2018, an agreement was entered into with Oil Spill Response Ltd. enterprise to implement a plan with the purpose of evaluating and reducing the possible environmental impact caused by an oil spill in Argentine surface waters, thus reducing the environmental impact of potential oil spills offshore. This agreement includes technical and operational support in case of oil spills on rivers or seas caused by accidents involving cisterns or exploration and production offshore.

During 1997 and 1998, each of our refineries (La Plata, Luján de Cuyo, and Plaza Huincul) were certified under the ISO (International Organization for Standardization) 9001 (quality performance) and ISO 14001 (environmental performance). All of them are also certified under the OHSAS 18001 (occupational health and safety performance) standard. In addition, since 2008, the La Plata and Luján de Cuyo complexes have been verified in accordance with ISO 14064 for the inventories of industrial greenhouse gases. The refineries maintain their systems under continuous improvement and revision by accredited organizations.

Focusing on the development and research, the company created YPF Tecnología S.A. (see Item 4. Information on the Company Research and Development ) which is implementing an Environmental Sustainability Program focused on three strategic areas: reduction of emissions, increase of sustainable production and bioproduct development. This translates into high-impact projects for the industry, namely, effluent treatment, development of new production technologies, soil bioremediation, CO2 capture and valorization, atmospheric contaminant removal, and valorization of agricultural products and waste. With respect to climate change, over the next years we are committed to a lower carbon economy through more efficient oil, gas, fuels and derivatives production, lower intensity in GHG emissions, and cleaner electric power with a higher share of renewable energies.

In this context, during 2018 we reaffirmed our Commitment on Climate Change and Energy Efficiency (which was developed in 2015 and renewed in 2017) which provides the framework for working on mitigation and adaptation activities. The identified lines of action include the following:

Integrate climate risk analysis methods;

Become the third electric power generator in the country in the future;

Encourage and boost energy efficiency by improving performance in our facilities and activities;

Advance research and development of new related technologies;

Achieve a reduction of our operations specific GHG emissions in near future.

Achieve the target of having approximately 70% of our vehicle fuels conform to low-sulphur standards (Euro V) in the near future.

Develop climate change adaptation strategies for our operations.

Regarding this commitment, we continued working on:

Improving Energy Efficiency. In 2017 we completed an energy assessment of production processes in the Company's three main segments (Upstream, Downstream, and Gas and Power). This helped us ascertain YPF's balance, consolidated and area-specific consumption, establish a baseline, and identify energy efficiency opportunities.

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**Table of Contents**

This assessment will be carried out on completed, in-progress and planned projects. In the Downstream business, the most relevant projects are associated with cogeneration in the City of La Plata and revamping of units in La Plata and Luján de Cuyo industrial complexes, while in the upstream business, those related to electrification and generation improvements brought about by changes in equipment in mature oilfields. In Gas and Power, the key to energy efficiency lies in renewable energy projects, which will be the most significant contributors to reducing specific GHG emissions.

As part of this process, at the beginning of 2018, YPF has decided to upgrade the consumption and deficiency logging and monitoring system, and implement a coordinated, company-wide energy management system

Monitoring our two projects registered under the Clean Development Mechanism ( CDM ), which allow us to reduce the emissions in the different stages and processes of crude oil refining through the recovery of flare gas in La Plata (CILP) and Luján de Cuyo (CILC) industrial complexes. Residual gases are compressed and injected into the fuel system to feed furnaces and boilers, thus avoiding the need to use natural gas and fuel oil for heating. In 2018, CO<sub>2</sub> was reduced by around 172,909 tCO<sub>2</sub> between both projects.

The methodology developed by YPF was approved by the United Nations in 2007 under the name of AM0055 Baseline and Monitoring Methodology for the recovery and utilization of waste gas in refinery facilities . To date, there are six projects registered under the CDM that have implemented this methodology around the world (Argentina, China, Kuwait and Egypt).

Continuing and strengthening Greenhouse Emissions ( GHG ) Inventorying. Since 2008 we have been gradually introducing management systems into our operations to record emissions through GHG inventories, applying the ISO 14064-1 standard. This inventory has been successfully checked in the Ensenada Industrial Complex since 2008. During 2016, we began to implement the verification of greenhouse gas emissions inventory by a third party in Plaza Huincul refinery. During 2017, we completed an external audit of all of YPF 's industrial complexes: La Plata (Refinery and Petrochemical Plant), Luján de Cuyo, and Plaza Huincul (Refinery and Methanol Plant). We also monitored other air emissions (SO<sub>2</sub>, NO<sub>x</sub>, CO, NMVOC, and particulate) in accordance with applicable regulations.

The forestry projects located in the province of Neuquén which constitute approximately 7,000 hectares of trees forested under a long-term work program. Using the afforestation methodologies and tools available at the United Nations Framework Convention on Climate Change ( UNFCCC ) Clean Development Mechanism web site, it was possible to arrive to a conservative estimated amount of approximately 760,000 tons of CO<sub>2</sub> equivalents that were captured by the afforestation project activities from 1984 (when the first afforestation activity occurred) through 2014;

The commitment to minimize gas sent to flares and gas vented, giving compliance to the requirements established in National Resolutions No. 236/93 and No. 143/98 issued by the former Energy Secretariat of the Nation (SEN) and all those applicable provincial regulations. In this sense, there is a new initiative, implemented in Mendoza: the virtual gas pipeline, that implies the liquefaction and transportation of the natural gas associated from remote wells to an electric power plant in order to

reduce flaring.

Developing Electric Power and renewable energy business. See Item 4. Information on the Company Gas and Power.

Climate Change Adaptation: We moved forward with climate risk assessment projects at the Company's facilities by implementing the Business Areas Climate Impact Assessment Tool or BACLIAT. In 2017 we also used it at the Logistics Terminal located in Concepción del Uruguay. We looked into past, current and future climate trends; detected primary risks; and identified mitigation actions to reduce vulnerability and encourage early action.

Strengthening the relationship established with the Argentinean Environmental Authority (*Ministerio de Ambiente y Desarrollo Sustentable de la Nación*), in particular with its Climate Change Unit (*CCU - Dirección de Cambio Climático*) in order to collaborate with the development of the Third National Communication on Climate Change to the UNFCCC and during 2017 in workshops organized by the CCU for developing the National Climate Change Plans related to the Nationally Determined Contributions (NDCs) committed by the country under the signed Paris Agreement. With respect to this, YPF signed a framework agreement with the Argentinean Environmental Authority for a mutual collaboration on environmental issues, particularly relating to climate change.

## **Table of Contents**

### **Water Management**

YPF is committed to an integrated water management approach focused on resource sustainability, as embodied in its corporate regulations. This means not only assessing water resources in terms of use, but also of transportation and storage; consumption optimization, ensuring adequate treatment of process water to enable reuse; and analysis and treatment of liquid effluents.

Along these lines, in 2015 we started a water management benchmarking study on several assets within the Downstream and Gas and Power businesses. The three industrial refining complexes, Tucumán Thermal Power Plant, and La Matanza Terminal had already been surveyed in 2016. In 2017 we finished surveying Dock Sud and La Plata Terminals, Escobar LNG Plant, and Y-TEC. This methodology improved our knowledge of water withdrawal sources and effluent disposal points and provided relevant volumes.

A similar ongoing improvement process is carried out in the Upstream business. Based on a survey performed on all operations in 2015, this area has now an annually updated resource management plan.

In 2018 we also continued implementing the Local Water Tool oriented to the identification of water risks and practices for an adequate management of water and effluents. In 2017 we analyzed Fernández Oro Station in the Province of Río Negro (Upstream) and Escobar LNG Plant, in the Province of Buenos Aires (Gas and Power). As a result, new potential risks were identified and included in the relevant action plans. Furthermore, during 2018 a particular focus has been placed on water management, dedicating personnel and resources exclusively to carry out a detailed study of water management for the different facilities of the Company, which allowed us to establish the water balances captured and produced and the identification of improvement and optimization actions for next years.

### **Waste Management**

In compliance with Argentine regulations and our environmental standards, we develop integrated waste management activities seeking to: (a) phase out waste generation; (b) reduce waste hazardousness and ensuing environmental impacts; (c) ensure proper treatment and final disposal; and (d) establish continuous improvement programs.

Since 2012, we have been working on initiatives in our Upstream business unit in order to systematically reduce the stock of soil with hydrocarbons. This is being performed with the commitment, leadership and responsibility of the entire Company achieving a reduction of 67% of the stock in our repositories from 2012 to October 2018. Some of the activities that allow us to achieve this target were related to actions to the providers, mainly with the development of technical specifications for the contractual arrangements and effective technical supervision of their activities, optimizing the biotreatment times.

During 2017, the treatment of plastic materials contaminated with hydrocarbons began in Santa Cruz, recovery and value has been possible through washing and recycling, prioritizing their reuse and avoiding their incineration, promoting a circular economy and reducing CO2 emissions.

Furthermore, each business unit developed Waste Management Plans in line with the Upstream Waste Management Procedure and the Corporate Norm. Together with these plans the Oil spill cleaning procedure was also developed which is focused on the minimization of waste during remediation activities.

### **Spill Preparedness and Response**

The Company has a Spill Prevention and Control System in place that has helped to reduce the spill frequency rate for the past five years. This system provides an investment plan focused on the integrity, maintenance and improvement of facilities and pipelines. It includes a spill communication and response procedure reporting to a software program that automatically alerts the relevant environmental authority.

In the specific Downstream business, improvement activities were aimed at storage, and truck and pipeline transportation.

#### **Management of biodiversity and ecosystem services**

In 2017 a revision on our corporate Biodiversity Management Standard was done with the participation of representatives of each Business Unit. This revision was performed as part of the update of the document.

The management of biodiversity mainly focuses on instances where operations are being performed in ecological sensitive areas. These activities are being documented in the Biodiversity Management Plans. Currently, our Upstream business unit has two of these plans, one for our operations in the Llanquihue Ramsar site in the Mendoza province and another in the Auca Mahuida site in the Neuquén province.

## **Table of Contents**

The activities related to biodiversity management in many cases involve changes in operational procedures, such as multiple location development, the camouflage of drilling equipment and even actions that require the adaptation of the operation sites in order to promote the allocation of particular species.

As operations continue to adapt, biodiversity monitoring activities are also being performed under a complex process due to the frequent natural variations that affects the wild populations, ecosystems and ecological processes in the medium and long term. This is done in order to gather information related to the local ecosystem and is focused on its protection and, when necessary, its restoration. This information is also important for the proper and sustainable use of natural resources before operations start.

During 2018, we performed a technical study which analyzed and reported the degree of ecological restoration of sites devoid of vegetation in our Santa Cruz operations. The area under study encompassed 10 blocks, or concession areas, amounting to a total area of 6,943 km<sup>2</sup> and 1,968 abandoned locations. This technical study concluded that the vegetal coverage status of the area is similar to the environment, so these areas could be released to stop being an environmental liability.

### **Environmental activities led by YPF in areas of unconventional exploitation of crude oil and natural gas**

Organically rich shale gas and oil accumulations are drawing increasing attention worldwide as sources of significant natural gas and oil reserves.

Since 2008, YPF has led various exploration and development projects related to unconventional resources in Argentina, the most important being in the Vaca Muerta formation within Neuquina basin.

The Vaca Muerta formation is found between 2,500 and 4,000 meters of depth, more than 2,000 meters below the water table, which is usually located at depths of 300-500 meters. See Item 3. Key Information Risk Factors Risks Relating to Our Business Our domestic operations are subject to extensive regulation and Item 3. Key Information Risk Factors Risks Relating to Our Business Oil and gas activities are subject to significant economic, environmental, operational risks and seasonal fluctuation.

Hydraulic stimulation, a long time proven technology, allows these resources to be extracted in an efficient and environmentally-friendly way. Hydraulic stimulation consists of injecting high pressure fluids and sand into the wellbore to crack the rock and enable the trapped hydrocarbons in the formation to flow to the surface like in any conventional well.

Generally, this technique uses water and sand (99.5% of the water can be recycled) and additives (0.5%). These additives are the same as those used in products for household and commercial applications, such as sodium chloride (used in table salt), borate salts (used in cosmetics), potassium carbonate (used in detergents), guar gum (used in ice cream) and isopropyl alcohol (used in deodorants).

The water used for the development of these reservoirs is acquired from bodies of running water and it represents only a small percentage of the total flow, which involves much lower volumes than those used for agricultural and human consumption in the province of Neuquén.

From the beginning of unconventional operations, YPF has considered the environmental protection as one of the values of its health, safety and Operational Excellence policy.



In accordance with law Disposition No. 112/2011 of the Environmental Subsecretary of Neuquén, the project has an Environmental Baseline Study ( EBS ). The EBS includes the current description and environmental characterization of the concession areas and specifically environmental components that may be affected significantly by the projects and activities.

YPF developed a water management framework, which focuses on three key areas of water use: water resources (sustainability factors, measures that consider the needs of other local water users, and the net environmental effect); water use and efficiency (controls of replacing water use, reducing water consumption, and the reuse and recycling to consider the net environmental effect); and wastewater management (consider similar sustainability factors and the net environmental effect as outlined for water resources).

In addition, YPF commissioned the following studies: (i) a hydrogeological study of confined and semi-confined aquifers of Neuquén and Rayoso Groups and hydrogeological study of the unconfined aquifer of the alluvial plain of the Neuquén River in the Loma Campana area and (ii) a similar study in the Nambuena area, which was conducted in 2016.

## **Table of Contents**

After the hydrogeological studies carried out in 2015 and 2016, during 2017 YPF focused its studies on the gathering of hydrogeological information through electrical profiles and water samples in order to obtain the baseline data for a regional hydrogeological study, aimed at conventional and unconventional areas in Neuquén. This hydrogeological study was completed in November 2018, which covered not only the traditional hydrogeological aspects but also the evaluation of water quality for irrigation and drinking water. The main objective of the study is the identification of the aquifers that must be protected.

### **Our commitment to sustainability**

The oil and gas industry is undergoing a time of profound changes that require the harmonization of the growing energy demand with new challenges in terms of costs and profitability, diversification of the energy matrix and an increasing concern about climate change and the decarbonization of the economy. Each region or country will have to develop its own roadmap for transition based on its specific starting point, resource availability and capabilities.

In this context, YPF has started a transformation process to become an integral energy company and the leader for sustainable energy development in Argentina. YPF understands sustainability as a way of doing business that involves:

Transparent and responsible work at economic, environmental and social levels.

Profitability and focus on growth through innovation and new technologies.

Short and long-term value generation for shareholders, investors, partners, customers, employees, suppliers, the communities where we operate, and our country.

This approach is described in the relevant Sustainability Policy and reflected in both our management system and operational excellence model, and we extend this challenge to our leaders, employees, suppliers and partners.

The Executive Management Committee, through each one of its members and their respective vice presidencies, reviews and monitors relevant sustainability topics. The Board of Directors performs these duties through the Risk and Sustainability Committee. This Committee is in charge of establishing comprehensive management policies for business risks and monitoring their suitable implementation, as well as promoting best practices in sustainability, among other responsibilities.

As such, we conduct our business in line with the goals of the Paris Climate Change Agreement signed in 2015, the United Nations 2030 Agenda for Sustainable Development Goals, and the UN Global Compact's Ten Principles.

Guided by the company's corporate values, policies and code of conduct, our vision and strategy frame our understanding of and our response to sustainability issues. In this sense we have revamped our commitment to sustainability in order to lead the energy transition, through a responsible and transparent business based on innovation, new technologies and the best economic, environmental and social practices. And creating shared value for our owners, customers, people, suppliers, partners, society and our country, at the same time.

While oil and gas will continue to form the basis of our portfolio for the next years, we are committed to strengthening energy efficiency, reducing specific emissions and developing more sustainable energy alternatives, including the

promotion of natural gas production and renewable energy as cleaner alternatives to oil. We plan to do so through a responsible and transparent business based on innovation, new technologies and the best economic, operational excellence and transformation of operations and corporate culture. In particular in renewable energy, by providing strong R&D and project investment in this area, the company expects to increase its power-generation capacity by diversifying energy sources, including increased uses of natural gas, thermal, solar and wind power.

In 2018 we continued working on our corporate sustainability policy and our commitment to climate change through our corporate sustainability department.

With the objective of consolidating our sustainability strategy and related initiatives, we focused 2018 activities in four main pillars:

Implementation and improvements of initiatives in the main ESG issues: governance, transparency and integrity, human rights, labor practices, diversity, environment, health and safety, supply chain and relations with Communities.

**Table of Contents**

Design of the five year Company Sustainability Plan, aligned with the global sustainability commitments we assumed. To do it, we developed -among others- an assessment of our performance according to worldwide recognized ESG ratings and an overall analysis of human rights (ending during 2019).

Participation in global, national and local recognized organizations and initiatives regarding corporate and energy sustainability. In particular, our Chairman led during 2018 the B20 Task Force on Energy, Resource Efficiency and Sustainability and was appointed for the next two years as the President of the Argentinean Network of the United Nations Global Compact Initiative.

Strengthening of the communication to our stakeholders through: the annual Sustainability Report, delivering better and more focused communication on ESG matters; specific workshops for managers and employees in order to increase their knowledge about sustainability; and publishing in the Argentinean World Business Council for Sustainable Development (WBCSD) platform for Sustainable Development Goals the main initiatives that are already underway and that contribute towards the 2030 Global Agenda for Sustainable Development.

Moreover, we updated the materiality assessment of ESG issues in order to strengthen our understanding about their concerns and expectations while keeping an ongoing dialogue with them. Their opinions and suggestions were collected in several dialogue instances, through different corporate communication channels, and by analyzing public opinion surveys, media reports, and reputation and brand positioning research, among others. The materiality assessment undertaken to shape the content of the 2017 sustainability report serves as both a retrospective and forward looking review of our priorities. This assessment re-emphasized the following stakeholder concerns:

ECONOMIC	MATERIAL TOPICS ENVIRONMENTAL	SOCIAL
Integrated, competitive and innovative energy company	Climate action	Occupational health and safety Human rights
Transparency, Ethics and integrity		Diversity
Value chain management	Environmental management	Local economic and social development
Customer orientation	Renewable energies	Talent attraction and development

In addition, YPF forms part of the first Sustainability Index of the Argentine stock market. Developed by Bolsas y Mercados Argentinos (BYMA), with the collaboration of the Inter-American Development Bank and Thomson Reuters, the index is composed by companies that have outstanding performance in sustainability.

The index, which aims to promote an increasingly responsible capital market in line with the Sustainable Development Goals of the United Nations, evaluates the performance of the Companies on four axes: environmental, social, corporate governance and sustainable development, taking into account the information that companies communicate through their Sustainability Reports and corporate reports such as 20-F. Currently, the Sustainability Index is integrated by 15 companies.

## **Property, Plant and Equipment**

Most of our property, which comprises investments in assets which allow us to explore or exploit crude oil and natural gas reserves, as well as refineries, storage, manufacturing and transportation facilities and service stations, is located in Argentina. See [Downstream Refining division](#) and [Downstream Logistic Division](#). As of December 31, 2018, 100% of our proved reserves were located in Argentina.

Our petroleum exploration and production rights are in general based on sovereign grants of concession. Upon the expiration of the concession, our exploration and production assets associated with the particular property subject to the relevant concession revert to the government. See [Upstream Overview Main properties](#). In addition, as of December 31, 2018, we leased 78 service stations to third parties and also had activities with service stations that are owned by third parties and operated by them under a supply contract with us for the distribution of our products.

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**Table of Contents****Insurance**

The scope and coverage of the insurance policies and indemnification obligations discussed below are subject to change, and such policies are subject to cancellation in certain circumstances. In addition, the indemnification provisions of certain of our drilling, maintenance and other service contracts may be subject to differing interpretations, and enforcement of those provisions may be limited by public policy and other considerations. We may also be subject to potential liabilities for which we are not insured or in excess of our insurance coverage, including liabilities discussed in Item 3. Key Information Risk Factors Risks Relating to Our Business. We may not have sufficient insurance to cover all the operating hazards that we are subject to, Item 3. Key Information Risk Factors Risks Relating to Our Business. The oil and gas industry is subject to particular economic and operational risks and Item 3. Key Information Risk Factors Risks Relating to Our Business. We may incur significant costs and liabilities related to environmental, health and safety matters.

***Argentine Operations***

We insure our operations against risks inherent in the oil and gas industry, including loss of or damage to property and our equipment, control-of-well incidents, loss of production or profits incidents, removal of debris, sudden and accidental pollution, damage and clean up and third-party claims, including personal injury and loss of life, among other business risks. Our insurance policies are typically renewable annually and generally contain policy limits, exclusions and deductibles.

Our insurance policy covering our Argentine operations provides third party liability coverage up to U.S.\$400 million per incident, with a deductible of U.S.\$2 million, in each and every loss. Certain types of incidents, such as intentional pollution and gradual and progressive pollution are excluded from the policy's coverage. The policy's coverage extends to control-of-well incidents, defined as an unintended flow of drilling fluid, oil, gas or water from the well that cannot be contained by equipment on site, by increasing the weight of drilling fluid or by diverting the fluids safely into production. Our policy provides coverage for third-party liability claims relating to pollution from a control-of-well event ranging from U.S.\$ 75 million for certain onshore losses and a maximum combined single limit of U.S.\$ 250 million for offshore losses.

Our insurance policy also covers physical loss or damage in respect of, but not limited to, onshore and offshore property of any kind and description (whether upstream or downstream), up to U.S.\$ 2 billion per incident combined for downstream and upstream operations, with varying deductibles of between U.S.\$ 1 million and U.S.\$ 5 million, including loss of production or profits with deductibles of 90 days for downstream operations and 60 days with a minimum deductible of U.S.\$ 20 million for upstream operations.

Argentine regulations require us to purchase from specialized insurance companies (*Aseguradoras de Riesgos de Trabajo*) insurance covering the risk of personal injury and loss of life of our employees. Our insurance policies cover medical expenses, lost wages and loss of life, in the amounts set forth in the applicable regulations. These regulatory requirements also apply to all of our contractors.

We have adopted a position in agreements entered into with contractors that provide drilling services, well services or other services to our exploration and production operations ( E&P Services Agreements ), whereby contractors are generally responsible for indemnifying us to varying degrees for certain damages caused by their personnel and property above the drilling surface. Similarly, we are generally responsible under our drilling contracts to indemnify our contractors for any damages caused by our personnel and property above the drilling surface.

In connection with losses or liabilities resulting from damages caused below the surface, we have agreed with some contractors that YPF assumes responsibility for indemnifying our contractors provided that such damages below the surface have not been caused by the negligence of the contractor in which case the contractor shall be liable up to a limited amount agreed by the parties in the E&P Services Agreements. However, we have also agreed with a number of contractors that YPF shall be responsible and shall indemnify contractors for damages or liabilities caused below the surface, unless such damages or liabilities result from the gross negligence or willful misconduct of contractors, in which case contractor shall be liable in full or, in certain cases, up to a limited amount.

E&P Services Agreements usually establish that contractors are responsible for pollution or contamination including clean-up costs and third party damages caused above the surface by the spill of substances under their control, provided that the damage has been caused by the negligence or willful misconduct of the contractor. In the event of pollution or contamination produced below the surface, contractors shall also typically be liable for damages caused due to the contractor's negligence or willful misconduct. However, in this last case the damages are also usually limited to an amount agreed upon by the parties in the E&P Services Agreement.

We are also partners in several joint ventures and projects that are not operated by us. Contractual provisions, as well as our obligations arising from each agreement, can vary. In certain cases, insurance coverage is provided by the insurance policy entered into

**Table of Contents**

by the operator, while in others, our risks are covered by our insurance policy covering our Argentine operations. In addition, in certain cases we may contract insurance covering specific incidents or damages that are not provided for in the operator's insurance policy. We also retain the risk for liability not indemnified by the field or rig operator in excess of our insurance coverage. With respect to downstream servicing contracts, contractors are usually responsible for damages to their own personnel and caused by them to third parties and they typically indemnify us for damages to equipment.

**Legal and Regulatory Framework and Relationship with the Argentine Government***Overview*

The Argentine oil and gas industry is regulated by Law No. 17,319, referred to as the Hydrocarbons Law, which was enacted in 1967 and amended by Law No. 26,197 enacted in 2007 and by Law No. 27,007 enacted in 2014, which established the general legal framework for the exploration and production of oil and gas, and by Law No. 24,076, referred to as the Natural Gas Law, enacted in 1992, which established the basis for deregulation of natural gas transportation and distribution industries. See Law No. 27,007 (amendment of the Hydrocarbons Law).

The National Executive Office issues the regulations to complement these laws. The regulatory framework of the Hydrocarbons Law was established on the assumption that the reservoirs of hydrocarbons would be national properties and Yacimientos Petrolíferos Fiscales Sociedad del Estado, our predecessor, would lead the oil and gas industry and operate under a different framework than private companies. In 1992, the Privatization Law privatized YPF and provided for transfer of hydrocarbon reservoirs from the Argentine government to the provinces, subject to the existing rights of the holders of exploration permits and production concessions.

The Privatization Law granted us 24 exploration permits covering approximately 132,735 km<sup>2</sup> and 50 production concessions covering approximately 32,560 km<sup>2</sup>. Limits under the Hydrocarbons Law on the number of concessions for transportation that may be held by any entity, and the total area of exploration permits that may be granted to a single entity, were eliminated by Law No. 27,007. As a consequence of the transfer of ownership of certain hydrocarbons areas to the provinces, we participate in competitive bidding rounds organized since the year 2000 by several provincial governments for the award of contracts for the exploration of hydrocarbons.

In October 2004, the Argentine Congress enacted Law No. 25,943, creating a new state-owned energy company, Energía Argentina Sociedad Anónima ( ENARSA ). The corporate purpose of ENARSA is the exploration and exploitation of solid, liquid and gaseous hydrocarbons, the transport, storage, distribution, commercialization and industrialization of these products, as well as the transportation and distribution of natural gas, and the generation, transportation, distribution and sale of electricity. Moreover, Law No. 25,943 granted to ENARSA all exploration concessions in respect to offshore areas located beyond 12 nautical miles from the coast line up to the outer boundary of the continental shelf that were vacant at the time of the effectiveness of this law (i.e., November 3, 2004). Law No. 25,943 has been modified by Law No. 27,007, as described below, eliminating all permits and offshore hydrocarbon production concessions where association agreements with ENARSA have not been signed and reverting them to the SGE (except for permits and concessions granted prior to Law No. 25,943). Additionally, Law No. 27,007 provides for a six month negotiating period to convert association agreements with ENARSA into permits or concessions. In September 2015, the National Executive Office and YPF began negotiating the conversion of association agreements executed with ENARSA. On December 29, 2017 YPF filed a note before the Ministry of Energy confirming its willingness to negotiate the conversion of association agreement related to the Area identified as ENARSA 1 . In the same note, YPF informed its decision not to convert the association agreements related such Areas to the Operators of Areas ENARSA 2 and ENARSA 3 . Likewise, on October 19, 2018, YPF formally presented a draft agreement for the conversion of the association agreement for Area ENARSA 1 , which, as of the date of this



annual report, is still under review.

In addition, in October 2006, Law No. 26,154 created a regime of tax incentives aimed at encouraging hydrocarbon exploration and which apply to new exploration permits awarded in respect of the offshore areas granted to ENARSA and those over which no rights have been granted to third parties under the Hydrocarbons Law, provided the provinces in which the hydrocarbon reservoirs are located adhere to this regime. Association with ENARSA is a precondition to qualifying for the benefits provided by the regime created by Law No. 26,154. The benefits include: early reimbursement of the value added tax for investments made and expenses incurred during the exploration period and for investments made within the production period; accelerated amortization of investments made in the exploration period and the accelerated recognition of expenses in connection with production over a period of three years rather than over the duration of production; and exemptions to the payment of import duties for capital assets not manufactured within Argentina. As of the date of this annual report, we have not used the tax incentives previously mentioned.

## Table of Contents

Ownership of hydrocarbons reserves was transferred to the provinces through the enactment of the following legal provisions that effectively amended the Hydrocarbons Law:

In 1992, the Privatization Law approved the transfer of the ownership of hydrocarbons reserves to the provinces where they are located. However, this law provided that the transfer was conditioned on the enactment of a law amending the Hydrocarbons Law to contemplate the privatization of Yacimientos Petrolíferos Fiscales Sociedad del Estado.

In October 1994, the Argentine National Constitution was amended and pursuant to Article 124 thereof, provinces were granted the primary control of natural resources within their territories.

In August 2003, Executive Decree No. 546/03 transferred to the provinces the right to grant exploration permits, hydrocarbons exploitation and transportation concessions in certain locations designated as transfer areas, as well as in other areas designated by the competent provincial authorities.

In January 2007, Law No. 26,197 acknowledged the provinces' ownership of the hydrocarbon reservoirs in accordance with Article 124 of the National Constitution (including reservoirs to which concessions were granted prior to 1994) and granted provinces the right to administer such reservoirs.

### **Decree No 882/2017**

On November 1, 2017, Decree No. 882/2017 was published in the Official Gazette, which ordered the merger of ENARSA and Emprendimientos Energéticos Binacionales Sociedad Anónima (EBISA) and formed a new company named Integración Energética Argentina S.A. ( IEASA ).

### *The Expropriation Law*

On May 3, 2012, the Expropriation Law (Law No. 26,741) was passed by the Argentine Congress and, on May 7, 2012, it was published in the Official Gazette. The Expropriation Law declared achieving self-sufficiency in the supply of hydrocarbons, as well as in the exploitation, industrialization, transportation and sale of hydrocarbons, a national public interest and a priority for Argentina. In addition, its stated goal is to guarantee socially equitable economic development, the creation of jobs, the increase of the competitiveness of various economic sectors and the equitable and sustainable growth of the Argentine provinces and regions.

Article 3 of the Expropriation Law provides that the principles of the hydrocarbon policy of the Republic of Argentina are the following:

Promote the use of hydrocarbons and their derivatives to promote development, and as a mechanism to increase the competitiveness of the various economic sectors and that of the provinces and regions of Argentina;

Convert hydrocarbon resources to proved reserves and their exploitation and the restoration of reserves;

Integrate public and private capital, both national and international, into strategic alliances dedicated to the exploration and exploitation of conventional and unconventional hydrocarbons;

Maximize the investments and the resources employed for the achievement of self-sufficiency in hydrocarbons in the short, medium and long term;

Incorporate new technologies and categories of management that contribute to the improvement of hydrocarbon exploration and exploitation activities and the advancement of technological development in the Republic of Argentina in this regard;

Promote the industrialization and sale of hydrocarbons with a high added-value;

Protect the interests of consumers with respect to the price, quality and availability of hydrocarbon derivatives; and

Export hydrocarbons produced in excess of local demand, in order to improve the trade balance, ensuring a rational exploitation of the resources and the sustainability of its exploitation for use by future generations.

## **Table of Contents**

According to Article 2 of the Expropriation Law, the National Executive Office will be responsible for setting forth this policy and shall introduce the measures necessary to accomplish the purpose of the Expropriation Law with the participation of the Argentine provinces and public and private capital, both national and international.

### ***Creation of Federal Council of Hydrocarbons***

Article 4 of the Expropriation Law provides for the creation of a Federal Council of Hydrocarbons which shall include the participation of (a) the Ministry of Economy, the Ministry of Federal Planning, the Ministry of Labor and the Ministry of Industry, through their respective representatives; and (b) the provinces of Argentina and the City of Buenos Aires, through the representatives that each may appoint. According to Article 5 of the Expropriation Law, the responsibilities of the Federal Council of Hydrocarbons will be the following: (a) promote the coordinated action of the national and provincial governments, with the purpose of ensuring the fulfillment of the objectives of the Expropriation Law; and (b) adopt decisions regarding all questions related to the accomplishment of the objectives of the Expropriation Law and the establishment of the hydrocarbons policy of the Republic of Argentina that the National Executive Office may submit for consideration.

### ***Federal Council of Energy***

On October 26, 2017, Decree No. 854/2017 was published in the Official Gazette, creating the Federal Council of Energy which includes the participation of the Federal Government as well as of the provinces of Argentina and the Autonomous City of Buenos Aires. The Federal Council of Energy shall act as an advisory body on all the matters related to energy development of the Republic of Argentina.

### ***Expropriation of shares held by Repsol YPF***

For purposes of ensuring the fulfillment of its objectives, the Expropriation Law provided for the expropriation of 51% of the share capital of YPF represented by an identical stake of Class D shares owned, directly or indirectly, by Repsol YPF S.A. and its controlled or controlling entities. According to the Expropriation Law, the shares subject to expropriation, which have been declared of public interest and were transferred to the Republic of Argentina, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. In addition, the Expropriation Law provided for the expropriation of 51% of the share capital of the company Repsol YPF GAS S.A. represented by 60% of the Class A shares of such company owned, directly or indirectly, by Repsol Butano S.A. and its controlled or controlling entities.

As of the date of this annual report, the transfer of the shares subject to expropriation between the National Executive Office and the provinces that compose the National Organization of Hydrocarbon Producing States is still pending. According to Article 8 of the Expropriation Law, the distribution of the shares among the provinces that accept their transfer must be conducted in an equitable manner, considering their respective levels of hydrocarbon production and proved reserves.

To ensure compliance with its objectives, the Expropriation Law provides that the National Executive Office, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. In addition, in accordance with Article 9 of the Expropriation Law, each of the Argentine provinces to which shares subject to expropriation are allocated must enter into a shareholder's agreement with the federal government that will provide for the unified exercise of its rights as a shareholder.

Any future transfer of the shares subject to expropriation is prohibited without the permission of the Argentine Congress by a vote of two-thirds of its members.

In accordance with Article 9 of the Expropriation Law, the appointment of YPF Directors representing the expropriated shares shall be made proportionately considering the holdings of the Argentine Republic and provincial governments, and one Director shall represent the employees of YPF.

In accordance with Article 16 of the Expropriation Law, the federal government and the provinces must exercise their rights pursuant to the following principles: (a) the strategic contribution of YPF to the achievement of the objectives set forth in the Expropriation Law; (b) the administration of YPF pursuant to the industry's best practices and corporate governance, safeguarding shareholders' interests and generating value on their behalf; and (c) the professional management of YPF.

## **Table of Contents**

See Law No. 26,932 for descriptions of the agreement between Repsol and the Argentine Republic relating to compensation for the expropriation of 51% of the share capital of YPF owned, directly or indirectly, by Repsol, and the arrangement between Repsol and YPF for the withdrawal of certain claims and actions relating to such expropriation.

### ***Legal nature of the Company***

YPF is and will continue to operate as a publicly traded corporation pursuant to Chapter II, Section V of Law No. 19,550 and its corresponding regulations, and neither is nor will not be subject to any legislation or regulation applicable to the management or control of companies or entities owned by the federal government or provincial governments.

In accordance with Article 17 of the Expropriation Law, YPF will resort to internal and external sources of funding, strategic alliances, joint ventures, transitory business unions, and cooperation partnerships, whether public, private or mixed companies, domestic and foreign.

You can find a copy of an English translation of the Expropriation Law in the report on Form 6-K furnished by the Company to the SEC on May 9, 2012.

### ***Law No. 26,932***

On February 25, 2014, the Republic of Argentina and Repsol reached an agreement (the Repsol Agreement) in relation to compensation for the expropriation of 200,589,525 of YPF's Class D shares pursuant to the Expropriation Law under the Repsol Agreement. As a result, the Republic of Argentina is definitively the owner of 51% of capital stock of each of YPF and YPF GAS S.A.

### ***Law No. 26,197***

Law No. 26,197, which amended the Hydrocarbons Law, transferred to the provinces and to the Autonomous City of Buenos Aires the ownership over all hydrocarbon reservoirs located within their territories and in the adjacent seas up to 12 nautical miles from the coast. Law No. 26,197 also provides that the hydrocarbon reservoirs located beyond 12 nautical miles from the coast to the outer limit of the continental shelf shall remain within the ownership of the federal government.

Pursuant to Law No. 26,197, the Argentine Congress shall continue to enact laws and regulations to develop oil and gas resources existing within the Argentine territory (including its sea), but the governments of the provinces where the hydrocarbon reservoirs are located shall be responsible for the enforcement of these laws and regulations, the administration of the hydrocarbon fields and shall act as granting authorities for the exploration permits and production concessions. However, the administrative powers granted to the provinces shall be exercised within the framework of the Hydrocarbons Law and the regulations that complement this law.

Consequently, even though Law No. 26,197 established that the provinces shall be responsible for administering the hydrocarbon fields, the Argentine Congress retained its power to issue rules and regulations regarding the oil and gas legal framework. Additionally, the Argentine Republic retained the power to determine the national energy policy.

It is expressly stated that the transfer will not affect the rights and obligations of exploration permit and production concession holders, or the basis for the calculation of royalties, which shall be calculated in accordance with the concession title and paid to the province where the reservoirs are located.

Law No. 26,197 provides that the Argentine Republic shall retain the authority to grant transportation concessions for: (i) transportation concessions located within two or more provinces within the territory and (ii) transportation concessions directly connected to export pipelines for export purposes. Consequently, transportation concessions which are located within the territory of only one province and which are not connected to export facilities shall be transferred to the provinces. Finally, Law No. 26,197 grants the following powers to the provinces: (i) the exercise, in a complete and independent manner, of all activities related to the supervision and control of the exploration permits and production concessions transferred by Law No. 26,197; (ii) the enforcement of all applicable legal and/or contractual obligations regarding investments, rational production and information and surface fee and royalties payment; (iii) the extension of legal and/or contractual terms; (iv) the application of sanctions provided in the Hydrocarbons Law; and (v) all the other faculties related to the granting power of the Hydrocarbons Law.

## **Table of Contents**

### *Decree No. 1,277/2012*

Decree No. 1,277/12 derogated the main provisions relating to free availability of hydrocarbons which were specifically contained in section 5 subsection d) and sections 13, 14 and 15 of Decree No. 1,055/89, sections 1, 6 and 9 of Decree No. 1,212/89 and sections 3 and 5 of Decree No. 1,589/89. Decree No. 1,277/12 enacted the Hydrocarbons Sovereignty Regime Rules, regulating the Expropriation Law.

This regulation created a commission, the Commission for Planning and Strategic Coordination of the National Plan of Hydrocarbons Investments (the Commission). This Commission was entrusted with annually making the National Plan for Hydrocarbons Investments.

Decree No. 1,277/12 required every company that performs activities of exploration, exploitation, refining, transport and commercialization of hydrocarbons to supply the Commission with all required technical information. The Commission was also responsible for a National Hydrocarbons Investments Registry for all companies performing the activities of exploration, exploitation, refining, transport and commercialization. All these companies were required to file an annual plan of investments before September 30 of each year, including a detail of their quantitative goals regarding exploration, exploitation, refining and / or commercialization and transportation of hydrocarbons and fuels.

With respect to the refining industry, Decree No. 1,277/12 gave the Commission the power to regulate the minimum utilization rates for primary or secondary refining. It also had the ability to enact measures of promotion and coordination, aimed to guarantee the development of the local processing capacity according with the goals established by the National Plan of Hydrocarbons Investments.

With respect to commercialization, the Commission was entitled to publish reference prices of every component of the costs and sales prices of hydrocarbons and fuels, which should enable the recovery of production costs plus a reasonable profit margin. The Commission also had to periodically audit the reasonability of the informed costs and the respective sales prices, being entitled to adopt necessary measures to prevent or correct distortive practices that might affect the interests of consumers.

This Commission was dissolved by Decree No. 272/2015 on January 4, 2016, and its remaining functions were assumed by the Ministry of Energy and Mining. See Decree No. 272/2015 below.

### *Decree No. 13/2015*

On December 11, 2015, Decree No. 13/2015 was published in the Official Gazette, modifying the Ministries Law No. 22,520. Among other changes, it created the Ministry of Energy and Mining (MINEM), which absorbed the functions of the Secretaries of Energy and Mining and decentralized entities, from the former Ministry of Federal Planning, Public Investment and Services. The responsibilities of the MINEM include participating in the management of the State's shareholdings in the corporations and companies operating in the area of its competence.

This Decree was modified by Decree No. 575/2018 published in the Official Gazette on June 22, 2018, and the Ministry of Energy and Mining was substituted by the Ministry of Energy. The Secretariat of Mining now reports to the Ministry of Production. See Decree No. 575/2018 below.

### *Decree No. 272/2015*

On January 4, 2016, Decree No. 272/2015 was published in the Official Gazette, which modified Decree No. 1,277/12. Among other changes, it dissolved the Commission, derogated certain responsibilities of the



Commission and stated that the tasks previously assigned to the Commission will be performed by the Ministry of Energy and Mining ( MINEM ).

Furthermore, the decree established that the rights derived from the shares owned by the Republic of Argentina in YPF and YPF GAS S.A., with the exception of the shares that belong to the Sustainability Guarantee of the Public Securities Regime Fund created by Decree No. 897/07, will be exercised by the MINEM, as of its publication date.

In addition, the decree established that the MINEM will conduct a comprehensive review and reorganization regarding the creation of records and information duties in the hydrocarbon industry, which remains in force as long as it is not derogated by the dispositions of the decree or addressed by the re-organization plan to be determined by the MINEM (See Decree No. 575/2018 below).

**Table of Contents**

*Decree No. 2/2017*

On January 3, 2017, Decree No. 2/2017 was published in the Official Gazette, modifying the Ministries Law No. 22,520. Among other changes, it split the Ministry of Treasury and Public Finance, creating the Ministry of Treasury and the Ministry of Finance and separating their respective powers and responsibilities.

*Decree No. 575/2018*

On June 22, 2018, Decree No. 575/2018 was published in the Official Gazette, modifying the Ministries Law No. 22,520. Among other changes, the Ministry of Energy and Mining was substituted by the Ministry of Energy. The Secretariat of Mining now reports to the Ministry of Production.

This Decree was modified by Decrees No. 801/2018 and No. 802/2018, and the Ministry of Energy was substituted by the Secretary of Government of Energy ( SGE ), which now reports to the Ministry of Treasury. See Decree No. 801/2018 and Decree No. 802/2018 below.

*Decree No. 801/2018 and Decree No. 802/2018*

On September 5, 2018, Decree No. 801/2018 was published in the Official Gazette, modifying the Ministries Law No. 22,520. Among other changes, the Ministry of Energy was dissolved, and the Ministry of Treasury was appointed as successor of the Ministry of Energy.

On that date also, Decree No. 802/2018 was published in the Official Gazette which creates the SGE.

*Decree No. 872/2018*

On October 2, 2018, Decree No. 872/2018 was published in the *Official Gazette*, instructing the SGE to issue a public invitation to tender for the grating of exploration permits for the offshore area. This tender was issued on November 6, 2018, according to the terms set forth in Decree No. 872/2018.

*Law No. 27,275, Decree No. 79/2016 and Regulatory Decree No. 206/2017 - Access to Public Information*

On November 10, 2015, the Argentine Supreme Court ordered us to furnish information regarding an agreement we entered into with Chevron, based on the requirements of Decree No. 1,172/03, which regulates access to information considered public. The agreement aims to develop hydrocarbon resources in Argentina. The information was delivered to the court on February 23, 2016. We believe that public disclosure of confidential information could put us at a competitive disadvantage in relation to our contracting parties and potential partners. For this reason, and given the business, industrial, technical, economic and financial value as well as the nature of the information requested, we pursued all avenues to preserve its confidentiality. We have stated we intend to comply with the requirements of aforementioned Decree No. 1,172/03 while preserving our right to keep certain industrial, commercial, financial and technical matters confidential as provided by the decree. Notwithstanding the foregoing, on March 14, 2016, the court ordered us to deliver the requested agreement within five business days without an opportunity to keep certain information confidential as requested by us and in accordance with the exemptions contemplated by Decree No. 1,172/03. On March 16, 2016, the Company appealed this decision.

On July 14, 2016, the Federal Administrative Court Room I (*Cámara Contencioso Administrativo Federal Sala I*) upheld the ruling of the Court of First Instance, stipulating that the Company must comply with the order to deliver the required documentation in relation to its agreement with Chevron within five business days.

On August 11, 2016, the Company filed a Federal Extraordinary Appeal contesting the decision of the Federal Administrative Court.

On September 22, 2016, the Company reported that it was served with notice on September 15, 2016 of the decision handed down by Panel I of the Federal Administrative Court of Appeals hearing Disputed Administrative Matters (*Cámara Contencioso Administrativo Federal*), which rejected the Federal Extraordinary Appeal filed by the Company from such Panel's docket that ordered the Company to deliver the Project Investment Agreement (PIA) executed with Chevron on July 16, 2013.

The Company submitted a full copy of the PIA in compliance with the decision of the Federal Administrative Court Room I.

In both cases, the Company noted that the PIA was entered into under Law No. 19,550 and the confidentiality of the terms thereof was intended to safeguard geological, commercial and financial information, which was of strategic value to both parties to the PIA.

## Table of Contents

Delivery of the PIA does not imply the Company's waiver of rights in the event that any other confidential information and/or documents of the Company are required to be disclosed in the future.

On September 29, 2016, Law No. 27,275 was published in the Official Gazette, guaranteeing the general public's right to access public information. This right includes the ability to freely seek, access, request, receive, copy, analyze, process, use and distribute information in possession of the parties subject to this law. State owned companies, companies where the state owns a majority of their capital stock, mixed economy companies and all other business organizations where the National Government has a majority interest in the capital stock or has the ability to adopt corporate decisions are deemed the parties subject to this law, with a specific exception for those companies who are authorized to make public offerings of their securities. Law No. 27,275 came into effect one year after its publication in the Official Gazette.

On January 31, 2017, Decree No. 79/2017 was published in the Official Gazette, modifying the public information access right established under the General Regulation of Access to Public Information for the National Executive Office. The decree established that exceptions to the scope of parties subject to the law would become effective the day after their publication in the Official Gazette.

On March 28, 2017 Regulatory Decree No. 206/2017 was published in the Official Gazette and came into effect on September 29, 2017, which regulates certain aspects of Law No. 27,275, including further clarifications with respect to scope of the exceptions to the obligation of the parties subject to this law to furnish certain information.

### *Law No. 27,007 (amendment of the Hydrocarbons Law)*

On October 31, 2014, Law No. 27,007 amending the Hydrocarbons Law was published in the Official Gazette. The Hydrocarbons Law applies in certain aspects of some of YPF's existing concessions, as well as future concessions. The most relevant modifications in that law are detailed below.

With respect to exploration permits, it distinguishes between those with conventional and unconventional objectives, and those in which exploration is undertaken in the territorial sea and continental shelf. Law No. 27,007 modifies the basic time periods governing such activities, from three to two periods and limiting the two basic periods to (i) three years each for exploration with conventional objectives and (ii) four years each for exploration with unconventional objectives and (iii) four years each for exploration in the territorial sea or on the continental shelf. In each of these cases, the extension period of up to five years (already established in the Hydrocarbons Law) is maintained, although it is subject to the permit holder having complied with its investment and other obligations. At the end of the first basic period and so long as the permit holder has complied with its obligations under the permit, the permit holder may continue to hold the entire area. After the second basic period ends, the permit holder may surrender the entire area or, if the holder decides to trigger the extension period, 50% of the remaining area.

In relation to concessions, Law No. 27,007 provides for three types of concessions: conventional production, unconventional production and production in the territorial sea or on the continental shelf. Each of these concessions will last 25, 35 and 30 years, respectively. In addition, permit holders or production concessionaires may request unconventional production concessions on the basis of the development of a pilot plan. So long as the concessionaires (i) have complied with their obligations, (ii) are producing hydrocarbons in the areas under consideration and (iii) present an investment plan for the development of such areas as requested by the

competent authorities up to a year prior to the termination of each term of the concession, they may request extension periods of ten years each.

The amounts to be paid with respect to annual surface fee pursuant to Sections 57 and 58 of the Hydrocarbons Law for the periods of exploration and production have been increased with the goal of incentivizing exploration and development of these areas. Additionally, beginning with the second basic exploration period, these may be reduced partially in light of investments actually carried out in the relevant areas. Restrictions on the number of exploration permits and/or production concessions that an individual or legal entity may hold were eliminated.

The Hydrocarbons Law established a 35-year term for those concessions granted for the transportation of oil, gas and petroleum products that holders of production concessions are entitled to receive. Law No. 27,007 modified the awarded term for hydrocarbon transportation concessions to be synchronized with the production concession periods.

**Table of Contents**

In connection with exploration and production offerings, tenders may be made by Argentine and foreign companies, with the goal of obtaining the highest number of tenders possible. In addition, the bidding documents must be prepared by the competent authorities on the basis of the model bidding document which will be drafted jointly by the competent authorities of the provinces and the SGE. This model bidding document must be prepared within 180 days of the effective date of Law No. 27,007. Tenders will be awarded to offerors who present the most relevant offer, in particular, the one proposing the highest amount of investments or exploratory activity.

Royalties have been set at a maximum of 12% on the results of liquid hydrocarbons or natural gas production. Royalties may be reduced, taking into account the productivity of the area and the type of production. In cases of extension periods, an additional royalty of 3% will be added for each extension, up to a maximum of 18%. In addition, in case of such extensions, the competent authority may include the payment of an extension bond, which maximum amount shall equal the result of multiplying the remaining proved reserves at the end of the concession period to be extended by 2% of the average basin price, for the two-year period prior to the moment when the extension is granted, applicable to the hydrocarbons at issue.

Law No. 27,007 also provides that the Argentine Republic and the provinces may not establish, in the future, new areas reserved in favor of state-owned entities or companies with state participation. Further, with respect to existing reserved areas that do not have association agreements with third parties as of the date of this new law, associative schemes may be carried out so long as, during the development phase, the participation of state-owned entities or companies with state participation is proportional to the effective investments promised and carried out by them.

Law No. 27,007 additionally incorporates into the Investment Promotion Regime for the Exploration of Hydrocarbons (Decree No. 929/2013) projects, as authorized by the MINEM, that imply direct investments in foreign currency greater than U.S.\$ 250 million to be invested during the first three years of the project. Also, it modifies the percentages of hydrocarbons that, beginning with the third year, will be subject to the benefits of the regime. For conventional and unconventional production concessions, as well as offshore concessions at depths less than or equal to 90 meters, the percentage shall be 20%; for offshore concessions at depths greater than 90 meters, the percentage shall be 60%.

Within the framework of the Investment Promotion Regime for the Exploration of Hydrocarbons, Law No. 27,007 provides for contributions by companies to the provinces where the projects take place, which amount to 2.5% of the initial investment amount of the project, to be directed to Corporate Social Responsibility contributions. In addition, an amount to be determined by the Commission in light of the extent of the project must be contributed by the Argentine Republic to finance infrastructure.

Law No. 27,007 establishes that capital goods and inputs that are essential to the execution of the investment plans of companies registered in the National Registry of Hydrocarbon Investments shall pay import duties as indicated in Decree No. 927/13 (reduced rates). This list may be extended to other strategic products.

According to Law No. 27,007, the federal government and the provinces shall attempt to establish uniform environmental legislation and the adoption of uniform fiscal treatment in this sector. The competent authorities, including the SGE and the MINEM, will promote unification of procedures and registries.

All national offshore permits and offshore hydrocarbon production concessions that had no association agreements with ENARSA as of the date of the new law reverted and were transferred to the SGE. Permits and concessions granted prior to Law No. 25,943 shall be exempted from this provision. The National Executive Office may negotiate, for 180 days following the enactment of the new law, the conversion of association agreements signed with ENARSA to permits or production concessions. In September 2015, the National Executive Office and YPF began negotiating the conversion of association agreements executed with ENARSA. On December 29, 2017 YPF filed a note before the Ministry of Energy confirming its willingness to negotiate the conversion of association agreement related to the Area identified as ENARSA 1. Likewise, on October 19, 2018, YPF formally presented a draft agreement for the conversion of the association agreement for Block ENARSA 1, which, as of the date of this annual report, is still under review. In the same note, YPF communicated to the Operators of Areas ENARSA 2 and ENARSA 3 of its decision not to convert the association agreements.

*Resolution No. 14/2015*

On February 4, 2015, Resolution No. 14/2015 was published in the Official Gazette, that created the Crude Oil Production Stimulus Program (*Programa de Estímulo a la Producción de Petróleo Crudo*) (the Program), which was in force from January 1, 2015 through December 31, 2015. This Program provided for a payment in Argentine pesos to beneficiary companies, in an amount of up to U.S.\$ 3.00

**Table of Contents**

per barrel when such company's quarterly production of crude oil was equal to or greater than the base production level under the Program, in addition to the compliance with certain other requirements related to the level of activity of the Company as set for Resolution No. 33/2015. The base production level under the Program was the total production of crude oil of the beneficiary company for the fourth quarter of 2014. Those beneficiary companies that had satisfied the demand of all of the domestic refineries operating within Argentina may direct a portion of their production to the international market and receive an additional payment of U.S.\$ 2.00 or U.S.\$ 3.00 per barrel of crude oil exported, depending on the volume exported.

The payments would be made in Argentine pesos using the Reference Exchange Rate of BCRA Communication A 3,500 of the last business day prior to the presentation of the information of the corresponding quarter to the Commission. See Item 5. Operating and Financial Review and Prospects Principal Income Statement Line Items Revenues.

*MINEM Resolution No. 21/2016*

On March 11, 2016, MINEM Resolution No. 21/2016 was published in the Official Gazette, which established an export stimulus program of crude oil surplus, after satisfying domestic demand for crude oil Escalante from the San Jorge Gulf basin. The stimulus was paid for each shipment to the extent that the average price of Brent oil did not exceed U.S.\$ 47.50 per barrel two days after the shipment and was valid until December 31, 2016. The compensation paid by the Argentine government amounted to U.S.\$ 7.50 per barrel as long as the criteria was met.

*Decree No. 442/2016 Province of Chubut*

On April 11, 2016, Decree No. 442/2016 was published in the Official Gazette of the province of Chubut, which established an export stimulus program of crude oil surplus, after satisfying domestic demand. The stimulus was paid for each shipment to the extent that the average price of Brent oil did not exceed U.S.\$ 47.20 per barrel two days after the shipment and was valid until December 31, 2016. The compensation paid by the province of Chubut amounted to U.S.\$ 2.50 per barrel as long as the criteria was met.

**MINEM Decree No. 192/2017**

On March 21, 2017, Decree No. 192/2017 was published in the Official Gazette, which created the Oil and its Byproducts Import Operations Registry (the Registry), which authority of application is MINEM (through the Secretariat of Hydrocarbon Resources). The Registry involves import operations of: (i) crude oil and (ii) certain other specific byproducts listed in section 2 of the decree. By means of this regulation, any company that wishes to perform such import operations was obligated to register such operation in the Registry and to obtain authorization from the MINEM before the import takes place. The registration of the operation with the MINEM had to be filed in accordance with a specific proceeding that the MINEM had to establish for such purpose.

According to this decree, the MINEM set the methodology applicable to issue import authorizations, which had to be based in the following criteria: (a) lack of crude oil with the same characteristics offered in the domestic market; (b) lack of additional treatment capacity in domestic refineries with domestic crude oil; and (c) lack of byproducts listed in section 2 of the decree offered in the domestic market. This regime excludes any import by the national electric market administration company (*Compañía Administradora del Mercado Mayorista Eléctrico*, CAMMESA) in order to supply power plants with the main purpose of technical supply to the Inter-connection Argentinean System (*Sistema Argentino de Interconexión* or SADI).



Decree No. 192/2017 was in force until December 31, 2017, according to Decree No. 962/2017 (published in the Official Gazette on November 27, 2017).

*Public Emergency*

On January 6, 2002, the Argentine Congress enacted the Public Emergency Law, which represented a profound change in the economic model effective as of that date, and rescinded the Convertibility Law No. 23,928, which had been in effect since 1991 and had pegged the peso to the dollar on a one-to-one basis. In addition, the Public Emergency Law granted to the National Executive Office the authority to enact all necessary regulations in order to overcome the economic crisis that Argentina was then facing. The situation of emergency declared by Law No. 25,561 has been partially extended until December 31, 2019 by Law No. 27,345; specifically, with respect to social emergency as established by Law 27,200 (but not with respect to economic emergency which expired on December 31, 2017). The National Executive Office is authorized to execute the powers delegated by Law No. 25,561 until such date.

**Table of Contents**

After the enactment of the Public Emergency Law, several other laws and regulations have been enacted to overcome the economic crisis, including (1) the conversion into pesos of deposit, obligations and tariffs of public services, among others, and (2) the imposition of customs duties on the export of hydrocarbons with instructions to the National Executive Office to set the applicable rate thereof. The application of these duties and the instruction to the National Executive Office has been extended until January 2017 by Law No. 26,732. On January 8, 2017, export duties upon hydrocarbon exports established by Law No. 26,732 had ceased to be enforceable; however, export duties to hydrocarbons and its derivatives have been reinstated through Decree No. 793/2018, published on September 4, 2018. See Item 3. Key Information Risk Factors Risks Relating to Our Business The implementation of new export duties, other taxes and import regulations could adversely affect our results and Export Taxes.

*Exploration and Production*

The Hydrocarbons Law establishes the basic legal framework for the regulation of oil and gas exploration and production in Argentina. The Hydrocarbons Law empowers the National Executive Office to establish a national policy for development of Argentina's hydrocarbon reserves, with the principal purpose of satisfying domestic demand.

Pursuant to the Hydrocarbons Law, exploration and production of oil and gas is carried out through exploration permits, production concessions, exploitation contracts or partnership agreements. The Hydrocarbons Law also permits surface reconnaissance of territory not covered by exploration permits or production concessions upon authorization of the SGE and/or competent provincial authorities, as established by Law No. 26,197, and with permission of the private property owner. Information obtained as a result of surface reconnaissance must be provided to the SGE and/or competent provincial authorities, which may not disclose this information for two years without permission of the party who conducted the reconnaissance, except in connection with the grant of exploration permits or production concessions.

Under the Hydrocarbons Law, the federal and/or competent provincial authorities may grant exploration permits after submission of competitive bids. Permits were granted to third parties in connection with the deregulation and demonopolization process and permits covering areas in which our predecessor company, Yacimientos Petrolíferos Fiscales Sociedad del Estado, was operating at the date of the Privatization Law were granted to us by such law. In 1991, the National Executive Office established a program under the Hydrocarbons Law (known as Plan Argentina) pursuant to which exploration permits were auctioned. The holder of an exploration permit has the exclusive right to perform the operations necessary or appropriate for the exploration of oil and gas within the area specified by the permit. Under the Hydrocarbons Law, each exploration permit may cover only unproved areas not to exceed 10,000 km<sup>2</sup> (15,000 km<sup>2</sup> offshore) and may have a term of up to 14 years (17 years for offshore exploration). The 14-year term is divided into three basic terms and one extension term. The first basic term is up to four years, the second basic term is up to three years, the third basic term is up to two years and the extension term is up to five years. At the expiration of each of the first two basic terms, the acreage covered by the permit is reduced, at a minimum, to 50% of the remaining acreage covered by the permit, with the permit holder deciding which portion of the acreage to keep. At the expiration of the three basic terms, the permit holder is required to surrender all of the remaining acreage to the Argentine government, unless the holder requests an extension term, in which case such grant is limited to 50% of the remaining acreage. Under Law No. 27,007, which applies to exploration permits issued on or after October 31, 2014, each exploration permit may have a term of up to 11 years for conventional objectives and 13 years for unconventional objectives and offshore exploration. The terms are divided into two basic terms and one extension term. The first and second basic terms are up to three years for conventional objectives and up to four years for unconventional objectives and offshore exploration, and the extension term is up to five years, so long as the permit holder has complied with its investments and other obligations. At the expiration of the first basic term, the permit holder will have the right to continue exploring the entire area for the second basic term so long as it has complied

with all its obligations under the permit. At the expiration of the second basic term, the permit holder is required to surrender all of the remaining acreage, unless the holder requests an extension term, in which case such grant is limited to 50% of the remaining acreage.

If the holder of an exploration permit discovers commercially exploitable quantities of oil or gas, the holder has the right to obtain an exclusive concession for the production and development of this oil and gas. The Hydrocarbons Law, as modified by Law No. 27,007, provides that new conventional oil and gas production concessions shall remain in effect for 25 years from the date of the award of the production concession, new unconventional oil and gas production concessions shall remain in effect for 35 years from that date, and new offshore oil and gas production concessions shall remain in effect for 30 years from that date, in addition to any remaining exploration term at the date of such award. The Hydrocarbons Law, as modified by Law No. 27,007, further provides for the concession term to be extended for periods of up to ten additional years each, subject to terms and conditions approved by the grantor at the time of the extension. Such conditions may include the payment of an extension bond with a maximum amount equal to the result of multiplying the remaining proved reserves at the end of the concession period by 2% of the average basin price, for the period two years prior to the date the extension is granted, applicable to the hydrocarbons at issue. Under Law No. 26,197, the authority to extend the terms of current and new permits and concessions has been vested in the governments of the provinces in which the relevant block is located (and the Argentine government in respect of offshore blocks beyond 12 nautical miles). In order to be entitled to the extension, a concessionaire, such as us,

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**Table of Contents**

must have complied with all of its obligations under the Hydrocarbons Law, including, without limitation, evidence of payment of taxes and royalties and compliance with environmental, investment and development obligations, must be producing hydrocarbons in the area at issue and must present an investment plan to develop the concession. A production concession also confers on the holder the right to conduct all activities necessary or appropriate for the production of oil and gas, provided that such activities do not interfere with the activities of other holders of exploration permits and production concessions. A production concession entitles the holder to obtain a transportation concession for the oil and gas produced. See Transportation of Liquid Hydrocarbons.

Exploration permits, and production concessions require holders to carry out all necessary work to find or extract hydrocarbons, using appropriate techniques, and to make specified investments. In addition, holders are required to:

avoid damage to oil fields and waste of hydrocarbons;

adopt adequate measures to avoid accidents and damage to agricultural activities, fishing industry, communications networks and the water table; and

comply with all applicable federal, provincial and municipal laws and regulations.

According to the Hydrocarbons Law, holders of production concessions, including us, are also required to pay royalties to the province where production occurs. As modified by Law No. 27,007, royalty rates are set at a maximum of 12% (though 3% will be added for each extension up to a maximum of 18%). They are payable on the value at the wellhead (equal to the price upon delivery of the product, less transportation, treatment costs and other deductions) of crude oil production and natural gas volumes sold. These royalty rates may be reduced taking into account productivity and the type of production at issue. Notwithstanding the foregoing, in concessions extended prior to the effectiveness of Law No. 27,007, October 31, 2014, the previous conditions remain in force. In some cases, an additional 3% royalty has been added. See Main Properties Argentine Exploration Permits and Exploitation Concessions. In the extension of our concessions in Santa Cruz, we agreed to a 10% royalty (instead of 12%) for unconventional hydrocarbons. The value is calculated based upon the volume and the sale price of the crude oil and gas produced, less the costs of transportation and storage. In addition, pursuant to S.E. Resolution No. 435/04 issued by the SGE, if a concession holder allots crude oil production for further industrialization processes at its plants, the concession holder is required to agree with the provincial authorities or the SGE, as applicable, on the reference price to be used for purposes of calculating royalties.

As a result of Resolution No. 394/07 of the Ministry of Economy, among other things, which increased duties on exports of certain hydrocarbons, Argentine companies began to negotiate the price for crude oil in the domestic market, which would in turn be used as the basis for the calculation of royalties. In January 2013, the Ministry of Economy issued Resolution No. 1/13, modifying Exhibit I of Resolution No. 394/07 of the Ministry of Economy, thus setting a new reference price for crude oil (U.S.\$ 70 per barrel) and certain products. In October 2014, the Ministry of Economy issued Resolution No. 803/2014, incorporating Exhibit III to Resolution No. 394/07 of the Ministry of Economy, thus modifying the applicable percentages of duties of exports for certain products below certain prices.

However, on December 29, 2014, Resolution No. 1,077/2014 repealed Resolution No. 394/07, as amended, and set forth a new withholding program based on the international price of crude oil (the International Price). The International Price was calculated based on the Brent value for the applicable month less U.S.\$ 8 per barrel. The new program established a 1% general nominal withholding applicable to all products covered by the resolution, including

crude oil, diesel, gasoline and lubricants as well as other petroleum products, to the extent that the International Price was below U.S.\$ 71 per barrel. The resolution further provides an increasing variable withholding rate for crude oil exports to the extent the International Price exceeds U.S.\$ 71 per barrel. As a result, the maximum a producer may charge was approximately U.S.\$ 70 per barrel exported, depending on the quality of crude sold. The resolution also sets forth increasing withholding rates for exports of diesel, gasoline, lubricants and other petroleum when the International Price exceeds U.S.\$ 71 per barrel at rates that allow the producer to receive a portion of the elevated price.

On January 8, 2017, export duties on hydrocarbon exports established by Law No. 26,732 ceased to be enforceable.

However, on September 3, 2018, customs duties were established on the export of hydrocarbons through Decree No. 793/2018, published in the Official Gazette on September 4, 2018. The export tax rate was increased to 12%, with a threshold of Ps. 3 or Ps. 4 per dollar depending on the product. In addition to the above, the Public Emergency Law, which created the export withholdings, established that export withholdings were not to be deducted from the export price for purposes of calculating the 12% royalties. The royalty expense incurred in Argentina is accounted for as a production cost (as explained in Exploration and Production Oil and gas production, production prices and production costs ). According to the Hydrocarbons Law, any oil and gas produced by the holder of an exploration permit prior to the grant of a production concession is subject to the payment of a 15% royalty.

**Table of Contents**

Furthermore, pursuant to Sections 57 and 58 of the Hydrocarbons Law, holders of exploration permits and production concessions must pay an annual surface fee that is based on acreage of each block and that varies depending on the phase of the operation, such as exploration or production, and in the case of the former, depending on the relevant period of the exploration permit. These amounts were updated by Law No. 27,007 and may be partially adjusted as from the second basic exploration period in light of investments actually carried out. Exploration permits, and production or transportation concessions may be terminated upon any of the following events:

failure to pay annual surface taxes within three months of the due date;

failure to pay royalties within three months of the due date;

substantial and unjustifiable failure to comply with specified production, conservation, investment, work or other obligations;

repeated failure to provide information to, or facilitate inspection by, authorities or to utilize adequate technology in operations;

in the case of exploration permits, failure to apply for a production concession within 30 days of determining the existence of commercially exploitable quantities of hydrocarbons;

bankruptcy of the permit or concession holder;

death or end of legal existence of the permit or concession holder; or

failure to transport hydrocarbons for third parties on a non-discriminatory basis or repeated violation of the authorized tariffs for such transportation.

The Hydrocarbons Law further provides that a cure period, of a duration to be determined by the SGE and/or the competent provincial authorities, must be provided to the defaulting concessionaire prior to the termination.

When a production concession expires or terminates, all oil and gas wells, operating and maintenance equipment and facilities automatically revert to the province where the reservoir is located or to the Argentine Republic in the case of reservoirs under federal jurisdiction (for instance, located on the continental shelf or beyond 12 nautical miles offshore), without compensation to the holder of the concession.

Most of our production concession expirations have been extended from their original expiration dates. See Item 3. Key Information Risk Factors Risks Relating to Our Business Argentine oil and gas production concessions and exploration permits are subject to certain conditions and may be cancelled or not renewed. The granting of an extension is an unregulated process and normally involves lengthy negotiations between the applicant and the relevant government. Although the Hydrocarbons Law, as modified, provides that applications must be submitted at least one

year prior to the concession expiration date, it is industry practice to commence the process far earlier, typically as soon as the technical and economic feasibility of new investment projects beyond the concession term become apparent.

On March 16, 2006, the former Argentine Secretariat of Energy issued S.E. Resolution No. 324/06 requiring that holders of exploration permits and hydrocarbon concessions must file with such agency details of their proved reserves existing in each of their areas, certified by an external reserves auditor, each year. Holders of hydrocarbon concessions that export hydrocarbons are obliged to certify their oil and gas proved reserves. The aforementioned certification only has the meaning established by S.E. Resolution No. 324/06, according to which it is not to be interpreted as a certification of oil and gas reserves under the SEC rules. See Upstream Overview Oil and Gas Reserves. On November 7, 2016, MINEM issued Resolution No. 69/2016, which included technical modifications to S.E. Resolution No. 324/06 by amending some of its technical annexes regulating the reserves information required to be provided. It also established sanctions for hydrocarbon producers in the case of irregularities in the reserves reports filed, including admonishment, suspension or cancellation of the Hydrocarbons Producers Registry, depending on the magnitude of the irregularity.

In March 2007, the former Argentine Secretariat of Energy issued Resolution No. 407/07 that approved new regulations concerning the Oil and Gas Exploration and Production Companies Registry. According to Resolution No. 407/07, YPF, as a holder of production concessions and exploration permits, is banned from hiring or in any way benefiting from any company or entity which is developing or has developed oil and gas exploration activities within the Argentine continental platform without an authorization from the relevant Argentine authorities.

## **Table of Contents**

In connection with the extension of concessions, see [Upstream Overview](#) [Main properties](#).

### *Security Zones Legislation*

Argentine law restricts the ability of non-Argentine companies to own real estate, oil concessions or mineral rights located within, or with respect to areas defined as, security zones (principally border areas).

Additionally, prior approval of the Argentine government is required:

for non-Argentine shareholders to acquire control of us; or

if and when the majority of our shares belong to non-Argentine shareholders, as was the case when we were controlled by Repsol for any additional acquisition of real estate, mineral rights, oil or other Argentine government concessions located within, or with respect to, security zones.

### *Natural Gas Transportation and Distribution*

The gas transmission system is currently divided into two systems principally on a geographical basis (the northern and the southern trunk pipeline systems), designed to give both systems access to gas sources and to the main centers of demand in and around Buenos Aires. These systems are operated by two transportation companies. In addition, the distribution system is divided into nine regional distribution companies, including two distribution companies serving the greater Buenos Aires area.

The regulatory structure for the natural gas industry creates an open-access system, under which gas producers, such as us, will have open access to future available capacity on transmission and distribution systems on a non-discriminatory basis.

Cross-border gas pipelines were built to interconnect Argentina, Chile, Brazil and Uruguay, and producers such as us had been exporting natural gas to the Chilean and Brazilian markets, to the extent permitted by the Argentine government. During the last several years the Argentine authorities have adopted a number of measures restricting exports of natural gas from Argentina, including issuing domestic supply instruction pursuant to Regulation No. 27/04 and Resolutions No. 265/04, 659/04 and 752/05 (which require exporters to supply natural gas to the Argentine domestic market), issuing express instructions to suspend exports, suspending processing of natural gas and adopting restrictions on natural gas exports imposed through transportation companies and/or emergency committees created to address crisis situations. However, since 2017 the Argentine authorities have adopted a number of measures aiming at allowing companies to resume natural gas exports. See [Market Regulation](#) [Natural gas export administration and domestic supply priorities](#).

### *Transportation of Liquid Hydrocarbons*

The Hydrocarbons Law permits the National Executive Office to award 35-year concessions for the transportation of oil, gas and petroleum products following submission of competitive bids. Pursuant to Law No. 26,197, the relevant provincial governments have the same powers. Holders of production concessions are entitled to receive a transportation concession for the oil, gas and petroleum products that they produce. The term of a transportation concession may be extended for an additional ten-year term upon application to the National Executive Office.



Law No. 27,007, which applies to concessions issued on or after October 2014 other than those already governed by previous laws, for the transportation of liquid hydrocarbons, permits the National Executive Office to award concessions for the transportation of oil, gas and petroleum products for terms equivalent to those granted for production concessions linked to those transport concessions, following submission of competitive bids. The term of a transportation concession may be extended for additional terms equivalent to those of the associated production concession. The holder of a transportation concession has the right to:

transport oil, gas and petroleum products; and

construct and operate oil, gas and products pipelines, storage facilities, pump stations, compressor plants, roads, railways and other facilities and equipment necessary for the efficient operation of a pipeline system.

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**Table of Contents**

The holder of a transportation concession is obligated to transport hydrocarbons for third parties on a non-discriminatory basis for a fee. This obligation, however, applies to producers of oil or gas only to the extent that the concession holder has surplus capacity available and is expressly subordinated to the transportation requirements of the holder of the concession. Transportation tariffs are subject to approval by the SGE for oil and petroleum pipelines and by ENARGAS for gas pipelines. Upon expiration of a transportation concession, the pipelines and related facilities automatically revert to the Argentine government without payment to the holder. The Privatization Law granted us a 35-year transportation concession with respect to the pipelines operated by Yacimientos Petrolíferos Fiscales Sociedad del Estado at the time. Gas pipelines and distribution systems sold in connection with the privatization of Gas del Estado are subject to a different regime as described above.

Additionally, pursuant to Law No. 26,197, all transportation concessions located entirely within a province's jurisdiction and not directly connected to any export pipeline are to be transferred to such province. The National Executive Office retains the power to regulate and enforce all transportation concessions located within two or more provinces and all transportation concessions directly connected to export pipelines.

*Refining*

Crude oil refining activities conducted by oil producers or others are subject to prior registration of oil companies in the registry maintained by the SGE and compliance with safety and environmental regulations, as well as to provincial environmental legislation and municipal health and safety inspections.

In January 2008, the Argentine Secretariat of Domestic Commerce issued Resolution No. 14/2008, whereby the refining companies were instructed to optimize their production in order to obtain maximum volumes according to their capacity.

Executive Decree No. 2,014/08 of November 25, 2008, created the Refining Plus program to encourage the production of diesel and gasoline. The former Argentine Secretariat of Energy, by S.E. Resolution No. 1,312/08 of December 1, 2008, approved the regulations of the program. Pursuant to this program, refining companies that undertook the construction of a new refinery or the expansion of their refining and/or conversion capacity, and whose plans were approved by the former Argentine Secretariat of Energy, were entitled to receive export duty credits to be applied to exports of products within the scope of Resolution No. 394/07 and Resolution No. 127/08 (Annex) issued by the Ministry of Economy. In February 2012, by Notes No. 707/12 and 800/12 (the Notes) of the former Argentine Secretariat of Energy, YPF was notified that the benefits granted under the Refining Plus program had been temporarily suspended. The effects of the suspension extend to benefits accrued and not yet redeemed by YPF at the time of the issuance of the Notes. The reasons alleged for such suspension were that the Refining Plus program had been created in a context where domestic prices were lower than prevailing prices and that the objectives sought by the program had already been achieved. On March 16, 2012, YPF filed an administrative complaint against the temporary suspension. As of the date of this annual report, YPF has partially collected the compensation expected according to the Program.

**Market Regulation***Overview*

Under the Hydrocarbons Law and the applicable Decrees, holders of production concessions, such as us, have the right to produce and own the oil and gas they extract and are allowed to sell such production in the domestic or export markets, in each case subject to the conditions described below.

The Hydrocarbons Law authorizes the National Executive Office to regulate the Argentine oil and gas markets and prohibits the export of crude oil during any period in which the National Executive Office finds domestic production to be insufficient to satisfy domestic demand. If the National Executive Office restricts the export of crude oil and petroleum products or the sale of natural gas, the applicable Decrees provide that producers, refiners and exporters shall receive a price for the crude oil and petroleum products, not lower than that of imported crude oil and petroleum products of similar quality.

Furthermore, the applicable Decrees required the National Executive Office to give twelve months notice of any future export restrictions. Notwithstanding the above provisions, certain subsequently-enacted resolutions (S.E. Resolution No. 1,679/04, S.E. Resolution No. 532/04 and Resolution No. 394/07 of the Ministry of Economy and Production) have modified the aforementioned price mechanism, resulting, in certain cases, in prices to producers that are below the levels described above.

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**Table of Contents**

In addition, in May 2012, the Expropriation Law was passed by the Argentine Congress and became effective. See The Expropriation Law and Decree No. 1,277/2012 and Decree No. 272/2015.

On July 15, 2013, Decree No. 929/2013 was published in the Official Gazette, which provides for the creation of an Investment Promotion Regime for the Exploitation of Hydrocarbons (the Promotion Regime), both for conventional and unconventional hydrocarbons to be applied across the Argentine territory. Applications to be included in this Promotion Regime may be filed by subjects duly registered with the National Registry of Hydrocarbon Investments who are holders of exploration permits and/or exploitation concessions and/or third parties associated with those holders and who submit an Investment Project for Hydrocarbon Exploitation (the Investment Project) to the Commission created by Decree No. 1,277/12, entailing a direct investment in foreign currency of at least U.S.\$ 1 billion, calculated at the time of submission of the Investment Project, and to be invested in the first five years of the Investment Project. Beneficiaries of this Promotion Regime shall enjoy the following benefits, among others: i) they shall be entitled, under the terms of the Hydrocarbons Law, from the fifth anniversary of the start-up of their respective Investment Project, to freely export 20% of the production of liquid and gaseous hydrocarbons produced under such Investment Projects, at a 0% export tax rate, if applicable; ii) they shall freely dispose of 100% of the proceeds derived from the export of the hydrocarbons mentioned in i) above, provided the approved Investment Project would have generated an inflow of foreign currency into Argentina's financial market equal to at least U.S.\$ 1 billion, following the requirements mentioned above; iii) if hydrocarbon production in Argentina is not enough to cover domestic supply needs in accordance with section 6 of the Hydrocarbons Law, beneficiaries of the Promotion Regime, from the fifth anniversary of the start-up of their respective Investment Projects, shall be entitled to obtain, in relation to the aforementioned exportable rate of liquid and gaseous hydrocarbons produced in the Investment Projects, a price not lower than the reference export price calculated without deducting any export duties that would have been applicable. Law No. 27,007, as described above, has incorporated into this regime projects submitted to the Commission entailing a direct investment in foreign currency of at least U.S.\$ 250 million, calculated at the time of submission of the Investment Project, and to be invested in the first three years of the Investment Project. Further, Law No. 27,007 modifies the percentages of hydrocarbons to be benefitted under this regime to 20% of the production of conventional, unconventional and offshore concessions at depths less than or equal to 90 meters and 60% of the production of offshore concessions at depths greater than 90 meters. See Law No. 27,007 (amendment of the Hydrocarbons Law) and Decree No. 272/2015.

Additionally, the decree discussed above created a new type of concession for the Exploitation of Unconventional Hydrocarbons, which has been incorporated into the Hydrocarbons Law by Law No. 27,007, consisting of the extraction of liquid and/or gaseous hydrocarbons through unconventional stimulation techniques applied to reservoirs located in geological formations of schist and slates (shale gas or shale oil), tight sands (tight oil and tight gas), coal layers (coal bed methane) and, in general, from any reservoir that presents low-permeability rock as its main feature. The Decree provides that holders of exploration permits and/or exploitation concessions that are beneficiaries of the Promotion Regime shall be entitled to apply for a Concession for Unconventional Hydrocarbons Exploitation. Likewise, holders of a Concession for Unconventional Hydrocarbons Exploitation who are also holders of an adjacent and pre-existing concession may request the unification of both areas into a single unconventional exploitation concession, provided the geological continuity of such areas is duly proven.

As noted above, Law No. 27,007 provides for contributions by companies to the provinces where the projects take place, which amount to 2.5% of the initial investment amount of the project, to be directed to Corporate Social Responsibility contributions. In addition, an amount to be determined by the Commission in light of the extent of the project, to finance infrastructure, have to be contributed by the Argentine Republic. Finally, Law No. 27,007 establishes that capital goods and inputs that are essential to the execution of the investment plans of companies registered in the National Registry of Hydrocarbon Investments shall pay import duties indicated in Decree No. 927/13 (reduced rates). This list may be extended to other strategic products.

*Production of crude oil and reserves*

Executive Decree No. 2,014/08 of November 25, 2008, created the *Petroleum Plus* program to encourage the production of crude oil and the increase of reserves through new investments in exploration and development. The former Argentine Secretariat of Energy, through S.E. Resolution No. 1,312/08 of December 1, 2008, approved the regulations of the program. The program entitled production companies which increased their production and reserves within the scope of the program, and whose plans were approved by the former Argentine Secretariat of Energy, to receive export duty credits to be applied to exports of products within the scope of Resolution No. 394/07 and Resolution No. 127/08 (Annex) issued by the Ministry of Economy. In February 2012, YPF was notified by the former Argentine Secretariat of Energy that the benefits granted under the *Petroleum Plus* program had been temporarily suspended. The effects of the suspension extend to benefits accrued and not yet redeemed by YPF at the time of the issuance of the notice. The reasons stated for the suspension were that the *Petroleum Plus* program had been created in a context where domestic prices were lower than prevailing prices and that the objectives sought by the program had already been achieved. On March 16, 2012, YPF filed an administrative complaint against the temporary suspension. Executive Decree No. 1,330/2015 of July 13, 2015 provided for the termination of the *Petroleum Plus* program, establishing compensation in BONAR 2024 Argentine public bonds. As of the date of this report, YPF has not been compensated for the benefits accrued and not yet redeemed by YPF.

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**Table of Contents***Refined products*

In April 2002, the Argentine government and the main oil companies in Argentina, including us, reached an agreement on a subsidy provided by the Argentine government to public bus transportation companies. The Agreement on Stability of Supply of Diesel was approved by Executive Decree No. 652/02 and assured the transportation companies their necessary supply of diesel at a fixed price of Ps. 0.75 per liter from April 22, 2002 to July 31, 2002. Additionally, it established that the oil companies are to be compensated for the difference between this fixed price and the market price through export duty credits. Subsequent agreements entered into between the Argentine government and the main oil companies in Argentina extended the subsidy scheme until December 2009, while the aforementioned fixed price was revised from time to time.

In March 2009, Executive Decree No. 1,390/09 empowered the Chief of Staff to sign annual agreements extending the diesel subsidy to transportation companies for the fiscal year 2009 and until the end of the public emergency declared by the Public Emergency Law and its amendments, and instructed such official to incorporate the necessary modifications in order to extend the possibility to compensate with export duty credits on all hydrocarbon products currently exported, or with cash. As of the date of this annual report, execution of the annual agreements for the fiscal years 2010 and 2011 is pending. Nevertheless, the subsidy scheme has continued to be in place on the basis of the monthly communications issued by the Argentine Secretariat of Transport notifying oil companies of the volumes to be delivered to each beneficiary of the scheme at the fixed price, and the Argentine government has continued to compensate oil companies for deliveries of diesel made under the scheme.

The former Argentine Secretariat of Energy has issued a series of resolutions in order to provide the market with information about liquid fuel prices and volumes. For example, S.E. Resolution No. 1,102/04 created the Registry of Liquid Fuels Supply Points, Self-Consumption, Storage, Distributors and Bulk Sellers of Fuels and Hydrocarbons, and of Compressed Natural Gas; S.E. Resolution No. 1,104/04 created a bulk sales price information module as an integral part of the federal fuel information system, as well as a mechanism for communication of volumes sold. S.E. Resolution No. 1,834/05 compels service stations and/or supply point operators and/or self-consumption of liquid fuels and hydrocarbons who have requested supply, and have not been supplied, to communicate such situation to the former Argentine Secretariat of Energy. S.E. Resolution No. 1,879/05 established that refining companies registered by the former Argentine Secretariat of Energy, who are parties to contracts that create any degree of exclusivity between the refining company and the fuel seller, shall assure continuous, reliable, regular and non-discriminatory supply to its counterparties, giving the right to the seller to obtain the product from a different source, and thereupon, charging any applicable cost overruns to the refining company.

Disposition S.S.C. No. 157/06 of the Undersecretariat of Fuels provides that fuel sellers who are parties to contracts that create any degree of exclusivity between the refining company and the fuel seller, and which for any reason are seeking to terminate such contract, shall report the termination in advance with the Undersecretariat of Fuels in order to inform the Argentine Secretariat of Domestic Commerce of the situation. In that case, the Argentine Secretariat of Domestic Commerce is to: (i) issue a statement regarding the validity of the termination of the contract and (ii) use all necessary means to allow the fuel seller terminating the contract to execute another agreement with a refining company and/or fuel broker in order to guarantee its fuel supply. The Disposition has not been imposed by the authorities in cases involving YPF.

S.E. Resolution No. 1,679/04 reinstated the registry of diesel and crude oil export transactions created by Executive Decree No. 645/02, and mandated that producers, sellers, refining companies and any other market agent that wishes to export diesel or crude oil to register such transaction and to demonstrate that domestic demand has been satisfied and that they have offered the product to be exported to the domestic market. In addition, S.E. Resolution No. 1,338/06 added other petroleum products to the registration regime created by Executive Decree No. 645/02,

including gasoline, fuel oil and its derivatives, aviation fuel, coke coal, asphalts, certain petrochemicals and certain lubricants. Resolution No. 715/07 of the former Argentine Secretariat of Energy empowered the National Refining and Marketing Direction to determine the amounts of diesel to be imported by each company, in specific periods of the year, to compensate exports of products included under the regime of Resolution No. 1,679/04; the fulfillment of this obligation to import diesel is necessary to obtain authorization to export the products included under Decree No. 645/02 (crude, fuel oil, diesel, coke coal and gasoline, among others). In addition, Resolution No. 25/06 of the Argentine Secretariat of Domestic Commerce, issued within the framework of Law No. 20,680, imposes on each Argentine refining company the obligation to supply all reasonable diesel demand, by supplying certain minimum volumes (established pursuant to the resolution) to their usual customers, mainly service station operators and distributors. YPF has duly fulfilled its obligation under this Resolution and has not received any type of sanction from the authorities in this regard.

On August 17, 2010, the Argentine Secretariat of Domestic Commerce issued Resolution No. 295/10, imposing that the trade price of liquid fuels should be rolled back to those prices prevailing on July 31, 2010. This resolution has been successfully challenged by another company and a preliminary injunction was granted suspending the effectiveness of such Resolution. This Resolution was later on repealed by Resolution No. 543/10 of the Argentine Secretariat of Domestic Commerce.

## Table of Contents

On February 2, 2011, the Argentine Secretariat of Domestic Commerce issued Resolution No. 13/11 stating that the retail price of liquid fuels had to be rolled back to those prices prevailing on January 28, 2011. This resolution also required refineries and oil companies to continue to supply amounts of fuel to the domestic market consistent with amounts supplied the prior year, as adjusted for the positive correlation between the increase in the demand of fuel and gross domestic product. On March 29, 2011, however, the Argentine Secretariat of Domestic Commerce issued Resolution No. 46/11, which repealed Resolution No. 13/11, alleging that market conditions had changed since its issuance.

On April 10, 2013, Resolution No. 35/2013 of the Argentine Secretariat of Domestic Commerce, determined a price cap for fuel at all service stations for period of six months, which shall not exceed the highest outstanding price as of April 9, 2013 in each of the regions identified of the Annex of the Resolution.

The above resolutions affecting domestic prices expired on November 24, 2013 and are no longer in effect.

In addition, in May 2012, the Expropriation Law was enacted by the Argentine Congress and became effective. See The Expropriation Law and Decree No. 1,277/2012.

On December 30, 2013, the Commission approved, through Resolution No. 99/2013, the general rules for the grant of quotes of liquid fuels volumes allowed to be imported by locally registered companies, including, among others, oil companies registered in the relevant registries of the Secretariat of Energy. These rules regulate the requirements, grant of volumes to be imported and other conditions to be complied with by the companies that wish to import liquid fuels free of the tax on liquid fuels (imposed by Law No. 23,966) and the tax on diesel (imposed by Law No. 26,098), jointly with other fuels up to a maximum aggregate amount of 7 mcm.

The Secretariat of Hydrocarbon Resources from MINEM approved Resolution No. 5/2016 on May 31, 2016, replacing Annex II of Resolution No. 1,283/2006, which previously established specifications for Argentina's two grades of gasoline, naphtha grades 2 and 3. The resolution's new Annex includes modifications to the content of lead, manganese, oxygen and ethanol and, most significantly, sulfur, and requires oil and gas companies to implement a plan to lower sulfur limits to 50mg/kg for grade 2 gasoline, 10mg/kg for grade 3 gasoline, and to 350 mg/kg for diesel between 2019 and 2022. Oil and gas companies must file with the Secretariat of Hydrocarbon Resources a detailed timeline of the program of investments for the next four years, to reach the goals provided in Annex I. From June 1, 2016, the sulfur limit for fuel oil will be 7,000 mg/kg. Local refineries producing fuel oil that does not fulfill the above mentioned specifications must present to the Secretariat of Hydrocarbon Resources a remediation plan that includes steps and actions to fulfill the maximum limit of sulfur within 24 months. Based on the above, YPF has undertaken several studies in respect of investment configurations and estimations, under the advice of main technological experts in the field in order to adapt its industrial networking units according to the parameters required by the regulation. In October 2016, YPF submitted to the MINEM the following information: a) an investment plan towards 2019 containing detailed information about projects and terms necessary to fulfill the new quality specification of products required by Resolution No. 5/2016; and b) an evaluation of the necessary terms in order to develop the configuration of studies, as discussed in the previous sentence. Once those studies, together with their economic impact, are completed, YPF will obtain internal approval from its Board of Directors and then submit to the MINEM its investment program towards 2022 to fulfill additional quality requirements established by Resolution No. 5/2016.

### Agricultural Commodity Export Tax Changes

By Executive Decree No. 133/2015, published in the Official Gazette on December 17, 2015, the Argentine government reduced the export tax on soybeans and soybean byproducts by 5% to 30% and eliminated the export taxes on all other commodities. Agricultural commodities with a new 0% export tax include meat products, grains,



fruits, and vegetables, among other products. In addition, through Executive Decree No. 1343/2016, published in the Official Gazette on December 30, 2016, the Argentine government established that, beginning January 2018, the soybean export tax will be reduced by 0.5 % each month until December 2019. However, said monthly reduction applied until the adoption of Executive Decree No. 793/2018. See Export Taxes.

Finally, by Joint Resolutions Nos. 4/2015 and 7/2015 of the Ministries of Agroindustry, Treasury and Public Finance and Production published in the Official Gazette on December 29, 2015, the export permits known as ROEs were eliminated and replaced by the registration of a Sworn Affidavit of Exports Sales, known as a DJVE .

**Table of Contents**

*Automatic and Non-Automatic Import Licenses*

On December 23, 2015, the Ministry of Production published Resolution No. 5/2015, in the Official Gazette, which reinstated the automatic and non-automatic import licenses ( LAI and LNA, respectively). In 2013, the former Ministry of Economy and Public Finance eliminated the LNA, stating that it existed alongside the Anticipated Import Affidavit (Declaración Jurada Anticipada de Importación) requirement implemented in February 2012, which was recently repealed by AFIP (Administración Federal de Ingresos Públicos) Resolution No. 3823.

Resolution No. 5/2015 also established that importers of products included in the Mercosur Tariff Code must obtain a LAI prior to the entrance of the product into Argentina.

Certain products which are listed in Annexes II to XVII of Resolution No. 5/2015 will be subject to an LNA. The LNA will be applicable to a wide variety of products, including, but not limited to, textile, footwear, toys, domestic appliances, motorbikes, and automobile parts.

In order to obtain the LNA, importers must submit certain information from the importer itself (name, tax identification number) and the product (FOB value, type and quantity, commercial brand, model, country of origin and of shipping, etc.) through the Integral Import Monitoring System (Sistema Integral de Monitoreo de Importaciones) ( SIMI ) created by AFIP Resolution No. 3,823. After submitting this information, importers will have ten business days to complete certain additional information required by Resolution No. 5/2015. If the ten-day term expires, the SIMI declaration will be automatically cancelled.

Regarding the LNA, Resolution No. 5/2015 establishes that, at any stage of the process, importers may be required to submit additional information or documents of the product subject to the LNA and request verification of technical agencies, as applicable.

Import licenses will be valid for 90 calendar days, once approved by the SIMI.

The following imports are exempt from the import regime established by Resolution No. 5/2015:

Donation regime.

Sample regime.

Diplomatic exemption regime.

Import of products with duties and tax exemption.

Import of products from Special Custom Zone (Tierra del Fuego, Antártida and Islas del Atlántico Sur).

Import of products by the General Secretary of National Executive Office (*Secretaria General de la Presidencia de la Nación*).

Courier and mail delivery, only for importer private use or consumption.

Resolution No. 5/2015 became effective on December 24, 2015, and the Secretariat of Trade was the application authority, and was derogated by Resolution N° 292/2017 published in the Official Gazette on July 7, 2017.

Resolution No. 523- E/2017 from the Ministry of Production established a new import licensing regime that will still require importers of a broad range of products to obtain an import license prior to importation.

According to the new Resolution No. 523-E/2017, imports into Argentina must obtain an automatic import license except for a range of items that will need to obtain a non-automatic license. Automatic licenses will be processed through the SIMI) after the importer provides certain information, including its name and tax identification number, the FOB value of the product, tariff classification, type and quantity, brand, model, version, state of the goods, country of origin and country of provenance.

Importers wishing to obtain a non-automatic import license must be duly registered in the Ministry of Production Single Registry (R.U.M.P.), provide the aforementioned information, and provide within 10 (ten) working days from the date the procedure was formalized and viewed certain additional information that may include, among other things, the name and address of the exporter and

## Table of Contents

more detailed information on the goods to be imported as well as any applicable standards or certification requirements. In the case of covered travel goods and textile, apparel and footwear products (as well as certain other items), information must also be provided on the composition of the product. If the required information is not provided within 10 (ten) working days, the request for the non-automatic import license will be cancelled.

### **Decree No. 629/2017**

Decree No. 629/2017 published in August 10, 2017 in the Official Gazette introduces a Regime for the Import of Used Good for the Oil & Gas Industry (the Regime), that admits definitive import of used goods not older than 10 years since fabrication.

The Regime establishes an import rate ranging between 0% and 14% for goods included in the duty positions included in the annexes to the Decree.

Both the company registered under the Registry of Oil Companies and the company providing services directly to the oil and gas industry may apply for the benefit.

The Regime will be in force from August 11, 2017 until June 30, 2019.

### *Natural gas*

In January 2004, Executive Decree No. 180/04 (i) created the Electronic Gas Market ( MEG ) for the trade of daily spot sales of gas and a secondary market of transportation and distribution services, and (ii) established information obligations for buyers and sellers of natural gas in relation to their respective commercial operations, required as a condition to be authorized to inject into and transport through the transportation system any volume of natural gas (further regulated by Resolution No. 1,146/04 issued on November 9, 2004 and Resolution No. 882/05 issued by the former Argentine Secretariat of Energy). According to Executive Decree No. 180/04, all daily spot sales of natural gas must be traded within the MEG.

In January 2004, Executive Decree No. 181/04 authorized the former Argentine Secretariat of Energy to negotiate with natural gas producers a pricing mechanism for natural gas supplied to industries and electric generation companies. Domestic market prices at the retail market level were excluded from these negotiations.

On June 14, 2007, Resolution No. 599/07 of the former Argentine Secretariat of Energy approved a proposed agreement with natural gas producers regarding the supply of natural gas to the domestic market during the period 2007 through 2011 ( Agreement 2007-2011 ). We executed Agreement 2007-2011 taking into account that producers that did not enter into Agreement 2007-2011 would be required to satisfy domestic demand before those who entered into Agreement 2007-2011. The purpose of Agreement 2007-2011 was to guarantee the supply of the domestic market demand at the levels registered in 2006, plus the growth in demand by residential and small commercial customers. However, we expressly stated that the execution of Agreement 2007-2011 did not entail any recognition by us of the validity of the terms and conditions of the various resolutions of the former Argentine Secretariat of Energy establishing programs for the curtailment or re-routing of exports to satisfy domestic demand. We challenged Resolution No. 599/07 and stated that we signed Agreement 2007-2011 taking into account the potential consequences of not doing so.

The former Argentine Secretariat of Energy created, through Resolution No. 24/08 issued on March 13, 2008, a program named Gas Plus to encourage natural gas production resulting from discoveries, new fields and tight gas, among other factors. The natural gas produced under the Gas Plus program is not subject to Agreement 2007-2011

and the price conditions established under such agreement.

The former Argentine Secretariat of Energy, through Resolution No. 1031/08 issued on September 12, 2008, modified Resolution No. 24/08, establishing the specific conditions petitioners must meet in order to qualify for the Gas Plus program. Certain of such conditions were modified by Resolution No. 695/09 of the former Argentine Secretariat of Energy, which demands compliance with commitments already assumed.

The former Argentine Secretariat of Energy, through Resolution No. 1070/08 issued on October 1, 2008, ratified the complementary agreement entered into between Argentine natural gas producers and the former Argentine Secretariat of Energy on September 19, 2008 (the Complementary Agreement ), which (i) modified gas prices at the wellhead and segmented the residential sector in terms of natural gas demand, and (ii) established the requirement that natural gas producers contribute to the fiduciary fund created by Law No. 26,020. The Complementary Agreement also contains certain requirements concerning the provision of LPG to the domestic market. See Liquefied petroleum gas. Through Resolution No. 1,417/08, the Secretariat of Energy determined the basin prices for the residential

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**Table of Contents**

segment applicable to the producers that signed the Complementary Agreement. On January 13, 2010, the natural gas producers signed an addendum to the Complementary Agreement which extended the commitment to contribute to the fiduciary funds created by Law No. 26,020 until December 31, 2010. On January 25, 2011, the natural gas producers signed a second addendum to the Complementary Agreement which extended such commitment until December 31, 2011.

On March 19, 2012, S.E. Resolution No. 55/2012 of the Secretariat of Energy was published in the Official Gazette, which extended the Complementary Agreement for 2012 and established the following with respect to non-signing parties: (i) the natural gas price increase established by the Complementary Agreement will not be applicable to natural gas injected into the gas system by non-signing parties; (ii) natural gas injected by non-signing parties will be consumed first in the order of priority by residential users, which has the lowest tariffs; and (iii) non-signing parties must fulfill all of the commitments undertaken by natural gas producers under Agreement 2007-2011, which was extended by Resolution S.E. No. 172. On March 23, 2012, S.E. Resolution No. 55/2012 was supplemented by ENARGAS Resolution No. 2087/2012, which sets forth, among others, the procedure that distribution companies should follow to secure amounts to be deposited with the fiduciary fund created by Law No. 26,020. Additionally, according to this resolution, producers that have not signed the 2012 extension of the Complementary Agreement are not allowed to charge the wellhead price increases for gas set forth in S.E. Resolutions No. 1,070/2008 and 1417/2008 to consumers directly supplied by distribution companies. Thus, such non-signing producers have to invoice the lower prices which were in effect prior to the adoption of these resolutions for the gas supplied to the distribution companies.

Thereafter, on April 19, 2012, December 18, 2012 and December 19, 2013, YPF signed the 2012, 2013 and 2014 extensions of the Complementary Agreement, respectively. The dispatch mechanism for natural gas was regulated further by Resolution No. 1,410, as explained below.

Executive Decree No. 2067/08 of December 3, 2008, created a fiduciary fund to finance natural gas imports destined for injection into the national pipeline system, when required to satisfy the internal demand. The fiduciary fund is funded through the following mechanisms: (i) various tariff charges which are paid by users of regular transport and distribution services, gas consumers that receive gas directly from producers and companies that process natural gas; (ii) special credit programs that may be arranged with domestic or international organizations; and (iii) specific contributions assessed by the former Argentine Secretariat of Energy on participants in the natural gas industry. This decree has been subject to different judicial claims and judges throughout the country have issued precautionary measures suspending its effects. On November 8, 2009, ENARGAS published Resolution No. 1,982/11, which supplements Decree No. 2067/08. This Resolution adjusts the tariff charges established by Executive Decree No. 2,067/08 to be paid by users in the residential segment and gas processing and electric power companies, among others, starting December 1, 2011. On November 24, 2011, ENARGAS issued Resolution No. 1,991/11, which extends the type of users that will be required to pay tariff charges. YPF has challenged these resolutions. On April 13, 2012, a precautionary measure was granted regarding the processing plant El Porton, suspending the effects of these resolutions with respect to such plant.

On November 5, 2012, Law No. 26,784 was published in the Official Gazette, which approved the National Administration Budget for 2013. Article 54 of the Law established that the tariff charges and the fiduciary fund established by Executive Decree No. 2,067/08 and all its supplementary acts, shall be ruled by Law No. 26,095.

Through Resolution No. 28/2016, published on April 1, 2016, MINEM declared that all acts which determined the imposition of the tariff charge ceased to be effective and instructed ENARGAS to adopt measures to cease invoicing the tariff charge.

In April 2018 and with respect to tariff charge Decree No. 2,067/08 , the Federal Administrative Court of Appeals No. 11 delivered judgement in favor of Mega (for the period subsequent to the adoption of the 2013 Budget Law No. 26,784), declaring Articles 53 and 54 of such law unconstitutional, with regards to Mega. The judgment is final since it was not appealed by the Argentine Government.

On July 17, 2009, the Ministry of Federal Planning and certain natural gas producers (including YPF) signed an agreement which sets forth: (i) natural gas prices at the wellhead for the electric power generators segment from July to December 2009, and (ii) amounts to be received by natural gas producers for volumes sold to the residential segment from August 2009 onwards. These amounts are adjusted on a monthly basis so that they represent 50% of the amount collected by the fiduciary fund to finance natural gas imports.

## Table of Contents

On October 4, 2010, ENARGAS Resolution No. 1,410/10, was published in the Official Gazette, which set forth new rules for natural gas dispatch applicable to all participants in the gas industry and imposing the following new and more severe priority demand gas restrictions on producers:

Distributors remain able to solicit all the gas necessary to cover the priority demand despite such gas volumes exceeding those that the former Argentine Secretariat of Energy would have allocated by virtue of Agreement 2007-2011 ratified by the Resolution No. 599/07. See Gas and Power Delivery commitments.

Producers are obligated to confirm all the natural gas requested by distributors in respect of the priority demand. The producers' portion of such volumes follows the allocation criterion established by the Resolution No. 599/07. We cannot predict the amount of the estimated domestic demand that a producer may be required to satisfy, regardless of whether such producer signed Agreement 2007-2011.

Once the priority demand has been satisfied, the remaining demands are fulfilled, with exports last in order of priority.

In the event a producer is unable to meet the requested demand, transporters are responsible for redirecting gas until a distributor's gas demand is met. The gas deficiency is either (i) deducted from the producer suffering the deficiency if it is able to meet the demands of its other clients in the same basin or (ii) recuperated from the remainder of the gas producers in the event the deficient producer is not able to serve any of its clients in the same basin.

As a result, this regime imposes a jointly liable supply obligation on all producers in the event any producer experiences a gas supply deficiency. We have challenged the validity of the aforementioned regulation. On December 9, 2015, ENARGAS denied our administrative appeal.

On December 17, 2010 certain natural gas producers (including YPF) signed an agreement which set forth the percentage of regasified LNG assigned to each natural gas producer for 2011. Amounts produced under this agreement were counted towards such producers' commitments to supply natural gas to distributors under Resolution No. 599/07. As of the date of this annual report, similar agreements have not been entered into for years subsequent to 2011.

ENARGAS Resolution No. 1410/10 was amended by MINEM Resolution No. 89/2016, dated June 1, 2016, which required ENARGAS to develop a procedure to amend and supplement ENARGAS Resolutions No. 716/1998 and 1410/2010 and establish daily operating conditions of the Transportation and Distribution Systems, established the volumes that distributors may request in order to satisfy priority demand and, if there has been a contract with a producer to fulfill such request, reduced the contracted volume requirement in accordance with the framework provided by Resolution No. 1,410/2010. Pursuant to this resolution, ENARGAS Resolution I/3833 was issued on June 5, 2016, which established the Supplementary Procedure for Gas Requests, Confirmations and Control.

Pursuant to this resolution, on June 5, 2016 ENARGAS Resolution No. I/3833 was issued, which establishes the Supplementary Procedure for Gas Requests, Confirmations and Control. The purpose of the Procedure is to establish the transition mechanism and application criteria for the administration of the natural gas dispatch to preserve the operation of the transportation and distribution systems giving priority to the consumption of the Priority Demand in



cases of supply crisis and / or emergencies which may put at risk the normal provision of the natural gas public service or which may affect the provision of another public service.

The new Procedure establishes that each day the Distribution Service Providers will request in the programming computer systems of the Transport Companies for the operational day  $n + 1$ , with first priority, the natural gas necessary to supply the Priority Demand, based on their consumption estimate and in accordance with the contracted transport capacity and its supply agreements.

The confirmation of natural gas in the TSEP ( Transport System Entering Point ) for Priority Demand will have priority over other segments. The confirmation of gas for segments other than the Priority Demand will maintain the confirmation priority established by the Producer in the respective contracts with direct consumers (or Marketers), which will be informed to Transportation and Distribution Service Providers.

The transportation nomination of each Distribution Service Provider will give priority to the supply of their Priority Demand over any other user of that Provider.

The Providers of the Transportation and Distribution Service that verify that the transportation capacity is not sufficient to supply the Priority Demand must summon the Emergency Committee, chaired by the president of ENARGAS, who will procure the means to allocate the volumes in the emergency situation.

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**Table of Contents**

On June 6, 2017 ENARGAS Resolution No 4.502/17 was issued which approved the Procedure for the administration of the office in the Emergency Executive Committee ( EEC ), modifying the procedure for the delivery request and gas confirmations which were approved by ENARGAS Resolution No. 3,833/16 and provided for measures and criteria to be adopted in a supply crisis of the Priority Demand for Natural Gas declared by the Transportation Companies, Distribution Companies or the ENARGAS.

Among such measures, it was provided that the EEC or (if the EEC disagrees to it) the ENARGAS, will define the way in which the Priority Demand will be supplied considering the quantities of natural gas available in each basin for each producer and discounting the amounts contracted to supply the Priority Demand.

On June 29, 2018, ENARGAS Resolution No. 124/2018 was published in the Official Gazette which (i) approves the restated text of the internal regulation of dispatch centers applicable as of June 30, 2018; (ii) derogates ENARGAS Resolutions No. I-1410/10, I-3833/16 and I-4502/17; (iii) acknowledges that ENARGAS has no observations to the reprogramming proposal made by the Transporter if there are no statements to the contrary within one hour of the request; and (iv) establishes that during this winter the Transitory Procedure for Dispatch Management in the Emergency Executive Committee shall be applicable.

Under the energy sector normalization process, the MINEM called on natural gas producers (including YPF) and ENARSA to establish the basic conditions of those supply agreements to be executed to the distribution of Natural Gas through Networks as of January 1, 2018. The MINEM stated that before the end of the extension period established in Law No. 27,200 regarding the public emergency that began in 2002, Law No. 24,076 regained effectiveness as it sets forth that the price of natural gas supply agreements will be that determined by the supply and demand free interaction.

In this sense, on November 29, 2017, natural gas producers (among them, YPF) and ENARSA, at the request of the MINEM, subscribed the Terms and Conditions for the Provision of Natural Gas to Gas Distributors through Networks (the Terms and Conditions ).

The Terms and Conditions establish the basic guidelines to assure the adequate supply of natural gas to the Distributors, and consequently to residential and commercial final consumers. Moreover, they establish the continuity of the gradual and progressive path of reduction of subsidies, all within the framework of the process of normalization of the natural gas market, which occurs within the period of validity of such Terms and Conditions until December 31, 2019 considered as the transition period until the normalization indicated above.

The guidelines established in the Terms and Conditions include, among others, the recognition of the right to transfer to the gas tariff the cost of gas acquisition paid by users and consumers; establishes the available volumes that each producer and each basin must make available daily to the distributors for each month, who may express their lack of interest before a certain date set forth in the Terms and Conditions; establishes penalties for non-compliance for any of the parties regarding their obligation to deliver or take gas; establishes gas prices for each basin for the next two years, in U.S. dollars, the parties being able to set prices lower than those established under the applicable free negotiations; establishes payment guidelines for the purchases made by the Distributors to producers; ENARSA assumes the obligation to supply the demand corresponding to areas reached by the subsidies of residential gas consumption contemplated in article 75 of Law No. 25,565 (corresponding to the areas of lower price of residential gas charged to users and consumers), during the period of Transition.

The Terms and Conditions constitute the terms and conditions to consider in the negotiations of their respective individual agreements, without this being construed as an obligation. Additionally, the Terms and Conditions establish guidelines for early termination in the event of non-compliance by the parties. YPF fulfilled its commitment to sign

supply agreements, according to the Terms and Conditions.

As a consequence of certain macroeconomic variables, natural gas producers (including YPF) and distributors entered into a renegotiation process of the individual supply agreements entered into pursuant to the Terms and Conditions to address two main issues: (i) payment by distributors of debts arising from exchange rate differences (which resulted from the U.S. Dollars-Argentine Peso exchange rate used by distributors for natural gas volume prices payment (the exchange rate considered in natural gas tariffs) vs. the exchange rate that should have been considered as per the supply agreements, for April through September 2018 period) ( ER Debt ) and (ii) natural gas prices for the October-December 2018 period.

Regarding debts arising from exchange rate differences, the recovery mechanism has not yet been defined or implemented, since SGE Resolution No. 20/2018 published on October 5, 2018 established that in relation to differences between the price of gas provided in the contracts and the price of gas recognized in the final tariffs of distribution companies, valued for the quantity of gas purchased from April 1 to September 30, 2018, ENARGAS would instruct distribution companies to recover the credit in favor of producers on a separate line in the invoice to be issued to its users, in 24 installments starting on January 1, 2019.

**Table of Contents**

On October 16, 2018 the SGE issued Resolution No. 41/2018 which abrogated Resolution No. 20/2018 which attempted to establish an extraordinary and transitory mechanism to resolve the ER Debt by passing through such exchange rate difference into natural gas tariffs to be paid by final consumers.

On November 16, 2018, the Argentine Government published Decree No. 1,053/18 in the Official Gazette, through which it assumed the payment of the daily differences accumulated on a monthly basis between the price of gas purchased by distributors and the price of natural gas included in tariff schemes effective from April 1, 2018 to March 31, 2019, exclusively generated due to exchange rate variations and corresponding to the natural gas volumes delivered in that same period. The conditions are as follows:

Payment shall be made in 30 consecutive monthly installments beginning on October 1, 2019, at an interest rate determined using the *Banco de la Nación Argentina* effective interest rate for 30 day deposits in Argentine Pesos.

Installments will be paid to distributors, and distributors will immediately pay natural gas producers.

Distributors and natural gas producers should adhere to this regime and waive any claims relating to this matter. In addition, Decree No. 1,053/18 established that from April 2019 onwards future gas supply agreements between distributors and natural gas producers shall determine that in no event will additional costs generated as exchange rate differences for each season be passed through to final consumers. It also empowered ENARGAS to further regulate the abovementioned conditions. As of the date of this annual report, ENARGAS has not implemented this regime.

On February 12, 2019, Resolution ENARGAS N° 72/2019 was published in the Official Gazette, which approved the methodology for gas transfer pricing and the general procedures for the calculation of the accumulated daily differences, which will be in effect as of April 1, 2019. Such resolution sets forth, among other things, with regards to transfer pricing for gas agreed in dollars, that ENARGAS will determine the type of exchange rate to be used in the conversion to Argentine pesos based on the BNA (Divisas) average seller exchange rate observed between the first and the fifteenth day of the month immediately preceding each seasonal period, or the exchange rates contained in the contracts when they contemplate lower rates. Regarding volumes of gas subject to export which are not covered by specific agreements, the provisions of Section 9.4.2.6 of the Basic Regulations of the Distribution License and Decree No. 1020/95 will apply, as long as the necessary information for purposes of the applicable calculations is available.

On August 27, 2012, Resolution No. 1,445/2012 of the Secretariat of Energy was published in the Official Gazette, according to considerations set by Decree No. 1,277/2012, which modified gas prices at the wellhead for compressed natural gas (CNG) which represents an increase of approximately 369% of the prices realized by the Company for such segment product.

On February 14, 2013, Resolution No. 1/2013 of the Commission was published in the Official Gazette. This resolution creates the Natural Gas Additional Injection Stimulus Program. Under this regulation, gas producing companies were invited to file with the Commission before June 30, 2013 projects to increase natural gas injection, in order to receive a compensation up to U.S.\$7.50 per mmBtu for all additional natural gas injected. These projects shall comply with minimum requirements established in Resolution No. 1/2013 and will be subject to consideration approval by the Commission, including a maximum term of five years, renewable at the request of the beneficiary, upon decision of the Commission. If the beneficiary company in a given month does not reach the committed production increase it will have to make up for such volumes not produced. In addition, the Commission may

withdraw a previously approved proposal to increase the total injection of natural gas if some of the following events occur: (i) any omission, inaccuracy or distortion of information provided by a company participating in a project or during its execution; (ii) breach of the obligations set forth in Decree No. 1,277/2012 and its regulations or supplementary acts; (iii) breach by a company of its obligations under the program after notice of not less than 15 business days; (iv) if the import price is equal to or lower than the price of the additional natural gas injected for at least 180 days or (v) if the value of a company's supply contracts or invoices used in the monthly calculation corresponding to each month covered by the program had weighted average price decreases or unjustified amounts. On May 23, 2013, the Commission approved the project submitted by YPF. A similar program was created under Resolution No. 60/2013 of the Commission, as amended by Resolution No. 83/2013 of the Commission for gas producers that failed to file their natural gas additional injection program filings before the expiration date established by Resolution No. 1/2013 of the Commission. The compensation to be received under this new program varies from U.S.\$ 4.00 per mmBtu to U.S.\$ 7.50 per mmBtu, depending on the production curve reached by the applicable company. Additionally, a third stimulus program entered into effect under Commission Resolution No. 185/2015 for companies without any prior gas production in Argentina at the time of issuance of the resolution. Similar to the Gas Plan, companies with an approved program under this new resolution will receive compensation for the difference between the price obtained in the market for the sale of all their gas

**Table of Contents**

production and U.S.\$ 7.50 per mmBtu. The gas production subject to such compensation only applies to the production from areas acquired by companies with approved programs under either Resolution No. 1/2013 or Resolution No. 60/2013, as long as such production was computed under these programs as increased injection as opposed to base injection .

On May 18, 2016, MINEM Resolution No. 74/2016 created the Natural Gas New Projects Stimulus Program in order to incentivize natural gas production for companies submitting new natural gas projects that are not beneficiaries of the Natural Gas Additional Injection Stimulus Program or the Natural Gas Injection Stimulus for Companies with Reduced Injection created by Resolutions No. 1/2013 and 60/2013, respectively, of the former Commission. The submission of new projects, which must be approved by the Secretariat of Hydrocarbon Resources, may obtain a stimulus price of U.S.\$ 7.50/mmBtu.

Moreover, the Natural Gas Injection Stimulus for Companies without Injection , created by Resolution No. 185/2015 of the former Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan has been abolished, but any projects submitted under such program which are pending approval must be evaluated under the Natural Gas New Projects Program .

The Natural Gas New Projects Program will be effective from the date of the publication of the resolution in the Argentine Official Gazette (May 18, 2016) until December 31, 2018. The requirements to be considered a new natural gas project are as follows: it must (i) come from an exploitation concession granted as a result of a discovery reported after the effective date of Resolution No. 1/2013 of the former Commission; (ii) come from an exploitation concession of areas classified as Tight Gas or Shale Gas ; or (iii) belong to companies without natural gas injection registers which acquire an interest in areas belonging to companies registered in the Natural Gas Additional Injection Stimulus Program or the Natural Gas Injection Stimulus for Companies with Reduced Injection created by Resolutions No. 1/2013 and 60/2013, respectively, of the former Commission, but for which total injection coming from the areas in question, including the acquired areas, would have been zero during the period in which the selling company would have calculated its base injection.

Following this Resolution, no new projects may be submitted under the natural gas production incentive Program known as Gas Plus , created by Resolution No. 24/2008 of the former Energy Secretariat of the former Ministry of Federal Planning, Public Investment and Services, as amended. Notwithstanding the foregoing, any projects approved under said Program would remain in full force according to the terms of their respective approvals.

On May 20, 2016, Decree No. 704/2016 was published, whereby the pending debt which were in Peso terms for the natural gas stimulus programs debt was cancelled in Argentine National Bonds nominated in U.S. dollars and at an interest rate of 8% per annum maturing in 2020 ( BONAR 2020 USD ).

Accordingly, on July 13, 2016, the Group received, under the Natural Gas Additional Injection Stimulus Program, BONAR 2020 USD, with a face value of U.S.\$ 630 million.

In addition, on September 21, 2016, under the Supply of Propane Gas for Undiluted Propane Gas Distribution Networks Agreement, the Group received BONAR 2020 USD, with a face value of U.S.\$ 12 million.

**MINEM Resolution No. 97/2018**

On April 3, 2018, the MINEM Resolution No. 97/2018 was published in the Official Gazette that approves the procedure for cancelation of the pending compensations for settlement and/or payment in the context of the Natural Gas Surplus Additional Injection Stimulus Program , the Natural Gas Surplus Injection Stimulus Program for

Companies with Reduced Injection and the Natural Gas New Projects Program to which beneficiary companies may adhere (the Procedure).

Gas producing companies are invited to join the Procedure by filing a form during 20 business days following the publication in the Official Gazette of the Resolution.

Each company may opt to receive compensations under the approved Procedure by demonstrating its accession within 20 business days of publication of the Resolution. It is required to waive all rights, actions, appeals and claims, administrative and/or judicial, based on the Procedure, except for: (i) challenge of the administrative acts that determine compensations that correspond according to the Procedure; and (ii) failure to make the payments provided under the Procedure for a minimum amount of three installments, at the discretion of each beneficiary company.

## **Table of Contents**

The amount of the compensation is determined in the following way: 85% of the amount in dollars calculated according to the exchange rate at the moment of the injection ( Program Exchange Rate ) and 15% of the amount in dollars multiplied by the quotient of the Program Exchange Rate and the exchange rate corresponding to the payment dates of the compensation resolutions that have already been issued or the date of publication of Resolution No. 97/2018, as the case may be. The debt will begin to be repaid on January 2019 in 30 monthly and consecutive installments, in pesos at the exchange rate of Communication A 3,500 Wholesale of the BCRA monthly average of the month preceding each installment.

On May 5, 2018, YPF adhered to the repayment Procedure.

On December 4, 2018, Law No. 27,467 which approved the 2019 Budget of the National Administration was published in the Official Gazette, which includes in its Article 55 the authorization for the issuance of public debt instruments for up to U.S.\$ 1.6 billion for the cancellation of the 2017 compensations of Plan Gas I (according to Resolution No. 97 of March 28, 2018 of the Ministry of Energy).

On February 21, 2019, Resolution SGE 54/2019, which partially modified Resolution 97/2018, was published in the Official Gazette, in order to conform Resolution 97/2018 to the payment mechanism set forth in article 55 of Law No. 27,467. It provides, among other things, that in order to request payment in accordance with such mechanism, the beneficiary must provide its consent (within ten of receiving notice) to waive all rights, actions or claims in relation to such programs, the administrative compensation acts and payment orders which they may have issued prior to such date.

On February 28, 2019, Resolution No 21/19 from the Ministry of Finance was published in the Official Gazette which established the issuance on February 27, 2019, of the Natural Gas Program Bonds, with an aggregate nominal value of up to U.S.\$ 1.6 billion, maturity on June 28, 2021, and amortization in 29 consecutive monthly installments. The Natural Gas Program Bonds do not accrue interest.

Also on February 28, 2019, YPF received notice from the SGE informing it that, in accordance with the framework of Resolution No. 97/2018, YPF was entitled to an aggregate compensation of U.S.\$758 million.

On March 1, 2019, the Company presented its consent letter to the SGE in the terms provided under the SGE Resolution No. 54/19.

As of the date of this annual report we have not received any payment compensation.

### **MINEM Resolution No. 46/2017**

On March 6, 2017, the MINEM Resolution No. 46-E/2017 was published in the Official Gazette, which approved the Investment in Natural Gas Production from Non-Conventional Reservoirs Stimulus Program. The program was established in order to stimulate the investments in natural gas from non-conventional reservoirs in the Neuquina basin and will be in effect until December 31, 2021.

Resolution No. 46/2017 establishes compensation for the volume of non-conventional gas production from concessions located in the Neuquina basin included in the program. To be included in the program, the concessions must have a specific investment plan approved by the province s application authority and the Secretariat of Hydrocarbon Resources.



The compensation will be determined by deducting from the effective sales price obtained from sales to the internal market, including conventional and non-conventional natural gas, the minimum sales prices established by Resolution No. 46/2017 each year, multiplied by the volumes of production of non-conventional gas. The minimum prices established by Resolution No. 46/2017 are U.S.\$ 7.50 per mmBtu for 2018, U.S.\$ 7.00 per mmBtu for 2019, U.S.\$ 6.50 per mmBtu for 2020 and U.S.\$ 6.00 per mmBtu for 2021.

Compensation from the program shall be paid, for each concession included in the program, 88% to the companies and 12% to the province corresponding to each concession included in the program.

On November 2, 2017, Resolution MINEM 419-E/2017 was published and its Annex replaces the similar Annex of Resolution 46-E/2017. The new resolution modifies the previous one in the following aspects:

a) It defines that the Initial Production to be computed will be the monthly mean Non-Conventional Gas production assessed for the period between July 2016 and June 2017 . Also, it states that the Production Included, to the effect of the compensation, shall be i) for the concessions with Initial Production lower than 500,000 cm/d, the total monthly production of Non-Conventional Gas coming from such Included Concession, to which the requesting company is entitled, and ii) for the concessions with Initial Production higher than 500,000 cm/d, the total monthly production of Non-Conventional Gas coming from such Included Concession, to which the requesting party is entitled, discounting the Initial Production.

**Table of Contents**

b) It modifies the definition of Effective Price, previously defined as the average price weighted by volume of total natural gas sales of each company in the domestic market, to the average price weighted by volume of total natural gas sales in the Argentine Republic that will be published by the Secretariat of Hydrocarbon Resources, regulating the guidelines to be followed for such calculation.

c) A requirement to qualify for the Program is included, that is, that the investment plan submitted for each concession reaches a yearly mean production, in any consecutive period of twelve months before December 31, 2019, equal to or higher than 500,000 cm/d, and the obligation to reimburse the amounts of the compensation received (updated to reflect interest) corresponding to the concessions that do not reach the above mentioned production level, with the possibility that the Secretariat of Hydrocarbon Resources may require filing a surety bond to guarantee the eventual reimbursement of the compensations received by the participating companies, and retaining the power to suspend payments if such bond is not submitted.

On November 17, 2017, Resolution MINEM No. 447-E/2017 which extends the Stimulus Program to the non-conventional gas production from the Austral Basin was published. The only difference with respect to the Program applicable to the Neuquina Basin is that this resolution allows the Hydrocarbon Secretary to determine special technical conditions (such as initial production flow) that the production must meet in order to be considered non-conventional gas and thus be suitable for the program.

During 2018, YPF has filled requests to be included in the program for non-conventional gas production from several concessions located in the Neuquina basin.

On January 23, 2018, MINEM Resolution No. 12-E/2018, which modified Resolution No. 46-E/2017, was published in the Official Gazette. Said Resolution entails the following:

(i) Makes the incentives applicable to the adjacent concessions that are operated in a unified manner and comply with the following requirements: have a common investment plan; be operated in joint manner using, substantially, the same surface installations; in case of co-ownership, there shall be the same participation percentages in all concessions and every transfer of participation is performed in a joint and simultaneous manner by all participants.

(ii) Adjusts the payment date of the first compensation under the Program and, correspondingly, performs the following revisions related to initial provisional payment, establishing that for requests presented until January 31, 2018, such date shall be the respective date in January 2018, and for requests presented after January 31, 2018, such date shall be the respective date in the month in which the request for inclusion in the Program was presented.

On December 4, 2018, Law No. 27,467 corresponding to the Budget of the National Administration for the year 2019, established in its section 58 the creation of a guarantee trust for contingent liabilities of the Gas Plan IV (Stimulus Program for Investments in Natural Gas Production Developments from Non-Conventional Reservoirs created by Resolution No. 46 dated March 2, 2017 issued by the former MINEM) in order to guarantee up to 30% of the obligations that may arise under such program after January 1, 2019.

In connection with Fernández Oro Concession, the Secretariat of Energy issued resolutions authorizing the payment to YPF of Definitive Compensations for the first quarter of 2018 and Provisional Compensations for the third quarter of 2018, whose amounts were determined considering as a limit the estimation of the Included Production YPF initially reported. Recently, YPF has administratively challenged these resolutions, understanding that the amount of the Compensations must be determined on the basis of the production actually produced each month in the Concession, without applying any limit.

As of the date of this annual report, YPF subscribed to the Program for its participation in the concessions known as Aguada Pichana Este, Aguada Pichana Oeste-Aguada de Castro, Estación Fernández Oro and La Ribera I and II.

*Tariffs*

On April 4, 2014, Resolution S.E. No. 226/2014 of the former Argentine Secretariat of Energy was published in the Official Gazette. Under this resolution, the Secretariat of Energy set new prices for residential, commercial consumers and compressed natural gas consumers. Residential and commercial consumers that achieve certain consumption savings compared to prior years will be: (i) excluded from the price increase or (ii) subject to a lower price increase. Industrial users and power generation plants are excluded from the price increase. Consumers served by distributor Camuzzi Gas del Sur S.A., which is not an affiliate of YPF, or its sub-distributors, are excluded.

On November 17, 2014, Resolution No. 231/2014 of the Commission was published in the Official Gazette. Under this resolution, the price of compressed natural gas in service stations will be raised by the same percentage as the weighted average price within Argentina, excluding taxes, of super quality gasoline over 93 octane or of any product that replaces it in the future as provided for under the resolution.

## **Table of Contents**

After public hearings with respect to the tariff review were held on September 16, 17 and 18, 2016, MINEM issued Resolution No. 212/2016 on October 7, 2016 that set forth new TSEP prices for natural gas and new natural gas tariff schedules for users who purchase gas from distributors.

Resolution No. 212/2016 instructs the Secretariat of Hydrocarbons to, until TSEP gas prices are established by the free interaction of supply and demand, submit to the MINEM for its approval a proposal of natural gas TSEP prices corresponding to each half-year period, starting April 1 and October 1 of each year, based on the values contemplated in the subsidy reduction scheme, adjusting the target price for each half-year period, as per the market conditions at the time of elaboration of the proposed prices. Such a proposal shall be submitted 30 days in advance at the beginning of each half-year period and shall be submitted with a report containing the basis of the adjustments or modifications proposed.

Resolution No. 212/2016 also instructs ENARGAS to provide for any such measures as required so that the final amount, including taxes of bills issued by distributors of utility gas through networks across the country, that users are required to pay based on consumptions after the effective date of the TSEP gas prices established in this resolution, does not exceed maximum amounts equivalent to the percentages below, considered as incremental percentages over the total amount, including taxes, of the bill issued to the same user for the same billing period in the previous year:

Users R1-R23: 300%;

Users R31-R33: 350%;

Users R34: 400%; and

Users SGP: 500%.

It further sets forth that the increase limits established above on the final invoice amounts shall apply, provided that the total amount of the bill exceeds the amount of Ps. 250.

On such same date, ENARGAS published Resolutions No. 4,044/2016, 4,045/2016, 4,046/2016, 4,047/2016, 4,048/2016, 4,049/2016, 4,050/2016, 4,051/2016, 4,052/2016, 4,053/2016 and 4054/2016, whereby it approved the tariff schedules for the users in the following license areas: Metrogas S.A., Gasnea S.A., Gas Natural Ban S.A., Camuzzi Gas Del Sur S.A., Camuzzi Gas Pampeana S.A., Distribuidora de Gas Cuyana S.A., Distribuidora de Gas del Centro S.A., Gasnor S.A., Litoral Gas S.A., Transportadora de Gas del Norte S.A. and Transportadora de Gas del Sur S.A.

On February 16, 2017, MINEM published Resolution No. 29-E/2017, through which it called a public hearing to be held on March 10, 2017 to consider new natural gas prices at TSEP that would be determined to apply to the half-year period commencing in April 2017. The hearing took place, and the final report by the Secretariat of Hydrocarbon Resources was issued to the MINEM; See New gas prices at the TSEP and Metrogas transition tariff schemes.

## **Tariff renegotiation**

Transitional Agreement 2017

On March 30, 2017, Metrogas executed a Transitional Agreement with the MINEM and the Ministry of Finance providing for the temporary adjustment of prices and tariffs for the Natural Gas Distribution Public Service, the specific impact of the amounts provided therein until the subscription of the Memorandum of Agreement for Comprehensive Contractual Renegotiation and the entry into force of the definitive tariff schemes resulting from the Comprehensive Tariff Review (the CRT ). The 2017 Transitional Agreement is supplementary to the 2008 Transitional Agreement and amends the 2017 Transitional Agreement and the 2016 Transitional Agreement previously executed.

The 2017 Transitional Agreement, which is not subject to ratification by the PEN establishes a transitional tariff regime as of April 1, 2017, consisting of the readjustment of tariffs based on the guidelines necessary to maintain the continuity of the service for the purpose of allowing Metrogas to meet its operating and maintenance, administration and marketing expenses, those expenses corresponding to the execution of the mandatory investment plan determined by the ENARGAS and to comply with the respective payment obligations, maintaining its chain of payments for the purpose of ensuring the continuity of the regular provision of the public service under their charge until the entry into force of the tariff regime resulting from the Memorandum of Agreement for a Contractual Renegotiation.

Likewise, the 2017 Transitional Agreement provides for the transfer of the impact of changes in tax regulations pending resolution, except for the, and incorporates a Mandatory Investment Plan to which Metrogas is committed.

## **Table of Contents**

Lastly, Metrogas will not be authorized to distribute dividends without previously proving to ENARGAS the full compliance with the Mandatory Investment Plan.

On March 30, 2017, the MINEM instructed the ENARGAS, through Resolution No. 74 - E/2017, to put into effect the tariff schemes resulting from the CRT process.

In this regard, it set forth that for the gradual and progressive implementation of this measure, the ENARGAS should apply on a progressive basis, the rate increases resulting from the CRT as follows: 30% of the increase, from April 1, 2017, 40% of the increase, as of December 1, 2017, and the remaining 30%, as of April 1, 2018.

Moreover, and for cases in which the corresponding Memorandum of Agreement for a Contractual Renegotiation had not entered into force, it instructed the ENARGAS to apply to the Licensees (including Metrogas) a transitory tariff adjustment because of the CRT.

On March 31, 2017, ENARGAS Resolution No. 4,356/2017 was published in the Official Gazette through which the tariff schemes resulting from the Metrogas CRT, effective as of April 1, 2017 and the temporary tariff schemes applicable to Metrogas users were approved. Through differentiated tariffs, ENARGAS Resolution No. 4,356/2017 determined tariff schemes for residential users who recorded savings in their consumption equal to or greater than 15% with respect to the same period of 2015, as well as those that would apply to the beneficiaries of the Social Tariff (Resolutions No. 28/2016 of the MINEM and ENARGAS No. I-2,905/2014 and No. 3,784/2016) and the Entidades de Bien Público (Public Welfare Entities) (Law No. 27,218).

The tariff schemes corresponding to beneficiaries of the Social Tariff were rectified by ENARGAS Resolution No. 4,369 2017. The billing resulting from the application of the new transitory tariff schemes must respect the limits established in Article 10 of MINEM Resolution No. 212/2016, and therefore the criteria of ENARGAS Resolution No. I-4,044/2016 are maintained.

Likewise, ENARGAS Resolution No. 4,356/2017 overruled ENARGAS Resolutions No. I-2,407/12 and No. I-3,249/15 that enabled the collection of a fixed amount per invoice under the operation of the Fund for Gas Distribution Consolidation and Expansion Works ( FOCEGAS ).

In addition, ENARGAS Resolution No. 4,356/2017 approved: (i) the technical economic studies of the Company's CTR, (ii) the non-automatic Semi-Annual Adjustment Methodology to become effective jointly with the License Readjustment Memorandum of Agreement and (iii) the Metrogas Investment Plan for the next five-year term.

On October 24, 2017, and through ENARGAS Resolution No. 74/2017, a public hearing was called for November 15, 2017 in order to consider the transitory tariff adjustment effective as of December 1, 2017, corresponding to Metrogas.

On December 1, 2017, the following were published in the Official Gazette: (i) ENARGAS Resolution No. 131/2017 that ordered (a) to declare the validity of the Public Hearing called by ENARGAS Resolution No. 74/2017, (b) approve Metrogas temporary tariff scheme applicable as of December 1, 2017; and (c) approve new values for the Rates and Charges received by Metrogas for Additional Services; and (ii) ENARGAS Resolution N° 132/2017 that provides for a bonus to be implemented by Metrogas in favor of certain users who (a) record savings in their consumption; or (b) are beneficiaries of the Social Tariff.

On January 31, 2018, ENARGAS Resolution No. 249/2018 was published in the Official Gazette, which called for a public hearing to be held on February 22, 2018 to consider (i) the application of the Semi-Annual Tariff Adjustment

Methodology, if applicable, for the adjustment of Metrogas tariffs; (ii) the application of the transfer to tariffs of the price of the purchased gas; and (iii) methodological alternatives for a more predictable billing of residential users consumption.

On March 27, 2018, a letter of intent was entered into with ENARGAS, producers, distributors and transporters of natural gas with the objective of committing efforts towards the development of a financing program of wintertime consumptions of natural gas between the signing parties.

On May 23, 2018, MINEM Resolution No. 218/2018 (previously regulated by ENARGAS by means of Resolution No. 86/2018) establishes the suspension of the application of the discount criteria for social tariff users according to Resolution No. 474/2017 for consumptions made during May and June 2018, while the social tariff regime pursuant to MINEM Resolution No. 28/2016 must apply for the invoicing of said consumptions, which establishes a discount of 100% of the consumed natural gas.

**Table of Contents**

On June 12, 2018, ENARGAS Resolution No. 97/2018 that establishes the Financing Program of Wintertime Consumptions of Natural Gas (the Program ) was published in the Official Gazette. Adherence to the program by beneficiary users is optional and voluntary. In accordance with the terms and conditions of the Program, residential and commercial consumers may finance the payment of 25% of the invoices issued between July 1 and October 31, 2018. The applicable interest rate shall be the private non-finance sector electronic channel rate of the BNA for placement at 30 days of the month prior to the month in which the invoice is issued. The accumulated financing and its interests are recovered as of the issuance of regular invoices from November 1, 2018, and for three consecutive periods for bimonthly clients and six consecutive periods for monthly clients. The financing involves each activity segment (gas, transport and distribution) and was exceptional for the winter of 2018.

As a consequence of the exchange rate variation, producers and distributors of natural gas initiated a renegotiation process with regard to the particular agreements signed under the Terms and Conditions, with prices denominated in U.S. dollars. This process has not yet terminated and includes two principal topics: (i) payment of debts generated due to the difference between the exchange rate at which the distributors made their payments and the exchange rate set forth contractually (period April September 2018); and (ii) gas price to be applied for the period October December 2018.

In terms of debts generated by the exchange rate differences, on November 18, 2018, by means of Decree No. 1,053/18, the Argentine Government, as an exception, assumed responsibility for the payment of the daily differences accumulated monthly between the value of gas purchased by the distributors and the tariffs in force between April 1, 2018, and March 31, 2019. See Natural Gas.

On August 13, 2018, ENARGAS Resolution No. 184/2018 was published in the Official Gazette, which called for a public hearing to be held on September 4, 2018 to consider (i) the application of the Semi-Annual Tariff Adjustment Methodology, for the adjustment of Metrogas Tariffs; (ii) the application of the transfer to tariffs of the price of the purchased gas and the consideration of the pass-through of the debt arising from cumulative daily differences; and (iii) the presentation of the Argentine Gas Subdistribution Institute.

On October 8, 2018, ENARGAS Resolution No. 281/2018 was published in the Official Gazette that (a) declare the validity of the Public Hearing called by ENARGAS Resolution No. 184/2018; (b) approve Metrogas temporary tariff scheme applicable as of October 8, 2018; (c) approve new values for the Rates and Charges received by Metrogas for Additional Services; (d) order Metrogas to implement the corresponding bonus to beneficiaries of the Social Tariff equivalent to 100% of the gas price on a block of consumption established by Resolution MINEM No. 474/2017. Gas consumptions over such block have to be fully paid; (e) limit to 50% the gas price increase for SGP 1 and SGP 2 Social Tariff consumers for consumptions made as from October 1, 2018; (f) order SGP 1 and SGP 2 Social Tariff consumers (small industries and retail stores) to register in the Company Registry established by Law No. 24,467 or being beneficiaries of Law No. 27,218 that established Public Welfare Entities regime; (g) SGP 1 and SGP 2 bonus shall be detailed in the invoice in a separate line as Bonus Resolution N° 14/18 ; and (h) GNC consumers shall be entitled to request distribution services only in case distribution companies have guaranteed the purchase of natural gas for twelve months and as from April 1, 2019 and shall inform distribution companies their natural gas needs 60 days in advance as from April 1, 2019.

On October 12, 2018, ENARGAS Resolution No. 292/2018 amended Metrogas tariff scheme and values for the Rates and Charges.

*Memorandum of Understanding for the Natural Gas Distribution License Contract (also known as Memorandum of Understanding for the Comprehensive Contractual Renegotiation )*



On March 30, 2017, and within the framework of the renegotiation process of the public service contracts established by the Emergency Law, its extensions and Decrees No. 367/2016 and N° 2/2017, Metrogas subscribed with the MINEM and with the Ministry of Finance, a Memorandum of Agreement for the Adaptation of the Natural Gas Distribution License Agreement (which contains the terms of the comprehensive renegotiation and conditions for the adjustment of the License Agreement. The Memorandum of Agreement is based on the 2008 Transitional Agreement, the 2014 Transitional Agreement, the 2016 Transitional Agreement and the 2017 Transitional Agreement.

The provisions contained in the Memorandum of Agreement, once it has entered into full force and effect after being ratified by the PEN, will be applied during the contractual period ranging from January 6, 2002 and the termination of the License Agreement.

A series of guidelines to be contemplated by the CRT process are established in the terms provided for therein.

The Metrogas tariff scheme resulting from the Integral Tariff Review according to the indicated guidelines will be applicable once all the procedures provided for the entry into force of the Memorandum of Agreement has been fulfilled. The CTR will become in full force and effect not later than December 31, 2017. In the event that ENARGAS provides for the phased and progressive application of the tariff increase resulting from the Comprehensive Tariff Review, the application of the last step may not exceed April 1, 2018.

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**Table of Contents**

As a condition prior to ratification, the Memorandum of Agreement for the Comprehensive Contractual Renegotiation provides for the suspension and withdrawal of all claims, appeals and complaints filed, pending or in the process of being executed, whether administrative, arbitral or judicial, in the Argentine Republic or abroad, which are founded or linked to the facts or provided measures, with respect to the License Agreement, as of the Emergency Law and/or in the annulment of the PPI Index (Producer Price Index of the United States of America). Moreover, the Memorandum of Agreement must be ratified by the Shareholders Meeting of Metrogas, so that the PEN issues the Decree ratifying the terms of the Memorandum of Agreement. On April 27, 2017, the Shareholders Meeting of Metrogas ratified the Memorandum of Agreement for the Adaptation of the Natural Gas Distribution License Agreement.

Finally, the Memorandum of Agreement provides for the Company's commitment to make, during the effective term of the License, plus its potential ten-year extension and within the area of its License, additional sustainable investments equivalent to the amount of the award rendered in the arbitration proceedings in: BG Group Plc. vs. The Argentine Republic (UNC 54 KGA) with the proportional abatement percentage that would have been established in the payment agreement and excluding the amounts corresponding to the default interest on the payment of the award. The amount and the plan for additional investments will be determined by ENARGAS at the proposal of the Company and they will not be included in the rate base.

With respect to those Licensees whose Memorandum of Agreement had not entered into effect, the ENARGAS was instructed to apply to them a temporary adjustment of tariffs on account of the CTR, taking into consideration, to such effects, the studies carried out under such CTR in compliance with the provisions set forth in Article 1 of MINEM Resolution No. 31/2016.

The Memorandum of Agreement is subject to the controls established by the Emergency Law in order for the PEN to issue the ratification Decree. On March 28, 2018 Decree No. 252/2018 was published in the Official Gazette by which the PEN ratified the Memorandum of Agreement. Also, Resolution ENARGAS No. 300/2018 was published on that day, with the new tariffs scheme applicable as from April 1, 2018.

On September 27, 2018, SGE Resolution No. 14/2018, applicable to invoicing of distributors as of October 1, 2018, was published, which, inter alia, (i) revokes the ceilings and discounts that were established in due time in MINEM Resolutions No. 212/2016 and No. 474/2017 and sets forth a new discount of 100% for social tariff users for the consumption block set forth in Annex II of MINEM Resolution No. 474/2017 and consumptions that exceed said block are paid at 100%; and (ii) established that the Fiduciary Fund for Residential Gas Consumption Subsidies (Section 75 of Law No. 25,565) shall be 2.96% on the gas price in the TSEP by cubic meter and established that the invoicing shall be adjusted to the procedures established by ENARGAS.

On October 8, 2018, Resolution ENARGAS No. 281/2018 was published in the Official Gazette, declaring valid Public Hearing No. 96 and approving the Metrogas Tariff Tables, in force as of the day of their publication for the summer period 2018-2019. Subsequently, on October 12, 2018, Resolution ENARGAS No. 292/2018 was published in the Official Gazette rectifying the tariff tables of mentioned Resolution ENARGAS No. 281/2018, with retroactive application as of October 8, 2018. ENARGAS Resolution No. 292/2018 published on October 12, 2018, modified the Tariff Schemes and the Schedule of Rates and Charges for the additional services provided by Metrogas.

In addition, on the same date, MINEM Resolution No. 91/2018 was published in the Official Gazette, by means of which the periods for adjustment of the purchased gas price variations or the seasonal adjustment and the semi-annual adjustment of the tariffs are unified, establishing that once the transition period has passed, the adjustments shall be seasonal, covering the periods of April 1 to September 30 of each year and of October 1 to March 31 of the following year.

Temporary economic assistance

MINEM Resolution No. 312-E/2016 was published in the Official Gazette, on December 30, 2016, which ordered a new temporary economic assistance to the Licensees of the Natural Gas Distribution Service through Networks for the period April-September 2016, for the purpose of funding the mandatory investments established (with respect to Metrogas) in ENARGAS Resolutions No. 3,726/2016 and No. 4,044/2016, and the payment to gas producers; all of which is on account of the CTR.

Under the terms of the Resolution, the transfer of the amounts assigned to Metrogas of 759 was applicable as long as, at the discretion of the ENARGAS, the financial situation of Metrogas that gave rise to the assistance was maintained taking into account the availability of funds to meet its investment obligations and payments to gas producers.

For the release of the funds corresponding to the temporary financial assistance, Metrogas had to file a sworn statement with the ENARGAS, in the terms of ENARGAS Note No. 106/2017, on the allocation to be given to the amounts required. In accordance with

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**Table of Contents**

the ENARGAS criteria, if the sworn statements meet the requirements of MINEM Resolution No. 312 E/2016, they would be sent to the MINEM Hydrocarbons Secretariat in order to arrange for the transfer of the assistance. Likewise, the Resolution set forth that the Licensees could not distribute dividends under the terms of Resolution No. 31/2016 of the MINEM.

On March 31, 2017, Metrogas received the amount of 759 corresponding to MINEM Resolution No. 312 E/2016.

**New gas prices at the TSEP and Metrogas transition tariff schemes**

Through Resolution No. 74 E/2017, the MINEM determined the new natural gas prices at the TSEP applicable from April 1, 2017 to the categories of users indicated therein. Moreover, it determined the new prices at the TSEP, subsidized for natural gas Residential users who register a saving in their consumption equal or superior to fifteen percent (15%) with respect to the same period in 2015. These new prices in the TSEP have been contemplated in ENARGAS Resolution No. 4,356/2017.

MINEM Resolution No. 474-E/2017 determined the new Gas prices at the TSEP as of December 1, 2017. In addition, a 10% discount is established on the Gas price for all categories of Residential users who register a saving in their consumption equal to or greater than 20% with respect to the same period in 2015, and it establishes that the bonus corresponding to the Social Tariff beneficiaries will be equivalent to: i) 100% of the Natural Gas price on the consumption block base determined by Resolution; and ii) 75% of the price of Natural Gas on a surplus consumption block of equal volume to that determined in paragraph i). Consumptions over and above the block indicated in paragraph ii) will be paid by 100%. It also establishes that the billing resulting from the application of the new tariff schedules must respect the limits established in Article 10 of Resolution No. 212 dated October 6, 2016 of the MINEM. These new prices in the TSEP have been contemplated in the ENARGAS Resolution No. 131/2017, which approved the Metrogas temporary tariff scheme, applicable as of December 1, 2017.

On August 1, 2018, MINEM Resolution No. 46/2018 was published in the Official Gazette, instructing the Electric Power Under-Secretariat to take the necessary measures in order for CAMMESA to implement the competitive mechanisms to assure availability of gas for electricity generation, for each basin of origin, that shall be applicable for the valuation of natural gas volumes destined for the generation of electricity to be commercialized in the MEM or, in general, destined for the provision of the public service of electricity distribution as of August, 1, 2018.

**Procedure for the compensation of the lower revenues that the Distributors receive from their users for benefits and / or bonuses and for higher costs of unaccounted gas**

MINEM Resolution No. 508-E/2017, published on December 29, 2017, established the procedure for the compensation of the lower revenues that the Licensees of the Natural Gas Distribution Service through Networks receive from their users, as a product of: (i) the application of benefits and/or discounts to users arising from the regulations in force in the tariff area of the distribution service of natural gas through networks, and (ii) the higher UNG costs compared to those established for its recognition in the rates, applicable as of January 1, 2018.

**Note from the ENARGAS on deferred collection to residential users**

On August 25, 2017, the ENARGAS issued some Notes instructing the Licensees of the Gas Distribution Service ( Distributors ), by virtue of the presentation received from the MINEM, and in relation to the invoices to be issued from August 25, 2017 and until October 31, 2017 for residential users, to contemplate a fifty percent (50%) payment deferral of the total amount of the settlement corresponding to the billing period, without any interest. According to this instruction, the amounts subject to deferral must be included in the first invoice issued after October 31, 2017 in

accordance with the guidelines related to the issuance of Public Service Settlement receipts for bimonthly invoicing with monthly payment obligations currently in force, i.e., in two equal and consecutive monthly installments. Such deferral is not applicable to residential users who are beneficiaries of the Social Tariff.

The Notes sent by the ENARGAS also contemplate that, if there is a financial impact on the Distributors' income by virtue of such deferral, such impact will be timely evaluated and assumed by the Argentine Government through the corresponding budgetary management.

On September 20, 2017, YPF submitted a note to the MINEM (with a copy to ENARGAS), requesting the intervention of the MINEM so that it adopts the necessary measures to prevent the instruction given by the ENARGAS from being misinterpreted by some Distributors to place on the Producers, such as YPF, the financial impact that such a measure could cause, through the unilateral postponement of the payment obligations by the Distributors. As of the date hereof, the note submitted by YPF is yet to be answered.

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**Table of Contents**

As a result of the changes introduced through MINEM Resolution No. 474 E/2017 and ENARGAS Resolutions No. 131/2017 and No. 132/2017, and the guidelines established in the Terms and Conditions MINEM, Resolution No. 508-E / 2017 was published on December 29, 2017, which establishes the procedure for the compensation of the lower revenues that the Licensees of the Natural Gas Distribution Service through Networks receive from their users, as a result of: (i) the application of benefits and / or discounts to users resulting from the regulations in force regarding the tariffs applicable to the natural gas distribution service through networks; and (ii) the higher costs of the Unaccounted Natural Gas ( UNG ) with respect to those established for its recognition in the tariffs.

In accordance with the compensation procedure, the Distribution Licensees must inform to the ENARGAS within the terms established therein and based on the annualized monthly consumption and as a sworn statement, the amounts required to compensate the aforementioned differences. The same information regime is adopted in relation to UNG.

Thus, in order to calculate compensations for the amount that they do not receive for the discounts in billing as well as for the UNG differences, compensation is established resulting from the difference between the purchase price to the natural gas producer and the sale to its customers.

**Benchmark prices for the butane commercialization chain**

On April 5, 2017, the Secretariat of Hydrocarbon Resources published Resolution No. 56-E/2017 in the Official Gazette, establishing new maximum benchmark prices for the different segments of the butane commercialization chain to be bottled in 10, 12 and 15 kg bottles under the Household Program (Decree No. 470/2015 and former Energy Secretariat Resolution No. 49/2015), and modifying the benchmark prices established in former Energy Secretariat Resolution No. 70/2015. The new maximum benchmark prices for the Company are Ps. 2,568/TN for butane and Ps. 2,410/TN for propane. For fractionators such as YPF GAS S.A., the prices established by Resolution No. 56-E/2017 are Ps. 63.89 for 10 kg bottles, Ps. 76.67 for 12 kg bottles and Ps. 95.84 for 15 kg bottles.

On June 7, 2017, the Secretariat of Hydrocarbon Resources published Resolution No. 75/2017 in the Official Gazette, which modified the regulations applicable to the Household Program (former Energy Secretariat Resolution No. 49/2015) and provides that the adjustment of benchmark prices applicable to the different segments of the butane commercialization chain to be bottled in 10 and 12 kg bottles will not be implemented automatically in quarterly periods. Instead, those adjustments will be made at the discretion of the Secretariat of Hydrocarbon Resources in its capacity as enforcement authority of the Household Program. In addition, the resolution establishes that the adjustment of benchmark prices for LPG producers and fractionators on account of the Comprehensive Tariff Review established by the Household Program in its regulations will take place only after the prior analysis of cost variations and their incidence, and taking into account regional, distribution and logistical factors.

MINEM Resolution No. 287-E/2017, published on December 1, 2017, established new maximum benchmark prices and compensations for butane and propane producers effective from December 1, 2017, and introduced amendments to the Annex to the Regulation of the Bottle-to-Bottle Program approved by Resolution No. 49/2015, among which, it is prohibited to charge the distributors for any additional service whatever its denomination, if in doing so the maximum benchmark prices and the maximum allowed deviations are exceeded.

On March 28, 2018, Disposition No. 5/2018 of the Under-Secretariat of Hydrocarbon Resources was published, establishing new maximum reference prices for the commercialization of butane destined for sale of bottled LPG, in force as of April 1, 2018.

Hydrocarbon Resources Under-Secretariat Disposition No. 5/2018 published in the Official Gazette on March 28, 2018, established new maximum benchmark prices and compensations for butane and propane producers effective

from April 1, 2018.

*Natural gas export administration and domestic supply priorities*

In March 2004, the former Argentine Secretariat of Energy issued S.E. Resolution No. 265/04 adopting measures intended to ensure the adequate supply of natural gas to the domestic market and regulate its consequences on electricity wholesale prices. Among the measures adopted were:

the suspension of all exports of surplus natural gas;

**Table of Contents**

the suspension of automatic approvals of requests to export natural gas;

the suspension of all applications for new authorizations to export natural gas, filed or to be filed before the former Argentine Secretariat of Energy; and

the authorization to the Undersecretariat of Fuels to create a rationalization plan of gas exports and transportation capacity.

In March 2004, the Undersecretariat of Fuels, pursuant to the authority given to it under S.E. Resolution No. 265/04, issued S.S.C. Regulation No. 27/04 establishing a rationalization plan of gas exports and transportation capacity. Among other things, S.S.C. Regulation No. 27/04 established a limit on natural gas export authorizations, which, absent an express authorization by the Undersecretariat of Fuels, may not be executed for volumes exceeding exports registered during 2003.

In June 2004, the former Argentine Secretariat of Energy issued S.E. Resolution No. 659/04, which established a new program to assure natural gas supply to the domestic market (which substitutes for the program created by S.S.C. Regulation No. 27/04). Under S.E. Resolution No. 659/04 (amended by S.E. Resolution No. 1,681/04), natural gas exports may be restricted due to shortages of natural gas in the domestic market, because exporting producers may be required to supply additional volumes of natural gas to the domestic market beyond those that they are contractually committed to supply. The export of natural gas under current export permits is conditioned on the fulfillment of additional supply requirements imposed on exporting producers by governmental authorities.

This program was further amended and supplemented by S.E. Resolution No. 752/05 issued by the former Argentine Secretariat of Energy in May 2005, which further reduced the ability of producers to export natural gas, and created a mechanism under which the former Argentine Secretariat of Energy may require exporting producers to supply additional volumes to domestic consumers during a seasonal period ( Permanent Additional Supply ), which volumes of natural gas are also not committed by the exporting producers. Based on the provisions of Rule No. 27/04, S.E. Resolution No. 659/04 and S.E. Resolution No. 752/05, the former Argentine Secretariat of Energy and/or the Undersecretariat of Fuels have instructed us to redirect natural gas export volumes to the internal market, thereby affecting natural gas export commitments. We have challenged the validity of the aforementioned regulations and resolutions and have invoked the occurrence of a force majeure event under the corresponding natural gas export purchase and sale agreements. The counterparties to such agreements have rejected our position. See Item 8. Financial Information Legal Proceedings.

S.E. Resolution No. 752/05 also establishes (i) a special market, open and anonymous, for compressed natural gas stations to purchase natural gas under regulated commercial conditions, with the demand being ensured by the former Argentine Secretariat of Energy through Permanent Additional Supply required of exporting producers, and (ii) a mechanism of standardized irrevocable offers for electric power generators and industrial and commercial consumers to obtain supply of natural gas, with the demand being ensured by the former Argentine Secretariat of Energy through the issuance of the Permanent Additional Supply mentioned above.

Pursuant to the standardized irrevocable offers procedure mentioned above, which operates at the MEG, any direct consumer may bid for a term gas purchase at the export average gas price, net of withholdings by basin. The volume necessary to satisfy the standardized irrevocable offers which have not been satisfied will be required as a Permanent Additional Supply only until the end of the seasonal period during which the unsatisfied requests should be made (October April or May September). Such Permanent Additional Supply will be requested from the producers that export gas and that inject the natural gas from the basins that are able to supply those unsatisfied irrevocable offers.



S.E. Resolution No. 1,886/06, published on January 4, 2007, extended the term of effectiveness of this mechanism of standardized irrevocable offers until 2016, and empowered the Undersecretariat of Fuels to suspend its effectiveness subject to the satisfaction of internal demand of natural gas achieved by means of regulations, agreements or due to the discovery of reserves.

By means of S.E. Resolution No. 1,329/06, later supplemented by S.S.C. Note No. 1,011/07, the former Argentine Secretariat of Energy required producers to give first priority in their injections of natural gas into the gas pipelines to certain preferential consumers and obligated transportation companies to guarantee these priorities through the allocation of transportation capacity. In general, these regulations subordinate all exports of natural gas to the prior delivery of natural gas volumes that are sufficient to satisfy domestic market demand.

Also, beginning during the severe Argentine winter in 2007 and continuing thereafter, we and most gas producers, as well as the transportation companies in Argentina, received instructions from the government to decrease exports, except for certain volumes addressed to satisfy Chilean residential consumption and other specific consumption.

National Decree No. 893/2016, dated July 25, 2016, determined that MINEM would be empowered to regulate the award of export permits for the following purposes: i) to deliver assistance with natural gas emergency situations of foreign countries, and ii) to replace natural local transport restrictions by means of utilizing foreign transportation infrastructure to ease transportation of natural gas within the Argentine market and allow for an increase in local production.

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**Table of Contents**

On January 8, 2017, export duties on hydrocarbon exports established by Law No. 26,732 ceased to be enforceable. Thereafter, there will be no export duties on natural gas exports.

On January 13, 2017, MINEM published Resolution No. 8/2017 regulated National Decree No. 893/2016, establishing an especial procedure to grant natural gas export permits subject to import commitments. Solicitors for both types of permits will have to commit to import the volumes of natural gas exported and to indemnify the Argentine government for breaching such obligation, including the payment of 150% of the import costs incurred by the Argentine government to replace the outstanding natural gas. Permits would be extended for a maximum period of two years and are subject to possible termination in the event that public interest makes it convenient for local market supply in accordance with MINEM's criteria.

On November 27, 2017, MINEM published Decree No. 962/2017 in the Official Gazette, which, among other aspects, modifies Article 3 of the Regulatory Decree of the gas law, establishing the following principles for export authorizations: 1) export authorizations will be issued by the MINEM once the applications have been evaluated; 2) the export agreements that imply the construction of new facilities and/or new connections to the gas pipelines, or the use of any of the existing systems, or other transportation alternatives, will be approved by the MINEM with the intervention of ENARGAS; 3) the authorizations issued by the MINEM may provide for the export of gas surplus to the amounts established therein, provided they are subject to interruption when there are internal supply problems.

In this case, it will not be necessary to obtain the approval of each surplus export transaction in the authorization, only to submit to ENARGAS, for informative purposes only, the respective contract evidencing the existence of a condition relating to the possibility of interruption should arise and the absence of compensation in case of such interruption. The modifications introduced by Decree No. 962/2017 do not modify the regime of temporary export permits subject to export commitments provided for in Decree No. 893/2016.

On August 22, 2018, the former Ministry of Energy and Mining issued Resolution No. 104/2018, later modified by Resolution No. 9/2018 of the SGE, by which: i) it established a new procedure to obtain authorizations to export natural gas, ii) it abrogated Resolution No. 299/98 clarifying that any export permit awarded under such resolution would have to comply with the new procedure; iii) it abrogated former Energy and Mining Secretary Resolutions No. 131/2001, 265/2004, 883/2005 and former Ministry of Energy and Mining Resolution No. 8/2017; and iv) it delegates to the Hydrocarbon Resources Sub-Secretary the power to exercise the tasks described in the new procedure.

Resolution No. 104/2018 provided that in the case of export requests from a project included in MINEM Resolution No. 46-E/2017 (Unconventional Gas Production Stimulus Program), the quantities of gas would not be computed as part of and/or within the production included under the mentioned Program.

On September 4, 2018 Decree No. 793/2018 was published in the Official Gazette. See [Export Taxes](#).

On November 14, 2018, in the Official Gazette was published the SGE Resolution No. 95/2018 by which it granted YPF a permit, under Resolution No. 104/2018, to export natural gas to Innergy Soluciones Energéticas S.A. on interruptible conditions for a volume of 1,500,000 cm<sup>3</sup>/d during the summer season.

On December 14, 2018, in the Official Gazette was published the SGE Resolution No. 262/2018 by which it granted YPF a permit, under Resolution No. 104/2018, to export natural gas to Colbún S.A. on interruptible conditions for a volume of 1,500,000 cm<sup>3</sup>/d during the summer season.

On December 21, 2018, in the Official Gazette was published the SGE Resolution No. 313/2018 by which it granted YPF a permit, under Resolution No. 104/2018, to export natural gas to Aproveisionadora Global De Energía Sociedad

Anónima (AGESA) on interruptible conditions for a volume of 1,500,000 cm/d during the summer season.

On December 27, 2018, in the Official Gazette was published the SGE Resolution No. 339/2018 by which it granted YPF a permit, under Resolution No. 339/2018, to export natural gas to Enel Generación Chile Sociedad Anónima on interruptible conditions for a volume of 2,000,000 cm/d during the summer season.

On December 4, 2018, Law No. 27,467 relating to the National Budget for 2019 was published. Sections 81 and 82 thereof respectively establish i) that the PEN may fix export duties until December 31, 2020 which rate may not exceed 30% of the taxable value or the official FOB price, with a maximum limit of 12% for those goods that were not subject to export duties as of September 2, 2018 or that were taxed with a 0% rate as of that date, and ii) that Decree No. 793/18 continues in full force and effect.

**Table of Contents**

*Liquefied petroleum gas*

Law No. 26,020, enacted on March 9, 2005, sets forth the regulatory framework for the industry and commercialization of LPG. This law regulates the activities of production, bottling, transportation, storage, distribution, and commercialization of LPG in Argentina and declares such activities to be of public interest. Among other things, the law:

1. creates the registry of LPG bottlers, obliging LPG bottlers to register the bottles of their property;
2. protects the trademarks of LPG bottlers;

creates a reference price system, pursuant to which the SGE shall periodically publish reference prices for LPG sold in bottles of 45 kilograms or less;

requires the SGE to comply with the following tasks: (i) create LPG transfer mechanisms, in order to guarantee access to the product to all the agents of the supply chain; (ii) establish mechanisms for the stabilization of LPG prices charged to local LPG bottlers; and (iii) together with the CNDC, analyze the composition of the LPG market and its behavior, in order to establish limitations on market concentration in each phase, or limitations to the vertical integration throughout the chain of the LPG industry (such limitations apply to affiliates, subsidiaries and controlled companies);

grants open access to LPG storage facilities; and

creates a fiduciary fund to finance bottled LPG consumption for low-income communities in Argentina and the extension of the natural gas distribution network to new areas, where technically possible and economically feasible. The fiduciary fund is funded through the following mechanisms: (i) penalties established by Law No. 26,020, (ii) assignments from the General State Budget, (iii) funds from special credit programs that may be arranged with national or international institutions, and (iv) funds that may be assessed by the SGE on participants in the LPG industry.

The former Argentine Secretariat of Energy established, through several subsequent resolutions, reference prices applicable to sales of LPG bottles of less than 45 kilograms, and to sales of bulk LPG exclusively to LPG bottlers. Also, the former Argentine Secretariat of Energy approved the method for calculating the LPG export parity, to be updated monthly by the Undersecretariat of Fuels. In 2007, the former Argentine Secretariat of Energy increased the LPG volumes to be sold to bottlers at the reference prices set forth in the unconventional above mentioned resolutions.

Disposition No. 168/04 of the Under-Secretariat of Fuels requires companies intending to export LPG to first obtain an authorization from the former Argentine Secretariat of Energy. Companies seeking to export LPG must first demonstrate that the local demand is satisfied or that an offer to sell LPG to local demand has been made and rejected.

On September 19, 2008, the Secretariat of Energy and Argentine LPG producers entered into the Complementary Agreement which, among other objectives, seeks to stabilize the price of LPG in the domestic market. The

Complementary Agreement applies only to LPG sold to bottlers that declare their intention to bottle such LPG in LPG bottles of 10, 12 or 15 kilograms. The Complementary Agreement requires LPG producers to supply LPG bottlers with a prescribed volume and accept the price per ton set forth in the Complementary Agreement. The Complementary Agreement was then extended in the following years until 2015 with certain modifications in quantities and prices to be provided every year.

On April 7, 2015, Resolution No. 73 of the former Argentine Secretariat of Energy terminated the fiduciary agreement to which YPF was a party as a natural gas producer, contributing funds for the payment of compensation for LPG producers and bottlers. As a result, natural gas producers that were parties to the Complementary Agreement are no longer required to contribute funds. At the same time, a new program for the provision of bottled LPG at reference prices was established by Decree No. 470/2015 dated March 31, 2015. This decree established that LPG producers and bottlers provide LPG at reference prices in the domestic market, gradually increasing the volumes provided in 2014.

This new program for the provision of bottled LPG has been modified by different succeeding resolutions which modified the reference prices and the methodology for reference price future updates, among other changes. These resolutions are: Hydrocarbon Secretary Resolution No. 56-E/2017, No. 75/2017 and MINEM Resolution No. 287-E/2017.

## **Table of Contents**

### *Electricity*

By means of Decree No. 134/2015, published in December 2015, the National Executive Office declared the National Electric System Emergency through December 31, 2017. This decree instructs the Minister of Energy to develop and propose measures and to ensure adequate power supplies.

The following regulations were issued by the Ministry of Energy and its Secretariat of Electric Power ( SEE ) as measures to the National Electric System Emergency among others: MINEM No. 6/2016; SEE No. 21/2016; SEE No. 22/2016; SEE No. 19/2017 and SEE No. 256/2017.

Through Resolution No. 06/2016, published in January 2016, MINEM established new seasonal reference prices of power and energy for the MEM from February 1, 2016 to April 30, 2016. The resolution also establishes a stimulus plan, with reference prices for residential consumers that reduce their consumption over the same month in 2015, and a social tariff.

Through Resolution SEE No. 21/2016, dated February 2016, the Secretariat of Electric Power called for a public bid for the installation of new thermic power generation and associated electric energy production that may confirm availability for summer 2016/2017, winter 2017 and summer 2017/2018.

Through Resolution No. 41/2016, published in January 2016, which modified Resolution No. 6/2016, MINEM established new seasonal reference prices of power and energy in the MEM from May 1, 2016 to October 31, 2016. It also confirms the applicability of the stimulus plan and social tariff until October 31, 2016.

Through Resolution No. 20/2017, published in January 2017, MINEM established, among other things, new seasonal reference prices of power and energy in the MEM from February 1, 2017 to April 30, 2017.

National Decree No. 531/2016, dated March 31, 2016, regulates Law No. 27,191 (regarding the national incentive for the use of renewable sources to generate electricity) and, among other things, establishes that big consumers shall contract for or co-generate renewable energy to comply with the obligation to consume 8% of its electricity from renewable sources, by December 2017. If such requirement is not met, the big consumers will be punished with a fine equal to the variable cost of producing the unmet electricity by a thermos-electrical power plant with imported gasoil fuel.

Argentine Secretariat of Electric Power Resolution No. 22/2016, dated March 30, 2016, modified Resolution No. 482/2015, adjusting the remuneration components for power generators that adhered to Resolutions No. 95/2013, 529/2014 and 482/2015, retroactively to February 2016.

MINEM Resolution No. 41/2016, dated April 13, 2016, establishes new prices on the natural gas at TSEP for each basin which would then be acquired for electric generation purposes and therefore commercialized within the MEM or generally destined to satisfy the electricity distribution services.

SEE Resolution No. 420/2016, published on November 2016, called for projects which may contribute to the electric market cost reduction and the increase in the Argentine electric system reliance.

Through Resolution No. 19/2017, published in January 2017, MINEM, through its Secretariat of Electric Power established a new set of prices for installed electricity generation facilities for any new contracts regarding guaranteed energy offers. Prices have been dollarized and represent an increase with respect to those in force in 2016. Resolution No. 19/2017 also determined a stimulus mechanism towards operative efficiency.

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Through Resolution No. 256/2017, published in April 2017, MINEM established, among other things, new seasonal reference prices of power and energy in the MEM from May 1, 2017 until October 31, 2017.

Through Resolution SEE No. 287/2017, dated May 2017, within the framework of Resolution No. 420/2016 the Electric Power Secretariat established a public bid for projects willing to sell electricity produced by co-generation or close cycle projects.

## Table of Contents

Through Resolution No.1091/2017, published in November 2017, MINEM established, among other things, new seasonal reference prices of power and energy in the MEM from November 1, 2017 to April 30, 2018. It also establishes the Social Tariff Subsidy and the Stimulus Plan discounts for the period running from December 1, 2017 through April 30, 2018.

Electricity Secretary Resolution No. 926-E/2017, dated October 17, 2017 authorized CAMMESA the signature of purchase power agreements for YPF EE co-generation project in La Plata, Buenos Aires Province and YGEN Eléctrica S.R.L. close cycle project in El Bracho, Province of Tucumán, awarded in Resolution No. 287 public bid framework.

On November 7, 2018, SGE Resolution No. 70/2018 was published in the Official Gazette which allows Generators, Co-generators and Self-generators from MEM to buy their own fuel for power generation. The fuel costs will be recognized by the mechanism of Production Variable Costs established by CAMMESA, who will continue to buy fuels for those generators who do not or cannot exercise the abovementioned purchase.

On March 1, 2019, Resolution No. 1/2019 of the Secretary of Renewable Resources and Electric Market which derogated Resolution No. 19/2017 of the former Secretary of Electric Energy, effective as of March 1, 2019, and among other aspects provided for new mechanisms for payment of guaranteed power availability and generation by Generators, Co-generators and Self-generators from MEM (excluding binational hydroelectric generators, nuclear generators and Generators, Co-generators and Self-generators from MEM whose generating units had been committed as part of agreements for purposes of supplying the MEM from such regime). The prices for power and generation during the six months during which electric demand is lower which were approved by Resolution No. 1/2019 are approximately 20% lower in dollar terms than those set forth in Resolution No. 19/2017.

### *Argentine Environmental Regulations*

The enactment of Articles 41 and 43 in the National Constitution, as amended in 1994, as well as new federal, provincial and municipal legislation, has strengthened the legal framework dealing with damage to the environment. Legislative and government agencies have become more vigilant in enforcing the laws and regulations regarding the environment, increasing sanctions for environmental violations.

Under the amended Articles 41 and 43 of the National Constitution, all Argentine inhabitants have both the right to an undamaged environment and a duty to protect it. The primary obligation of any person held liable for environmental damage is to rectify such damage according to and within the scope of applicable law. The federal government sets forth the minimum standards for the protection of the environment and the provinces and municipalities establish specific standards and implementing regulations.

Federal, provincial and municipal laws and regulations relating to environmental quality in Argentina affect our operations. These laws and regulations set standards for certain aspects of environmental quality, provide for penalties and other liabilities for the violation of such standards, and establish remedial obligations in certain circumstances.

In general, we are subject to the requirements of the following federal environmental regulations (including the regulations issued thereunder):

National Constitution (Articles 41 and 43);



Law No. 25,675 on National Environmental Policy;

Law No. 25,612 on Integrated Management of Industrial and Service Industry Waste;

Law No. 24,051 on Hazardous Waste;

Law No. 20,284 on Clean Air;

Law No. 25,688 on Environmental Management of Waters;

Law No. 25,670 on the Management and Elimination of Polychlorinated Biphenyls;

Criminal Code; and

the Argentine Civil and Commercial Code, which sets forth the general rules of tort law.

## **Table of Contents**

These laws address environmental issues, including limits on the discharge of waste associated with oil and gas operations, investigation and cleanup of hazardous substances, workplace safety and health, natural resource damages claims and toxic tort liabilities. Furthermore, these laws typically require compliance with associated regulations and permits and provide for the imposition of penalties in case of non-compliance.

In addition, we are subject to various other provincial and municipal regulations, including those relating to gas venting, oil spills and well abandonment, among other matters.

By Resolution No. 404/94, the former Argentine Secretariat of Energy amended Resolution No. 419/93, and created the Registry of Independent Professionals and Safety Auditing Companies (*Registro de Profesionales Independientes y Empresas Auditoras de Seguridad*), which may act with respect to areas of hydrocarbons storage, oil refineries, gas stations, fuel commercialization plants and plants for fractionation of LPG in containers or cylinders. The Resolution provides that external audits of oil refineries, gas stations and all fuel storage plants must be carried out by professionals registered in the Registry. Domestic fuel manufacturing companies and companies that sell fuels are prohibited from supplying these products to any station failing to comply with its obligations. Penalties for failure to perform the audits and remedial or safety tasks include the disqualification of plants or gas stations. In addition, a set of obligations was established regarding underground fuel storage systems, including a mechanism for instant notification in cases of loss or suspicion of loss from the storage facilities.

On July 19, 2001, the Secretariat of Environmental Policy of the province of Buenos Aires issued Resolution No. 1,037/01 ordering us to clean up certain areas adjacent to the La Plata refinery. The resolution was appealed through an administrative procedure which has not yet been resolved. Nevertheless, we have commenced certain actions in order to identify potential technical solutions for the treatment of the historical contamination, while reserving that the remediation must be made by the parties responsible for the environmental damage. Under current law, the Argentine government has the obligation to indemnify us against any liability and hold us harmless for events and claims arising prior to January 1, 1991, according to the Privatization Law.

During 2005, the former Argentine Secretariat of Energy, by means of Resolution No. 785/05, created the National Program of Hydrocarbons Warehousing Aerial Tank Loss Control, a measure aimed at reducing and correcting environmental pollution caused by hydrocarbons warehousing-aerial tanks.

The description of the material Argentine environmental regulations is only a summary and does not purport to be a comprehensive description of the Argentine environmental regulatory framework. The summary is based upon Argentine regulations related to environmental issues as in effect on the date of this annual report, and such regulations are subject to change.

## **Taxation**

Holders of exploration permits and production concessions are subject to federal, provincial and municipal taxes and regular customs duties on imports. The Hydrocarbons Law grants such holders a legal guarantee against new taxes and certain tax increases at the provincial and municipal levels, except in the case of a general increase in taxes.

Pursuant to Sections 57 and 58 of the Hydrocarbons Law, holders of exploration permits and production concessions must pay an annual surface fee that is based on acreage of each block and which varies depending on the phase of the operation, i.e., exploration or production, and in the case of the former, depending on the relevant period of the exploration permit. On October 17, 2007, the Official Gazette published Executive Decree No. 1,454/07, which significantly increased the amount of exploration and production surface fees expressed in Argentine pesos that are payable to the different jurisdictions where the hydrocarbon fields are located. Law No. 27,007 published in the

Official Gazette on October 31, 2014 updated amounts that must be paid pursuant to Sections 57 and 58 of the Hydrocarbons Law. See Upstream.

In addition, net profit (as defined in the Hydrocarbons Law) of holders of permits, or concessions accruing from activity as such holders, might be subject to the application of a special 55% income tax. This tax has never been applied. Each permit or concession granted to an entity other than us has provided that the holder thereof is subject instead to the general Argentine tax regime, and a decree of the National Executive Office provides that we are also subject to the general Argentine tax regime.

Following the introduction of market prices for downstream petroleum products in connection with the deregulation of the petroleum industry, Law No. 23,966 established a volume-based tax on transfers of certain types of fuel, replacing the prior regime, which was based on the regulated price. Law No. 25,745 modified, effective as of August 2003, the mechanism for calculating the tax, replacing the old fixed-value per liter according to the type of fuel for a percentage to apply to the sales price, maintaining the old fixed value as the minimum tax. Through Laws No. 26,028 and 26,181, new taxes on diesel and gasolines sales have been established.

## **Table of Contents**

See additionally Note 30.a to the Audited Consolidated Financial Statements.

### **Reduction in tax rates for fuels**

On December 30, 2014, Decree No. 2,579/2014 set forth a reduction in fuel taxes established by Laws No. 23,966 and 26,181 with respect to diesel and unleaded gasoline products. The reductions took effect on January 1, 2015.

On December 29, 2017, Law No. 27,430 introducing modifications to the fuel tax was published in the Official Gazette as follows (Laws No. 26,028 and 26,181 were repealed):

1. A new tax was created (the so called CO2 Tax ). This new tax essentially applies to Fuel Oil, coke and coal, as well as the same fuels taxed by Law 23,966.
2. Starting in March 2018, the fuel tax and CO2 Tax will be calculated as a fixed amount per liter instead of as a percentage of the sales price.

### **Export taxes**

Export duties on hydrocarbons were established in 2002 by Law No. 25,561 of Public Emergency, for a term of five years. The regime varied during in different periods until it ceased after the second extension expired on January 7, 2017.

However, on September 4, 2018, Decree No. 793/2018 reinstated customs duties on the export of hydrocarbons. See Item 3. Key Information Risk Factors Risks Relating to Argentina.

### **Repatriation of Foreign Currency**

Decree No. 893/2017, published on November 1, 2017, completely revoked the different types of requirements and restrictions which were imposed from time to time in Argentina, with respect to the repatriation of foreign currency proceeds derived from exports.

Particularly concerning the upstream oil industry, Executive Decree No. 1,589/89, had allowed us and other companies engaged in oil and gas production activities in Argentina to freely sell and dispose of the hydrocarbons we produce. Additionally, under Decree No. 1,589/89, we and other oil producers were entitled to keep up to 70% of foreign currency proceeds received from crude oil and gas export sales outside of Argentina, but were required, at that time, to repatriate the remaining 30% through the exchange markets of Argentina.

After that, Decree No. 1,722/2011 of October 26, 2011 had required all oil and gas companies (including YPF to repatriate 100% of their foreign currency export receivables. Although such mandatory requirement imposed by Decree No. 1,722/2011 remained in force and effect until late 2017, its practical application had been substantially relaxed during 2016 and 2017, specially buy the Resolution No. 47-E/2017 (issued by the Argentine Secretariat of Commerce) which for the repatriation of foreign currency export receivables had significantly extended, from 30 calendar days as of December 2015, up to 10 years on December 2017.

However, as a result of Decree No. 893/2017 described in the first paragraph, complemented by the Argentine Central Bank s Communication A 6244, there are currently no requirements regarding mandatory repatriation of foreign

currency export receivables.

**ITEM 4A. Unresolved Staff Comments.**

YPF does not have any unresolved Staff comments.

**ITEM 5. Operating and Financial Review and Prospects**

The following discussion should be read in conjunction with our Audited Consolidated Financial Statements included in this annual report.

## **Table of Contents**

### **Overview**

We are Argentina's leading energy company, operating a fully integrated oil and gas chain with leading market positions across the domestic upstream and downstream segments. See Item 4. Information on the Company History and Development of YPF Overview.

### **Presentation of Financial Information**

Our Audited Consolidated Financial Statements are prepared in accordance with IFRS as issued by the IASB. Our Audited Consolidated Financial Statements are fully compliant with IFRS. See Note 2.a to the Audited Consolidated Financial Statements for additional information.

Selected consolidated financial information in this annual report as of December 31, 2018, 2017 and 2016 and for the years ended December 31, 2018, 2017 and 2016 has been derived from our Audited Consolidated Financial Statements included in this annual report, which were approved at the Board of Directors' meeting and authorized to be issued on March 7, 2019. These consolidated financial statements, which comprise those presented before the CNV on March 11, 2019, and an update of Note 34 Subsequent events and the inclusion of Note 35 Supplemental information on oil and gas producing activities (unaudited), have been approved by Management on April 3, 2019.

Additionally, certain oil and gas disclosures are included in Note 35 to the Audited Consolidated Financial Statements included in this annual report under the heading Supplemental information on oil and gas producing activities (unaudited).

### **Segment Reporting**

In connection with our segment reporting, see Note 5 to our Audited Consolidated Financial Statements and Item 4. Information on the Company Business Organization.

Sales between business segments are made at internal transfer prices established by us, which generally seek to approximate market prices.

**Table of Contents****Summarized Statement of Comprehensive Income**

	<i>For the Year Ended December 31,</i>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	<i>(in millions of pesos)</i>		
Revenues	435,820	252,813	210,100
Cost	(359,570)	(211,812)	(177,304)
Gross profit	76,250	41,001	32,796
Administrative expenses	(13,922)	(8,736)	(7,126)
Selling expenses	(27,927)	(17,954)	(15,212)
Exploration expenses	(5,466)	(2,456)	(3,155)
Recovery / (Impairment) of property, plant and equipment	2,900	5,032	(34,943)
Other net operating results	11,945	(814)	3,394
Operating profit (loss)	43,780	16,073	(24,246)
Income from equity interest in associates and joint ventures	4,839	1,428	588
Net financial results	41,525	(8,798)	(6,146)
Net profit / (loss) before income tax	90,144	8,703	(29,804)
Income tax	(51,538)	3,969	1,425
Net profit / (loss) for the year	38,606	12,672	(28,379)
Total other comprehensive income for the year	172,600	21,917	27,414
Total comprehensive income / (loss) for the year	211,206	34,589	(965)

**Factors Affecting Our Operations**

Our operations are affected by a number of factors, including, but not limited to:

the volume of crude oil, oil byproducts and natural gas we produce and sell;

regulation of domestic pricing, mainly related to gas;

our pricing policy regarding the sale of fuel;

export administration by the Argentine government and domestic supply requirements;

international and domestic prices of crude oil and oil products;

our capital expenditures and financing availability;

high levels of inflation;

abrupt changes in currency values;

cost increases;

domestic market demand for hydrocarbon products;

operational risks, labor strikes and other forms of public protest in Argentina;

taxes, including export taxes;

regulation of capital flows;

the Argentine peso/U.S. dollar exchange rate;

the revocation of our concessions in case of noncompliance with certain provisions as set by laws and agreements with provinces in Argentina;

dependence on the infrastructure and logistics network used to deliver our products;

laws and regulations affecting our operations, such as import regulations; and



**Table of Contents**

interest rates.

Our operating profit in 2018 was Ps. 43,780 million, compared to a profit of Ps. 16,073 million in 2017. This increase was attributable to the factors explained in -Principal Income Statement Line Items-Operating profit (loss).

Our business is inherently volatile due to the influence of external factors, such as those listed above. Consequently, our past financial condition, results of operations and the trends indicated by such results and financial condition may not be indicative of the financial conditions, results of operations or trends in future periods. We will continue to focus on accelerating our shale oil developments following the outstanding results obtained during 2018. This was the first year during which the growth of our shale oil production was enough to offset the decline in conventional fields, which indicates our current strategy may lead to sustainable growth in production. As explained in Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Seasonality , it is not reasonable to accelerate shale gas production in a scenario of excess supply. Therefore, we estimate that we will not see production growth in 2019 (estimated to be around 2% - 3% lower than 2018 on a boe basis) mainly as a consequence of recent mature asset divestments in the order of 4.8 mboe per day and lower gas production than previously expected. We expect to increase our capital expenditures during 2019 compared to 2018, in an amount of between U.S.\$3.5 billion and U.S.\$4 billion, mainly focused in our Upstream operations.

Our strategy is to accelerate production in Loma Campana and replicate the success of such area in La Amarga Chica and Bandurria. So far, we have obtained positive results in both areas, while we de risk other clusters within our extensive shale oil acreage. Additionally, we will continue to focus on our conventional production and to pursue our aim of reducing the natural decline of these fields.

With regard to our Downstream segment, we know that in an inflationary scenario and with a volatile Argentine peso, the pass-through to pump prices is always difficult. While our plan contemplates the aforementioned pass-through, we cannot assure you that we will be successful in doing so. We have a unique brand and footprint that we expect will allow us to keep our volumes evolving better than local economic activity.

See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions.

Notwithstanding the foregoing, there can be no assurance that our production, costs, prices, volumes of sales or our estimates of future cash flows from operations, among other items, could not be affected by factors beyond our control and, as such, differ from our estimates. See Item 3. Key Information Risk Factors.

***Macroeconomic conditions******Overview***

Substantially all of our revenues are derived from our operations in Argentina and are therefore subject to prevailing macroeconomic conditions in Argentina. Changes in economic, political and regulatory conditions in Argentina and measures taken by the Argentine government have had and are expected to continue to have a significant impact on us.

The Argentine economy has experienced significant volatility in past decades, characterized by periods of low or negative growth and high variable levels of inflation. Inflation reached its peak in the late 1980s and early 1990s. Due to inflationary pressures prior to the 1990s, the Argentine currency devalued repeatedly, and macroeconomic instability led to broad fluctuations in the real exchange rate of the Argentine currency relative to the U.S. dollar. To address these pressures, past Argentine governments implemented various plans and utilized a number of exchange

rate systems.

In the fourth quarter of 1998, adverse international financial conditions caused the Argentine economy to enter into a recession and GDP to decrease between 1999 and 2001. By the end of 2001, Argentina suffered a profound deterioration in social and economic conditions, accompanied by high political and economic instability. The restrictions on the withdrawal of bank deposits, the imposition of exchange controls, the suspension of the payment of Argentina's public debt and the abrogation of the peso's one-to-one peg to the dollar (with the consequent devaluation of the peso against the dollar) caused a decline in economic activity. Real GDP declined by 10.9% in 2002, annual inflation rose to 41%, the exchange rate continued to be highly volatile, and the unemployment rate rose to more than 20%. The political and economic instability not only curtailed commercial and financial activities in Argentina but also severely restricted the country's access to international financing.

Strong economic growth in the world's developed economies, favorable raw material prices from 2003 through the first half of 2008 and the implementation of new macroeconomic policies paved the way for Argentina's economic recovery. Real GDP grew at an average cumulative rate of 8.5% between 2003 and 2008. As a result of the crisis in the global economy, Argentina's real GDP growth

**Table of Contents**

rate decelerated in 2009 to 0.9% but recovered in 2010 and 2011 growing by approximately 9% each year. According to the IMF's estimates, global economic growth reached 3.1% in 2015, although the rate of growth or, in some cases, contraction, varied significantly from region to region. On March 27, 2014, the Argentine government announced a new method of calculating GDP by reference to 2004 as the base year (as opposed to 1993, which was the base reference year under the prior method of calculating GDP).

After the growth in 2010 and 2011, several factors led to a decrease in growth of the Argentine economy in 2012 and 2013. The growth of the global economy was not as strong as expected following the easing of U.S. economic crisis that started in 2007, and financial volatility continued at high levels.

The decline in the price of Brent crude from mid 2015 to the end of 2018, to nearly U.S.\$ 50 per barrel, among other things, presented a complicated international scenario that creates uncertainty about the future performance, including potential downside risks, of developed and emerging economies, including Argentina.

In 2015, this decline resulted in an approximately U.S.\$7 reduction to the domestic price per barrel compared to the price in effect on December 31, 2014. This change stemmed from negotiations between producers and refiners to reduce the domestic price of Medanito and Escalante crude during January 2015 to U.S.\$77 and U.S.\$63 per barrel, respectively. These prices stood at U.S.\$75 and U.S.\$61, respectively, as of November 30, 2015. Average prices of the crude Brent barrel were U.S.\$ 71.06, U.S.\$ 54.25 and U.S.\$ 43.56 for 2018, 2017 and 2016, respectively. Nonetheless, there was a decline in the rate during the last quarter of 2018, reaching a value of U.S.\$ 50.57 on December 31, 2018.

Mauricio Macri was elected president of Argentina, and his administration took office on December 10, 2015. The new administration has been facing and continues to face challenges in respect of Argentina's economy, such as reducing the rate of inflation, the devaluation of the Argentine peso, improving the competitiveness of the local industries and normalizing or adjusting prices of certain goods and services, such as electricity and natural gas for certain residential consumers of Argentina, agreement with bondholders, reforms in foreign trade operations and tax and social security reforms. Some of the measures necessary to meet these objectives were and continue to be potentially unpopular and could generate political and social opposition or unrest.

It is difficult to predict the impact of these and other measures such as those mentioned below on the Argentine economy as a whole and the energy sector in particular, including revisions and reforms to pricing mechanisms for oil and gas and elimination of energy subsidies, as well as other policy changes that may affect the energy sector. This includes decisions that the new administration has already taken, such as the elimination of exchange restrictions, the partial adjustment of gas and electricity prices, the intention of liberalization of prices for oil and its main fuel products, or future measures it may take to address inflation or changes to the exchange rate. Uncertainty regarding the measures to be taken on the economy could further lead to price volatility of Argentine companies, including in particular companies like ours in the energy sector, given the high level of regulation. In addition, there can be no assurance that current government programs and policies that apply to the oil and gas sector will continue to be in place in the future.

In addition, Argentina's national election for president and vice-president will take place in October 2019, and other relevant local and federal elections will also take place in 2019. We cannot guarantee that current programs and policies that apply to the oil and gas sector will continue in place in the future. See Item 3. Key Information Risk Factors Risks Relating to Argentina The result of the next presidential and provincial elections that will take place in 2019 could generate uncertainty in the Argentine economy and, consequently, in our businesses and the results of our operations, Item 3. Key Information Risk Factors Risks Relating to Our Business Limitations on local pricing in Argentina may adversely affect our results of operations and Item 3. Key Information Risk Factors Risks Relating to

**Our Business** We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.

One of the measures taken by the new government was regulate the INDEC. On January 7, 2016 through Decree No. 55/2016, the new leadership of INDEC issued a report declaring a national statistical emergency. INDEC stated that since 2006 its administration has been irregular and due to that they revised the published data from 2005 to 2015. As a result of this revision, the GDP growth rate for 2013 and 2014 was revised from 2.9% to 2.4% and from 0.5% to a decline rate of 2.5%, respectively. As of the date of this annual report, Argentina's provisional GDP growth rate for 2016, the provisional GDP growth rate for 2017 and the preliminary GDP growth rate for 2018 published by INDEC were negative 1.8%, positive 2.7% and negative 2.5%, respectively.

Throughout 2018, the variation of certain macroeconomic variables such as the exchange rate and inflation, as explained below, resulted in a negative impact in the economic activity level, mostly in the second half of 2018. In addition, the plan agreed upon between the Federal Government and IMF, as commented below, which had the intention of containing inflation and the exchange rate, determined the need to act upon the monetary policy in restrictive terms, absorbing Pesos from the market, acting upon the interest rates, among others, which also had consequences over the consumption and, as such, the economy behavior in general.

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**Table of Contents**

During May 2018, the Argentine Government began negotiations with the IMF to obtain a preventive financial support, which would mitigate the pressure on the federal reserves and the exchange rate at lower interest rate, in an international context marked by the rising cost of credit. On June 20, 2018, a three-year stand-by agreement to Argentina for an amount of U.S.\$ 50.0 billion was approved by the Executive Board of the IMF. During 2018, a disbursement of U.S.\$ 15.0 billion was made to Argentina, allowing to the Government the use of U.S.\$ 7.5 billion to support the Argentine budget. On September 26, 2018, Argentina published a new agreement with the IMF. This new agreement supported the three-year stand-by agreement, approved on June 20, 2018 and includes an increase in available IMF funds of U.S.\$ 19.0 billion through the end of 2019. It also raises the maximum loan amount available, to U.S.\$ 57.1 billion through 2021. Under this new schedule, the expected disbursements through the end of 2018 were raised from U.S.\$ 6 billion to U.S.\$ 13.4 billion. In April 2019, Executive Board of the IMF will plan the following disbursement. We cannot provide any assurances as to the impact of the loan subscribed with the IMF on the Argentine economy or on our economic, financial or other condition, or on our results and those of our operations and businesses.

The official exchange rate of the Argentine peso to the U.S. dollar as of December 31, 2017, the peso fell to Ps. 18.77 per U.S.\$1.00, a devaluation of approximately 18.4% compared to the rate as of the end of 2016. During 2018, the Argentine peso declined approximately 101.4%. As of December 31, 2018, the Argentine peso fell to Ps 37.81 per U.S. dollar 1,00. As of March 28, 2019, the peso was valued at Ps. 43.59 per U.S.\$1.00, an increase of approximately 15.3% compared to December 31, 2018.

Argentina has confronted and continues to experience inflationary pressures. According to inflation data published by INDEC, from 2008 to 2013, the Argentine consumer price index ( CPI ) increased 7.2%, 7.7%, 10.9%, 9.5%, 10.8% and 10.9%, respectively, and the wholesale price index increased 8.8%, 10.3%, 14.5%, 12.7%, 13.1% and 14.7%, respectively. Before the new administration took office, certain private sector analysts believed that inflation was significantly higher than the rate published by INDEC. In 2014, the Argentine government established a new consumer price index known as the IPCNU that more broadly reflects consumer prices by considering price information from the 24 provinces of the country, divided into six regions. According to INDEC, the IPCNU increased 23.9% in 2014. In 2015, the new administration of INDEC published an alternative CPI that showed an increase of 26.9%. In 2016, the alternative CPI, from January to April, increased 4.1%, 4.0%, 3.3% and 6.5%, respectively, and from May to December, a new CPI was published that showed increases of 4.2%, 3.1%, 2.0%, 0.2%, 1.1%, 2.4%, 1.6% and 1.2% respectively. In 2017 and 2018, the CPI increased 24.8% and 47.6% respectively. In January and February 2019, the CPI increased 2.9% and 3.8% respectively.

The wholesale price index increased 34.5%, 18.8% and 73.5% in 2016, 2017 and 2018, respectively. In January and February 2019, the provisional wholesale price index increased 0.6% and 3.4%, respectively.

As mentioned before, inflation has increased significantly during 2018 and the three-year cumulative inflation has exceeded 100%, which is the quantitative reference established by IAS 29 Financial Reporting in Hyperinflationary Economies. As a result, Argentina is now considered as a hyperinflationary economy. Although the application of IAS 29 does not directly affect YPF because its functional currency is the US dollar, it does affect the investments that the Company has in its subsidiaries, associates and joint ventures whose functional currency is the Peso, all of which have restated their financial statements. See Note 2.a). Basis of preparation of the consolidated financial statements and Financial information of subsidiaries, associates and joint ventures in hyperinflationary economies to the Audited Consolidated Financial Statements.

In such context, as explained in its Monetary Policy brochure of January 2019, the Central Bank established a new monetary policy in the end of September 2018 with views to resume the path to reducing inflation, setting aside the former inflation goal regime. According to the new policy, in effect as of October 1, 2018, the Argentine Central Bank

committed not to increase the monetary base until December 2019. This monetary base objective is complemented by the definition of intervention and non-intervention exchange rate zones. The non-intervention zone was defined as of October with a lower limit exchange rate of 34 pesos per dollar and the higher limit was set at 44 pesos per dollar, which are to be adjusted daily at a rate of 3% a month in the last quarter of 2018, 2% a month in the first quarter of 2019 (based on the limits in effect as of December 31, 2018) and 1.75% a month in the second quarter of 2019 (based on the limits in effect as of March 31, 2019), with updates in later months to be established in its future decisions. Within the non-intervention zone, the exchange rate fluctuates freely. During the last quarter of 2018, the exchange rate has remained within the non-intervention zone, although approaching the lower limit as the demand for pesos increased.

See Item 3. Key Information Risk Factors Risks Relating to Argentina Our business is largely dependent upon economic conditions in Argentina.

During 2018, Argentina's provisional trade balance was a deficit of approximately U.S.\$ 3.8 billion according to preliminary estimates from INDEC, with total exports of approximately U.S.\$ 61.6 billion during 2018, representing a 5.1% increase compared to the same period in 2017. Total imports were approximately U.S.\$ 65.4 billion, representing a decrease of 2.2% compared to the same period in 2017.

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**Table of Contents***Domestic Oil Prices*

In 2016, a new reduction of approximately 10% in the domestic crude oil price per barrel compared to the price in effect on December 31, 2015 was agreed upon. This change stemmed from negotiations between producers, refiners and MINEM, whereby it was agreed to reduce the domestic price of Medanito crude and Escalante crude since January 2016 until July 2016 to U.S.\$67.50 and U.S.\$54.90 per barrel, respectively. In addition, in August 2016 a new agreement between producers, refiners and MINEM provided for a new gradual reduction in the domestic crude oil price per barrel by 2% per month in August, September and October for a 6% aggregate drop before November 2016.

In 2017, continuing with the gradual reduction of crude oil prices in the domestic market, an agreement among producers (the Transitional Agreement), refiners and MINEM was reached to attain price parity with international markets during the course of 2017 and sustain domestic production and labor sources. This agreement establishes decreasing prices for domestic crude oil during 2017, with the aim of reaching the price of Brent crude in the international market as of the effective date of the agreement. As a starting point, a reference price of U.S.\$ 59.40 and U.S.\$ 48.30 was set for Medanito and Escalante crude, respectively, for January 2017, with a gradual reduction to U.S.\$ 55.00 and U.S.\$ 47.00, respectively, in July 2017 and maintaining those prices until December 2017, provided that the price of Brent crude oil and the exchange rate of the Argentine peso to the U.S. dollar remains within certain parameters. It was also agreed that imports of crude oil and petroleum products as a complement to domestic production of these hydrocarbons will be subject to the shortage of both products in the domestic market, for which MINEM will promote the creation of a registry of imports of crude oil and derivatives to ensure the full utilization of domestic production within the constraints of production and processing of each producer and/or refiner.

The Transitional Agreement provided that if, at any time, the international average price of a barrel of Brent crude oil exceeded the reference value for local crude oil of Medanito type by less than one U.S. dollar per barrel for a period greater than 10 consecutive days, the commitments assumed by the parties to the agreement would be suspended, effective as of the immediately succeeding calendar month.

Additionally, the Transitional Agreement establishes mechanisms to adjust fuel prices, on a quarterly basis, in the domestic market in 2017 to reflect the impact of changes in crude oil prices, biofuels and changes to the exchange rate, in accordance with the formula established in the agreement. In the past, domestic fuel prices had been adjusted but not in line with international market prices for petroleum products mainly due to the market conditions affecting the Argentine market.

On September 26, 2017, MINEM informed that the conditions for the suspension of the Transitional Agreement had been achieved on September 13, 2017, and consequently the terms of the Transitional Agreement (other than the requirements relating to the import of crude oil and derivatives) were suspended, effective as of October 1, 2017. During November and December of 2017, the average price of the Brent crude oil continued to run higher than the reference value for local crude oil of Medanito. Consequently, the Transitional Agreement remained suspended and finally, as of December 31, 2017, the Transitional Agreement was officially discontinued.

As a result of the liberalization of the domestic market, our pricing policy for fuels contemplates several factors such as international crude oil prices and, refining spreads, processing and distribution costs, biofuel prices, exchange rate, local demand and supply, competition, inventories, withholding tax on exports, local taxation, and domestic margins for our products, among others. Nevertheless, due to various factors (including, but not limited to, the abrupt variation in the exchange rate and the increase in international prices of oil and the consequent difficulties to pass-through the corresponding variation to domestic prices) the intended liberalization could not be fully realized during 2018. Irrespective of our expectation to substantively keep our internal prices referenced to those in the international markets, we cannot assure you that other factors which are also considered in our price policy as mentioned above,

will lead us not to entirely reflect the import parity prices in our domestic prices, which was evidenced throughout 2018.

Despite the price fixing mechanisms described above, due to the abrupt variation in the exchange rate and the consequent difficulties to pass-through the corresponding variation to domestic prices, in addition to the increase in international prices of oil, during the second quarter of 2018, the MINEM and the refining companies entered into a price stability agreement with a compensatory account, whereby refining companies undertook not to make changes in the prices of their products -net of fuel taxes- in force as of the date of the agreement, during the months of May and June. Moreover, at the beginning of June, a supplemental agreement was entered into, which established a Brent referent price for oil purchase transactions between refining and producing companies, and an increase in the final prices of fuel and gasoil as of June 2, 2018, which included the variation of tax on liquid fuels, carbon dioxide tax and the prices of biofuels in force at that date.

However, in view of the volatility and significant change in the variables which gave rise to the price stability agreements, YPF informed the MINEM of its decision to implement, as of 1 July, 2018, the commercial policies applicable to the changes in the applicable



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**Table of Contents**

variables, both for the determination of its products sale prices and for the purchase of crude oil, in a manner consistent with the evolution of the business environment in general and that of customers in particular, in accordance with the regulatory framework and applicable regulations. Consequently, on June 30, 2018, the price stabilization agreements ceased to be in force for YPF.

*Domestic Gas Prices*

Regarding the natural gas market and within the framework of normalization process of the energy sector, the Ministry of Energy and Mining ( MINEM ) convened the natural gas producers (including YPF), the former ENARSA and the distributors to establish basic conditions that serve as framework for the supply agreements between them as of January 1, 2018. In the announcement, MINEM informed that before the ending period of extension established in Law No. 27,200 that began in 2002, Law No. 24,076 once again takes full effect, which stipulates that the price of natural gas supply agreements will be that determined by free interaction of supply and demand.

On November 29, 2017, the aforementioned parties, at the request of the MINEM, subscribed the Terms and Conditions for the Supply of Natural Gas to Gas Distributors by Networks . In them, the basic guidelines are established to: (i) guarantee the adequate gas natural supply to the distributors, and consequently to the residential and commercial final consumers; (ii) the continuity of the gradual and progressive subsidies reduction path, all within the framework of the process of normalization of natural gas market, occurring within the period of validity of said terms and conditions until December 31, 2019; (iii) the recognition of the right to transfer the cost of gas acquisition to the tariff payed by users and consumers; (iv) gas prices for each basin for the next two years, in U.S. dollars; (v) the ex ENARSA assumes responsibility to supply the demand in areas reached by subsidies of residential consumption; among others.

However, as mentioned in the preceding paragraph, and because of the variation in the exchange rate parity, producers and distributors of natural gas began a process of renegotiation of the specific agreements signed at the request of the Terms and Conditions, with prices denominated in U.S. dollars. The renegotiation process includes two main issues: (i) the payment of the debts generated by the differences between the exchange rate paid by the distributors and the contractually anticipated exchange rate (period April - September 2018) and (ii) the price of the gas to apply for the period October - April 2019.

Regarding the account receivables generated by the exchange differences on October 5, 2018, SGE Resolution No. 20/2018 was published, which stipulated that, for the differences between the price of gas provided in the contracts and the price of gas recognized in the final tariffs of the service providers of distribution, valued by the volume of gas purchased from April 1 to September 30, 2018, the ENARGAS would instruct to the service providers of distribution to the recovery of the credit in favor of producers as a separate line item in the bill of their users, in 24 installments starting on January 1, 2019. However, the Resolution No. 20/2018 was subsequently rendered null for reasons of opportunity by Resolution No. 41/2018 published on October 12, 2018. Finally, on November 18, 2018, through Decree No. 1053/18, the National State assumed on an exceptional character the payment of the daily differences accumulated monthly between the value of the gas purchased by the distributors and the tariffs in force between April 1, 2018 and March 31, 2019. It is to be paid in 30 consecutive monthly installments, with interest to be paid as of October 1, 2019.

In addition, the natural gas market for power generation also suffered changes. On August 1, 2018, the MINEM (predecessor to the SGE) issued Resolution No. 46/2018 lowering natural gas price reference for electric generation by approximately 20% and instructed Compañía Administradora del Mercado Mayorista Eléctrico S.A. (CAMMESA), a government-controlled company, in charge of the electricity dispatch that concentrates the purchase of natural gas and fuels for power generation, to acquire combustibles through competitive processes.

On August 22, 2018, the former Ministry of Energy and Mining issued Resolution No.104/2018, later modified by Resolution No. 9/2018 of the SGE, which established a new procedure to obtain authorizations to export natural gas.

See additionally Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Tariff renegotiation.

*Energy Demand*

Energy consumption in Argentina has increased significantly since 2003. Continued growth in demand has led to fuel shortages and power outages, prompting the Argentine government to take additional measures to assure domestic supply. As a result of this

**Table of Contents**

increasing demand, declines in the production of certain products and companies in our industry, and actions taken by the Argentine regulatory authorities to prioritize domestic supply the volumes of hydrocarbon product exports, especially natural gas, have declined steadily during this period. At the same time, in recent years, Argentina has increased its imports of natural gas and refined products.

On December 17, 2015, as a result of Decree No. 134/2015, the new government declared an emergency of the national electricity system until December 31, 2017 and instructed the Ministry of Energy and Mining to develop and propose measures that would ensure power supply under adequate technical conditions. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Electricity, Item 3. Key Information Risk Factors Risks Relating to Argentina Our business is largely dependent upon economic conditions in Argentina.

The table below shows Argentina's total sales, production, exports and imports of crude oil, diesel and gasoline products for the periods indicated.

	<b>Year Ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Crude Oil in Argentina</b>			
Production (mmbbl)	178.58	167.02	178.96
Exports (mmbbl)	21.07	9.91	16.48
Imports (mmbbl)	2.80	7.90	5.79
<b>Diesel Fuel in Argentina</b>			
Sales (mcm) <sup>(1)</sup>	13,992.85	14,192.94	14,324.35
Production (mmbbl)	11,538.86	11,858.23	11,945.86
Exports (mcm)	31.57	4.86	5.87
Imports (mcm)	2,170.14	2,131.90	2,186.30
<b>Gasoline in Argentina</b>			
Sales (mcm) <sup>(1)</sup>	9,517.56	9,465.37	8,848.96
Production (mmbbl)	8,885.47	8,763.76	8,431.55
Exports (mcm)			
Imports (mcm)	617.72	415.67	246.52

(1) Includes domestic market sales.

Source: SGE

***Policy and regulatory developments in Argentina, including the Expropriation Law***

The Argentine oil and gas industry has been subject to certain governmental policies and regulations that have resulted in: (i) domestic prices that do not keep pace with those prevailing in international markets (which usually resulted in lower local prices compared to prevailing international market prices before the recent decrease in international oil prices); (ii) export and import regulations; (iii) domestic supply requirements that oblige us from time to time to divert supplies from the export or industrial markets in order to meet domestic consumer demand; (iv) increasingly higher export duties on the volumes of hydrocarbons allowed to be exported, before the recent decrease in international oil prices and before Law No. 26,732 ceased to be in force, which established export duties; (v) increasingly higher investment and costs expenditure requirements in order to satisfy domestic demand and (vi) increasingly higher taxes,

although certain taxes have recently declined as a result of the incentives set by the Argentine government in response to the decrease in international oil prices to promote domestic activity. These governmental pricing and tax policies have been implemented in an effort to satisfy increasing domestic market demand and, in recent years, to incentivize domestic activity as a result of recent decreases in international oil prices allowing domestic prices to stay above those prevailing in international market for certain periods. Since December 2015, the new government has taken measures to improve general economic and business conditions in Argentina, such as the elimination of exchange restrictions, the partial adjustment of gas and electricity prices and the elimination or reduction of export taxes for certain products. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions. As discussed in Item 3. Key Information Risk Factors and elsewhere in this annual report, actions by the Argentine government have had and will continue to have a significant effect on Argentine companies, including us.

Notwithstanding the foregoing, after the termination of the 2017 Transitional Agreement, according to Argentina's Ministry of Energy and Mining, the hydrocarbons market in Argentina had become a liberalized market and oil and fuel prices must be set by the

**Table of Contents**

market conditions and, thus, fluctuate. As mentioned before, this decision formally ended the transition to international oil price parity. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions. and see Item 3. Key Information Risk Factors Risks Relating to Our Business Limitations on local pricing in Argentina may adversely affect our results of operations and Item 3. Key Information Risk Factors Risks Relating to Our Business We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.

For information regarding policy and regulatory developments relating to the oil and gas industry in Argentina see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government.

The Expropriation Law declared achieving self-sufficiency in the supply of hydrocarbons, as well as in the exploitation, industrialization, transportation and sale of hydrocarbons, a national public interest and a priority for Argentina. In addition, its stated goal is to guarantee socially equitable economic development, the creation of jobs, the increase of the competitiveness of various economic sectors and the equitable and sustainable growth of the Argentine provinces and regions. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law. Upon the passage of the Expropriation Law, the Argentine government gained control over the Company. See Item 3. Key Information Risk Factors Risks Relating to Argentina The Argentine Republic owns 51% of the shares of the Company.

**Export volumes**

The exported volumes of many of our hydrocarbon products have declined significantly in recent years, driven mainly by increasing domestic demand and export administration, as well as by declines in production.

The table below presents, for the periods indicated, the exported volumes of certain of our principal hydrocarbon products.

<b>Product</b>	<b>Year Ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	<b>(units sold)</b>		
Natural gas (mmcm)	3		
Gasoline and diesel (mcm)	200	213	125
Fuel oil (mtn) <sup>(1)</sup>	228	282	375
Petrochemicals (mtn)	410	206	202

(1) Includes bunker oil sales of 228 mtn, 282 mtn and 375 mtn in 2018, 2017 and 2016, respectively. Exports accounted for 10.3%, 8.7% and 7.8% of our consolidated revenues in 2018, 2017 and 2016, respectively. Export duties are accounted for as tax expenses in our Audited Consolidated Financial Statements.

The Argentine government currently requires companies intending to export crude oil and diesel to obtain prior authorization from the Argentine Ministry of Energy and Mining by demonstrating that local demand for those products has been satisfied. The same criteria is applied to exports of LPG upon Law 26,020, dated 2005.

*Seasonality*

Historically, our results have been subject to seasonal fluctuations during the year, particularly as a result of greater natural gas sales during the winter. After the 2002 devaluation and as a consequence of the natural gas price freeze imposed by the Argentine government until recent years, the use of this fuel has diversified, generating an increase in its long-term demand throughout the year. However, during 2018, mainly due to the increase in the natural gas supply in the domestic market, and also taking into account that GDP decline had a negative impact in demand, forced us to reduce natural gas output through the temporary stop of certain wells gas production, as well as the reinjection of the hydrocarbon. Based on this new scenario and new regulations (see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Natural Gas Tariffs. ) and agreements, a reduction in natural gas sales prices can be seen in relation to the prices established in 2017. Based on the detailed, we could be subject to fluctuations in non-winter season in our sales volumes and consequently, our level of natural gas production could be negatively affected and resulted market prices could be lower than expected. See Item 3. Key Information Risk Factors Risks Relating to Our Business Oil and gas activities are subject to significant economic, environmental, operational risks and seasonal fluctuation.

**Table of Contents**

**Critical Accounting Policies**

Our accounting policies are described in Note 2.a and b. to the Audited Consolidated Financial Statements. IFRS requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses and disclosures of contingent assets and liabilities in our financial statements. Actual results could differ from those estimates. We consider the following policies or matters to be most critical in understanding the judgments that are involved in preparing our Audited Consolidated Financial Statements and the uncertainties that could impact our results of operations, financial condition and cash flows:

Functional and reporting currency. See Note 2.b.1 to the Audited Consolidated Financial Statements.

Impairment of long-lived assets. See Notes 2.b.8 and 2.b.9 to the Audited Consolidated Financial Statements. Furthermore, for additional information regarding assumptions used for our impairment calculation as of December 31, 2018, see Note 2.c to the Audited Consolidated Financial Statements.

Impairment of financial assets. See Notes 2.b.2, 2.b.18) and 2.b.26) to the Audited Consolidated Financial Statements.

Depreciation of oil and gas producing properties. See Note 2.b.6 to the Audited Consolidated Financial Statements.

Asset retirement obligations. See Notes 2.b.6 and 14.b to the Audited Consolidated Financial Statements.

Consolidation decisions and classification of joint arrangements. See Notes 2.a), 2.b.5), 3 and 9 to the Audited Consolidated Financial Statements.

Environmental liabilities, litigation and other contingencies. See Notes 2.c, 14, 27 and 28.b to the Audited Consolidated Financial Statements.

Income tax and deferred tax. See Note 15 to the Audited Consolidated Financial Statements.

In connection with the disclosure of the impact that recently issued accounting standards will have on financial statements in future periods, see Note 2.b.26 to the Audited Consolidated Financial Statements as of December 31, 2018.

In addition, for information regarding our estimates of oil and gas reserves, see Item 4. Information on the Company Upstream Oil and Gas reserves.

As of December 31, 2018, the Company recognized a reversion of an impairment in the value of its assets to UGE Petroleo of Ps. 39,837 million and an impairment of property, plant and equipment mainly to UGE Gas - Cuenca

Neuquina of Ps. 28,326 million and UGE Gas Cuenca Austral of Ps. 8,246 million. During 2017, YPF recorded a recovery of Ps. 5,032 million on a prior impairment for property, plant and equipment. As discussed in Note 2.c to the Audited Consolidated Financial Statements as of December 31, 2018, the recoverable amount of property, plant and equipment and intangible assets analysis is performed on the year-end date or whenever there is evidence of impairment of the recoverable value. See Note 2.c Provision for impairment of property, plant and equipment and intangible assets to the Audited Consolidated Financial Statements.

It is difficult to predict with reasonable certainty the amount of expected future impairment losses given the many factors impacting the asset base and the cash flows used in the prescribed ceiling test calculation. These factors include, but are not limited to, future prices, operating costs and negotiated savings, foreign exchange rates, capital expenditures timing and negotiated savings, production and its impact on depletion and cost base, upward or downward reserve revisions, reserve additions, and tax attributes. According to the foregoing, and in connection with impairment of long-lived assets according to our estimation as of December 31, 2018, if the average of the oil prices and natural gas prices used for impairment tests as of December 31, 2018 were reduced by approximately 10% each year (U.S.\$ 5 of the oil prices and U.S.\$ 0.50 of the natural gas prices), assuming all other factors remain constant, our ceiling test limitation related to the net book value, of our properties, plant and equipment would be reduced by approximately U.S.\$ 0.8 billion before tax effects.

Consequently, as noted above, actual cash flows may be materially affected by other factors. There are numerous uncertainties inherent in the estimation present value of future cash flow, so this hypothetical calculation should not be construed as indicative of our development plans or future results. For more information on recent declines in the international Brent crude oil prices, domestic crude oil prices and domestic gasoline prices, see Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions. For information regarding our domestic oil prices and reserves sensitivity analysis, see Item 3. Key Information Risk Factors Risks Relating to Argentina Our oil and natural gas reserves are estimates.



**Table of Contents****Principal Income Statement Line Items**

The following is a brief description of the principal line items of our income statement.

**Revenues**

Revenues include primarily our consolidated sales of crude oil and natural gas and refined fuel and chemical products net of the payment of applicable fuel transfer taxes and turnover taxes. Customs duties on exports are accounted as selling expenses in our consolidated results of operations. Royalty payments required to be made to a third party, whether payable in cash or in kind, which are a financial obligation, or are substantially equivalent to a production or similar tax, are accounted for as a cost of production and are not deducted from revenues. See Item 4. Information on the Company Upstream Oil and gas production, production prices and production costs and Note 19 to the Audited Consolidated Financial Statements.

**Costs**

The following table presents, for each of the years indicated, a breakdown of our consolidated cost by category:

	<b>For the year ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	<b>(in millions of pesos)</b>		
Inventories at beginning of year	27,149	21,808 <sup>(1)</sup>	19,173 <sup>(1)</sup>
Purchases	124,279	65,945	48,833
Production costs <sup>(4)</sup>	234,340	147,423	127,075
Translation effect	26,514	3,877	4,031
Inventories incorporated by business combination <sup>(2)</sup>	445		
Adjustment for inflation <sup>(3)</sup>	167		
Reclassifications and other movements		(92)	
Inventories at end of year	(53,324)	(27,149) <sup>(1)</sup>	(21,808) <sup>(1)</sup>
<b>Total</b>	<b>359,570</b>	<b>211,812</b>	<b>177,304</b>

- (1) Reclassifications of Ps 12 million and Ps 85 million have been made in inventories at beginning of year and Ps 142 million and Ps 12 million have been made in inventories at end of year for the years ended December 31, 2017 and 2016, respectively, in accordance with the change in the accounting policy described in detail in Note 2.b.26 to the Consolidated Audited Financial Statements as of December 31, 2018.
- (2) See Note 3 to the Consolidated Audited Financial Statements as of December 31, 2018.
- (3) Corresponds to adjustment for inflation of inventories opening balances of subsidiaries with the Peso as functional currency, which was charged to other comprehensive income.
- (4) The table below presents, for each of the years indicated, a breakdown of our consolidated production costs by category:

**For the year ended December 31,**

	<b>2018</b>	<b>2017</b>	<b>2016</b>
	<b>(in millions of pesos)</b>		
Salaries and social security taxes	18,908	12,548	10,228
Fees and compensation for services	1,772	1,159	1,037
Other personnel expenses	5,313	3,493	2,773
Taxes, charges and contributions	3,634	2,215	1,861
Royalties, easements and canons	31,677	17,630	17,114
Insurance	1,335	840	1,037
Rental of real estate and equipment	8,983	5,710	5,097
Depreciation of properties, plant and equipment	83,700	51,607	43,077
Amortization of intangible assets	1,497	688	499

**Table of Contents**

	<b>For the year ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	<b>(in millions of pesos)</b>		
Industrial inputs, consumable material and supplies	11,126	5,813	5,732
Operational services and other service contracts	14,973	12,033	10,494
Preservation, repair and maintenance	31,141	20,204	16,710
Transportation, products and charges	12,714	8,724	6,952
Fuel, gas, energy and miscellaneous	7,567	4,759	4,464
<b>Total</b>	<b>234,340</b>	<b>147,423</b>	<b>127,075</b>

Our cost accounted for 82.5%, 83.78% and 84.4% of our consolidated revenues in 2018, 2017 and 2016, respectively. Our cost of sales increased by 69.8% from 2017 to 2018 due to the factors explained in -Principal Income Statement Line Items-Cost.

***Other net operating results***

Other operating results, net principally include provisions for pending lawsuits and other claims, provisions for environmental remediation and provisions for defined benefit pension plans and other post-retirement benefits. See Other net operating results.

***Financial income (expense), net***

Financial income (expense), net consists of the net of gains and losses on interest paid and interest earned and foreign currency exchange differences.

***Income Tax***

The effective income tax rates for the periods discussed in this annual report differ from the statutory tax rate (30%) mainly because: the registration of the deferred income tax as a result of the effect of applying the current tax rate (30%) on the difference generated between the tax basis of fixed and intangible assets (for which any asset remeasurement from the original value in pesos is not acceptable under income tax law) and their book value under IFRS, measured in its functional currency and converted into pesos, as described in Note 2.b.1 to our Audited Consolidated Financial Statements. See Note 15 to the Audited Consolidated Financial Statements for a more detailed description of the difference between statutory income tax rate and effective income tax rate. For information regarding the Law No. 27,430 and 27,432 introducing modifications to the Income Tax, see Item 10. Additional Information Taxation.

**Results of Operations*****Consolidated results of operations for the years ended December 31, 2018, 2017 and 2016***

The following table sets forth certain financial information as a percentage of revenues for the years indicated.

<b>Year Ended December 31,</b>		
<b>2018</b>	<b>2017</b>	<b>2016</b>

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Revenues	100.0	100.0	100.0
Cost	(82.5)	(83.8)	(84.4)
Gross profit	17.5	16.2	15.6
Administrative expenses	(3.2)	(3.5)	(3.4)
Selling expenses	(6.4)	(7.1)	(7.2)
Recovery / (Impairment) of property, plant and equipment	0.7	2.0	(16.6)
Other net operating results	2.7	0.3	1.6
Exploration expenses	(1.3)	(1.0)	(1.5)
Operating profit (loss)	10.0	6.4	(11.5)

**Table of Contents**

The tables below present, for the years indicated, volume and price data with respect to our sales of our principal products in the domestic and export markets, respectively. Due to the decreased export product volumes, the portion of our revenues accounted for by exports decreased steadily in recent years. Exports accounted for 10.3%, 8.7% and 7.8% of our consolidated revenues in 2018, 2017 and 2016, respectively.

**Domestic Market**

Product	Year Ended December 31,					
	2018		2017		2016	
	Units sold	Average Price per unit <sup>(1)</sup> (in pesos)	Units sold	Average Price per unit <sup>(1)</sup> (in pesos)	Units sold	Average Price per unit <sup>(1)</sup> (in pesos)
Natural gas	13,325 mmcm	4,532 /mcm	14,208 mmcm	2,997 /mcm	13,816 mmcm	2,636 /mcm
Diesel	8,099 mcm	17,516 /cm	7,751 mcm	10,539 /cm	7,803 mcm	9,096 /cm
Gasoline	5,350 mcm	18,148 /cm	5,158 mcm	11,483 /cm	4,828 mcm	9,580 /cm
Fuel oil	34 mtn	11,677 /ton	620 mtn	6,646 /ton	1,226 mtn	7,869 /ton
Petrochemicals	582 mtn	15,053 /ton	597 mtn	9,258 /ton	629 mtn	6,465 /ton

(1) Average prices shown are net of applicable domestic fuel transfer taxes payable by consumers.

**Export Markets**

Product	Year Ended December 31,					
	2018		2017		2016	
	Units sold	Average Price per unit <sup>(1)</sup> (in pesos)	Units sold	Average Price per unit <sup>(1)</sup> (in pesos)	Units sold	Average Price per unit <sup>(1)</sup> (in pesos)
Natural gas	3 mmcm	9,991 /mcm				
Gasoline	87 mcm	17,812 /cm	82 mcm	10,577 /cm	54 mcm	10,061 /cm
Diesel	113 mcm	16,995 /cm	131 mcm	7,667 /cm	71 mcm	6,721 /cm
Fuel oil	228 mtn	12,940 /ton	282 mtn	5,663 /ton	375 mtn	3,864 /ton
Petrochemicals <sup>(2)</sup>	410 mtn	17,377 /ton	206 mtn	14,134 /ton	202 mtn	11,638 /ton

(1) Average prices shown are gross of applicable export withholding taxes payable by us.

(2) Includes exports of refined paraffinic.

**Revenues**

Revenues in 2018 were Ps. 435,820 million, representing a 72.4% increase compared to Ps. 252,813 million in 2017. Among the main factors contributing to the increase were:

Diesel revenues increased by Ps. 59,097 million in the domestic market, or 73.3%, as a result of an increase in the average price for diesel mix of approximately 65.9% and higher dispatched volumes of approximately 4.5%. Additionally, a 16.5% increase in sales volumes of Infinia diesel, a premium diesel;

Gasoline revenues increased by Ps. 37,863 million, or 63.9%, as a result of an increase in the average price for gasoline mix of approximately 58.0% and higher volumes dispatched of approximately 3.7%. Despite the aforementioned, there was a decrease of 7.6% in the sales volumes of Nafta Infinia, a premium gasoline;

Fuel oil revenues in the domestic market decreased by Ps. 3,721 million, or 90.4%, primarily as a result of a decrease in sales volumes of 94.5% to power generation plants which consumed alternative fuels such as natural gas, partially offset by an increase in the average price of approximately 75.7%;

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**Table of Contents**

Natural gas revenues in the domestic market increased by Ps. 17,798 million, or 41.8%, as a result of an increase of 50.7% in the average sale price in Argentine peso terms, partially offset by a decrease in sales volumes of 6.2%. This reduction is explained by the 4.6% decrease in dispatched volumes due to lower production and demand for natural gas in 2018, and in the first quarter of 2017, 242 Mm3 injected and pending of nominating were invoiced;

Natural gas revenues to the retail segment (residential and small business and industries) increased by Ps. 14,515 million, or 140.6%. This increase is mainly explained by our affiliated company Metrogas S.A., which as described in Note 2.a of the Consolidated Audited Financial Statements as of December 31, 2018 (see Financial Information of Subsidiaries, Associates and Joint Ventures in Hyperinflationary Economies ), as it is an Argentine peso functional currency and based on current local regulations, recorded in its sales an inflation adjustment of Ps. 4.748 million corresponding to 2018. In addition, this company obtained a higher average price of 122.2%, partially offset by a 2.0% decrease in sales volumes through its distribution network;

The remaining sales in the domestic market increased by Ps. 34,609 million, or 102.2%, primarily due to the increase of sales of LPG by 90.0%, aerokerosene by 121.4%, petrochemical products by 58.6%, coal by 192.1%, fertilizers by 110.4%, asphalts by 37.0% and lubricants by 42.2%, in all of these cases mainly due to the higher prices of these products in Argentine peso terms and higher sales volumes;

Export revenues increased by Ps. 22,843 million, or 103.4%. Mainly due to the higher exports sales of aerokerosene for Ps. 8,735, or 139.4%, as a result of an increase in average sales prices in Argentine peso terms of 117.9% and 9.8% in sales volumes, as well as the highest sales volumes and better prices obtained in petrochemical products and LPG, with increases in sales of 4,568 or 156.9% and Ps. 1,782 or 121.3%, respectively. There were also more export sales of residual coal for Ps. 1,963 million, and of crude oil for Ps. 1,258 million, in both cases as a result of higher sales volumes. Exports of soy meal and oil had an increase of Ps. 646 million or 10.3%, as a result of a 60.6% increase in the prices obtained in Argentine peso terms, partially offset by a decrease in sales volumes of 31.3%.

Revenues in 2017 were Ps. 252,813 million, representing a 20.3% increase compared to Ps. 210,100 million in 2016. Among the main factors contributing to the increase were:

Diesel revenues increased by Ps. 10,713 million, or 15.1%, as a result of an increase in the average price for diesel mix of 15.9%, partially offset by a decrease in sales volumes of 0.7%, despite an 27.5% increase in sales volumes of Infinia diesel, a premium diesel;

Gasoline revenues increased by Ps. 12,976 million, or 28.1%, primarily as a result of an increase in the average price for gasoline mix of 19.9%, and an increase in sales volumes of 6.8%, reflecting additionally an increase of 20.0% in sales volumes of Infinia gasoline;

Fuel oil revenues in the Argentine domestic market decreased by Ps. 5,531 million, or 57.3%, primarily as a result of a decrease in the average price of 15.5% and a decrease in sales volumes of 49.5%;

Natural gas revenues increased by Ps. 6,171 million, or 16.9%, primarily as a result of an increase of 14.1% in the average sale price in Argentine peso terms, which includes not only higher prices from third parties but also the Gas Plan, which increased the average prices obtained by YPF as a result of increasing YPF's natural gas production, and also a result of an increase in sales volumes of 1.1%. Additionally, in the first quarter of 2017, we invoiced Ps. 603 million corresponding to 242 million m<sup>3</sup> opportunely injected and pending nomination, which were assigned to the commercial segment of CNG, and resulted in an increase of 2.8% in sales volumes;

Natural gas revenues to the retail segment (residential and small general service category) increased by Ps. 3,783 million, or 57.8%, primarily due to our subsidiary Metrogas which registered an increase in the average price of approximately 70.1% partially offset by a decrease in sales volumes of 13.1%;

The remaining sales in the domestic market increased by Ps. 8,875 million, or 37.1%, primarily due to the increase of asphalts sales by 154.2%, the increase of LPG sales by 48.9%, petrochemical products by 35.9% and aerokerosene by 37.3%, in all of these cases mainly due to the higher prices of these products, with the exception of asphalts, which also registered an increase of 103.5% in sales volumes;

Export revenues increased by Ps. 5,727 million, or 35.0%, primarily due to increases in exports of petrochemical products of 23.8%, and LPG of 57.7%, in both cases due to an increase in average prices in Argentine peso terms, as well as increases in exports of flour and soy oils of 24.0%, aerokerosene of 53.9%, and virgin naphtha of 110.3%, all due to an increase in average prices in Argentine peso terms and in sales volumes.



## Table of Contents

### *Costs*

Costs in 2018 were Ps. 359.570 million, representing a 69.8% increase compared to Ps. 211,812 million in 2017, including increases in production costs and purchases of 59.0% and 88.5%, respectively. Among the main factors contributing to this increase were:

#### *Production costs*

Property, plant and equipment depreciation costs increased by Ps. 32,093 million, or 62.2%, primarily due to the appreciation of the assets taking into account their valuation in historical U.S. dollars according to the functional currency of the Company;

Lifting costs increased by Ps. 19,815 million, or 46.5%, considering an increase of the unit indicator in Argentine peso terms of 52.7%, in line with the general increase of prices in the economy, offset by a decrease of the production;

Refining costs increased by Ps. 2,812 million, or 27.3%. This increase was driven by higher charges for repair and maintenance services, consumption of materials, spare parts and other supplies, considering an increase of the unit indicator in Argentine peso terms of 31.5%, offset by a decrease of the processed volumes;

Higher charges for environmental contingencies increased by Ps. 1,772 million, or 119.2%, linked to the activity developed by the Downstream and Upstream business areas, fundamentally from the activities of characterization and valorization of environmental actions developed during 2018;

Increments in royalties and other charges associated with production increased by Ps. 13,542 million, or 80.8%, with an increase of Ps. 10,903 million, or 102.9%, in the crude oil production, and an increase of Ps 2,639 million, or 42.8%, in the natural gas production, in both cases due to the higher wellhead value of this products, which is established in U.S. dollars measured in Argentine pesos;

Transportation costs increased by Ps. 3,990 million, or 45.7%, mainly due to increases in rates and higher transported volumes.

#### *Purchases*

Purchases of crude oil from third parties increased by Ps. 11,463 million, or 57.6%, due to an increase of 97.4% in average prices charged by third parties in Argentine peso terms, mainly related to an increase in the international reference price, partially offset by a decrease in purchased volumes of approximately 20.2%. However, there has been an increase in purchases of light crude oil compared to heavy crude oil;

Purchases of biofuels (FAME and ethanol biofuel) increased by Ps. 5,910 million, or 32.8%, primarily as a result of an increase in the prices of FAME and ethanol biofuel of 46.5% and 19.6%, respectively, and an increase in purchased volumes of ethanol biofuel of 3.6%, partially offset by a decrease in purchased volumes of FAME of 3.9%;

Purchases of natural gas from other producers for resale in the distribution segment to retail customers (residential and small businesses and industries) increased by Ps. 8,851 million, or 141.6%, primarily due to our affiliated company Metrogas S.A., which, as described in Note 2.a of the Consolidated Audited Financial Statements as of December 31, 2018 (see Financial Information of Subsidiaries, Associates and Joint Ventures in Hyperinflationary Economies ), as it is an Argentine peso functional currency and based on current local regulations, registered in its purchases an adjustment for inflation of Ps. 1,959 million, and additionally due to an increase in the purchase price of approximately 122.2%, partially offset by a decrease in purchased volumes of 5.4%;

Grain purchases in the agricultural sales segment through the form of barter, which were recorded as purchases for accounting purposes, increased by Ps. 1,799 million, or 34.0%. This increase is due to an increase in the average price of 58.7%, partially offset by a decrease in purchased volumes of 15.6%;

Imports of fuels increased by Ps. 15,582 million, or 235.0%, as a result of an increase in imports of gasoline Premium for Ps. 1,183 million, due to the lower processing of this product mainly (net of the lower commercialized volume of gasoline Infinia), as well as the higher import volumes of gas oil and jet fuel, with increases of Ps. 10,700 million and Ps. 3,699 million, respectively, due to higher international prices, higher imported volumes, as well as the devaluation that occurred in the aforementioned period;

Fertilizers purchases for resale increased by Ps. 2,436 million, or 142.0%, due to an increase in the purchase price of approximately 117.3% and an increase in purchased volumes of 11.3%;

**Table of Contents**

In 2018 a negative stock variation of Ps. 951 million was recorded, compared to the positive stock variation recorded in 2017 of Ps. 1,556 million, mainly as a result of the decrease in the replacement cost of the Company's inventories, fundamentally affected by the lower amortization from the higher reserves.

Costs in 2017 were Ps. 211,812 million, representing a 19.5% increase compared to Ps. 177,304 million in 2016, including increases in production costs and purchases of 16.0% and 35.5%, respectively. Among the main factors contributing to this increase were:

Property, plant and equipment depreciation costs increased by Ps. 8,530 million, or 19.8%, primarily as a result of (i) overall increases in Argentine peso terms of the value of fixed assets, which was related to the devaluation of the Argentine peso against the U.S. dollar, which is the functional currency of the Company, and (ii) the increase in the depreciation rate due to the decrease in net reserves of crude oil as a consequence of a reduction in the selling price in the domestic market, offset by the net decrease in these assets as a result of the impairment charge recorded in the third quarter of 2016, which is explained below, and the lower production recorded in 2017;

Total lifting costs increased by Ps. 5,380 million, or 14.4%, considering an increase of the unit indicator in Argentine peso terms of 19.4%, in line with the general increase of prices in the economy, offset by lower production;

Refining costs increased by Ps. 1,762 million, or 20.6%. This increase was driven by higher charges for consumption of materials, spare parts, electricity and other supplies and fuels, considering an increase of the unit indicator in Argentine peso terms of 21.1%;

Higher charges for environmental contingencies for Ps. 738 million, or 110.9%, linked to the activity developed by the Downstream and Upstream business areas;

Net increase in royalties and other charges associated with production by Ps. 319 million, or 1.9%, with an increase of Ps 1,045 million related to natural gas production, due to the higher wellhead value of this product, partially offset by a decrease of Ps. 726 million related to crude oil production, due to the lower production.

Transportation costs increased by Ps. 1,772 million, or 25.5%, mainly due to increases in rates in 2017;

Purchases of crude oil from third parties increased by Ps. 6,259 million, or 45.9%, primarily as a result of an increase in purchased volumes of approximately 49.1%, due to lower production, partially offset by a decrease in average prices charged by third parties in Argentine peso terms of approximately 2.2%, mainly related to the price agreement between producers and refiners. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions ;

Purchases of biofuels increased by Ps. 4,807 million, or 36.4%, primarily as a result of an increase in the average prices of FAME and ethanol biofuel of approximately 22.2% and 20.0%, respectively, and an increase in purchased volumes of FAME and ethanol biofuel of 8.7% and 17.3%, respectively;

Purchases of natural gas from other producers for resale in the distribution segment to retail customers (residential and small businesses and industries) increased by Ps. 1,069 million, or 20.6%, primarily as a result of an increase in the purchase price of approximately 22.7%, partially offset by a decrease in purchased volumes of 1.7%;

Grain purchases in the agricultural sales segment through the form of barter, which were recorded as purchases for accounting purposes, increased by Ps. 1,141 million, or 27.5%. This increase is due to an increase in the average price of approximately 4.2%, and an increase in volumes of 22.3%; and

Imports of fuels increased by Ps. 1,023 million, or 18.2%, primarily as a result of an increase in purchased Infinia gasoline of 200.1%, jet fuel of 21.7%, gas oil of 2.8%. In all cases, purchase prices increased and in terms of imported volumes, there was an increase in Infinia gasoline volumes and a decrease in the other two mentioned products. Increased purchases mentioned above were partially offset by a positive stock variation of Ps. 1,686 million in 2017, primarily due to a recomposition in crude oil stocks and a revaluation of refined products, while in 2016, this amount was negative for Ps. 1,469 million, primarily due to a decrease in crude oil stocks observed in that year.

#### *Administrative expenses*

Administrative expenses in 2018 were Ps. 13,922 million, representing a 59.4% increase compared to Ps. 8,736 million in 2017, primarily as a result of increases in personnel costs, service contracts and IT licenses, many of which are dollarized, and due to the higher charges related to institutional advertising and depreciation of fixed assets.

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**Table of Contents**

Administrative expenses in 2017 were Ps. 8,736 million, representing a 22.6% increase compared to Ps. 7,126 million in 2016, primarily as a result of increases in personnel costs and IT service contracts, licenses, and institutional advertising.

***Selling expenses***

Selling expenses in 2018 were Ps. 27,927 million, representing a 55.5% increase compared to Ps. 17,954 million in 2017, primarily as a result of higher charges for product transportation, mainly related to an increase of the transported volumes, and to an increase in the rates for the transportation of fuels in the domestic market, as well as higher charges related to commercial campaigns for customer loyalty, depreciation of fixed assets, personnel costs, the provision of doubtful accounts, bank credits and debit and export tax.

Selling expenses in 2017 were Ps. 17,954 million, representing an 18.0% increase compared to Ps. 15,212 million in 2016, primarily as a result of higher charges for product transportation, mainly related to increased transport volumes due to higher sales, and to increased rates for the transportation of fuels in the domestic market, as well as increases in personnel costs, charges related to bank credits and debits taxes and export taxes, primarily flours and oils, partially offset by a decrease in doubtful accounts in the segment of natural gas distributors and customers of our subsidiary Metrogas.

***Exploration expenses***

Exploration investment in 2018 was 171.6% higher than in 2017. Exploration expenses in 2018 were Ps. 5,466 million, representing a 122.6% increase compared to Ps. 2,456 million in 2017, primarily as a result of a Ps. 1,931 million increase in negative results from unproductive exploratory drilling in 2018 compared to 2017. Additionally, higher expenses of seismic and geological studies were recorded for Ps. 634 million.

Exploration expenses in 2017 were Ps. 2,456 million, representing a 22.2% decrease compared to Ps. 3,155 million in exploration expenses in 2016, primarily as a result of a Ps. 650 million decrease in negative results from unproductive exploratory drilling in 2017 compared to 2016.

***Recovery / (Impairment) of property, plant and equipment***

In the last quarter of 2018, the Company recognized a net reversal in the charge for impairment of its assets of Ps. 2,900 million, composed mainly of the reversal of the provision for impairment assets of the oil CGU of Ps. 39,837 million, mainly due to the increase in reserves and improvements in estimated costs; partially offset by the increase in the discount rate due to the increase in the country risk rate and the debt cost and due to higher investments associated with the higher reserves considered in the cash flow; partially offset by the impairment of property, plant and equipment for the Natural Gas CGU Neuquina Basin of Ps. 28,326 million and for the Gas CGU Austral Basin of Ps. 8,246 million, mainly based on the expected reduction in the gas market price due to the decrease in the sale price to distributors and power plants (mainly as a result of the offer excess compared to domestic demand at certain times of the year), and the increase in the discount rate mentioned above. For a further description, see Provisions for impairment of property, plant and equipment in Note 2.c to the Consolidated Financial Statements as of December 31, 2018.

In 2017, the Company recorded a partial reversal of the impairment for property, plant and equipment registered in 2016 of Ps. 5.032 million, mainly due to multiple factors such as the variation in production and associated investments considered in the cash flow: the effect of variations in operating and abandonment costs, the variation in the discount rate and, to a lesser extent, the variation in oil prices, also considering the book value of the assets as of

December 31, 2017 compared to the end of the previous year, based on the depreciation charge versus the increase for new investments made, among others. For a further description, see additionally Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Critical Accounting Policies. and Note 2.c to the Consolidated Financial Statements as of December 31, 2017.

***Other net operating results***

Other net operating results, in 2018 were a gain of Ps. 11,945 million, compared to the loss of Ps. 814 million in 2017. Mainly, due to the recording of the result of the revaluation of YPF's investment in YPF Energía Eléctrica ( YPF EE ) for Ps. 11,980 million, as a result of the agreement for the capitalization of the latter, subscribed between YPF and a subsidiary of GE Financial Services, Inc. as described in Note 3 to the Consolidated Audited Financial Statements as of December 31, 2018.

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**Table of Contents**

Other net operating results, in 2017 were a loss of Ps. 814 million, compared to the gain of Ps. 3,394 million in 2016. In 2016, other net operating results mainly included a net income of Ps.1,528 million attributable to the deconsolidation of the Maxus Entities (see Note 27 to the Consolidated Financial Statements as of December 31, 2017) and an income of Ps. 1,407 million related to the PIAM under the concession agreement with the Company's partner to participate in the extension of the concession of this area and the temporary economic assistance accrued by our subsidiary Metrogas.

***Operating Profit / (loss)***

Operating profit in 2018 was Ps. 43,780 million due to the factors discussed above representing a 172.4%, compared to the operating profit of Ps. 16,073 million in 2017.

Operating profit in 2017 was Ps. 16,073 million due to the factors discussed above, compared to a loss of Ps. 24,246 million in 2016.

***Financial results, net***

In 2018, financial results, net, represented a gain of Ps. 41,525 million, compared to the loss of Ps. 8,798 million in 2017. The Company recorded higher positive foreign exchange differences on net monetary liabilities in Argentine pesos of Ps. 45,509 due to the devaluation of the Argentine peso against the U.S. dollar in 2018 compared to 2017 when the devaluation of the local currency had been substantially lower. Additionally, higher net positive charges were recorded for financial updates for Ps. 10,796 mainly as a result of the increase in the discount rate applied in the abandonment provision. The aforementioned was partially offset by higher negative interests of Ps. 10,332 million, as a result of higher average indebtedness, measured in Argentine pesos, during 2018 and compared to 2017.

In 2017, financial results, net, represented a loss of Ps. 8,798 million, representing a 43.2% increase negative results compared to the loss of Ps. 6,146 million in 2016. The Company recorded lower positive foreign exchange differences on net monetary liabilities in pesos of Ps. 2,661 due to lower devaluation of the Argentine peso against the U.S. dollar in 2017 compared to the same period in 2016. The Company recorded higher interest expenses of Ps. 276, as a result of higher average indebtedness in 2017 compared to the same period in 2016, almost totally offset by lower interest rates on debt in Argentine peso. Additionally, better results were obtained due to an increase of Ps. 382 million from the measurement of the fair value of investments in financial assets.

***Income tax***

Income tax in 2018 represented a loss of Ps. 51,538 million, compared to a gain of Ps. 3,969 million in 2017. This increase was mainly due to the negative deferred tax charge of Ps. 50,595 million recorded in 2018, mainly as a result of the effects of the exchange rate fluctuations and as mentioned previously, in comparison with the positive charge registered in 2017 for Ps. 4,574, due to the effect of the deferred tax liability reduction corresponding to the decrease in the tax rate from the approved tax reform in 2017.

Income tax in 2017 represented a gain of Ps. 3,969 million, representing a 178.5% increase compared to a gain of Ps. 1,425 million in 2016. This increase was mainly due to the higher positive deferred tax charge of Ps. 2,415 million. In 2017, the effect of the deferred tax liability reduction corresponding to the decrease in the tax rate was recorded from the recently approved tax reform (See Item 10. Additional Information Taxation), while in 2016 the deferred asset effect was recorded related to the impairment for property, plant and equipment discussed above.

***Net profit / (loss) for the year***

Net profit in 2018 represented a gain of Ps. 38,606 million, compared to a gain of Ps. 12,672 million in 2017.

Other comprehensive income in 2018 was Ps. 172,600 million, compared to an income of Ps. 21,917 million in 2017. This increase was mainly attributable to the higher appreciation of property, plant and equipment.



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**Table of Contents**

As a result of the foregoing, total comprehensive income in 2018 represented a gain of Ps. 211,206 million, compared to a gain of Ps. 34,589 million in 2017.

Net profit / (loss) in 2017 represented a gain of Ps. 12,672 million, compared to a loss of Ps. (28,379) million in 2016.

Other comprehensive income in 2017 was Ps. 21,917 million, representing a 20.1% decrease compared to Ps. 27,414 million in 2016. This decrease was mainly attributable to lower appreciation of property, plant and equipment.

As a result of the foregoing, total comprehensive income in 2017 represented a gain of Ps. 34,589 million, compared to a loss of Ps. (965) million in 2016.

**Consolidated results of operations by business segment for the years ended December 31, 2018, 2017 and 2016**

In 2016, our activities related to power generation and natural gas distribution was separated from the Downstream activities. See Item 4. Information on the Company Business Organization.

See the table of revenues and operating profit for each of our business segments for the years ended December 31, 2018, 2017 and 2016 in Item 4. Information on the Company Business Organization.

*Upstream*

During 2018, the Upstream segment had an operating profit of Ps. 22,483 million, compared to an operating profit of Ps. 3,877 million in 2017.

Crude oil and natural gas sales revenues, net in 2018 were Ps. 210,588 million, representing an 80.5% increase compared to Ps. 116,694 million in 2017. This increase was principally due to the following factors:

Natural gas sales increased by Ps. 18,864 million, or 42.3%, as a result of an increase of 55.7% in the average price in Argentine pesos, considering that the average price of natural gas in U.S. dollars registered by the Company during the last quarter of 2018 reached U.S.\$ 4.49 per million BTU, an 8.6% lower compared to U.S.\$ 4.92 million BTU during 2017 and considering the devaluation produced between both periods. Additionally, the sales volumes showed a decrease of 6.2%, in comparison with 2017 due to the decrease of 4.6% in dispatched volumes as a result of the lower production and demand of natural gas in 2018 and in the first quarter of 2017, 242 mmcm injected and pending of nominating were invoiced. Also, the total natural gas production corresponding to 2018, reached 42 mmcm/d, which represents a decrease of 4.6% compared to 2017 due to lower demand;

Crude oil sales increased Ps. 72,001 million, or 98.2%, due to the fact that the intersegment price of crude oil increased approximately 99.5% measured in Argentine pesos (an increase of 17.5% in U.S. dollars). Additionally, the crude oil volume transferred between the Upstream and the Downstream segments increased by 0.9% (approximately 0.12 million m<sup>3</sup>), while the sales volumes to third parties increased by 33.4% (approximately 75 mmcm). The crude oil production during 2018, had a slight decrease of 0.2% compared to 2017, reaching 227 thousand bbl/d.

Total operating costs in 2018 were Ps. 186,426 million (excluding exploration costs), representing a 61.6% increase compared to Ps. 115,380 million in 2017. Among the main factors contributing to the increase were:

Property, plant and equipment depreciation costs increased by Ps. 26,767 million, or 59.1%, mainly due to the appreciation of the assets taking into account their valuation in historical U.S. dollars according to the functional currency of the Company.

Lifting costs increased by Ps. 19,815 million, or 46.5%, considering an increase of the unit indicator in Argentine peso terms of 52.7%, in line with the general increase of prices in the economy, offset by lower production aforementioned;

Net increase in royalties and other charges associated with production by Ps. 13,542 million, or 80.8%, with an increase of Ps. 10,903 million, or 102.9%, related to crude oil production, and an increase of Ps 2,639 million, or 42.8%, related to natural gas production, in both cases due to the higher wellhead value of this products, which is established in U.S. dollars measured in Argentine pesos;

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**Table of Contents**

Higher charges for environmental contingencies for approximately Ps. 1,291 million, linked to the activity developed in Upstream business areas, fundamentally from the activities of characterization and valorization of environmental actions developed during 2018;

In 2018 a negative stock variation of Ps. 1,932 million was recorded, compared to the positive stock variation recorded in 2017 of Ps. 113 million, mainly as a result of the lower depreciation, which is a component part of the valuation of the products, based on higher reserves.

Exploration expenses in 2018 were Ps. 5,466 million, representing a 122.6% increase compared to Ps. 2,456 million in 2017, primarily as a result of a Ps. 1,931 million increase in negative results from unproductive exploratory drilling in 2018 compared to 2017. Additionally, higher expenses of seismic and geological studies were recorded for Ps. 634 million.

In the last quarter of 2018, the Company recognized a net reversal in the charge for impairment of its assets of Ps. 2,900 million, composed mainly of reversal of the provision for impairment assets of the oil CGU of Ps. 39,837 million, mainly due to the increase in reserves and improvements in estimated costs; partially offset by the increase in the discount rate due to the increase in the country risk rate and the debt cost and due to higher investments associated with the higher reserves considered in the cash flow; partially offset by the impairment of property, plant and equipment for the Natural Gas CGU Neuquina Basin of Ps. 28,326 million and for the Gas CFGU Austral Basin of Ps. 8,246 million, mainly based on the expected reduction in the gas market price due to the decrease in the sale price to distributors and power plants (mainly as a result of the offer excess compared to domestic demand at certain times of the year), and the increase in the discount rate mentioned above. For a further description, see Provisions for impairment of property, plant and equipment and intangible assets in Note 2.c to the Consolidated Financial Statements as of December 31, 2018.

In the last quarter of 2017, the Company recorded a partial reversal of the impairment for property, plant and equipment mentioned above of Ps. 5,032 million, mainly due to multiple factors such as the variation in production and its associated investments considered in the cash flow, the effect of variations in operating and abandonment costs, the variation in the discount rate and, to a lesser extent, the variation in oil prices, also considering the book value of the assets as of December 31, 2017 compared to the end of the previous year, based on the depreciation charge versus the increase for new investments made, among others.

Additionally, in 2018 the operating profit of this business segment included a gain of Ps. 2,322 million related to the transfer of participation, mainly, in the areas of Aguada Pichana, Aguada de Castro, Bajo del Toro and Cerro Bandera.

Operating profit in 2017 for the Upstream business segment represented a gain of Ps. 3,877 million, compared to a loss of Ps. 26,845 million in 2016.

Revenues from the Upstream business segment in 2017 were Ps. 116,694 million, representing a 2.2% increase compared to Ps. 114,143 million in 2016.

This increase in operating income was principally due to the following factors:

The intersegment oil price measured in U.S. dollars decreased 8.2%, while increasing 3.0% in Argentine peso terms. Oil production in 2017 reached 227,500 barrels per day, representing a 7.0% decrease compared to 2016. The natural decline of the mature fields, together with the effects of the heavy rain and snow storms

during the second quarter of 2017, that affected mainly the province of Chubut, and to a lesser extent the province of Santa Cruz, are the reasons leading to this decrease in crude production. This contributed to the decrease of 1.05 mmcm of crude oil, or 7.5%, transferred from the Upstream business segment to the Downstream business segment and a decrease of approximately 204 mcm of crude oil, or 47.6%, in sales to third parties; and

Natural gas production in respect of our operations in Argentina in 2017 reached 44.1 mmcm per day, representing a 1.1% decrease compared to 2016. In the fourth quarter of 2016, certain volumes of natural gas were injected that were pending of nomination and were only billed in the first quarter of 2017. Sales volumes increased 1.1% in 2017 compared to 2016. The Upstream business segment records the average price obtained by YPF in such sales, net of sales and marketing fees. The Upstream segment also includes revenues from the Gas Plan, which increases the average prices obtained by YPF as a result of increasing YPF's natural gas production. The average natural gas revenue recorded by the Company in 2017, including revenues from the Gas Plan, was U.S.\$ 4.92 per million BTU, a 3.7% increase compared to U.S.\$ 4.74 per million BTU in 2016.

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**Table of Contents**

Total operating costs in respect of our operations in Argentina in 2017 were Ps. 115,380 million (excluding exploration costs), representing a 11.0% increase compared to Ps. 103,965 million in 2016. Among the main factors contributing to the increase were:

Property, plant and equipment depreciation costs increased by Ps. 7,188 million, or 18.9%, primarily as a result of overall increases in Argentine peso terms of the value of fixed assets, which was related to the devaluation of the Argentine peso against the U.S. dollar, which is the functional currency of the Company, compensated by the net decrease of assets as a result of the impairment charge recorded in 2016, described above and by the lower production recorded in the year;

Total lifting costs increased by Ps. 5,380 million, or 14.4%, considering an increase of the unit indicator in Argentine peso terms of 19.4%, in line with the general increase of prices in the economy, offset by lower production;

Net increase in royalties and other charges associated with production by Ps. 319 million, or 1.9%, with an increase of Ps 1,045 million related to natural gas production, due to the higher wellhead value of this product, partially offset by a decrease of Ps. 726 million related to crude oil production, due to the lower production;

Decrease in provisions for stand-by equipment by Ps. 523 million, or 14%, and:

In 2017, a positive stock variation was recorded for Ps.195, compared to a negative stock variation recorded in 2016 for Ps. 1,330 million, due to a reduction in the volumes in stock in 2016.

Exploration expenses in 2017 were Ps. 2,456 million, representing a 22.2% decrease compared to Ps. 3,155 million in exploration expenses in 2016, primarily as a result of a Ps. 650 million decrease in negative results from unproductive exploratory drilling in 2017 compared to 2016.

In 2016, the Company recorded an impairment for property, plant and equipment of Ps. 34,943 million, mainly due to an estimated reduction in the price of oil marketed in the domestic market, together with the estimated evolution of costs based on both macroeconomic variables and the operational behavior of the Company's assets. For a more detailed description, see Note 2.c to the Consolidated Financial Statements as of December 31, 2016.

In 2017, the Company recognized a partial reversal of the impairment charge mentioned in the previous paragraph for Ps. 5,032 million, which is generated by the combination of multiple factors, such as the variation in production and associated investments considered in the flow, the effect of variations in operating and abandonment costs, the variation in the rate of discount and, to a lesser extent, the variation in oil prices, taking into account also the book value of the assets as of December 31, 2017 compared to the previous year, based on the accounting depreciation charge versus the increase for new investments made, among others. See additionally Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Critical Accounting Policies. and Note 2.c to the Consolidated Financial Statements as of December 31, 2017.

In 2016, other net operating profit included income of Ps. 1,407 million related to the PIAM under the concession agreement with the Company's partner to participate in the extension of the concession of this area.

*Downstream*

Revenues from the Downstream segment in 2018 were Ps. 339,730 million, representing a 73.1% increase compared to Ps. 196,309 million in 2017.

Operating profit for the Downstream business segment in 2018 was Ps. 7,818 million, representing a 50.6% decrease compared to Ps. 15,813 million in 2017. Among the different aspects, favorable and unfavorable, that affected the operating profit, the following stand out:

In 2018, the processing levels of the refineries reached 88.8%, 3.2% lower than 2017, mainly as a result of the lower demand for Fuel oil due to higher availability of natural gas in the system. With these levels of processing a higher production of Diesel (+0.6%) and Gasoline (+2.1%) was obtained (the latter corresponding to the higher production of Super gasoline (+10.9%) partly offset by lower production of Infinia gasoline (-14.8%). Additionally, the production of other refined products such as liquefied petroleum gas (LPG) and petroleum coal increased; and production of Fuel Oil, asphalts, lubricant bases and petrochemical gasoline decreased, all compared to 2017 production;

**Table of Contents**

Diesel revenues increased by Ps. 59,097 million, or 73.3%, as a result of an increase in the average price for diesel mix of 65.9%, and of an increase in dispatched volumes of 4.5%. Additionally, sales volumes of Infinia diesel, a premium diesel, increased by 16.5%;

Gasoline revenues increased by Ps. 37,863 million, or 63.9%, as a result of an increase in the average price for gasoline mix of 58.0%, and of an increase in dispatched volumes of 3.7%. Despite the aforementioned, the Infinia gasoline reflecting additionally a decrease of 7.6% in sales volumes of Infinia gasoline;

Fuel oil revenues in the domestic market decreased by Ps. 3,721 million, or 90.4%, as a result of a decrease in the commercialized volumes of 94.5% to the power generation plants which consumed alternative fuels as natural gas, partially offset by an increase in the average price of approximately 75.7%;

The remaining sales in the domestic market increased by Ps. 27,338 million, or 90.3%, primarily as a result of increased sales of Asphalts by 37.0%, of LPG by 90.0%, petrochemical products by 58.6% and aerokerosene by 121.4%, in all these cases mainly due to the higher prices of these products in Argentine peso terms;

Export revenues obtained by the Downstream segment increased by Ps. 22,843 million, or 103.4%, primarily due to increases in exports of aerokerosene of 139.4%, as a result of an increase in the average price of 117.9% measured in Argentine pesos and of an increase of 9.8% in the sales volumes. As well as, the higher sales volumes and better prices obtained in petrochemicals products and LPG, with increases in sales of 156.9% and 121.3%, respectively. There were also more export sales of residual coal for Ps. 1,963 million, and of crude oil for Ps. 1,258 million, in both cases due to higher sales volumes. Exports of soy meal and oil had an increase of Ps. 646 million, or 10.3%, in comparison with 2017, motivated by a 60.6% increase in the prices obtained, partially offset by a decrease in sales volumes of 31.3%.

The operating costs in 2018 were Ps. 305,234 million, 88.1% higher compared to the Ps. 162,309 million corresponding to 2017. Among other aspects, the following stand out:

Purchases of crude oil increased by Ps. 84,310 million, or 91.4%. The purchased volume from third parties decreased by 20.2% (approximately 708 Mm3), while the crude oil volume transferred from the Upstream segment increased by 0.9% (approximately 0.12 Mm3). Additionally, an increase of 98.5% in average prices of crude oil in Argentine peso terms, mainly related to the occurred devaluation and to an increase in the international reference price;

Purchases of biofuels (FAME and ethanol biofuel) increased by Ps. 5,910 million, or 32.8%, primarily as a result of an increase in the prices of FAME and ethanol biofuel of 46.5% and 19.6%, respectively, and an increase in purchased volumes of ethanol biofuel of 3.6%, partially offset by a decrease in purchased volumes of FAME of 3.9%;

Imports of fuels increased by Ps. 15,582 million, or 235.0%, as a result of an increase in imports of gasoline Premium for Ps. 1,183 million, due to the lower processing of this product mainly (net of the lower commercialized volume of gasoline Infinia), as well as the higher import volumes of gas oil and jet fuel, with increases of Ps. 10,700 million and Ps. 3,699 million, respectively, due to higher international prices, higher imported volumes, as well as the devaluation that occurred in the aforementioned period;

Grain purchases in the agricultural sales segment through the form of barter, which were recorded as purchases for accounting purposes, increased by Ps. 1,799 million, or 34.0%. This increase is due to an increase in the average price of 58.7%, partially offset by a decrease in purchased volumes of 15.6%;

In 2018 a negative stock variation of Ps. 1,808 million was recorded, compared to the positive stock variation recorded in 2017 of Ps. 3,693 million, mainly as a result of a lower valuation of the stocks in comparison with 2017, due to a decrease in the crude oil price towards the end of 2018 (transfer price valuation);

Refining costs increased by Ps. 2,812 million, or 27.3%. This increase was driven by higher charges for repair and maintenance services, consumption of materials, spare parts and other supplies, considering an increase of the unit indicator in Argentine peso terms of 31.5%, offset by a decrease of the processed volumes afore mentioned;



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**Table of Contents**

Higher charges for environmental contingencies for Ps. 480 million, or 56.0%, linked to the activity developed by the Downstream business areas, fundamentally from the activities of characterization and valorization of environmental actions developed during 2018;

Property, plant and equipment depreciation increased by Ps. 4,383 million, or 75.7%, primarily as a result of (i) increased investments in property, plant and equipment and (ii) overall increases in Argentine peso terms of the value of fixed assets, which was related to the devaluation of the Argentine peso against the U.S. dollar, which is the functional currency of the Company;

Fertilizers purchases for resale increased by Ps. 2,436 million, or 142.0%, due to an increase in the purchase price of approximately 117.3% and an increase in purchased volumes of 11.3%;

Transportation costs (naval and pipelines) increased by Ps. 1,977 million, mainly due to an increase of 38.6% in the rates in Argentine pesos;

Selling expenses increased by Ps. 8,934 million, or 51.8%, primarily as a result of an increase in transport expenses, mainly related to an increase in transported volumes, due to higher sales, and of an increase in the transportation rates of fuels in the domestic market, as well as increases in personnel costs, charges related to bank credits and debits tax and export tax, primarily meals and oils;

Revenues from the Downstream segment in 2017 were Ps. 196,309 million, representing a 20.1% increase compared to Ps. 163,463 million in 2016.

Operating profit for the Downstream business segment in 2017 was Ps. 15,813 million, representing a 411.3% increase compared to Ps. 3,093 million in 2016. This increase in operating profit is primarily due to the following factors:

The average volume of oil processed per day in YPF's refineries was about 293,000 barrels of oil per day, without significant changes with respect to 2016. With these similar processing levels we obtained a similar production overall, with an increase of diesel by 0.5%, gasoline by 2.0% and a decrease of fuel oil by 35.8% and with increased production of jet fuel, petrochemical gasoline, asphalts, coal oil and lubricant bases;

Diesel revenues increased by Ps. 10,713 million, or 15.1%, as a result of an increase in the average price for diesel mix of 15.9%, partially offset by a decrease in sales volumes of 0.7%, despite an 27.5% increase in sales volumes of Infinia diesel, a premium diesel;

Gasoline revenues increased by Ps. 12,976 million, or 28.1%, primarily as a result of an increase in the average price for gasoline mix of 19.9%, and an increase in sales volumes of 6.8%, reflecting additionally an increase of 20.0% in sales volumes of Infinia gasoline;

Fuel oil revenues in the Argentine domestic market decreased by Ps. 5,531 million, or 57.3%, primarily as a result of a decrease in the average price of 15.5% and a decrease in sales volumes of 49.5%;

The remaining sales in the domestic market increased by Ps. 8,848 million, or 43.4%, primarily as a result of increased sales of Asphalts by 154.2%, of LPG by 48.9%, petrochemical products by 35.9% and aerokerosene by 37.3%, in all these cases mainly due to the higher prices of these products, with the exception of asphalts, which also registered an increase of 103.5% in sales volumes;

Export revenues obtained by the Downstream segment increased by Ps. 5,840 million, or 36.0%, primarily due to increases in exports of petrochemical products of 23.8%, and LPG of 57.7%, in both cases due to an increase in average prices in Argentine peso terms, as well as increases in exports of flour and soy oils of 24.0%, aerokerosene of 53.9%, and virgin naphtha of 110.3%, all due to an increase in average prices in Argentine peso terms and in sales volumes.

Purchases of crude oil increased by Ps. 2,688 million, or 3.0%, primarily as a result of an increase in oil prices of approximately 2.3% in Argentine peso terms as a result of the devaluation of the Argentine peso against the U.S. dollar. Crude oil transferred volumes from the Upstream business segment decreased by 7.5% (approximately 1.05 mmcm), while crude oil purchased volumes from third parties increased approximately 49.1% (approximately 1.16 mmcm);

Purchases of biofuels increased by Ps. 4,807 million, or 36.4%, primarily as a result of an increase in the average prices of FAME and ethanol biofuel of approximately 22.2% and 20.0%, respectively, and an increase in purchased volumes of FAME and ethanol biofuel of 8.7% and 17.3%, respectively;

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**Table of Contents**

Imports of fuels increased by Ps. 1,023 million, or 18.2%, primarily as a result of an increase in import prices of gas oil of 34.3% and jet fuel of 35.0%, and of an increase in volumes of 83.7% and purchase prices of 63.4% of Premium gasoline. All of this was partially offset by a decrease in imported volumes of gas oil of 23.5% and in imported volumes of jet fuel of 9.8%.

Grain purchases in the agricultural sales segment through the form of barter, which were recorded as purchases for accounting purposes, increased by Ps. 1,141 million, or 27.5%. This increase was due to an increase in the average price of approximately 4.2%, and an increase in volumes of 22.3%.

In 2017, a positive stock variation was recorded by Ps. 3.667, representing an increase of Ps. 3,173 million compared to 2016, mainly as a result of a higher valuation of the stocks, and to a lesser extent, by an accumulation of stock, especially of crude oil, due to the higher purchases made in the year 2017;

Higher charges for environmental contingencies of approximately Ps. 594 million, or 328.9%, linked to the activity developed by the Downstream business segment;

Property, plant and equipment depreciation increased by Ps. 1,247 million, or 27.4%, primarily as a result of (i) increased investments in assets (in particular, the launch of the new Coke unit at the La Plata refinery in the fourth quarter of 2016) and (ii) an overall increase in property, plant and equipment values in Argentine pesos, which was related to the devaluation of the Argentine peso against the U.S. dollar, which is the functional currency of the Company;

Selling expenses increased by Ps. 2,707 million, or 18.6%, primarily as a result of increases in transport expenses, mainly related to increased transport volumes, due to higher sales, and to increased rates for the transportation of fuels in the domestic market, as well as increases in personnel costs, charges related to bank credits and debits taxes and export taxes, primarily flours and oils;

Production costs related to refining costs increased by Ps. 1,762 million, or 20.6%. This increase was driven by higher charges for consumption of materials, spare parts, electricity and other supplies and fuels. As a result of this, and considering that the level of processing in refineries was 0.2% lower, the cost of unit refining increased by 21.1% in 2017 compared to 2016. In turn, transportation costs related to production (naval and pipelines) increased by Ps. 985 million, or 23.8%.

In the other net operating results for this segment, we recorded an increase in the provision for lawsuits and contingencies of approximately Ps. 528 million compared to the previous year.

*Gas and Power*

In 2016, the Company began to report separately its Gas and Power business segment, as explained in Item 4. Information on the Company Business Organization, which includes the transportation, distribution and commercialization of natural gas to third parties, natural gas liquid (NGL), regasification services and electricity generation.

Revenues from the Gas and Power segment in 2018 were Ps. 99,038 million, which represents an increase of 62.7% compared to the Ps. 60,880 million in 2017. Among the different aspects that affected this segment the following stand out:

As producers, sales of natural gas in the domestic market increased by Ps 17,798 million, or 41.8%, as a result of an increase in the average price of 50.7% in Argentine pesos, partially offset by a reduction of 6.2% in the sales volume. This reduction is explained by the 4.6% decrease in shipped volumes as a result of lower production and demand for natural gas in 2018, and in the first quarter of 2017, 242 mmcm injected and pending of nominating were invoiced;

Sales of natural gas to the retail segment (residential and small businesses and industries) increased by Ps. 14,515 million, or 140.6%. This increase is mainly explained by our affiliated company Metrogas S.A., which, as described in Note 2.a of the Consolidated Audited Financial Statements as of December 31, 2018 (see Financial information of subsidiaries, associates and joint ventures in hyperinflationary economies ), as it is an Argentine peso functional currency and based on current local regulations, registered in its revenues an adjustment for inflation of Ps. 4,748 million in 2018. Additionally, obtained a higher average price of 122.2%, partially offset by a 2.0% decrease in sales volumes through its distribution network.

Operating profit in 2018 was Ps. 16,786 million, representing an increase of 415.1% compared to Ps. 3,259 million of operating profit in 2017. This increase is mainly due to the fact that in the first quarter of 2018, a result was recorded from the revaluation of YPF's investment in YPF Energía Eléctrica (YPF EE) for Ps. 11,980 million.

**Table of Contents**

Revenues from the Gas and Power business segment in 2017 were Ps. 60,880 million, representing a 108.0% increase compared to Ps. 29,276 million in 2016, mainly due to the fact that the Stimulus Plan for Surplus Natural Gas Injection in this business segment began to be accrued in 2017.

The operating profit for the Gas and Power business segment in 2017 represented a gain of Ps. 3,259 million, representing a 62.3% increase compared to a gain of Ps. 2,008 million in 2016. This increase was mainly due to the gradual recomposition of rates obtained by our subsidiary company Metrogas S.A., which recorded an operating income of Ps. 1,427 million in 2017, compared to an operating profit of Ps. 310 million in 2016. There were also better operating results from our subsidiary company YPF EE attributable to this segment.

*Central Administration and Others*

The operating loss of Central Administration and Others in 2018 was Ps. 6,055 million, compared to the operating loss of Ps. 4,400 million in 2017, which represents an increase of 37.6%. The variation is mainly related to increases in personnel costs, services contracts and IT licenses, many of which are dollarized, and due to the higher charges related to institutional advertising and depreciation of fixed assets.

The operating loss for the Central Administration and Others in 2017 represented a loss of Ps. 4,400 million, representing a 172.4% increase in loss compared to a loss of Ps. 1,615 million in 2016. In the second quarter of 2016, this segment included a net profit of Ps. 1,528 million attributable to the deconsolidation of the Maxus Entities (see Note 27 to the Audited Consolidated Financial Statements). The remaining variation is mainly related to increases in personnel costs, higher charges for computer licenses and lower results obtained by our subsidiary A-Evangelista SA, resulting in part from the lower incentives for construction by Ps. 234 million.

**Liquidity and Capital Resources***Financial condition*

Total loans outstanding as of December 31, 2018, 2017 and 2016 were Ps. 335,078 million, Ps. 191,063 million and Ps. 154,345 million, respectively, consisting of (i) current loans (including the current portion of non-current loans) of Ps. 64,826 million and non-current loans of Ps. 270,252 million as of December 31, 2018, (ii) current loans of Ps. 39,336 million (including the current portion of non-current loans) and non-current loans of Ps. 151,727 million as of December 31, 2017 and (iii) current loans of Ps. 26,777 million (including the current portion of non-current loans) and non-current loans of Ps. 127,568 million as of December 31, 2016. As of December 31, 2018, 2017 and 2016, 86%, 77%, and 70% of our loans were denominated in U.S. dollars, respectively.

In the past we have repurchased certain of our publicly-traded bonds in open market transactions on an arms-length basis. As of December 31, 2018, we had repurchased Ps. 410 million of our outstanding bonds. We may, from time to time, make additional purchases of, or effect other transactions relating to, our publicly-traded bonds if, in our own judgment, the market conditions are attractive.

The following tables set forth our consolidated cash flow information for the periods indicated.

**For the year ended December 31,**  
**2018          2017          2016**  
**(in millions of pesos)**

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Net cash flows from operating activities	125,058	71,974	49,183
Net cash flows used in investing activities	(82,251)	(55,242)	(66,174)
Net cash flows provided by financing activities	(43,656)	(355)	10,817
Translation differences provided by cash and equivalents	18,139	1,665	1,692
Reclassification of assets held for disposal		(61)	
Deconsolidation of subsidiaries			(148)
Net increase / (decrease) in cash and equivalents	17,290	17,981	(4,630)
Cash and cash equivalents at the beginning of period	28,738	10,757	15,387
Cash and cash equivalents at the end of period	46,028	28,738	10,757

Net cash flows from operating activities were Ps. 125,058 million in 2018 compared to Ps. 71,974 million in 2017. This 73.8% increase was primarily attributable to better operating results, without considering impairment of property, plant and equipment and intangible assets, depreciation of property, plant and equipment and amortization of intangible assets, increased non-cash provisions,

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**Table of Contents**

which did not involve expenditures, and without considering the revaluation result of the aforementioned investment in YPF EE. We believe that, given the high level of cash flow provided by operating activities, including our expectation of reducing accounts receivable from transactions with government entities (see Item 3. Key Information Risk Factors Risks Relating to Our Business A significant percentage of our cash flow from operations is derived from counterparties that are governmental entities ) and certain private clients, our working capital is reasonable for the current requirements of the Company.

Net cash flows from operating activities were Ps. 71,974 million in 2017 compared to Ps. 49,183 million in 2016. This 46.3% increase was primarily attributable to better operating results, without considering impairment of property, plant and equipment and intangible assets, depreciation of property, plant and equipment and amortization of intangible assets, increased non-cash provisions, which did not involve expenditures, and lower income tax. On the other hand, there was a decrease in net working capital, mainly due to the higher accounts payable as a result of higher purchases and higher collections from the natural gas distribution companies. In addition, in 2016, we received pending payments under the Gas Plan until December 31, 2015, through the delivery of public debt instruments, specifically BONAR 2020 USD (see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Natural gas ). The bonds were in portfolios as of December 31, 2016 and did not increase the operating cash of the Company.

Cash flows used in investing activities were Ps. 82,251 million in 2018, compared to Ps. 55,242 million in 2017, representing a 48.9% increase compared with 2017, as a result of an increase in investments of property, plant and equipment and intangible assets in pesos mainly due to the devaluation of the Argentine peso against the U.S. dollar, which is the functional currency of the Company, and a greater liquidation of investments in financial assets, which came mainly from the collection of the Gas Plan through the receipt of public securities mentioned in the previous paragraph.

Cash flows used in investing activities were Ps. 55,242 million in 2017, compared to Ps. 66,174 million in 2016, representing a 16.5% decrease compared with 2016, as a result of a reduction in investments of property, plant and equipment and intangible assets in order to align said investments to the operational generation of funds, a greater liquidation of investments in financial assets, which came mainly from the collection of the Gas Plan through the receipt of public securities mentioned in the previous paragraph, and a decrease in financial loans granted.

Net cash flows provided by financing activities in 2018 were Ps. (43,656) million, which came primarily from lower takeover, net cancellation of debt maturity and higher interest payment. In 2018, at the shareholders' ordinary and extraordinary general meeting held on April 27, 2018, a dividend of Ps. 1,200 million (Ps. 3.05 per share or ADS) was authorized and paid in December 2018.

Net cash flows provided by financing activities in 2017 were Ps. (355) million, which came primarily from lower takeover, net cancellation of debt maturity and higher interest payment. In 2017, at the shareholders' ordinary and extraordinary general meeting held on April 28, 2017, a dividend of Ps. 716 million (Ps. 1.82 per share or ADS) was authorized and paid in December 2017. In 2016, at the shareholders' ordinary and extraordinary general meeting held on April 29, 2016, a dividend of Ps. 889 million (Ps. 2.26 per share or ADS) was authorized for payment in 2016.

A Global Medium-Term Notes Program was approved at a shareholders' meeting held on January 8, 2008 for an amount up to U.S.\$1.0 billion. On September 13, 2012 and on April 30, 2013, the shareholders' meeting approved the increase of the amount of the program, mentioned above, for an amount of U.S.\$ 2.0 billion each time, resulting in a maximum nominal amount in circulation at any time under the program of U.S.\$ 5.0 billion, or its equivalent in other currencies, and providing the use of the proceeds to cover all alternatives contemplated by Article 36 of Law No. 23,576 of Negotiable Obligations and Supplementary rules. On February 5, 2015, the shareholders' meeting

resolved by a majority of computable votes to approve the increase of the amount of the Company's Global Medium-Term Notes Program of U.S.\$ 5.0 billion or its equivalent in other currencies by U.S.\$ 3.0 billion, resulting in the total maximum nominal amount outstanding under the program at any time becoming U.S.\$ 8.0 billion, or its equivalent in other currencies, or a lower amount as may be determined by the Board of Directors.

On April 29, 2016, the Ordinary and Extraordinary General Meeting of Shareholders approved the increase of the amount of the Company's Global Medium Term Note Program (*Programa Global de Emisión de Títulos de Deuda de Mediano Plazo de la Compañía*) by U.S.\$2.0 billion, to a total of U.S.\$10.0 billion, or its equivalent in other currencies to remain outstanding at any time under the program. In addition, the term of the Program was extended for five years starting from October 25, 2017 by our shareholders at a meeting held on April 28, 2017 and in a meeting of our Board of Directors held on June 7, 2017.

On December 28, 2018, by means of Resolution No. RESFC-2018-19961-APN-DIR # CNV, we were registered as frequent issuer No. 4 under the simplified regime for frequent capital markets issuers (*régimen simplificado para emisores frecuentes*) created by the CNV on June 2018. This regime seeks to speed up internal authorization processes within the CNV in order to promote the development of local capital markets, while also generating more efficient control. The main benefit for frequent issuers such as YPF is that the new regime allows them to significantly reduce the timeline of the offering process, which would in turn provide us with more flexibility and agility to take advantage of favorable market conditions in local and international markets.

Under the Global Medium-Term Notes Program, the Company issued several series of notes in the local and international markets at different interest rates. All such securities are authorized to be traded on the Buenos Aires Stock Exchange (*Bolsa de Comercio de Buenos Aires*) and the Electronic Open Market (*Mercado Abierto Electrónico*) in Argentina. For additional information about the outstanding notes of YPF S.A. and our controlled companies as of December 31, 2017, see Notes 4 and 16 to the Audited Consolidated Financial Statements.



**Table of Contents**

The following table sets forth our commitments for the periods indicated below with regard to the principal amount of our debt, as of December 31, 2018, plus accrued but unpaid interest as of that date:

	Total	Expected Maturity Date						
		Less than 1 year	1 Year	2 Years	3 Years	4 Years	5 Years	More than 5 years
Loans	335,078	64,826	27,581	55,191	23,124	18,526	145,830	

**Description of Liquidity**

We closely monitor our liquidity levels in order to attend cash needs from business operations and financial obligations. We have a conservative approach to the management of our liquidity which consists mainly of (i) cash and cash equivalents (cash in banks, liquidity funds and investments with a maturity of less than three months at the date of purchase), and (ii) other investments (fixed income securities, time deposits, and fund investments). We hold our liquidity primarily in U.S. dollars and in first-class financial entities.

**Description of Indebtedness**

As of December 31, 2018, our total consolidated debt was Ps. 335,078 million, of which 19% was current debt and 81% was non-current debt. Additionally, 86% of our total consolidated debt was denominated in U.S. dollars, 10% in Pesos and 4% in Swiss Francs. Moreover, 82% of our total consolidated debt accrues interest at a fixed rate. Regarding our debt composition, our senior notes represent 78%, while the remaining 22% is represented by trade facilities and other loans.

Uncommitted bank credit facilities together with debt capital markets provide a material source of funding for the Company.

For detailed information regarding our indebtedness, see Notes 4 and 16 to the Audited Consolidated Financial Statements.

**Covenants in our indebtedness**

Our financial debt generally contains customary covenants for such type of transaction including, among other things and subject to certain exceptions, not to establish liens or charges on our assets. In addition, approximately 56% of our debt outstanding as of December 31, 2018 was subject to financial covenants related to our leverage ratio and debt service coverage ratio.

As of December 31, 2018, we were in compliance with all covenants in connection with our indebtedness. See Item 3. Key Information Risk Factors Risks Relating to Our Business If we fail to comply with the covenants set forth in our credit agreements and indentures, we will be in default under such agreements and we may be required to repay all of our outstanding debt. and Certain of our outstanding financial indebtedness contains change of control provisions that may require us to prepay our debt.

**Guarantees provided**

As of December 31, 2018, in relation to compliance with obligations of YPF and its subsidiaries, YPF has issued bank guarantees for approximately U.S.\$ 223 million (which include U.S.\$ 200 million corresponding to corporate guarantees in favor of banks for borrowed money by our subsidiaries) and has assumed other commitments for an approximately U.S.\$ 42 million.

Additionally, see Note 29.e to the Audited Consolidated Financial Statements for a description of the Chevron transaction and see Note 16 to the Audited Consolidated Financial Statements for a description of the financial loans and notes secured by cash flows.

**Table of Contents****Contractual obligations**

The following table sets forth information with regard to our commitments, expressed in U.S. dollars, under commercial contracts for the periods indicated below, as of December 31, 2018:

<b>Contractual Obligations <sup>(1)</sup></b>	<b>Total</b>	<b>Less than 1 year</b>	<b>1 3 Years</b>	<b>3 5 Years</b>	<b>More than 5 years</b>
		<b>(in millions of U.S.\$) <sup>(7)</sup></b>			
Debt <sup>(2)</sup>	13,380	2,372	3,452	1,847	5,709
Operating lease obligations	796	326	290	118	62
Purchase obligations <sup>(3) (4)</sup>	1,930	1,030	446	211	243
Purchases of services	1,387	524	410	210	243
Purchases of goods	544	506	36	1	1
Gas	209	209			
Oil	103	75	28		
Gas Oil, Fuel Oil and Gasoline	42	42			
Steam	12	6	6		
Others	178	174	2	1	1
Other liabilities <sup>(5)(8)</sup>	7,294	3,006	295	774	3,219
Total <sup>(5)(6)</sup>	23,400	6,734	4,483	2,950	9,233

- (1) The expected timing for payments of the obligations in the preceding table is estimated based on current information. Timing of payments and actual amounts paid may be different, depending on the time of receipt of goods or services, or changes to agreed-upon amounts for some obligations.
- (2) These projected amounts include interest due during all the periods presented. Interest on variable rate instruments is calculated using the rate as of December 31, 2018 for all periods. See additionally Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources Covenants in our indebtedness.
- (3) Purchase obligations are obligations under contractual agreements to purchase goods or services, including capital projects. These obligations are enforceable and legally binding on YPF and specify all significant terms, including fixed or minimum quantities to be purchased; fixed, minimum, or variable price provisions; and the approximate timing of the transaction. For obligations with cancellation provisions, the amounts included in the preceding table were limited to the non-cancellable portion of the agreement terms or the minimum cancellation fee. In addition, the table includes purchase commitments under commercial agreements that do not provide for a total fixed amount, which have been valued using our best estimates. Accordingly, our actual purchase obligations may differ from the estimated amounts shown in the table.
- (4) Some of our purchase orders represent authorizations to purchase rather than binding agreements. In that regard, we have entered into certain agreements for the purchase of products that specify minimum prices and quantities based on a percentage of the total available market or based on a percentage of our future purchasing requirements. Due to the uncertainty of the future market and our future purchasing requirements, as well as the non-binding nature of these agreements, obligations under these agreements have been excluded from the preceding table. Payments related to these obligations were not significant as of December 31, 2018.
- (5) Provisions for contingent liabilities under commercial contracts, which amounted to U.S.\$ 595 million as of December 31, 2018, are not included in the table above since we cannot, based on available evidence, reasonably estimate the settlement dates of such contingencies.
- (6)

As a result of the extension of our concessions in certain exploration areas, we are committed to carrying out exploration activities and making certain investments and expenditures until the expiration of some of our concessions. The commitments for these investments and expenditures amounted to U.S.\$ 9.7 billion as of December 31, 2018. The table includes the portion of this amount for which contracts have been executed.

- (7) The table is presented in U.S.\$, which is the Company's functional currency.
- (8) Includes accounts payable, salaries and social security, taxes payable, provisions for pensions, provisions for environmental liabilities and provisions for hydrocarbon wells abandonment obligations as set forth in our audited consolidated financial statements included as of December 31, 2018.

We have additional commitments under guarantees. For a discussion of these additional commitments see Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources Guarantees provided.

**Table of Contents****Capital investments, expenditures and divestitures**

## Capital investments and expenditures

The table below sets forth our capital expenditures and investments by activity for each of the years ended 2018, 2017 and 2016.

	2018		2017		2016	
	(in millions of pesos)	(%)	(in millions of pesos)	(%)	(in millions of pesos)	(%)
Capital expenditures and investments <sup>(1)</sup>						
Upstream	77,016	79%	45,380	77%	50,258	79%
Downstream	15,632	16%	8,179	14%	9,839	15%
Gas and Power	1,968	2%	3,867	7%	2,134	3%
Central Administration and Others	2,877	3%	1,639	3%	1,679	3%
Total	97,493	100%	59,065	100%	63,910	100%

(1) Includes acquisitions of properties, plant and equipment and exploration expenses, net of unproductive drilling expenses and well abandonment costs.

We make capital expenditures to achieve the goals of the Company's strategy described under Item 4. Information on the Company's History and Development of YPF.

**Capital divestitures**

We have not made any significant divestitures in the past three years.

**Quantitative and Qualitative Disclosures about Market Risk**

For a description of our exposure to market risk, see Item 11. Quantitative and Qualitative Disclosures about Market Risk.

**Off-Balance Sheet Arrangements**

We do not have any material off-balance sheet agreements. Our off-balance sheet agreements are described in Liquidity and Capital Resources Guarantees provided.

**Research and Development, Patents and Licenses, etc.**

For a description of our research and development policies, see Item 4. Information on the Company's Research and Development.

**ITEM 6. Directors, Senior Management and Employees**

## **Management of the Company**

On May 3, 2012, the Argentine Congress enacted the Expropriation Law. Among other matters, the Expropriation Law provided for the expropriation of 51% of the share capital of YPF represented by an identical stake of Class D shares owned, directly or indirectly, by Repsol and its controlled or controlling entities. The shares subject to expropriation, which have been declared of public interest, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. To ensure compliance with its objectives, the Expropriation Law provides that the National Executive Office, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed.

**Table of Contents**

The Expropriation Law states that YPF shall continue as a publicly traded corporation and the management of the shares subject to expropriation shall be carried out according to the following principles: (i) strategic contribution of the Company to the aims established in the Expropriation Law; (ii) the management of the Company in accordance with the best industry and corporate governance practices, preserving the interests of the Company's shareholders and creating value for them; and (iii) the professional management of the Company. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law.

The information provided below describes the composition and responsibilities of our Board of Directors and committees as of the date of this annual report.

**Board of Directors*****Composition of our Board of Directors***

Our Board of Directors, is currently composed of 12 directors and 9 alternates. The year in which they were last elected and the year their term of appointment expires is as follows:

<i>Name</i>	<i>Position</i>	<i>Age</i>	<i>Director Last Elected on</i>	<i>Term Expiration</i>
Miguel Ángel Gutiérrez	Chairman and Director	60	2018	2019
Roberto Luis Monti	Director	80	2018	2019
Norberto Alfredo Bruno	Director	59	2018	2019
Néstor José Di Piero	Director	63	2018	2019
Ignacio Perincioli	Director	43	2018	2019
Gabriel Alejandro Fidel	Director	56	2018	2019
Sebastián Caldiero	Director	39	2018	2019
Carlos Alberto Felices	Director	73	2018	2019
Daniel Gustavo Montamat	Director	64	2018	2019
Fabián Jorge Rodríguez Simón	Director	60	2018	2019
Lorena Sánchez	Director	46	2018	2019
Emilio José Apud <sup>(1)</sup>	Director	73	2018	2019
Gerardo Damián Canseco <sup>(2)</sup>	Alternate Director	53	2018	2019
Liliana Amelia Murisi	Alternate Director	51	2018	2019
Fernando Martín Cerdá	Alternate Director	44	2018	2019
Lucio Mario Tamburo	Alternate Director	58	2018	2019
Miguel Lisandro Nieri	Alternate Director	46	2018	2019
Carlos Alberto Alfonsi <sup>(2)</sup>	Alternate Director and Operations and Transformations Executive Vice President	58	2018	2019
Santiago Martínez Tanoira <sup>(2)</sup>	Alternate Director and Downstream Executive Vice President	46	2018	2019
Marcos Miguel Browne <sup>(2)</sup>	Alternate Director and Gas and Energy Executive Vice President	49	2018	2019

Fernando Pablo Giliberti <sup>(2)</sup>	Alternate Director and Supply Chain Vice President	52	2018	2019
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(1) Represents our Class A shares.

(2) As of March 14, 2019, the individual owns less than one percent of our Class D shares.

The General Ordinary and Extraordinary Shareholders' meeting held on April 29, 2016 approved, by a majority of computable votes, the modification of Article 17, subsections i) and xiii); Article 18, subsections a), b), c), d) and e); and Article 19, subsections iii), iv) and v) of the Company's By-laws, which separated the functions of the Chairman and the Chief Executive Officer (CEO).

The Chairman of the Board of Directors, who, according to our by-laws, must be a Class D director, was elected by the Board of Directors at the meeting held on April 27, 2018. All other officers serve at the discretion of the Board of Directors and may be terminated at any time without notice.



**Table of Contents**

*Outside business interests and experience of the members of our Board of Directors*

*Miguel Ángel Gutiérrez*

Mr. Gutiérrez is a founding partner of The Rohatyn Group and leads its private investments, real estate, infrastructure and renewable energy divisions. From 1980 to 2001, he held various positions at J.P. Morgan, where he reached the position of Managing Director in charge of Global Emerging Markets and member of the Management Committee for Global Markets. In addition, He also served as Chairman of the Board of Directors of Autopistas de Oeste S.A. and Chairman and CEO of Grupo Telefónica de Argentina S.A. He was also a member of the Consultative Council of CIPPEC (Center for the Implementation of Public Policies for Equity and Growth). He is currently a member of the Economic and Social Council of the Universidad Torcuato Di Tella, and of the Council of the Fundación Cruzada Argentina. He has been a member of the Board of Directors of YPF since December 2015 and Chairman of the Board of Directors since April 2016.

*Roberto Luis Monti*

Mr. Monti earned undergraduate and master's degrees in electrical engineering from the Universidad de Buenos Aires and holds a Master in Business Administration from the American Management Association, New York. He has an extensive experience in the national and international energy industry. From 1995 to 1997, he was Chairman and General Manager of Maxus Energy Corporation. From 1997 to 1999 he held several positions at YPF, including CEO during 1997 and Chairman and CEO from 1998 to 1999. From 1999 to 2000, he was Executive Vice President of Exploration and Production of Repsol YPF in Argentina. Currently, he is a member of the Board of Directors of Tenaris S.A. He is a member of the Board of Directors and Chairman of the Risk and Sustainability Committee of the Board of Directors of YPF since April 2016.

*Norberto Alfredo Bruno*

Mr. Bruno holds a degree in Business Administration from the Universidad Argentina de la Empresa and completed postgraduate studies in Strategic Management from the Institute of Strategic Management; Organization and Business Management at the Instituto Argentino de Economía Energética as well as in Energetic Economy at the Massachusetts Institute of Technology. He held different positions at YPF, where he served as International Development Manager, from 1983 to 1998 and at YPF Perú where he was the General Manager from 1998 to 2000. From October 2001 to December 2013, he was the General Manager of Empresa de Energía Río Negro S.A. Thereafter, he served as a business consultant and advisor. Since December 2015, Mr. Bruno is the Minister of Economy and Infrastructure of the Province of Neuquén. He has been a member of the Board of Directors of YPF since April 2016.

*Néstor José Di Pierro*

Mr. Di Pierro served among other positions, as a Deputy in the Legislature of the Province of Chubut between 1991 and 1995, Secretary of Social Welfare for the Municipality of Comodoro Rivadavia, Province of Chubut between 1995 and 1999, and as a Councilman in the Deliberative Council of Comodoro Rivadavia from 1999 to 2001. He was also named as Petrominera's interventor Chubut S.E between 2003 and 2009, President of Correo Oficial of the República Argentina S.A. between 2009 and 2011, and Mayor of the Municipality of Comodoro Rivadavia from 2011 to December 2015. He has been a member of the Board of Directors of YPF since December 2015.

*Ignacio Perincioli*

Mr. Perincioli holds a degree in Business Administration and is a Certified Public Accountant from the Universidad de Buenos Aires. He has also completed a Project Management specialization of the Asociación Argentina de Evaluadores (ASAE) and a specialization in Management of Small and Medium sized Enterprises at the Universidad de Buenos Aires. He served in the Department of Control of External Indebtedness of the Auditor General's Office, in the Under Secretariat of Coordination and Management Control, in the Provincial Road Program within the Ministry of Federal Planning, Public Investment and Services, and in the Management of Administration and Finance of La Opinión Austral S.A. in Río Gallegos, Province of Santa Cruz. From December 2015 to March 2018 he was President of Fomento Minero de Santa Cruz S.E., Director and Vice-President of Cerro Vanguardia S.A., and a member of the Supervisory Committee in Patagonia Gold S.A. Between July 2014 and December 2015 he was a member of the Board of Directors of YPF S.A. Currently, he is the Minister of Economy, Finance and Infrastructure of the Province of Santa Cruz. He is a member of the Board of Directors of YPF since April 5, 2018.

**Table of Contents**

*Gabriel Alejandro Fidel*

Mr. Fidel obtained a public administration and political science degrees from the Universidad Nacional de Cuyo and has a master's degree in Public Affairs with specialization in economic policy from University of Texas, Austin. Mr. Fidel, was a Fulbright Scholar and graduated from ILPES/ECLAC with a mention in Industrial and Technological Policy. He held several positions during his career, including Assistant Secretary of Tourism, Ministry of Government, and Ministry of Economy, all of them of the Province of Mendoza. Currently, he is a member of the Mercosur Parliament and a part-time Professor of Economics at the Universidad Nacional de Cuyo. He was designated a member of the Board of Directors of YPF on March 29, 2017.

*Sebastián Caldiero*

Mr. Caldiero, holds a law degree from the Universidad Nacional de La Pampa, where he was a fellow in YPF Foundation's scholarship program. He obtained a postgraduate degree in Administrative Law from the Universidad Nacional del Comahue, and completed a special training in hydrocarbons from the Centro de Estudios de la Actividad Regulatoria Energética (CEARE) Universidad de Buenos Aires. He has practiced Law since 2003, and was also Legal Advisor of the Municipality of Cipolletti from 2004 to 2010. After that, he served as Provincial Director of Legal and Technical General Advisory of Government of the Province of Neuquén, and was in charge, as of May 2013, the Legal Affairs Department of the Energy Secretariat of the Province of Río Negro, and from 2014 has been a Deputy Secretary of the same area. In 2015, he was appointed Secretary of Hydrocarbons of the Province of Río Negro, and as of March 2016 he is the Secretary of State for Energy of the Province of Río Negro. He has been a member of the Board of Directors of YPF since April 27, 2018.

*Carlos Alberto Felices*

Mr. Felices earned a Business Administration degree from the Universidad de Buenos Aires and completed postgraduate studies in the United States. He served at Pfizer Inc., first in Argentina as Treasurer, as CFO in Brazil and in the United States as Director of Administration for Latin America. From 1993 to 2002, he held several positions in YPF, until he was appointed CFO. After that he was appointed CEO of Telecom Argentina S.A. until 2007 and Chairman of the Board of Directors from 2007 until April 2008. Currently, he is a member of the Board of Directors of YPF, President of the Audit Committee and the Audit Committee Financial Expert since December 2015.

*Daniel Gustavo Montamat*

Mr. Montamat holds a law degree, a degree in Economics and is a Certified Public Accountant. He earned a master's degree in Economics from Michigan State University in the United States, a doctoral degree in economic science from the Universidad Católica de Córdoba and a doctoral degree in law and social sciences from the Universidad Nacional de Córdoba. He has held several positions, including Director of Gas del Estado, Director and President of YPF S.E. and Secretary of Energy of Argentina. In 1991, he founded Montamat & Asociados in the Autonomous City of Buenos Aires where he serves as Executive Director. Currently, he is a consultant for the World Bank and the Inter-American Development Bank and a postgraduate professor for the CEARE (Energy Regulation Study Centre) at Universidad de Buenos Aires. He has been a member of the Board of Directors of YPF and of the Audit Committee since December 2015.

*Fabián Jorge Rodríguez Simón*

Mr. Rodríguez Simón earned a law degree from the Universidad de Buenos Aires and completed a PIL at Harvard Law School. He has held several positions, including Advisor to the Mayor of the Autonomous City of Buenos Aires,

Chief of Staff for the Ministry of Environment and Public Space of the Autonomous City of Buenos Aires from 2007 to 2009 and President of the Commission Act 1840 Zero Waste , also between 2007 and 2009. He was a founding partner of Llerena & Abogados and served as Director of its Executive Committee. He was a member of the Governing Council of the Instituto de Empresa (Madrid) between 2006 and 2014. He is President of Fundación Pericles and member of the Council of Fundación Pensar. Currently, he is a senior partner of AlfaLegalGroup. Since October 2015 he is a member of the Mercosur Parliament. He has been a member of the Board of Directors of YPF since December 2015.

*Lorena Sánchez*

Mrs. Sánchez holds a Law degree from the Universidad de Buenos Aires and she obtained a Masters Degree in Corporate Law from the Universidad Austral, Buenos Aires. She completed an International Business Law Program in the Louisiana State University United States and an MBA at the IAE Business School, Buenos Aires. She also completed programs on innovation, creativity and effective communications at Arthur Andersen and on strategic planning at IDEA. She worked in several law firms between 1994 and 1997 and then

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**Table of Contents**

she joined as a young professional in Acindar Industria Argentina de Aceros S.A. (Acindar Grupo ArcelorMittal), where she worked as a lawyer until she was appointed as s Legal Area Manager, in charge of corporate legal advisory in business matters, M & A, capital markets, corporate governance, compliance and litigation. She joined YPF in 2009 as advisor in both corporate law and corporate governance matters in the Legal Services Department, where she was also in charge of the Board s coordination. Since 2013 she is the Corporate Affairs and Corporate Governance Manager. She is the Corporate Secretary of the Board of Directors and of the Audit Committee of YPF. She is also member of the Administration Council of YPF Foundation and its Secretary. She is member of the Board of Directors of YPF since April 2018.

*Emilio José Apud*

Mr. Apud earned an industrial engineering degree and completed postgraduate degrees in energy economics and management control of large projects at the Engineering School of the Universidad de Buenos Aires, where he also earned postgraduate degrees in Energy Economics and in Management Control of Great Constructions. He also completed postgraduate studies in Regional Economic Analysis at the Institute for Economic and Social Development at Torcuato Di Tella Institute and a postgraduate specialization in energy conservation at Dupont W.L. in the United States. He has held several positions, was founder and Vice President of IAE (Energy Institute G. Mosconi) including Director of CAMMESA, Vice-president of the Technical Mixed Commission of Salto Grande and Secretary of Energy and Mining of Argentina in 2001 He has owned Apud & Associates, a consulting firm in energy and the environment, since 2005. In addition, he serves as Chairman of BAE S.A., a builder and developer company, as Counselor at the Fundación Libertad y Progreso, he is part of the Advisory Board of the Energy Secretariat and as member of Fundación Pensar. He is Professor at Universidad Católica Argentina and Universidad Champagnat de Mendoza. He has been a member of YPF s Board of Directors and member of the Audit Committee since 2015.

*Gerardo Damián Canseco*

Mr. Canseco earned a law degree and specializes in Trade Union Law. Since 1984, he has been an employee of YPF. He has held several other positions, including Government Secretary for the Municipality of San Lorenzo in the Province of Santa Fe from 2007 to 2011, Undersecretary of Labor for the Labor and Social Security Ministry from 2011 to 2014, and President of the Centro de Estudios Laborales y Sociales of Rosario from 2014 to 2016. He has been an alternate member of the Board of Directors of YPF since April 2016.

*Liliana Amelia Murisi*

Ms. Murisi is a Public Accountant from the Universidad Nacional de Córdoba. She completed a specialization in Financial Administration in the Public Sector at the School of Economics and Business of the Universidad Nacional de Comahue. Between the years 1997 and 2007 she served as Fiscal Auditor in the Court of Auditors in Neuquén. Subsequently, she held the position of Administrative Prosecretary in the Honorable Legislature of Neuquén between 2007 and 2015. She was Finance Undersecretary of the Ministry of Economy and Infrastructure of Neuquén from December 2015 to January 2018. She is a Director of Central Puerto S.A. and Hidenesa S.A. Currently, she serves as Undersecretary of Public Revenues for the Ministry of Economy and Infrastructure of Neuquén. She has been the Alternate Director of YPF since April 27, 2018.

*Fernando Martín Cerdá*

Mr. Cerdá is an Electronic Engineer from Universidad Nacional de La Plata. He was Director of Petrominera del Chubut S.E. between February 2016 and January 2018. He held several positions at Halliburton Argentina S.R.L., since joining as a profile analyst, Desk Engineer, and later was appointed as head of the Geoscience group F.R.S.

(Formation Reservoir Solution) in the San Jorge Gulf basin. He also provided advice in the Neuquina Cuyana Basins, and in Santa Cruz de la Sierra, Bolivia. He is currently the Minister of Hydrocarbons and Mines of the Province of Chubut. He has been an Alternate Director of YPF since April 27, 2018.

*Lucio Mario Tamburo*

Mr. Tamburo earned a civil engineering degree from the Universidad Nacional del Sur Bahía Blanca. He has held several positions, including Inspection Assistant for the Provincial Roads Direction in the Province of Río Negro and as Sanitation Consultant for the National Undersecretary of Water Resources. He was the Engineering and Construction Manager and Service and Maintenance Chief of Bahía Blanca at Azurix Buenos Aires S.A. He also served as Administrator of the National Entity of Water Works of Sanitation (ENOHSA) until December 2015 and is the President of Servicios Públicos Sociedad del Estado of the Province of Santa Cruz since December 2015. He has been an alternate member of the Board of Directors of YPF since December 2015.

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**Table of Contents***Miguel Lisandro Nieri*

Mr. Nieri earned a degree in economics from the National Universidad Nacional de Cuyo and holds a master's degree in finance and management control from the ADEN Business School, University of San Francisco. He has held several positions throughout his career, including Advisor of the Ministry of Finance of the Province of Mendoza from January 2000 to November 2003, Subdirector of Finance of the Provincial Fund for the Transformation and Growth of Mendoza from July 2004 to February 2007, member of the Board of Directors of Mendoza Fiduciaria S.A. from June 2006 to April 2007, business manager of Puente Hnos. Sociedad de Bolsa in Cuyo from March 2008 to June 2009, and Administrator of Financing for the Development of Mendoza Agency from December 2015 to March 2017. He was Minister of Finance and Treasury of the Province of Mendoza from March 2017 until July 2018. He is Minister of Government, Labor and Justice of Mendoza since August 2018 and alternate member of the Board of Directors of YPF since March 2017.

*Carlos Alberto Alfonsi*

Mr. Alfonsi earned a degree in chemistry from the Universidad Tecnológica de Mendoza, a degree in IMD Managing Corporate Resources from the University of Lausanne and has studied at the Massachusetts Institute of Technology. Since 1987, he has held several positions at YPF, including Operations Manager, Director of La Plata Refinery, Operation Planning Director, Director of Commerce and Transportation for Latin America, Director of Refinery and Marketing in Perú, Country Manager for Perú and R&M for Perú, Chile, Ecuador and Brazil. Mr. Alfonsi was Executive Director of Refining and Logistic between 2008 and April 2012 and Downstream Executive Director between August 2010 and June, 2013; Downstream Executive Vicepresident from June 2010 until August 2017. He is Director of A-Evangelista S.A. He was an alternate member of our Board of Directors from March 2008 until June 2012 and a member of the Board of Directors from 2012 to 2016. He is an alternate member of the Board of Directors of YPF since April 2016. Mr. Alfonsi is our Operations and Transformation Executive Vice President since August 2017.

*Santiago Martínez Tanoira*

Mr. Martínez Tanoira earned a degree in industrial engineering from the Instituto Tecnológico de Buenos Aires (ITBA), he holds a master's degree in Business Administration from Universidad Austral. He completed specialization courses at the Universities of Darden, Wharton and Harvard in the United States. In 1998, he joined YPF and took on several roles within the Petrochemical Business Development area of the Petro-chemistry Division. He was in charge of Marketing area and Business served as Planning and Development Manager within the Chemical Industrial Products Business Unit in Argentina between December 2002 and April 2008. In May 2008, he held the position of Basic Petrochemical and Intermediate Products Director at Repsol Química in Spain. Afterwards he was appointed Chemistry Director at YPF from August 2011 until 2012. He was also member of the board of directors of Profertil. From 2012 until September 2016 he served as Executive Manager of the Mendoza Region, in charge of the Upstream operations. Mr. Martinez Tanoira was our Upstream Executive Vice President from October 2016 until August 2017. He is an alternate Director since April 2017, and has been our Downstream Executive Vice President since August 2017.

*Marcos Miguel Browne*

Mr. Browne earned a degree in industrial engineering from the Instituto Tecnológico de Buenos Aires (ITBA), obtained a master's degree in business administration from Henley Management College in the United Kingdom and a diploma in natural gas management and economics from the College of Petroleum Studies, University of Oxford United Kingdom. He further completed a specialization in economics of oil and natural gas at the ITBA and a

Management Development Program at IAE Business School. He has held several positions at YPF, including Head of Supply and Processing of Natural Gas from February 1994 to May 2000. He served as Head of the Gas and Liquid Gas Processing Business at TGS S.A. where he held several roles from June 2000 to March 2004. He is a founding partner of Endriven S.A. where he served as Director until March 2016. He also served as General Manager of Gas Meridional S.A., General Manager of C3Plus S.A. and President of Fuels Meridional S.A. He is President of the Board of Directors of Compañía Mega S.A, and of YPF Energía Eléctrica S.A. and Director of YPF Tecnología S.A. Mr. Browne has been our Alternate Director since April, 2017 and our Gas & Energy Executive Vice President since March 2016.

*Fernando Pablo Giliberti*

Mr. Giliberti earned a certified public accountant degree from the Universidad Católica Argentina, a master's degree in business administration from UADE. He obtained a postgraduate diploma in Management and economics of Natural Gas, College of Petroleum Studies, from Oxford University, United Kingdom and a Master in Science of Management degree Sloan Program from Stanford



## **Table of Contents**

University, USA. He held several positions at YPF, including Head of Accounting and Finance at our headquarters in UN Mendoza, South Division Business Support Manager, Asset Manager of the El Guadal-Lomas del Cuyo, Business Development Manager and Exploration and Production Business Development Director. He served as Vice President of Business Unit for Latin America at San Antonio (Pride International). He later served as Vice President of Business Development at Pioneer Natural Resources of Argentina. In 2006, he founded Oper-Pro Services S.A. He was member of the Board of Directors of YPF from June 2012 to April 2013. He was our Strategy and Business Development Vice President from June 2012 until December 2016. He has been an alternate member of the Board of Directors of YPF since April 2014.

### *Board practices*

The information provided below describes the responsibilities of our Board of Directors.

### ***Board practices of our Board of Directors***

In accordance with the Argentine General Corporations Law, directors have an obligation to perform their duties with loyalty and with the diligence of a prudent business person. Directors are jointly and severally liable to the Company, its shareholders and to third parties for the improper performance of their duties, for violating the law or our by-laws or regulations, and for any damage caused by willful misconduct, abuse of authority or gross negligence. Specific duties may be assigned to a director by the by-laws, applicable regulations, or by shareholders resolution. In such cases, a director's liability will be determined by reference to the performance of those specific duties so long as the director's appointment and assignment of duties was approved at a shareholders' meeting and was registered with the Superintendency of Corporations.

Only shareholders, through a shareholders' meeting, may authorize directors to engage in activities in competition with the Company. Transactions or contracts between directors and us in connection with our activities are permitted to the extent they are performed under fair market conditions. Transactions that do not comply with the above requirements may only be carried out with prior approval of the Board of Directors or, in the absence of a quorum at a Board of Directors meeting, the Supervisory Committee. In addition, these transactions must be subsequently approved by our shareholders at a general meeting. If our shareholders do not approve the relevant transaction, the directors and members of the Supervisory Committee who approved the transactions will be held jointly and severally liable for any damages caused to us.

Any director whose personal interest conflicts with those of the Company on any matter shall notify the Board of Directors and the Supervisory Committee and abstain from voting on the matter. Otherwise, such director may be held liable to the Company.

A director will not be liable if, notwithstanding his presence at the meeting at which a resolution is adopted or his knowledge of such resolution, a written record exists of his opposition to such resolution and he reports his opposition to the Supervisory Committee before any complaint against him is brought before the Board of Directors, the Supervisory Committee, the shareholders' meeting, the appropriate governmental agency or judicial action is brought to the courts. Any liability of a director to us terminates upon approval of the director's actions by the shareholders at a general meeting, provided that shareholders representing at least 5% of our capital stock do not object and provided further that such liability does not result from a violation of the law, our by-laws or other regulations.

As part of its continuing process of improving the corporate governance of the Company, the Board of Directors will implement an evaluation process for fiscal year 2019.

### **Board of Directors and Senior Management Roles in cybersecurity**

The Board of Directors have analyzed risks, action plans and evolution of cyber security in the company.

The Audit Committee of the Company's Board of Directors oversees the Company's risk mitigation strategies related to cybersecurity. The Risk and Sustainability Committee monitors the main risks that are specific to the Company and/or its activity, including cyber risks; and ensures that the Company implements the corresponding mitigation actions, among other functions.

During 2018 different management levels participated in a major cyber-tabletop exercise that was part of the cyber security awareness program.

Training for mid-range management, key holders and employees regarding several cyber security topics was also carried out. See Item 3. Key Information Risk Factors Risks Relating to Our Business We could be subject to information technology system failures, network disruptions, and breaches in data security which could negatively affect our business, financial position, results of operations, and cash flows.. In this respect, the Company's Senior Management have also participated in several practical exercises as part of the cyber security awareness program.

**Table of Contents**

**Senior Management**

At its meeting on August 28, 2017, the Board of Directors of the Company approved the following changes:

The resignation of the CEO, Mr. Ricardo Darré.

The creation of the Operations and Transformation Vice Presidency and the appointment of Mr. Carlos Alfonsi to serve in this role.

The designation of Mr. Pablo Bizzotto to serve as Upstream Executive Vice President.

The designation of Mr. Santiago Martínez Tanoira to serve as Downstream Executive Vice President.

The Communication and Institutional Relations Vice Presidency is converted to the Corporate Affairs, Communications and Marketing Vice Presidency, which will be led by Mr. Sebastián Mocerrea.

The creation of the internal Executive Management Committee, composed of the Upstream, Downstream, Gas and Power Executive Vice Presidencies, the CFO and the new Vice Presidencies of Corporate Affairs, Communications and Marketing and of Operations and Transformation.

The other vice-presidencies that made up the Management Committee, will report as follows:

The incorporation of the Business Development area within the functions of the CFO and that the Vice Presidency of Supply Chain, led by Mr. Fernando Giliberti, MASS ( Medio Ambiente, Seguridad y Salud ) led by Mr. Gustavo Chaab; Human Resources, led at that time by Mr. Fernando Dasso and currently by Mr. José Manuel Aggio; and the CTO, Mr. Sergio Fernández Mena, will report to the new Vice Presidency of Operations and Transformation led by Mr. Carlos Alfonsi.

The Board of Directors also approved that the Legal Affairs Corporate Vice Presidency, led by Mr. Germán Fernández Lahore, will report to the Vice Presidency of Corporate Affairs, Communication and Marketing.

The Vice Presidency for Business Development by Sergio Giorgi will report to the CFO. Afterwards, the Board, on its meeting held on April 5, 2018 approved the appointment of Mr. Daniel González as General Manager (CEO) of the Company.

Additionally, in the same meeting, the Board approved that the positions reporting to Mr. González, will now report to the CEO, as follows:

- i. Controller, Mr. Diego Martín Pando; and
- ii. CFO, Mr. Luis Miguel Sas.

Furthermore, the Strategy and Business Development Vice Presidency, in charge of Mr. Sergio Giorgi, also reporting to the CEO, will have under its report the Investor s Relations Management, led by Mr. Diego Celaá.

As of the date of this annual report, the internal Executive Management Committee is composed of the Upstream, Downstream, Gas and Power Executive Vice Presidencies, and the new Vice Presidencies of Corporate Affairs, Communications and Marketing and of Operations and Transformation.

At its meeting held on August 7, 2018, the Board of Directors approved that the Corporate Vice-Presidency of Legal Services, led by Mr. Germán Fernández Lahore, will report to the CEO.

**Table of Contents**

At its meeting held on September 6, 2018, the Board of Directors of the Company, approved the appointment of María Luján Bianchi as Chief Compliance Officer, who will report to the Audit Committee.

*María Luján Bianchi*

María Luján Bianchi obtained a law degree from the Universidad Católica Argentina. She specialized in Commercial Law at the University of Salamanca and also holds an MBA from the Universidad Torcuato Di Tella. Mrs. Bianchi also completed several programs such as: Industrial Law and Business Development at UADE, Tax Law at the Argentine Association of Fiscal Studies, Corporate Governance and Compliance at the Cámara de Industrias y Comercio Argentina y Alemana, and Anticorruption & New Brazilian Law (San Pablo, Brazil). For more than 15 years she practiced Law in several law firms such as Carrizo Carricarte, Salgado & Bazán, Estudio Moltedo and Brons & Salas. She also practiced Law for 5 years in Sao Paulo, Brazil. She worked for 8 years at General Mills Inc., where she served as Business Legal Leader for Argentina, and as Legal and Compliance Director for Latin America during the past six years. She is our Chief Compliance Officer since September 2018.

Our current senior management as of the date of this annual report consists of:

<i>Name</i>	<i>Position</i>
Daniel Cristian González Casartelli <sup>(1)</sup>	Chief Executive Officer
Diego Martín Pando <sup>(1)</sup>	Controller and President of the Disclosure Committee
Luis Miguel Sas <sup>(1)</sup>	Chief Financial Officer
Santiago Martínez Tanoira <sup>(1)</sup>	Downstream Executive Vice President
Pablo Bizzotto	Upstream Executive Vice President
Carlos Alberto Alfonsi <sup>(1)</sup>	Operations and Transformations Executive Vice President
Marcos Browne <sup>(1)</sup>	Gas and Energy Executive Vice President
Sebastián Mocerrea <sup>(1)</sup>	Corporate Affairs, Communication and Marketing Executive Vice President
Sergio Fabián Giorgi <sup>(1)</sup>	Strategy and Business Development Vice President
Germán Fernández Lahore <sup>(1)</sup>	Legal Affairs Corporate Vice President

(1) As of March 14, 2019, the individual owns less than one percent of our Class D shares.

In addition to the members of our senior management for whose outside business interests and experiences were described above, we include the following:

*Daniel Cristian González Casartelli*

Mr. Gonzalez earned a degree in business administration from the Pontificia Universidad Católica de Argentina. He worked for the investment bank Merrill Lynch & Co. in Buenos Aires and New York where he held the positions of Head of Mergers and Acquisitions for Latin America and President for the Southern Cone (Argentina, Chile, Peru and Uruguay), among others. While at Merrill Lynch, Mr. Gonzalez played a leading role in several of the most important investment banking transactions in the region and was an active member of the firm's global fairness opinion committee. He remained as a consultant to Bank of America Merrill Lynch after his departure from the bank.

Additionally, he has held the position of Head of Financial Planning and Investor Relations in Transportadora de Gas del Sur SA. Currently, he is a member of the Board of Directors of Adecoagro S.A. He was an alternate member of our Board of Directors from April 2014 to June 2014, a member of our Board of Directors from June 2014 to April 2016. He was CEO on an interim basis from April 2016 until June 2016 and was our Chief Financial Officer from July 2012 until April 2018. He is member of the Board of Directors of YPF Energía Eléctrica S.A He is an alternate member of our Board of Directors since April 2016, and he is our CEO since April 2018.

*Diego Martín Pando*

Mr. Pando holds a Public Accountant degree from the Universidad Nacional de Rosario, a Master degree in Corporate Finance from Universidad CEMA and a Postgraduate degree in Business Administration from Universidad Austral de Rosario. He started his career joining the ex-brand Arthur Andersen company in which he performed in the audit and corporate finance area. In 2002 he joined the YPF group originally working in one of its subsidiaries, A-Evangelista S.A. He is member of the Board of Directors of YPF Energía Eléctrica S.A. Since 2005 he joined YPF S.A. where he held several positions. Currently, he is our Controller and President of the Disclosure Committee.

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**Table of Contents***Luis Miguel Sas*

Mr. Sas holds a Public Accountant degree from the Universidad de Buenos Aires. He also holds an MBA Master's Degree in Business and Administration from the IAE and an executive program from Columbia University. He has an extensive background in corporate finance, financial operations, capital markets and projects finance. He worked in management positions at Petrobras, Edesur and Pérez Companc. In addition, he participated in the privatization of Telecom, Edesur, TGS and Metrogas. He was a member of financial committees in various companies and responsible for conducting the due diligence for various companies. He is member of the Board of Directors of YPF Energía Eléctrica S.A. Since June 2018 he joined the Financial Vice Presidency at YPF. Currently, he is our CFO.

*Pablo Bizzotto*

Mr. Bizzotto holds a petroleum engineering degree from Universidad Nacional del Comahue. He completed a Management Development Program ( PDD Programa de Desarrollo Directivo) at IAE and earned an MBA from the University of Barcelona. He started his career in the Young Professionals Program at Tecpetrol (Techint Group). Then, he worked for thirteen years at Panamerican Energy, where he held several positions. He served as Acambuco Unit Manager, in the North of Argentina, and Cerro Dragón General Manager, in Golfo San Jorge Basin. He then joined YPF in 1998, where he served as Neuquén Gas Business Manager, and as Executive Manager of the Unconventional Region between April 2014 and August 2017. Since August 2017, he has been our Upstream Executive Vice President.

*Sebastián Mocerrea*

Mr. Mocerrea earned a degree in law from the University of Buenos Aires and a degree in political science from the Pontifical Catholic University of Argentina. Between 1987 and 1997, he worked in the areas of Institutional Relations, Communication and Institutional Marketing of Clarin and Telefé. He served as Chairman of the Asociación de Televisión (ATA) Argentina, from 1996 to 1998, and as Vice President of Argentina's Information and Communications Chamber (CICOMRA) from 1998 to 2000. In 1997, he joined IBM as Director of Communications and External Relations of IBM South Latin-America Argentina, Chile, Paraguay and Uruguay. In 2000, he became a Regional Director of IBM Latin America in the United States. He also served as Vice President of Public Affairs of IBM Europe in Brussels. In 2012, he founded Argencon, an institution that promotes the export of knowledge-based services. Currently, he serves as Board Adviser of Argencon and participates in the Council of the Americas and ACDE. From October 2012, Mr. Mocerrea was Vice-President of Public Affairs and Regulations, Latin America and Global Business Support of IBM Corporation. Mr. Mocerrea joined YPF in May 2016 as our Communication and Institutional Relations Vice President. He has been our Corporate Affairs, Communications and Marketing Executive Vice President since August 2017.

*Sergio Fabián Giorgi*

Mr. Giorgi earned a degree in Civil Engineering from the University of Buenos Aires and a Postgraduate degree from the French Institute of Petroleum. He completed a General Management Program organized by Total Group, in partnership with (HEC Paris and Saïd Business School) from Oxford University. In 1994, he joined YPF in the Perforation Area in Neuquén. In 1996, he joined Total where he assumed different positions within the oil exploration and exploitation areas for Argentina, Scotland, Indonesia, Italy, Libya and France. In 2007, he managed Total's drilling and wells operations for Asia, North Africa, Middle East and Australia. In 2009, he was in charge for Development and Planning Studies group with focus in Africa. In 2011, he was appointed Total's New E&P Business Project Director for Latin America until September 2013 where, he joined Total Austral in Argentina as Unconventional Resources Director. Mr. Giorgi was appointed as our Business Development and Project Architecture Vice President

in December 2016 and is our Strategy and Business Development Vice President. He has also under his report the Investor s Relations Management of the Company, since April 5, 2018.

*Germán Fernández Lahore*

Mr. Fernández Lahore earned a law degree from the Universidad de Buenos Aires and participated in the Academy for American and International Law (Southwestern Legal Foundation), Dallas, Texas. He studied the Oil and Natural Gas Law Program (UBA) and earned a master s degree in Natural Resources in the Centre for Energy, Petroleum and Mineral Law and Policy from University of Dundee, Scotland, United Kingdom as a Chevening scholar, a postgraduate degree in Tax Law from Universidad Austral, and completed the Management Development Program at IAE Business School. Prior to joining YPF, he served as an attorney at Estudio Beccar Varela, as foreign associate at Haynes and Boone, LLP in Dallas, Texas. He is a member of the Academic Council of the Argentine Journal of Energy, Hydrocarbons and Mining Law Revista Argentina de Derecho de la Energía, Hidrocarburos y Minería (RADEHM). His areas of expertise include Oil, Natural Gas and Mining Law and Natural Resources Taxation and Financing. He joined our company our Oil Affairs Management in February 2002 and served as our Upstream Legal Affairs Manager. Mr. Fernandez Lahore has been our Legal Affairs Corporate Vice President since December 2015.



## Table of Contents

### **The Audit Committee**

The information provided below describes the composition and responsibilities of our Audit Committee.

#### *Composition and responsibilities of our Audit Committee*

The Capital Markets Law, as such term is defined in Item 9. The Offer and Listing Argentine Securities Market, and Resolution No. 622/2013 of the Argentine National Securities and Exchange Commission (Comisión Nacional de Valores) (the CNV) require Argentine public companies to appoint an Audit Committee (Comité de Auditoría) composed of at least three members of the Board of Directors. The by-laws must set forth the composition and regulations for the operation of the Audit Committee and a majority of its members must be independent directors. Executive directors of the Company are not permitted to sit on the Audit Committee.

See Independence of the Members of our Board of Directors and Audit Committee.

The Board of Directors of the Company, at its meeting held on April 27, 2018, appointed the current members of the Audit Committee, who as of the date of this filing are: Carlos Felices, as chairman, and Daniel Gustavo Montamat and Emilio José Apud, as members. Additionally, Mr. Felices was determined by our Board of Directors to be an Audit Committee Financial Expert pursuant to the rules and regulations of the SEC.

Our Audit Committee, among other functions:

periodically inspects the preparation of our financial and economic information;

reviews and opines on the Board of Directors proposals regarding the designation of the external auditors and the renewal, termination and conditions of their appointment;

evaluates internal and external audit work, monitors our relationship with the external auditors, and assures their independence;

provides complete disclosure regarding transactions where a conflict of interest exists with members of the corporate bodies or controlling shareholders;

opines on the reasonability of proposals brought forth by the Board of Directors on fees and stock option plans for directors and administrators;

verifies compliance with applicable national or international regulations for matters related to behavior in the stock markets; and

ensures that the internal Code of Ethics complies with normative demands and is adequate.

*Activities of the Audit Committee*

The Audit Committee, pursuant to its regulations, must meet as many times as needed and at least once every quarter. Since April 2018 to the date of this annual report, the Audit Committee held 14 formal meetings.

The Audit Committee must support the Board of Directors in its oversight duties, periodically review economic and financial information relating to us, supervise the internal financial control systems and oversee the independence of external auditors.

*Economic and financial information*

Using the assessment of the CFO and the work performed by our external and internal auditors, the Audit Committee analyzes the consolidated annual and quarterly financial statements before they are submitted to the Board of Directors. The Audit Committee reviewed our consolidated financial statements as of and for the year ended December 31, 2018 included in our report on Form 6-K furnished to the SEC on March 15, 2019.

## **Table of Contents**

### *Oversight of the internal control system*

The Audit Committee oversees the progress of our annual internal audit, which is aimed at identifying critical risks, to supervise internal financial control systems and ensure that they are sufficient, appropriate and efficient.

Throughout the year, the Audit Committee is kept informed by our internal audit department of the most relevant facts and recommendations arising out of its work and the status of the recommendations issued.

The Audit Committee supervised the alignment of our internal control system for financial reporting with the requirements established by Section 404 of the Sarbanes-Oxley Act. These regulations require that, along with the annual audit, a report must be presented by our management relating to the design, maintenance and periodic evaluation of the internal control system for financial reporting and be accompanied by a report from our external auditor. Several of our departments are involved in this activity, including the internal audit department.

### *Relations with the external auditors*

The Audit Committee interacts closely with the external auditors, allowing them to make a detailed analysis of the relevant aspects of the audit of financial statements and to obtain detailed information on the planning and progress of the work.

The Audit Committee also evaluates the services provided by our external auditors, determines whether the conditions for independence of the external auditors, as required by applicable law, are met and monitors the performance of external auditors to ensure that it is satisfactory.

As of the date of this annual report, and pursuant to the evaluation process described in the above paragraph, the Audit Committee had no objections to the designation of Deloitte & Co. S.A. as our external auditors of the financial statements for the year ended December 31, 2018. In addition, the Audit Committee, at its meeting held on March 6, 2019, as a result of the evaluation process outlined in the preceding paragraph, had no objections to the designation of Deloitte & Co. S.A. as our external auditors for the year ended December 31, 2019, which will be considered at the next general shareholders' meeting.

### *Independence of the Members of our Board of Directors and Audit Committee*

The following described CNV regulations were taken into account to assess a director's independence. In that sense, a director is not considered independent when such director (i) owns at least a 15% equity interest in a company, or a lesser interest if the director has the right to appoint one or more directors of the company (hereinafter "Significant Participation"), or has a Significant Participation in another company that in turn has a Significant Participation in the company, or has a significant influence on the company ("significant influence" as defined by Argentine GAAP); (ii) is a member of the Board of Directors of, or depends on, or is otherwise related to shareholders who have a Significant Participation in the company or in other companies in which these shareholders have a direct or indirect Significant Participation or significant influence; (iii) is or has been in the previous three years an employee of the company; (iv) has a professional relationship with, or is a member of a company that maintains professional relationships with, or receives remuneration or fees (other than those received in consideration of his performance as a director) from the company or any of its shareholders who has a direct or indirect Significant Participation in or significant influence on the company, or with a third-party company that has a direct or indirect Significant Participation or a significant influence; (v) directly or indirectly sells or provides goods or services to the company or to any of its shareholders who has a direct or indirect Significant Participation in or significant influence on the company for an amount substantially exceeding his remuneration as a member of the Board of Directors or Audit Committee, as the case may

be; or (vi) is the spouse or parent (up to second grade of affinity or up to fourth grade of consanguinity) of persons who, if they were members of the Board of Directors or Audit Committee, as the case may be, would not be independent, according to the above-listed rules.

As of the date of this annual report, Directors Miguel Ángel Gutiérrez, Roberto Luis Monti, Norberto Alfredo Bruno, Néstor José Di Pierro, Ignacio Perincioli, Gabriel Alejandro Fidel, Sebastián Caldiero, Carlos Alberto Felices, Daniel Gustavo Montamat, Fabián Jorge Rodríguez Simón and Emilio José Apud, and Alternate Directors Liliana Amelia Murisi, Fernando Martín Cerdá, Lucio Mario Tamburo and Miguel Lisandro Nieri qualified as independent members of our Board of Directors under the above-described criteria.

On April 17, 2018, Resolution No. 730/2018 of the CNV became effective ( Resolution No. 730 ). Said Resolution approved new criteria for assessing Directors independence and provides that companies that are obligated to have independent members within their board of directors should adjust their composition to these new criteria in the first ordinary shareholders meeting that presents financial statements to be held after December 31, 2018. Consequently, the independence condition of our Board of Directors informed herein has been assessed according to the above described CNV regulations.

**Table of Contents**

**Disclosure Committee**

***Composition and responsibilities of our Disclosure Committee***

In February 2003, the Board of Directors created a Disclosure Committee to:

monitor overall compliance with regulations and principles of conduct of voluntary application, especially in relation to listed companies and their corporate governance;

direct, establish and maintain procedures for the preparation of accounting and financial information to be approved and filed by us or generally released to the markets;

direct, establish and maintain internal control systems that are adequate and efficient in order to ensure that our financial statements included in annual and quarterly reports as well as any accounting and financial information to be approved and filed by us is accurate, reliable and clear;

identify significant risks to our businesses and activities that may affect the accounting and financial information to be approved and filed by us;

assume the activities that, according to U.S. laws and SEC regulations, are applicable to us and may be assumed by disclosure committees or other internal committees of a similar nature, especially those activities relating to the SEC regulations dated August 29, 2002 ( Certification of Disclosure in Companies Quarterly and Prospectus SEC Release number 33-8124) and the existence and maintenance of adequate procedures and controls for the generation of the information to be included in our annual reports on Form 20-F and other information of a financial nature as required to be certified by our Chief Executive Officer and Chief Financial Officer;

take on activities similar to those stipulated in SEC regulations for a disclosure committee with respect to the existence and maintenance of adequate procedures and controls for the preparation and content of the information to be included in the annual financial statements and any accounting or financial information to be filed with the CNV and other regulators of the stock markets where our stock is traded; and

formulate proposals for an internal code of conduct with respect to stock markets that follow applicable rules and regulations, or any other standards deemed appropriate.

In addition, the Disclosure Committee reviews and supervises our procedures for the preparation and filing of:

official notices to the SEC, the Argentine stock market authorities and other regulators of the stock markets where our stock is traded;

interim financial reports;

press releases containing financial data on results, earnings, large acquisitions, divestitures or any other information relevant to shareholders;

general communications to shareholders; and

presentations to analysts, investors, rating agencies and lending institutions.

**Table of Contents**

As of the date of this annual report, the Disclosure Committee is composed of the following individuals:

<i>Name</i>	<i>Position</i>
Daniel Cristian González Casartelli	Chief Executive Officer
Diego Martín Pando	Controller and President of the Disclosure Committee
Luis Miguel Sas	Chief Financial Officer
Germán Fernández Lahore	Legal Affairs Corporate Vice President and Secretary of the Disclosure Committee
Santiago Martínez Tanoira	Downstream Executive Vice President
Pablo Bizzotto	Upstream Executive Vice President
Gustavo Chaab	Environment, Security and Health Vice President
Carlos Alfonsi	Operations and Transformations Executive Vice President
Marcos Browne	Gas and Energy Executive Vice President
Fernando Giliberti	Supply Chain Vice President
Sebastián Mocerrea	Corporate Affairs, Communication and Marketing Executive Vice President
José Manuel Aggio	Human Resources Vice President
Sergio Damián Fernandez	Chief Technical Officer
Javier Fevre	Internal Auditor
Carlos Colo	Reserves Auditor
Sergio Fabián Giorgi	Strategy and Business Development Vice President

In addition to the members of our senior management whose outside business interests and experiences were described above, we include the following:

*Gustavo Chaab*

Mr. Chaab earned a degree in industrial engineering from the Universidad Nacional de Cuyo, a postgraduate degree in energy and energetic planning from the IDEE/Fundación Bariloche, a master's degree in International Business from the National Ponts et Chaussées Ecole and completed the Advanced Study Program from the Massachusetts Institute of Technology. In 1994, he joined YPF at the Luján de Cuyo Refinery and took on several roles including Chief of Administration and Sales Area of this Refinery, Planning and Movement of products until 2001; Downstream Operative Planning Manager in 2004, Lubricants Business Manager in 2008, and Planning and Technical Development Manager for Refinement, Logistic and Chemistry in 2008. From 2011 to March 2017, he served as Manager of the Industrial Complex in La Plata. Mr. Chaab has been our Environment, Security and Health Vice President since March 2017.

*José Manuel Aggio*

Mr. José Manuel Aggio earned a law degree from the Universidad de Buenos Aires and completed the Executive Program at IAE Business School. He started his professional career at the Pérez Companc Group, where he held several management positions. During 25 years he held various positions in the HR area in Aguas Argentinas, Prudential Financial, Barrick Gold Corporation (Argentina and South America), San Miguel, el Tejar and Danone. His most recent function was HR Director for the Southern Cone at Danone. He has been our Human Resources Vice President since February 2018.

*Sergio Damián Fernández*

Mr. Fernández is an Electronics Engineer graduated from the Universidad Nacional del Tucumán. He also holds an MBA from Universidad Torcuato di Tella. He has over 20 years of experience leading the IT areas at Cargill. In 2003, he was in charge of setting up the shared services area for the Latin American infrastructure which required an organizational redesign to reduce costs and gain efficiencies. He became part of the Global IT Executive Committee, participating in key definitions of the organization. His last position, which reported to the CEO of that company, was Global IT Head, Food Ingredients and Bio Industrial Enterprise. He was also responsible for leading and developing the current Global IT strategy, holding at the same time the position as IT Head for Latin America. He is our Chief Technology Officer (CTO) and President of the Board of Directors of YPF Tecnología S.A. since June 2017.

*Javier Fevre*

Mr. Fevre earned a certified public accountant degree from the Argentine University of Business. He has held several positions throughout his career, including Auditor for the General Auditor Office, Advisor to the Deputy General Syndic at the Argentine Office of the General Comptroller, Assistant Internal Auditor at the Ministry of Foreign Affairs, International Trade and Worship and General Coordinator of Internal Audit at Aerolíneas Argentinas S.A. He has been our Internal Auditor since September 2012.



## **Table of Contents**

### *Carlos Colo*

Mr. Carlos Agustín Colo is a Geologist graduated from Universidad Nacional de la Patagonia San Juan Bosco. In 1979 he joined YPF where he developed his career in the Upstream Sector. He started as Exploration geologist and then he served in different positions related to exploration and production. He held various positions within the Company as General Manager in Colombia, Director of the Las Heras Economic Unit, Director of the E&P Technical Management, Exploration Director and Executive Manager of Exploration and Development. He has been our Reserve Auditor since June 2017.

## **Compliance with New York Stock Exchange Listing Standards on Corporate Governance**

In accordance with the NYSE corporate governance rules, effective as of July 31, 2005, all members of the Audit Committee are required to be independent. Independence is determined in accordance with highly detailed rules promulgated by the NYSE and SEC. Each of the members of our Audit Committee was determined to be independent in accordance with the applicable NYSE and SEC rules.

### *Significant differences between our corporate governance practices and those required by NYSE listing standards*

Non-U.S. NYSE-listed companies may, in general, follow their home country corporate governance practices in lieu of most of the NYSE corporate governance requirements. The NYSE rules, however, require that non-U.S. companies disclose any significant ways in which their specific corporate governance practices differ from those of U.S. companies under the NYSE listing standards.

The following is a summary of the significant differences between our corporate governance practices and those applicable to U.S. companies under the NYSE listing standards.

### *Independence of the directors on the Board of Directors*

In accordance with the NYSE corporate governance rules, a majority of the board of directors of U.S. companies listed on the NYSE must be composed of independent directors, whose independence is determined in accordance with highly detailed rules promulgated by the NYSE. The relevant Argentine rules for determining director independence are described under Independence of the Members of our Board of Directors and Audit Committee above.

### **Compensation and nomination committee**

In accordance with the NYSE corporate governance rules, all U.S. companies listed on the NYSE must have a compensation committee and a nomination committee and all members of such committees must be independent in accordance with highly detailed rules promulgated by the NYSE. Under Argentine law, these committees are not mandatory, but are recommended by the CNV under CNV's General Resolution No. 622/13. The Company follows the CNV's recommendation and has a Nomination and Compensation Committee established by the Board of Directors under the option provided in Article 17 clause (xii) of the Company's by-laws, which currently is composed of Directors Daniel Gustavo Montamat, Roberto Luis Monti, Carlos Alberto Felices and Fabián Jorge Rodríguez Simón. As a result of the foregoing, all the members of the Compensation and Nomination Committee are independent.

### *Shareholder approval of equity compensation plans*

The NYSE rules require that, with limited exemptions, all equity compensation plans be subject to a shareholder vote. Under Argentine law, the approval of equity compensation plans is within the authority of the Board of Directors.

*Separate meetings for non-management directors*

In accordance with the NYSE corporate governance rules, independent directors must meet periodically outside of the presence of its executive directors. Under Argentine law, this practice is not required and as such, the independent directors on our Board of Directors do not meet outside of the presence of the other directors, except for the meetings of the Audit Committee, which is comprised of independent directors.

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**Table of Contents****Compensation of members of our Board of Directors**

Argentine law provides that the aggregate annual compensation paid to the members of the Board of Directors (including those directors acting in an executive capacity) and of the members of the Shareholders Surveillance Committee (Consejo de Vigilancia), if applicable, with respect to a fiscal year may not exceed 5% of net profit for such year if YPF is not paying dividends in respect of such net income. If the Company pays dividends, that percentage is increased proportionally up to 25% of net income, based on the amount of such dividends.

The Shareholders Surveillance Committee is a control entity regulated by the Argentine General Corporations Law, composed of shareholders of a corporation. As of the date of this annual report, YPF does not have a Shareholders Surveillance Committee (Consejo de Vigilancia), since the Argentine General Corporations Law requires us to have a Supervisory Committee, composed of Statutory auditors.

The compensation of the Chairman and other directors acting in an executive capacity, together with the compensation of all other directors and members of the Shareholders Surveillance Committee (Consejo de Vigilancia), if applicable, requires the approval of an ordinary general shareholders meeting as provided by Argentine law. When one or more directors exercise special commissions or technical administrative functions and there are reduced profits or there is a lack of them, and there is a need to exceed the abovementioned limits, such remunerations may only be paid in excess of those limits if expressly agreed by the shareholders meeting, for which purpose the matter should be included on the agenda.

For the year ended December 31, 2018, the aggregate compensation accrued by the members of the Board of Directors and YPF's executive officers for services in all capacities was Ps. 406.2 million, excluding social security payments made by the Company as required by law, but including Ps. 68.9 million in the form of equity compensation plans, pensions, retirement or similar benefits that YPF provides to its Board of Directors and executive officers. During 2018, YPF's performance-based compensation programs included a performance bonus program for approximately 7,100 non-unionized YPF employees and 9,100 unionized YPF employees. This bonus program is intended to motivate and reward individuals for the annual achievement of business objectives. The program compensated participants in cash based on a measurable and specific set of objectives established by YPF's Management by Objectives Program and individual performance results.

In 2018, our shareholders meeting, as proposed by our Board of Directors, approved the creation of a voluntary reserve of Ps. 120 million for the fulfillment our long-term incentive plan which contemplates compensation in shares for certain employees. To that end, the Company purchased its own shares in accordance with Section 64 et seq. of Law No. 26,831. For additional information see Note 2.b.10.iii to our Audited Consolidated Financial Statements. The share-based benefit plan: (i) encourages key personnel to align their performance with the objectives of the Company's strategic plan, (ii) generates a clear and direct link between the creation of shareholder value and compensation of key personnel, rewarding them for achieving long-term results reflected in share price and (iii) assists in the retention of key personnel in the organization.

YPF's directors do not have any service contracts with YPF involving the payment of compensation other than those previously mentioned for the performance of their duties with the Company. None of the members of our Board of Directors are party to any service contract with us or any our subsidiaries providing for benefits upon termination of their term in office.

**Supervisory Committee**

The Supervisory Committee is responsible for overseeing compliance by the management and the Board of Directors with Argentine General Corporations Law, the by-laws and regulations (if any), and shareholders' resolutions. The functions of the Supervisory Committee include, among others, attending all meetings of the Board of Directors, preparing a report of the financial statements for our shareholders, attending shareholders' meetings and providing information upon request to holders of at least 2% of our capital stock.

The by-laws provide for a Supervisory Committee composed of three to five members and three to five alternate members that are elected for one-fiscal year term. The Class A shares are entitled to elect one member and one alternate member of the Supervisory Committee so long as one share of such class remains outstanding. The holders of Class D shares may elect up to four members and up to four alternates. Under the by-laws, meetings of the Supervisory Committee may be called by any member. The meetings require the presence of all members and a majority vote of the members in order to make a decision. The members and alternate members of the Supervisory Committee are not members of our Board of Directors. The role of our Supervisory Committee is distinct from that of the Audit Committee. See The Audit Committee. In 2018, the aggregate compensation paid to the members of the Supervisory Committee was Ps. 5.1 million.

**Table of Contents**

The current members of the Supervisory Committee, the year in which they were appointed and the year their current term expires is as follows:

<i>Name</i>	<i>Class of Shares Represented</i>	<i>Age</i>	<i>Member Since</i>	<i>Term Expires</i>
Guillermo Stok	A	63	2018	2019(*)
María Dolores Pujol	D	37	2018	2019(*)
Raquel Inés Orozco	D	63	2018	2019(*)
Alejandro Fabián Díaz (alternate member)	A	54	2018	2019(*)
Pilar Passaglia (alternate member)	D	26	2018	2019(*)
Hebe Cereseto (alternate member)	D	55	2018	2019(*)

(\*) Members of our Supervisory Committee are appointed each fiscal year. Our shareholders, in the Ordinary and Extraordinary General Shareholders meeting held on April 27, 2018 appointed the members of our Supervisory Committee for fiscal year 2018.

*Guillermo Stok*

Mr. Stok earned a certified public accountant degree and business administration degree from the Pontificia Universidad Católica de Argentina and completed postgraduate studies in public sector economics, the management of sustainable economic development and social economics. He was appointed by the World Bank (PNDU) to advise the Treasury and Finance Secretary at the Buenos Aires City Government. In 2001, he was designated General Manager of the National Administration of Social Security (ANSES). Currently, he works for the Argentine National Office of the Comptroller General as an Assistant Manager supervising majority state-owned enterprises. He is member of the Supervisory Committee since April 2018.

*María Dolores Pujol*

Ms. Pujol earned a law degree from Universidad Católica Argentina. She obtained a postgraduate degree in Economic Administrative Law. She completed a Compliance Program for Specialists at IAE Business School and an Executive Program in Prevention of Money Laundering, Money Laundering from Drug Trafficking and Financing of Organized Crime at University of CEMA. She has worked at the General Auditor's Office of the Autonomous City of Buenos Aires and at the Administrative and Tax Litigation Court No. 19 of the Autonomous City of Buenos Aires. Between 2013 and 2015, she worked in various areas of the Government of the Autonomous City of Buenos Aires, as Legal and Technical Secretary and Chief of the Cabinet of Ministers. She currently serves as Executive Director at the Lottery of the Autonomous City of Buenos Aires. She is member of the Supervisory Committee since April, 2017.

*Raquel Inés Orozco*

Ms. Orozco earned a law degree from the Universidad de Buenos Aires. and she specialized in Corporate Governance, Social Responsibility and Social Balance. Currently, she is a member of the Supervisory Committees of YPF GAS S.A, Ubatec S.A., Inder S.E. (e.I), Foncap S.A. and LT10 Radio Universidad del Litoral S.A. She is member of the Supervisory Committee since April 2017.

*Alejandro Fabián Díaz*

Mr. Díaz earned a certified public accountant degree from the Universidad de Buenos Aires and completed postgraduate studies in social responsibility, social accounting and business management. Since 2000, he has held several roles for the Argentine National Office of the Comptroller General, including Auditing Supervisor, Certified Accountant, member of the Supervisory Committee of first-tier businesses and Manager of Business Audits. He has been a member of the Latin American Network on Corporate Governance of State-Owned Enterprises since 2010. He has been developing his role as a teacher at universities and postgraduate institutions. He has also been a speaker at several conferences and has written books and articles related to his specialty. He is an Alternate member of the Supervisory Committee of YPF since April 2018.

*Pilar Passaglia*

Mrs. Passaglia, obtained a Law degree from the Universidad Católica Argentina and mention of Honor from the Colegio de Abogados de la Ciudad de Buenos Aires. She completed the Civil and Commercial Code Updating courses among other trainings. She worked at Passaglia Law Firm as Paralegal in 2014 and at Estudio O Farrell in the Corporate Law Department in 2015. She also served as Legal Advisor at the Juegos y Apuestas Institute in 2016 and at the Lottery of the City of Buenos Aires since 2017 until the present. She is an Alternate member of the Supervisory Committee of YPF since April 2018.

**Table of Contents***Hebe Cereseto*

Mrs. Cereseto holds a Law degree from the Law and Social Sciences School of the UBA. She holds a Magister in Economic Business Law and a Specialization on Economic Administrative Law, both from the Universidad Católica Argentina. She is a professor at UBA Law and Social Sciences School since 1992. She worked in several Law Firms between 1984 and 1992. She joined SIGEN where she worked in different management areas until obtaining the position of Deputy Manager of Companies with Minority State Participation and Financial Entities. Later, she served as a member of Supervisory Committee of Radio and Television Argentina S.E., Nucleoeléctrica Argentina S.A. (NASA) and Vientos de la Patagonia S.A. She is currently a member of the Commission for the Analysis and Supervision of the Consolidation of Public Debt at SIGEN. She is an alternate member of YPF Supervisory Committee since April 2018.

**The Strategy and Transformation Committee**

In August 2017, the Board of Directors created the Strategy and Transformation Committee to discuss issues related to the Company's medium and long-term strategy and to act as liaison between the Board of Directors and the Executive Management Committee and the Company executives who are its members, in order to facilitate and expedite the internal treatment of the Company's business development overall strategies; to promote and transversally review the Company's transformation agenda, covering aspects of excellence and best operational practices in the industry, the commercial agenda, reviewing its organization with a central focus on the customer, the Company's digitalization and technological renewal agenda, and the renewal of support areas with a special focus on cultural change in the area of human resources; and to resolve, in the event of unforeseen or emergency situations, the approval of the Company's operations and/or necessary management.

As of the date of this annual report, the Strategy and Transformation Committee is composed of the following members:

<i>Name</i>	<i>Position</i>
Miguel Ángel Gutiérrez	President of the Board of Directors
Carlos Alberto Felices	President of the Audit Committee
Daniel Gustavo Montamat	President of the Compensation and Nomination Committee
Fabián Rodríguez Simón	President of the Legal and Institutional Affairs Committee
Roberto Luis Monti	President of the Risk and Sustainability Committee
Emilio José Apud	Director for Class A Shares

**The Risk and Sustainability Committee**

The information provided below describes the composition and responsibilities of our Risk and Sustainability Committee as of the date of this annual report.

***Composition and Responsibilities***

In April 2016, the Board of Directors created the Risk and Sustainability Committee to establish comprehensive management policies for business risks and to monitor their adequate implementation; to identify and evaluate the

principal risk factors that are specific to the Company and/or its activity; and to monitor risks and implement corresponding mitigation actions, among other functions.

As of the date of this annual report, the Risk and Sustainability Committee is composed of the following members:

<i>Name</i>	<i>Position</i>
Roberto Luis Monti	Director President
Nestor José Di Pierro	Director
Norberto Alfredo Bruno	Director
Gabriel Alejandro Fidel	Director
Ignacio Perincioli	Director



**Table of Contents****The Legal and Institutional Affairs Committee**

The information provided below describes the composition and responsibilities of our Legal and Institutional Affairs Committee as of the date of this annual report.

***Composition and responsibilities***

In April 2016, the Board of Directors created the Compliance Committee, and changed its name in 2018 to Legal and Institutional Affairs Committee. Among its main functions, this committee is responsible for the supervision of management and analysis of the litigation strategy of the main pre-trial, arbitral and judicial disputes where YPF is a party, among other matters.

As of the date of this annual report, the Legal and Institutional Affairs Committee is composed of the following members:

<i>Name</i>	<i>Position</i>
Fabián Rodríguez Simón	Director President
Miguel Ángel Gutiérrez	Director
Emilio José Apud	Director

**Diversity and Inclusion**

YPF operates in every corner of Argentina reaching more than one million customers per day through its network of gas stations. That is why we believe that our commitment to promoting inclusion, gender equality and equal opportunities not only contributes to create a more representative workforce but also to build a more successful and profitable company. It also generates a positive impact on all those with whom we interact, and contributes in favor of diversity and inclusion in society.

We have taken important steps towards diversity and inclusion:

We added Diversity as a strategic value in the 2017 Sustainability Report.

We incorporated a new value in our Code of Ethics and Conduct: Gender Equality which provides that YPF guarantees that both women and men receive the same treatment and opportunities to grow within the company, with identical conditions and possibilities, including those of economic nature, for persons holding the same jobs. Besides, it ensures access to institutional programs and benefits in equality of conditions for both genders.

Since 2016, we have been carrying out the Training Program for the Employability of Persons with Disabilities, in conjunction with the Labor and Production Ministry. An initiative that gives participants the opportunity to perform qualifying and professionalizing practices in different areas of the company, guided by a YPF tutor, during a ten month period

We believe that access to work is key to inclusion, and based on that belief we have an Inclusive Procurement Program in which we also facilitate access to the YPF Suppliers network to organizations, cooperatives, protected workshops, associations and entities committed to the employability of people with physical, sensory or mental disability with skills to create and produce articles of aesthetic value, practical utility and / or attractive for the use.

We believe that people with disabilities need the same opportunities as everyone else.

During 2017, we invited more than 1,900 YPF women to participate in a survey to find out their opinion about diversity and its impact on the work environment. We also convened open talks in which men and women from our company, from all regions and businesses, shared with us their approach about gender equality.

Thanks to an active collaboration and participation, we were able to identify ten areas in which women find obstacles to fully develop their careers.

To guarantee equal opportunities, we created a Diversity Committee, with the main objectives of leading the implementation of gender equality, removing those obstacles and foster Diversity and Inclusion across YPF.

## **Table of Contents**

This Committee developed and presents a 5-year plan that includes projects to promote and care for diversity and inclusion for our people and for our customers and suppliers. The plan is currently underway with the Diversity Committee monitoring its advance and results.

On a yearly basis, overall focuses of the Action Plan are:

2018 Start

2019 Drive awareness

2020 Extend

2021 Change

2022 Naturalize

During 2018 we moved forward targeting to remove the 10 main obstacles identified in the 2017 survey: what women find when onboarding, participation, promotion, remuneration and recognition in the industry, and promote and ensure the inclusion and full participation of women at YPF. Aiming to remove these obstacles by the end of 2020.

We are currently working on the first YPF Diversity Report with 2018 results, and have appointed a Diversity Leader to coordinate the implementation of the actions that bring us closer to a pluralistic YPF.

We issued and communicated a Diversity Policy that establishes the expectations, commitments and requirements for inclusive behavior at YPF. It reflects our way of promoting diversity and inclusion and what is required of each person working at YPF to achieve it.

We have scheduled a program of open talks about gender, innovation, bias, diversity and inclusion to discuss and sensitize our workforce, organized meetings with other companies and organizations to promote actions in favor of diversity and inclusion and joined the group of private companies that participate in the Gender Parity Initiative of the Federal Government.

We understand leadership is fundamental in this process and therefore encourage leaders to promote diversity, create an environment of innovation, and integrate the plurality of thoughts and styles to position themselves as role models.

## **Employee Matters**

Our total workforce consists of permanent and temporary employees. As of December 31, 2016, 2017 and 2018, we had 19,257, 19,072 and 21,314 employees, respectively. In 2018, the number included 9,029 employees in the Downstream business segment, 3,405 employees in the Upstream business segment, 1,568 employees in the Gas & Power business segment and 7,312 employees in the Central Administration and Others business segments. We had 1,672 temporary employees in 2018. The most significant variation in 2018 included an increase of employees at A-Evangelista S.A., by 1,791 employees during 2018 due to the implementation of new projects. Approximately 42% of our employees are represented by the Federation of Oil Workers Union ( SUPeH ) that negotiates labor agreements and salaries applicable to YPF and OPESSA unionized employees. SUPeH is continually negotiating with us, and we maintain a good level of communication. In general, requests of labor unions in connection with the petrochemical industry were consistent with general wage increases given by the General Unions Confederation.



**Table of Contents**

In addition, labor conditions and salaries of third-party employees are represented by sixteen other unions. Approximately 49% of third-party employees, mostly in the Upstream business, are represented by nine unions with whom we directly negotiate labor agreements and salaries. These unions are clustered into three groups: Petroleros Privados, which consists of five unions, Personal Jerárquico, which consists of three unions, and SUPeH Emprendimientos. The remaining 51% of third-party employees are represented by unions with whom we do not participate in labor agreements.

During 2016, YPF sought to create an addendum to the main Unions Labor Agreements that would result in greater levels of efficiency, productivity and sustainability in the Shale and Tight operations. During 2017, as a result of collaboration with the main actors in the industry, including the Argentine government, provincial governors, Unions and representatives of the main production companies, YPF created and rolled out an addendum to the main unions labor agreements that resulted in greater levels of efficiency, productivity and sustainability in the Shale and Tight operations. The addendum was signed with both Neuquén Unions in January 2017, and extended to the Chubut unions, including shale, tight and conventional operations. By the end of 2017, similar agreements were reached individually with Santa Cruz's main services companies. During 2018, as a result of collaboration with the main actors in the industry, including Neuquén authorities, and the Oil & Gas Unions, YPF came out with an armor to prevent strikes, by using every dispute resolution mechanism included in Collective Bargaining Agreements. During the first quarter of 2019 collective bargaining agreements with similar mechanisms were reached in Mendoza.

As of December 31, 2018, YPF was a party to approximately 1,037 labor lawsuits related to events or acts that took place after December 31, 1990. The outcome of these lawsuits will depend on factual issues that vary from case to case, and it is not always feasible to predict the outcome of particular cases. However, based on the number and nature of the lawsuits already commenced, the estimated likelihood of additional claims in view of the number of dismissed employees, applicable statutes of limitations, the legal principles involved in the suits and the financial statement reserves previously established, our management does not expect the outcome of these lawsuits to have a material adverse effect on our financial condition or future results of operations.

As of December 31, 2018, there were also approximately 43,000 third-party employees under contract, mostly with large international service providers. Although we have policies regarding compliance with labor and social security obligations for our contractors, we are not in a position to ensure that the contractors' employees will not initiate legal actions against us seeking indemnification based upon a number of Argentine judicial labor court precedents that recognized joint and several liability between the contractor and the entity to which it was supplying services under certain circumstances.

The following table provides a breakdown of our employees by segment as of December 31, 2018.

<b>Employees by Business Units</b>	
<b>Upstream</b>	<b>3,405</b>
<b>Downstream</b>	<b>9,029</b>
<b>Gas and Power (1)</b>	<b>1,568</b>
<b>Central Administration and Others (2)</b>	<b>7,312</b>
<b>Total YPF</b>	<b>21,314</b>

(1) Includes 1,482 employees of Metrogas S.A. and its subsidiaries.

(2) Includes 5,133 employees of A-Evangelista S.A. and its subsidiaries.

The following table provides a breakdown of our employees by geographic location.

<i>Employees by geographic location</i>	
Argentina	21,171
Rest of South America	143
<b>Total YPF</b>	<b>21,314</b>

**Table of Contents****ITEM 7. Major Shareholders and Related Party Transactions**

The Expropriation Law has significantly changed our shareholding structure. The Class D shares subject to expropriation from Repsol or its controlling or controlled entities, which represent 51% of our share capital and have been declared of public interest, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. In addition, the Argentine Republic and certain provincial governments already own our Class A and Class B shares. See Item 3. Key Information Risk Factors Risks Relating to Argentina The Argentine federal government owns 51% of the shares of the Company. Additionally, see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Law No. 26,932 for a description of the agreement between Repsol and the Argentine Republic relating to compensation for the expropriation of 51% of the share capital of YPF owned, directly or indirectly, by Repsol. As of the date of this annual report, the transfer of the shares subject to expropriation between the National Executive Office and the provinces that compose the National Organization of Hydrocarbon Producing States is still pending. According to Article 8 of the Expropriation Law, the distribution of the shares among the provinces that accept their transfer must be conducted in an equitable manner, taking into account their respective levels of hydrocarbon production and proved reserves. To ensure compliance with its objectives, the Expropriation Law provides that the National Executive Office, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. In addition, in accordance with Article 9 of the Expropriation Law, each of the Argentine provinces to which shares subject to expropriation are allocated must enter into a shareholder's agreement with the federal government which will provide for the unified exercise of its rights as a shareholder. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law.

The following table sets forth information regarding ownership of our capital stock by each person known to us to own beneficially at least 5% of our common shares, the Argentine federal and provincial governments and our Employee fund as of March 28, 2019:

	<i>Number of</i>	
	<i>shares</i>	<i>(%)</i>
<b>Shareholders Class D:</b>		
National State <sup>(1)</sup>	200,589,525	51.000%
Floating <sup>(2)</sup>	140,978,901	35.844%
Lazard Asset Management LLC <sup>(2) (3)</sup>	31,717,862	8.064%
Slim Family <sup>(2) (4)</sup>	19,974,695	5.079%
<b>Shareholders Class A:</b>		
National State <sup>(5)</sup>	3,764	0.001%
<b>Shareholders Class B:</b>		
Argentine provincial governments <sup>(6)</sup>	7,624	0.002%
<b>Shareholders Class C:</b>		
Employee fund <sup>(7)</sup>	40,422	0.010%

(1) The expropriated Class D shares, which represent 51% of our share capital, and which now are owned by the Republic of Argentina, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. The completion of

this assignment is pending. To ensure compliance with its objectives, the Expropriation Law provides that the National Executive Office, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. In addition, in accordance with Article 9 of the Expropriation Law, each of the Argentine provinces to which shares subject to expropriation are allocated must enter into a shareholder's agreement with the federal government which will provide for the unified exercise of its rights as a shareholder. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law, Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Decree No. 13/2015 and Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Decree No. 272/2015, Decree No. 575/2018 and Decree No. 801/2018 and Decree No. 802/2018

- (2) According to data provided by The Bank of New York Mellon, as of March 8, 2019, there were 171,675,591 ADSs outstanding and 45 holders of record of ADSs. Such ADSs represented approximately 44% of the total number of issued and outstanding Class D shares as of such date.
- (3) According to Schedule 13G/A filed with the SEC on February 13, 2019.
- (4) According to Schedule 13G/A filed with the SEC on February 14, 2017, Slim Family consists of Carlos Slim Helú, Carlos Slim Domit, Marco Antonio Slim Domit, Patrick Slim Domit, María Soumaya Slim Domit, Vanessa Paola Slim Domit and Johanna Monique Slim Domit through Inmobiliaria Carso, S.A. de C.V. and Grupo Financiero Inbursa, S.A.B. de C.V.



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**Table of Contents**

- (5) Reflects the ownership of 3,764 Class A shares by the Argentine Republic.
- (6) Reflects the ownership of 7,624 Class B shares by provincial governments.
- (7) Reflects the ownership of 40,422 Class C shares.

**Related Party Transactions**

All material transactions and balances with related parties as of December 31, 2018 are set forth in Note 31 to the Audited Consolidated Financial Statements. The main related party transactions were our sales of refined and other products to certain joint ventures and affiliates (which amounted to Ps. 18,272 million in 2018), our purchase of petroleum and other products and services that we do not produce ourselves from certain joint ventures and affiliates (which amounted to Ps. 7,547 million in 2018), as well as what is mentioned in the following paragraphs.

In addition, since the Expropriation Law (See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law. ), the Argentine Republic owns 51% of the shares of the Company. Consequently, and in addition to transactions mentioned in the paragraph above, we are party to numerous agreements with the federal government, as well as with certain agencies or institutions of companies with state participation.

The information disclosed in Note 31 to the Audited Consolidated Financial Statements disclose the balances with joint ventures and affiliated companies as of December 31, 2018, December 31, 2017 and December 31, 2016, and transactions with the aforementioned parties for the twelve-month periods ended December 31, 2018, 2017 and 2016. Information regarding major transactions with government entities are also described in Note 31 to the Audited Consolidated Financial Statements.

In addition, see Note 2.b.10 to our Audited Consolidated Financial Statements regarding our long-term share compensation plan and other plans offered to certain personnel.

For an organizational chart showing our organizational structure, including our interests in our principal affiliates, see Note 1 to our Audited Consolidated Financial Statements.

**Argentine Law Concerning Related Party Transactions**

Section 72 of the Capital Markets Law provides that before a company whose shares are listed in Argentina may enter into an act or contract involving a significant amount with a related party or parties, such company must obtain approval from its Board of Directors, and obtain an opinion, prior to such board approval, from its audit committee or from two independent valuation firms that states that the terms of the transaction are consistent with those that could be obtained on an arm's-length basis.

For the purpose of Section 72 of the Capital Markets Law and CNV Regulations, significant amount means an amount that exceeds 1% of the issuer's net worth as reflected in the latest approved financial statements. For purposes of the Capital Markets Law, related party means (i) directors, members of the Supervisory Committee or managers; (ii) the persons or entities that control or hold a significant participation in the company or in its controlling shareholder (as regulated by CNV); (iii) any other company under common control; (iv) direct relatives of the persons mentioned in (i) and (ii); or (v) companies in which the persons referred to in (i) to (iv) hold directly or indirectly significant participations.

The acts or contracts referred to above, immediately after being approved by the board of directors, shall be disclosed to the CNV, making express indication of the audit committee's or independent valuation firm's opinion, as the case may be. Also, on the business day following the day the transaction was approved by the board of directors, the Audit

Committee's or the independent valuation firms' report, as the case may be, shall be made available to the shareholders at the Company's principal executive offices.

If the Audit Committee or the two independent valuation firms do not find that the contract is on arm's-length terms, prior approval must be obtained at the Company's shareholders' meeting, prior to the transaction.

**ITEM 8. Financial Information**  
**Financial Statements**

See Item 18 for our Audited Consolidated Financial Statements.

**Table of Contents****Legal Proceedings**

The descriptions of the legal proceedings in Notes 14, 27 and 28.b to the Audited Consolidated Financial Statements are incorporated herein by reference.

**Dividend Policy**

See Item 10. Additional Information Dividends.

**Significant Changes**

Since December 31, 2018, there have been no significant changes regarding the Company. Notwithstanding the foregoing, see Note 34 to the Audited Consolidated Financial Statements.

**ITEM 9. The Offer and Listing  
Shares and ADSs*****New York Stock Exchange***

The ADSs, each representing one Class D share, are listed on the NYSE under the trading symbol YPF. The ADSs began trading on the NYSE on June 28, 1993, and have been issued by The Bank of New York Mellon, as depository (the Depository ).

According to data provided by The Bank of New York Mellon, as of March 8, 2019, there were 171,675,591 ADSs outstanding and 45 holders of record of ADSs. Such ADSs represented approximately 44% of the total number of issued and outstanding Class D shares as of such date. The Buenos Aires Stock Market is the principal Argentine Market for trading the ordinary shares.

YPF has American Depositary Shares (ADS) representing its ordinary shares quoted on the NYSE Trading under the symbol YPF US

BYMA (Bolsas y Mercados Argentinos) is the largest stock market in Argentina and has been authorized by the CNV to delegate certain functions to the Buenos Aires Stock Exchange ( BASE ). Trading on the BYMA is conducted either through the traditional auction system from 11 a.m. to 5 p.m. on trading days, or through Millenium, which allows electronic negotiation with automatic execution of transactions. Currently, all transactions relating to listed securities can be executed through Millenium.

Investors in the Argentine securities market are mostly individuals and companies. Institutional investors, which are responsible for a growing percentage of trading activity, consist mainly of insurance companies and to a lesser extent mutual funds.

The last information available to us regarding the Argentine stock market is set forth in the table below:

2018	2017	2016	2015	2014
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Market capitalization (in billions of pesos)	10,786	6,877	4,512	3,292	3,893
As percent of GDP	74% <sup>(1)</sup>	65% <sup>(1)</sup>	55% <sup>(1)</sup>	56%	86%
Volume (in millions of pesos)	4,070.634	2,558.539	1,329.607	749,829	621,831
Average daily trading volume (in millions of pesos)	19,278	13,509	5,949	4,822.6	2,581

(1) INDEC GDP Provisional Data

YPF has American Depositary Shares (ADS) representing its ordinary shares quoted on the BYMA Trading under the symbol YPFAD

### Argentine Securities Market

The securities market in Argentina was originally composed of 5 stock exchanges, which are located in the City of Buenos Aires (the BASE ), Córdoba, Mendoza, Rosario and Santa Fe, with affiliated stock markets and, accordingly, authorized to quote publicly offered securities. However, this system was affected by the enactment of Law No. 26,831, Decree No 1,203/2013 issued by the National Executive Office and the new regulations issued by the CNV, mainly contained in Resolution No. 622/2013, as amended, which stated that securities can only be listed and exchanged in stock markets authorized to function as such by the CNV.

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**Table of Contents**

The BASE, which began operating in 1854, was the principal and longest-established stock exchange in Argentina. The exchange functions of the BASE have now been absorbed by the S&P Merval, which is a stock market authorized by the CNV to function as such, under Law No. 26,831. The S&P Merval and the BASE have entered into an agreement which has been approved by the CNV, whereby the S&P Merval has delegated to the BASE certain functions, such as: (i) the authority to grant listing authorization for securities; (ii) the authority to constitute arbitration courts; and (iii) the issuance of a public information bulletin.

On December 29, 2016, the Board of Directors of the CNV approved the creation of Bolsas y Mercados Argentinos ( ByMA ) as a new market. The shareholders of ByMA are the S&P Merval and BASE, with each holding 60% and 40% of the capital stock of ByMA, respectively.

The Argentine securities market is regulated and overseen by the CNV, pursuant to Law No. 26,831 (the Capital Markets Law ) which governs the regulation of securities exchanges, as well as stockbroker transactions, market operations, the public offering of securities, corporate governance matters relating to public companies and the trading of futures and options. Argentine institutional investors and insurance companies are regulated by separate government agencies, whereas financial institutions are regulated primarily by the Argentine Central Bank.

In Argentina, debt and equity securities traded on an exchange or the over-the-counter market must, unless otherwise instructed by their shareholders, be deposited with Stock Exchange Incorporated (Caja de Valores S.A.), a corporation owned 99.96% by Bolsas y Mercados Argentinos S.A. ( ByMA ). Stock Exchange Incorporated is the central securities depository of Argentina and provides central depository facilities, as well as acting as a clearinghouse for securities trading and as a transfer and paying agent for securities transactions. Additionally, it handles the settlement of securities transactions carried out by the ByMA and operates through Millennium.

Among the key provisions of the Capital Markets Law are the following: the definition of a security, that governs the treatment of negotiable securities; the corporate governance requirements, including the obligations for publicly listed companies to form audit committees composed of three or more members of the Board of Directors (the majority of whom must be independent under CNV regulations); regulations for market stabilization transactions under certain circumstances, regulations that governs insider trading, market manipulation and securities fraud and regulates going-private transactions and acquisitions of voting shares, including controlling stakes in public companies. In addition, the Capital Markets Law includes provisions regarding the demutualization of the stock exchanges; new regulatory powers and resources for the CNV; a mandatory tender offer system as well as regulations for voluntary tender offers and other provisions, like new requirements for brokers/dealers and other market participants. These provisions were regulated by the CNV pursuant to General Resolution No. 622/2013, as amended. Before offering securities to the public in Argentina, an issuer must fulfill certain requirements established by the CNV in regard to the issuer's assets, operating history and management. Only securities approved for a public offering by the CNV may be listed on an authorized market. However, CNV approval does not imply any kind of certification as to the quality of the securities or the solvency of the issuer, even though issuers of listed securities are required to file unaudited quarterly financial statements and audited annual financial statements in accordance with IFRS and various other periodic reports with the CNV and the authorized market on which their securities are listed, as well as to report to the CNV and the relevant authorized market any event related to the issuer and its shareholders that may materially affect the value of the securities traded.

***Admission to the ByMA Corporate Governance Plus Panel***

The Company has been admitted to the special panel denominated Corporate Governance Plus Panel (CG+ Panel) created by ByMA.

ByMA's Corporate Governance Panel is a new market segment which shall be composed by companies who voluntarily adhere to increased standards of good corporate governance and transparency than those required under Argentine regulations and who assume the commitment to their monitoring on a periodic basis. Such standards are in line with the corporate governance principles of the Organization for Economic Co-operation and Development (OECD), which were adopted by the G20.

***Anti-Money laundering and Terrorism Prevention regulations***

Modifications to Argentine money laundering regulations have resulted in their application to increasing numbers and types of securities transactions.

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**Table of Contents**

The notion of money laundering is generally used to refer to transactions aimed at introducing funds derived from unlawful activities into the institutionalized system and therefore, transforming profits obtained from unlawful activities into assets having a presumed lawful origin.

Law No. 25,246 (as subsequently amended by Law No. 26,087, Law No. 26,119, Law No. 26,268 and Law No. 26,683), Law No. 26,374 and Law No. 27,446) provides for an administrative criminal system and replaces several sections of the Argentine Criminal Code, incorporating, among other matters, the definition of money laundering as a type of crime committed whenever a person converts, transfers, manages, sells, charges, conceals or otherwise markets any asset derived from a criminal offense, with the possible consequence that the original assets or substitutes thereof appear to come from a lawful source, provided that the total value of the asset exceeds Ps. 300,000 regardless of whether such amount results from one act or a series of related acts. Law No. 26,683 considers money laundering to be an autonomous crime against the economic and financial order, separate from the crime of concealment, which is an offense against the public administration, which allows for sanctions for the autonomous crime of money laundering regardless of participation in the crime that originated the funds subject to such money laundering. With the enactment of Law No. 27,260 and Decree No. 895/2016, the Financial Information Unit (*Unidad de Información Financiera* or UIF ) was moved under the jurisdiction of the Ministry of Finance and Public Finance. Subsequently, in accordance with Decree No. 2/2017, the UIF acts under the jurisdiction of the Ministry of Finance.

According to Article 303 of the Argentine Criminal Code, money laundering (as defined above) shall be punished with three to ten years of imprisonment and a fine of two to ten times the amount of the transactions made. The penalty prescribed above shall be increased by one third of the maximum and one half of the minimum if: (a) the wrongdoer carries out the act on a regular basis or as a member of an association or gang organized with the purpose of continuously committing acts of a similar nature; or (b) if the primary wrongdoer is a public officer who committed the infringement in the exercise of his/her duties (in such a case, the wrongdoer shall also be punished by special disqualification for three to ten years, and the same penalty shall apply to a wrongdoer who commits the offense in the service of a profession or trade requiring special qualification). The individual who receives money or other assets derived from a criminal offense with the purpose of applying them to a money laundering transaction shall be punished with imprisonment from six months to three years. If the value of the assets is not over Ps. 300,000, the wrongdoer will be punished with imprisonment from six months to three years. The provisions in this section shall apply even when the criminal offense is committed outside the geographical jurisdiction of the Argentine Criminal Code, so long as the crime is also penalized in the jurisdiction where it was committed.

Article 277 of the Argentine Criminal Code sets forth that an imprisonment of between six months and three years shall be applied (with varying minimum terms attaching depending on the particular circumstances) to any person who helps a perpetrator avoid or be removed from prosecution, obscures or destroys evidence of a crime, acquires, receives, hides or alters money or other proceeds from a crime, does not report the commission of the crime or does not identify the perpetrator or participant in a crime with knowledge that such person would have been obliged to assist in the criminal prosecution of such crime and/or aids or abets the perpetrator or participant in making safe the proceeds of the crime. The minimum and maximum terms of punishment shall be doubled when: (a) the offense implies a particularly serious crime (for which minimum penalty is higher than three years of imprisonment); (b) the abettor acts for profit; (c) the abettor habitually commits concealment acts; or (d) the abettor is a public official.

At the end of 2011, with the enactment of Laws No. 26,733 and 26,734, new crimes were introduced into the Argentine Criminal Code to protect financial and stock market activities and to prevent the financing of terrorism. On the one hand, Law No. 26,733 established penalties of imprisonment, fines and special disqualification for anyone who: uses or supplies inside information to conduct securities transactions (Article 307); manipulates stock markets by offering or conducting securities transactions through false information, feigned negotiations or meeting of the main shareholders in order to negotiate at a certain price (Article 308); and carry out financial and stock market activities

without corresponding authorization (Article 309). On the other hand, Law No. 26,734 incorporated into the Argentine Criminal Code Article 306, which punishes with imprisonment and fines those who directly or indirectly collect assets or money to be used to finance a crime or an individual or organization that threatens the population, or to force national or foreign authorities or an international organization to perform or refrain from performing a particular act. The penalties will apply regardless of whether the crime was committed, or the financing was used. Additionally, the penalties will apply if the crime, individual or organization that is intended to be financed is carried out or located outside of Argentina. Likewise, the UIF was empowered to freeze assets linked to the financing of terrorism through a reasoned decision and immediate communication to a competent judge.

Law No. 25,246 contemplates that the legal entity whose management collected or provided assets or money, whatever their value, knowing that such assets were to be used by a terrorist organization, may be subject to a fine between five to 20 times the value of such assets. Furthermore, whenever the management of the legal entity infringes the duty to treat the information submitted to the UIF as confidential, the legal entity shall be subject to a fine between Ps. 50,000 to Ps. 500,000. Additionally, such regulation created the UIF as an autonomous and financially self-sufficient entity within the jurisdiction of the Argentine Ministry of Justice and Human Rights, in charge of analyzing, treating and transmitting information in order to preclude and prevent money laundering. Pursuant to this legislation,



**Table of Contents**

the UIF is empowered to receive and request reports, documents, background and any other information deemed useful to fulfill its duties from any public entity, whether federal, provincial or municipal, and from individuals or public or private entities, all of which entities must furnish such information in accordance with Law No. 25,246. Whenever the information furnished, or analyses performed by the UIF show the existence of sufficient evidence to suspect that a money laundering or terrorist financing crime has been committed, the UIF shall transmit such evidence to the Government Attorney's Office so that it may start the relevant criminal action, and the UIF may appear as an accusing party to such proceedings. Moreover, Law No. 26,087 mandates that banking secrecy or professional privilege, or legal or contractual commitments, cannot be considered exceptions to the compliance with the obligation to submit information to the UIF in the context of an investigation of suspicious activity. The main goal of Law No. 25,246 is to prevent money laundering and the financing of terrorism. In line with internationally accepted practices, the duty to control such illegal transactions is not concentrated solely in Argentine federal governmental entities but also distributed among several private sector entities such as banks, brokers, brokerage firms and insurance companies. One of the mechanisms of the regime of preventing and combating these crimes consists of the obligation to inform the UIF imposed by Article 20 of the Prevention of Money Laundering Law to those parties listed that, due to their profession, activity or industry, hold a key position in the detection of suspicious money-laundering operations and/or terrorist financing transactions. Such duties mainly consist of data collection functions, such as: (i) gathering from clients, applicants or contributors any documentation sufficient to prove their identity, legal capacity, domicile and further data as necessary on a case by case basis; (ii) reporting any suspicious fact or transaction irrespective of its amount; and (iii) abstaining from disclosing to the client or third parties any procedures being followed pursuant to law. According to Law No. 25,246, a suspicious transaction shall mean any transaction that, in accordance with standard business practices and in the experience of the entities and individuals subject to reporting obligations, is regarded as unusual, unjustified from an economic or legal standpoint, or unnecessarily complex, whether it is a one-time transaction or a series of transactions.

In February 2016, the National Executive Office issued Decree No. 360/2016, through which it creates, under the jurisdiction of the Ministry of Justice and Human Rights, and directly dependent on its leadership, the National Coordination Program in the Fight against Money Laundering and Terrorist Financing, with the mission of reorganizing, coordinating and strengthening the national anti-money laundering system and against the financing of terrorism, attending to the specific risks that could impact national terrorism and effective global exigencies in compliance with international obligations and recommendations established by the United Nations Conventions and the standards of the Financial Action Task Force ( FATF ). By virtue of Article 6 of Decree No. 360/2016, the UIF will act as the coordinator in the material operation of the national, provincial and municipal order in the strict compliance of its duties as a financial information organization.

Resolution No. 30-E/2017 of the UIF ( Resolution 30 ), which became effective on September 15, 2017, abrogated Resolution No. 121/2011 and set forth new obligations that financial entities subject to Law No. 21,526 and exchange entities subject to Law No. 18,924, as amended (the Resolution 30 Reporting Parties ), must observe in their capacity as reporting parties pursuant to article 20, paragraphs 1 and 2, of Law No. 25,246. Resolution 30 follows the International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation issued by the Financial Action Task Force in 2012, with the purpose of adopting a risk-based approach to ensure that measures to prevent or mitigate money laundering and terrorist financing are commensurate with the risks identified.

Among other duties and obligations, Resolution 30 provided that Resolution 30 Reporting Parties must: (i) develop and document the risk identification and assessment methodology they will implement in order to identify, evaluate, mitigate and monitor their ML/TF (as defined below) risks, prior to December 31, 2017; (ii) have a technical report reflecting the results of the implementation of the methodology described in (i) above, prior to March 31, 2018; and (iii) have adjusted their policies and procedures, as set forth in Resolution 30, and in accordance with the results of the risk self-assessment performed (which policies should be incorporated into the Resolution 30 Reporting Party's money

laundering and financing of terrorism ( ML/FT ) Prevention Manual (as defined below).

Resolution No. 229/2011 of the UIF, as amended by UIF Resolutions No. 52/2012, 140/2012, 104/2016, 141/2016 and 4/2017 ( Resolution 229 ), is applicable to Stockbrokers and stockbrokerage firms, companies managing mutual funds, over-the-counter market agents, and all those intermediaries engaged in the purchase, lease or borrowing of securities trading in the field of stock exchanges with or without markets attached to them and intermediaries registered with futures and options markets, whichever their purpose may be ( Resolution 229 Reporting Parties , and together with the Resolution 30 Reporting Parties, the Reporting Parties ). Resolution 30 and Resolution 229 regulate, among other matters, (i) the obligation to collect certain documentation from clients, (ii) the obligations and internal restrictions to be implemented for purposes of complying with their duty to report suspicious ML/TF operations and (iii) know your customer (KYC) policies (including the distinction between regular and occasional clients), information which must be requested from clients, documentation storage requirements and the procedures for purposes of detecting and reporting suspicious transactions.

Pursuant to Resolution 30 and Resolution 229, the Reporting Parties main duties consist of: a) implementing a manual (the Prevention Manual ), based on the Reporting Party s particular activities, setting forth the mechanisms and procedures to be used to prevent ML/TF; b) the designation of a compliance officer pursuant to article 20 bis of Law 25,246, as amended, and article 20 of Decree

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**Table of Contents**

No. 290/07, as amended; c) the implementation of periodic audits; d) personnel training; e) elaborating and maintaining analysis records and risk management of detected unusual operations and operations reported because they were considered suspicious; f) implementation of technological tools to have efficient control systems and be able to prevent money laundering and terrorism financing; and g) implementation of measures that allow the Reporting Parties, respectively, to electronically consolidate the operations they perform with clients, as well as technological tools, which enable analyzing or monitoring different variables to identify certain behaviors and detect possible suspicious operations. The Reporting Parties must report to the UIF any suspicious transaction within 30 calendar days from the day a transaction is qualified as a suspicious transaction on money laundering grounds (and regardless of whether the action was completed or attempted) and any suspicious transaction on terrorism financing grounds of within 48 hours of its occurrence.

Resolution 30 defines (i) unusual transactions as those which lack economic and/or legal justification, whether attempted or performed in isolation or repeatedly, regardless of their amount, do not correspond to the client's risk or transactional profile, or that, due to their frequency, recurring nature, amount, complexity, nature and/or other particular characteristics, deviate from standard market practices, and (ii) suspicious transactions as those operations, whether attempted or performed, that cause a suspicion of ML/FT activities, or that have previously been identified as an unusual transaction, and after the analysis and evaluation carried out by the Reporting Party, cannot be justified. Resolution 229 defines (i) unusual transactions as those operations that are attempted or carried out in isolation or repeatedly, without economic and/or legal justification, and that do not relate to the risk or transactional profile of the client or deviate from standard market practices, due to their frequency, recurring nature, amount, complexity, nature and/or particular characteristics, and (ii) suspicious transactions as those operations that are attempted or carried out that cause a suspicion of ML/FT activities, or that have previously been identified as an unusual transaction, and after the analysis and evaluation carried out by the Reporting Party, they create a doubt about the authenticity, veracity or coherence of the documentation presented by the client, in relation to their activity. Pursuant to Resolution 30, financial entities have the duty to (i) implement an ML/FT prevention system (the Prevention System), which must contain all the policies, procedures and controls established for ML/FT risk management to which they are exposed, and the elements of compliance required by such resolution and (ii) constitute an anti-ML/FT prevention committee.

Furthermore, Resolution 30 modified compliance officers' duties and required entities to upload the following reports through the UIF website: (a) a report of cash transactions in excess of Ps. 200,000; (b) a report detailing international transfers from and to Argentine accounts; and (c) an annual systematic report.

Resolution No. 92/2016 of the UIF imposed on the reporting parties the obligation to implement a risk management system in accordance with the voluntary and exceptional affidavit of holding of national currency, foreign currency and other assets in the country or abroad established by Law No. 27,260, in order to report suspicious transactions performed by clients until March 31, 2017, derived from the tax amnesty regime.

In addition, the CNV rules, under Title XI of Prevention of Money Laundering and Terrorist Financing, establish that brokers and brokerage firms, and companies managing common investment funds, agents of the over-the-counter market, intermediaries in the purchase or lease of securities affiliated with stock exchange entities with or without associated markets and intermediary agents registered on forwards or option markets, and individuals or legal entities acting as trustees, for any type of trust fund, and individuals or legal entities, owners of or related to, directly or indirectly, with trust accounts, trustees and grantors in the context of a trust agreement, shall comply with Law No. 25,246, the UIF's rulings and the CNV's regulations. Additionally, companies managing common investment funds, any person acting as placement agent or performing activities relating to the trading of common investment funds, any person acting as placement agent in any primary issuance of marketable securities, and any issuer with respect to capital contributions, irrevocable capital contributions for future issuances of stock or significant loans, must also comply with such regulations.

Such resolutions also contain certain requirements for the reception and delivery of checks and payments made between the individuals and entities listed above, as well as the prohibition of transactions relating to the public offering of securities, when they are consummated or ordered by individuals or companies domiciled or residing in domains, jurisdictions, territories or associated states not included in the list of Decree No. 589, as amended (regulating mainly the jurisdictions which are considered cooperatives for fiscal transparency purposes ).

Brokers and dealers must duly know their clients and apply policies and maintain adequate structures and systems in line with a policy against money laundering and terrorist financing. Also, interested investors undertake the obligation to submit any information and documents that may be required in order to comply with criminal regulations and other laws and regulation in connection with money laundering, including capital market regulations preventing money laundering issued by the UIF and similar regulations issued by the CNV.

**Table of Contents**

According to the regulations related to the prevention of money laundering, the financing of terrorism and other illicit activities issued by the Central Bank, financial entities should take certain measures with respect to its clients, including, without limitation:

observe the regulations governing the collection of proceeds, the legislation applicable to these matters (laws and regulatory decrees) and the regulations of the UIF. This includes the decrees of the National Executive Office with reference to the decisions adopted by the United Nations Security Council in combatting terrorism and comply with the resolutions (and their respective annexes) issued by the Ministry of Foreign Affairs and Worship;

in the absence of documentation or the existence of doubts and/or the detection of irregularities regarding veracity, accuracy, coherence or integrity of the documents provided by the clients, or because situations have been detected that deviate from the customer profile (as determined in accordance with existing regulations), require additional information and/or documentation, indicating to the client the obligation to comply with such additional requests;

under no circumstance can relationships with new clients be carried out until the provisions of current regulations regarding the identification and knowledge of the client, and risk management are duly complied with;

in the case of existing clients in respect of which identification and knowledge could not be complied with in accordance with the regulations in force, an analysis should be made with a risk-based approach, in order to assess the continuity of the relationship with the client. In September 2016, Communication A 6,060 of the BCRA came into force, which set forth that the criteria and procedures to be applied in this process must be described by the financial entities in their Prevention Manual. If it is appropriate to discontinue the relationship with a client, the procedures and deadlines established by the provisions of the Argentine Central Bank that are specific to the applicable product(s) must be observed. The reporting subjects must keep the written records of the procedures applied in each case where they discontinue the relationship with a client, for a period of 10 years;

send a certified copy of the designation of the regular and alternate chief compliance officer, if any, to the UIF of the Central Bank, carried out in accordance with the conditions and within the terms established in the regulations issued by the UIF;

keep a database with information corresponding to clients that perform individual operations for amounts equal to or greater than Ps. 240,000 (or its equivalent in other currencies) for certain concepts. The scope of this obligation will also include cases relating to customers who, in the opinion of the intervening entity, carry out related-party operations that do not reach the minimum threshold on an individual basis, but exceed or reach such amount in the aggregate. For such purpose, they are also required to store information corresponding to persons who conduct transactions which in the aggregate during any day are equal to or greater than Ps. 30,000 (or its equivalent in other currencies).

Failure to comply with the requirements established by the BCRA to access the local exchange market for transactions involving the purchase and sale of securities of all types constitute an infraction subject to the criminal exchange regime.

In addition, in November 2016, BCRA Communication A 6,094 established that the regulations of the prevention of money laundering, terrorist financing and other illicit activities issued by the Central Bank must also be complied with by the foreign representatives of the financial entities that are not authorized to operate in Argentina.

Through the enactment of Law No. 27,260 and its related regulations and Decree No. 895/2016, the UIF was granted the power to communicate information to other public entities with intelligence or investigation powers, provided that such powers can only be exercised following a well-founded resolution issued by the UIF's president and solely in those case where there are serious, precise and concordant signs regarding the commission of any of the crimes set forth by Law No. 25,246. Any information provided by the UIF will be transferred along with the obligation to maintain secrecy pursuant to Article 22 of Law No. 25,246, and any unlawful disclosure of confidential information by any entity will be subject to certain penalties. The UIF will not exercise the authority referred to in cases related to voluntary and exceptional declarations made under Law No. 27,260.

On June 18, 2018, by means of Law No. 27,446, modifications to numerous sections of the Anti-Money Laundering Law were introduced, with the purpose of simplifying and streamlining judicial proceedings, adapting the regulations in force to the operative reality of the UIF and to adopt certain international standards in the field of information exchange.

For a more exhaustive analysis of the anti-money laundering regime applicable as of the date of this annual report, it is suggested that investors should consult with their legal advisors regarding the applicable regulations as Title XVIII, Book Two of the Argentine Criminal Code, and the regulations issued by the UIF, the CNV and the Central Bank regulations, which can be found on the website of the Ministry of Justice and Human Rights of Argentina, under the section Legislative Information ([www.infoleg.gov.ar](http://www.infoleg.gov.ar)), and/or on the UIF's website ([www.uif.gov.ar](http://www.uif.gov.ar)) and/or on the CNV's website ([www.cnv.gov.ar](http://www.cnv.gov.ar)) and/or the Central Bank's website ([www.bcra.gov.ar](http://www.bcra.gov.ar)).

## **Table of Contents**

### **Law No. 27,401 on Corporate Criminal Liability**

On November 8, 2017, a law establishing the criminal liability regime applicable to private legal entities, state-owned or not, was enacted by the Argentine Congress and published in the Official Gazette of the Argentine Republic on December 1, 2017 (the Corporate Criminal Liability Law ). The law entered into force in March 2018, 90 days following its publication.

The Corporate Criminal Liability Law applies to private legal entities for the crimes of national and transnational bribery and influence peddling; transactions that are incompatible with the exercise of public offices; and illegal exaction committed by public officials; among others.

Legal entities are liable for those crimes, carried out directly or indirectly, with their intervention or in their name, interest or benefit. The legal entity is also liable if a third party, without any capacity to act on its behalf, acted in its own benefit or interest, provided the legal entity has ratified the third party's acts, even implicitly.

In the event of transformation, merger, absorption, spin-off or any other corporate restructuring, the legal entity's responsibility will be transferred to the resulting or absorbing legal entity.

The law also provides that the legal entity may be convicted even if the individual involved could not be identified or judged, provided that the circumstances of the case allow establishing that the crime could not have been committed without the acquiescence of the legal entity's bodies.

The penalties that could be applicable to legal entities included fines, total or partial suspension of business activities of up to ten (10) years, suspension from participating in public bids or tenders for the execution of public works or services, dissolution and winding up of the legal entity under certain circumstances, loss or suspension of government benefits, among others.

Penalties can be graduated by judges, who will contemplate the compliance of internal rules and procedures, the number and hierarchy of the officials, employees and collaborators involved; the lack of surveillance; the extent of damage caused; the amount of money involved; the willingness to reduce or repair the damage and recidivism.

The legal entity will be exempted from penalties and administrative liability provided that: a) It has self-reported an offense under the Corporate Criminal Liability Law; b) It has implemented an adequate monitoring and supervision system (Compliance Program), prior to the fact under prosecution occurred, and c) It has returned the undue benefit obtained.

The Ministerio Público Fiscal (Public Prosecutor's Office) and the legal entity may enter into an effective collaboration agreement, whereby the latter undertakes to cooperate by disclosing data or information for the clarification of the facts, the identification of the participants and/or the recovery of the assets or profits proceeding from the crime, as well as to comply with the other conditions established by the Corporate Criminal Liability Law.

Legal entities are not required under the Corporate Criminal Liability Law to implement Compliance Programs with the exception of those entering into certain agreements with the Government. The Compliance Programs shall include a set of internal actions, mechanisms and procedures to promote integrity, supervision and control aimed at preventing, detecting and correcting irregularities and unlawful acts under this law.

**ITEM 10. Additional Information**

*Capital Stock*

Our capital stock consists of Ps.3,933,127,930, divided into 3,764 Class A shares, 7,624 Class B shares, 40,422 Class C shares and 393,260,983 Class D shares, each fully subscribed and paid, with a par value of ten pesos each and the right to one vote per share. Our total capital stock has not changed since December 31, 2004.

In November 1992, the Privatization Law became effective. Pursuant to the Privatization Law, in July 1993, we completed a worldwide offering of 160 million Class D shares, representing approximately 45% of our outstanding capital stock, which had been



**Table of Contents**

owned by the Argentine government. Concurrently with the completion of such offering, the Argentine government transferred approximately 40 million Class B shares to the Argentine provinces, which represented approximately 11% of our outstanding capital stock, and made an offer to holders of pension bonds and certain other claims to exchange such bonds and other claims for approximately 46.1 million Class B shares, representing approximately 13% of our outstanding capital stock. As a result of these transactions, the Argentine government's ownership percentage of our capital stock was reduced from 100% to approximately 30%, including shares that had been set aside to be offered to our employees upon establishment of the terms and conditions by the Argentine government in accordance with Argentine law. The shares set aside to be offered to employees represented 10% of our outstanding capital stock.

In July 1997, the Class C shares set aside for the benefit of our employees in conjunction with the privatization, excluding approximately 1.5 million Class C shares set aside as a reserve against potential claims, were sold through a global public offering, increasing the percentage of our outstanding shares of capital stock held by the public to 75%. Proceeds from the transactions were used to cancel debt related to the employee plan, with the remainder distributed to participants in the plan. Additionally, Resolution No. 1,023/06 of the Ministry of Economy, dated December 21, 2006, effected the transfer to the employees covered by the employee share ownership plan, or PPP, of 1,117,717 Class C shares, corresponding to the Class C shares set aside as a reserve against potential claims, and reserving 357,987 Class C shares until a decision was reached in a pending lawsuit. Subsequently, with a final decision having been reached in the lawsuit, and consistent with the mechanism of conversion of Class C shares into Class D shares established by Decree 628/1997 and its accompanying rules, as of December 31, 2009, 1,447,983 Class C shares had been converted into Class D shares. In 2010, a former employee of the Company who was allegedly excluded from the Argentine government's YPF PPP filed a claim against YPF seeking recognition of his status as a shareholder of YPF. In addition, the Federation of Former Employees of YPF joined the proceeding as a supporting third-party claimant, purportedly acting on behalf of other former employees who were also allegedly excluded from the PPP. Under the jurisprudence of the CSJN upholding numerous decisions of the relevant Argentine Courts of Appeals, YPF believes it will not be held liable for claims of this nature related to the PPP. Through Law No. 25,471, the Argentine government assumed sole responsibility for any compensation to be received by YPF's former employees who were excluded from the PPP.

The Expropriation Law has significantly changed our shareholding structure. The Class D shares subject to expropriation from Repsol YPF or its controlling or controlled entities, which represent 51% of our share capital and were declared of public interest and are currently held by the Republic of Argentina, will be assigned as follows: 51% to the Argentine federal government and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. In addition, the Argentine federal government and certain provincial governments already own our Class A and Class B shares. See Item 3. Key Information Risk Factors Risks Relating to Argentina The Argentine Republic owns 51% of the shares of the Company.

See Note 25 to the Audited Consolidated Financial Statements, Item 4. Information on the Company History and Development of YPF, Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law, Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Decree No. 272/2015 and Item 7. Major Shareholders and Related Party Transactions.

**Memorandum and Articles of Association**

YPF's by-laws were approved by National Executive Decree No. 1,106, dated May 31, 1993, and notarized by public deed No. 175, dated June 15, 1993 at the National Notary Public Office, sheet 801 of the National Registry, and registered at the Inspection Board of Legal Entities of the Argentine Republic on the same date, June 15, 1993 under

number 5,109 of the book of Corporations number 113, volume A.

At a shareholders meeting on April 29, 2016, YPF's shareholders approved an amendment to YPF's by-laws. Copies of the by-laws, which have been filed as Exhibit 1.2. to YPF's 2016 annual report on Form-20 filed on April 7, 2017, are also available at the offices of YPF.

For a detailed description of YPF's object and purpose, see Item 4. Information on the Company. YPF's object is set forth in Section 4 of its by-laws.

Pursuant to Argentine General Corporations Law, the Board of Directors or the Supervisory Committee shall call either annual general or extraordinary shareholders meetings in the cases provided by law and whenever they consider appropriate. Shareholders representing not less than 5% of YPF's capital stock may also request that a shareholders meeting be called.

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**Table of Contents**

A shareholders meeting shall be called at least twenty calendar days and no more than 45 calendar days prior to the meeting date by notice published in the legal publications journal for a period of five days. The notice shall include the nature, date, time and place of the meeting, the agenda to be discussed and the specific requirements shareholders must meet to attend the meeting.

*Shareholders Meetings*

As previously noted, pursuant to the Argentine General Corporations Law, the Board of Directors or the Supervisory Committee shall call either annual ordinary or extraordinary shareholders meetings in the cases provided by law and whenever they consider appropriate. Shareholders representing not less than 5% of our capital stock may also request that a shareholders meeting be called, in which case the meeting must be held within 40 days of such shareholders request. If the Board of Directors or the Supervisory Committee fails to call a meeting following such a request, a meeting may be ordered by the CNV or by the courts.

Shareholders meetings may be ordinary meetings or extraordinary meetings. The Company is required to convene and hold an ordinary meeting of shareholders within four months of the closing of each fiscal year to consider the matters specified in the first two paragraphs of Section 234 of the Argentine General Corporations Law, such as the approval of our financial statements, allocation of net profit for such fiscal year, approval of the reports of the Board of Directors and the Audit Committee and the election, performance and remuneration of directors and members of the Supervisory Committee. In addition, pursuant to the Capital Markets Law, at ordinary shareholders meetings, shareholders must consider (i) the disposition of, or creation of any lien over, all or substantial part of the assets of the Company as long as such decision has not been performed in the ordinary course of business and (ii) the execution of administration or management agreements and whether to approve any agreement by virtue of which the assets or services provided to the Company are paid partial or totally with a percentage of our income, results or earnings, if the payment is material when measured against the volume of the ordinary course of business and our shareholders equity. Other matters which may be considered at an ordinary shareholders meeting convened and held at any time include the responsibility of directors and members of the Supervisory Committee, capital increases and the issuance of certain notes. Extraordinary shareholders meetings may be called at any time to consider matters beyond the authority of an ordinary meeting including, without limitation, the amendment of our by-laws, issuance of debentures, early dissolution, merger, spin-off, reduction of capital stock and redemption of shares, transformation from one type of entity to another and limitation or suspension of shareholders preemptive rights.

*Notices of meetings*

Notice of shareholders meetings must be published for five days in the Official Gazette, in an Argentina newspaper of wide circulation and in the bulletin of the BASE, at least 20 but not more than 45 calendar days prior to the date on which the meeting is to be held. Such notice must include information regarding the type of meeting to be held, the date, time and place of such meeting and the agenda. If a quorum is not available at such meeting, a notice for a meeting on second call, which must be held within 30 days of the date on which the first meeting was called, must be published for three days at least eight days before the date of the meeting on second call. The above-described notices of shareholders meetings may be affected simultaneously for the meeting on second call to be held on the same day as the first meeting, only in the case of ordinary meetings. Shareholders meetings may be validly held without publication of the call if all the shares of our outstanding share capital are present and resolutions are adopted by unanimous vote of shares entitled to vote.

*Quorum and voting requirements*

Except as described below, the quorum for ordinary meetings of shareholders on first call is a majority of the shares entitled to vote, and action may be taken by the affirmative vote of an absolute majority of the shares present that are entitled to vote on such action. If a quorum is not available at the first meeting, a meeting on second call may be held at which action may be taken by the holders of an absolute majority of the shares present, regardless of the number of such shares. The quorum for an extraordinary shareholders meeting on first call is 60% of the shares entitled to vote, and if such quorum is not available, a meeting on second call may be held with the presence of 30% of the shares entitled to vote, and in both cases action may be taken by the holders of an absolute majority of the shares present, regardless of the number of such shares.

Our by-laws establish that in order to approve (i) the transfer of our domicile outside Argentina, (ii) a fundamental change of the corporate purpose set forth in our by-laws, (iii) delisting of our shares from the BASE or NYSE, and (iv) a spin-off by us, when as a result of such spin-off more than 25% of our assets are transferred to the resulting corporations, a majority of the shares representing 75% or more of our voting shares is required, both in first and second call. Our by-laws also establish that in order to approve (i) certain amendments to our by-laws concerning tender offers of shares (as described below), (ii) the granting of certain guarantees in favor of our shareholders, (iii) full stop of refining, commercialization and distribution activities and (iv) rules regarding appointment, election and number of members of our Board of Directors, a majority of the shares representing 66% or more of our voting shares is required, both in first and second call, as is the affirmative vote of the Class A shares, voting at a special meeting of the holders of such shares.

## **Table of Contents**

In order to attend the meeting, shareholders must deposit their shares, or a certificate representing book-entry shares issued by a bank, clearing house or depository trust company, with us. This certificate will allow each shareholder to be registered in the attendance book which closes three business days before the date on which the meeting will be held. The Company will issue to each shareholder a deposit certificate required for admission into the meeting. Shares certified and registered in the attendance book may not be disposed of before the meeting is held unless the corresponding deposit is cancelled.

Under the Argentine General Corporations Law, foreign companies that own shares in an Argentine corporation are required to register in the National Corporations Registry (held by the Ministry of Justice and Human Rights, or the agency to be determined by such ministry to that effect, according to Decree No. 27/2018 published on January 11, 2018 in the Official Gazette) in order to exercise certain shareholder rights, including voting rights. Such registration requires the filing of certain corporate and accounting documents. Accordingly, if a shareholder owns Class D shares directly (rather than in the form of ADSs) and it is a non-Argentine company, and such shareholder fails to register in the National Corporations Registry, the ability to exercise its rights as a holder of Class D shares may be limited.

Directors, members of the Supervisory Committee and senior managers are both entitled and required to attend all shareholders' meetings. These persons may only exercise voting power to the extent they have been previously registered as shareholders, in accordance with the provisions described in the above paragraph. Nevertheless, these persons are not allowed to vote on any proposal regarding the approval of their management duties or their removal for cause.

Shareholders who have a conflict of interest with the Company and who do not abstain from voting may be liable for damages to us, but only if the transaction would not have been approved without such shareholders' votes. Furthermore, shareholders who willfully or negligently vote in favor of a resolution that is subsequently declared void by a court as contrary to the law or our by-laws may be held jointly and severally liable for damages to us or to other third parties, including shareholders.

Our major shareholders do not have different voting rights.

## **Directors**

### *Election of Directors*

Our business and affairs are managed by the Board of Directors in accordance with our by-laws and the Argentine General Corporations Law. Our by-laws provide for a Board of Directors of 11 to 21 members, and up to an equal number of alternates. Alternates are elected by the shareholders to replace directors who are absent from meetings or who are unable to exercise their duties, when and for whatever period appointed to do so by the Board of Directors. Alternates have the responsibilities, duties and powers of Directors only if and to the extent they are called upon to attend board meetings and as long as they perform duties of a Director.

Directors hold office from one to three fiscal years, as determined by the shareholders' meetings. In accordance with our by-laws, the Argentine government, as sole holder of Class A shares, is entitled to elect one director and one alternate.

Under the Argentine General Corporations Law, a majority of our directors must be residents of Argentina. All directors must establish a legal domicile in Argentina for service of notices in connection with their duties.

The Argentine General Corporations Law and our by-laws require the Board of Directors to meet at least once every quarter in person or by video conference, and a majority of directors is required in order to constitute a quorum. If a quorum is not met one hour after the start time set for the meeting, the President or his substitute may invite alternates of the same class as that of the absent directors to join the meeting until the quorum is reached, or call a meeting for another day. Resolutions must be adopted by a majority of the directors present, and the President or his substitute is entitled to cast the deciding vote in the event of a tie. Our Directors are not required to hold any shares in us, and there is no age limit requirement for the retirement or non-retirement of our Directors.

According to our by-laws, the Board of Directors shall have wide powers to organize, conduct and manage the affairs of the Corporation. Specifically, it is empowered to approve the annual budget, expenditure and investment estimates, the necessary borrowing levels and the annual action plan of the Corporation.

## **Table of Contents**

### *Duties and liabilities of Directors*

In accordance with the Argentine General Corporations Law, directors have an obligation to perform their duties with loyalty and with the diligence of a prudent business person. Directors are jointly and severally liable to us, our shareholders and to third parties for the improper performance of their duties, for violating the law or our by-laws or regulations, and for any damage caused by fraud, abuse of authority or gross negligence. Specific duties may be assigned to a director by the by-laws, company regulations, or by resolution of the shareholders' meeting. In such cases, a director's liability will be determined by reference to the performance of such duties.

Only shareholders, through a shareholders' meeting may authorize directors to engage in activities in competition with us. Transactions or contracts between directors and us in connection with our activities are permitted to the extent they are performed under fair market conditions. Transactions that do not comply with the Argentine General Corporations Law require prior approval of the Board of Directors or the Supervisory Committee. In addition, these transactions must be subsequently approved by the shareholders at a general meeting. If our shareholders do not approve the relevant transaction, the directors and members of the Supervisory Committee who approved such transactions are jointly and severally liable for any damages caused to us.

Any director whose personal interests are averse to ours, shall notify the Board of Directors and the Supervisory Committee and abstain from voting on such matters. Otherwise, such director may be held liable to us.

A director will not be liable if, notwithstanding his presence at the meeting at which a resolution was adopted or his knowledge of such resolution, a written record exists of his opposition to such resolution and he reports his opposition to the Supervisory Committee before any complaint against him is brought before the Board of Directors, the Supervisory Committee, the shareholders' meeting, the appropriate governmental agency or the courts. Any liability of a director to us terminates upon approval of the director's actions by the shareholders at a general meeting, provided that shareholders representing at least 5% of our capital stock do not object and provided further that such liability does not result from a violation of the law, our by-laws or other regulations.

### *Foreign Investment Legislation*

Under the Argentine Foreign Investment Law, as amended, and its implementing regulations (together, referred to as the Foreign Investment Legislation), the purchase of shares of an Argentine corporation by an individual or legal entity domiciled abroad or by an Argentine company of foreign capital (as defined in the Foreign Investment Legislation) constitutes foreign investment. Currently, foreign investment in industries other than broadcasting, purchase land located in frontier and other security areas by foreigners and limits on the ownership of rural land by foreign individuals or legal entities according to Law 26,737, is not restricted, and no prior approval is required to make foreign investments. No prior approval is required in order to purchase Class D shares or ADSs or to exercise financial or corporate rights thereunder.

## **Dividends**

Under our by-laws, all Class A, Class B, Class C and Class D shares rank equally with respect to the payment of dividends. All shares outstanding as of a particular record date share equally in the dividend being paid, except that shares issued during the period to which a dividend relates may be entitled only to a partial dividend with respect to such period if the shareholders' meeting that approved the issuance so resolved. No provision of our by-laws or of the Argentine General Corporations Law gives rise to future special dividends only to certain shareholders.

The amount and payment of dividends are determined by majority vote of our shareholders voting as a single class, generally, but not necessarily, on the recommendation of the Board of Directors. In addition, under the Argentine General Corporations Law, our Board of Directors has the right to declare dividends subject to further approval of the shareholders meeting.

Although we have not adopted a formal policy regarding dividends, we intend to maintain the practice of an annual distribution, within the framework of a management that will also consider, among other factors, the capital requirements related to investment plans, the attention of debt services, working capital needs, legal and / or contractual restrictions that apply at all times, and the general conditions of the economic and financial context. At the shareholders ordinary and extraordinary general meeting held on April 29, 2016, a dividend of Ps. 889 million (Ps. 2.26 per share or ADS) was authorized for distribution by December 31, 2016, which was paid in July 2016. At the shareholders ordinary and extraordinary general meeting held on April 28, 2017, a dividend of Ps. 716 million (Ps. 1.82 per share or ADS) was authorized and paid in December 2017. At the shareholders ordinary and extraordinary general meeting held on April 27, 2018, a dividend of Ps. 1,200 million (Ps. 3.05 per share or ADS) was authorized and paid in December 2018. On March 7, 2019, the



**Table of Contents**

Board decided to propose the following to the General Ordinary Shareholders Meeting: (i) allocate the sum of Ps. 280 million to constitute a Reserve for the purchase of own shares, in order to grant the Board the possibility of acquiring shares owned at the time it deems appropriate, and comply, during the execution of the plans, with the commitments generated and to be generated by it in the future, (ii) allocate the sum of Ps. 33,235 million to constitute a reserve for investments in the terms of Article 70, third paragraph of the Argentine General Corporations Law, and (iii) allocate the sum of Ps. 4,800 million to a reserve for future dividends, empowering the Board of Directors, up to the date of the next Ordinary General Shareholders Meeting that deals with the Financial Statements for the period ended December 31, 2019, to determine the opportunity and amount for its distribution, taking into account the financial and availability of funds as well as operating results, investments and other aspects that it considers relevant in the development of the activities of the Company, or its application in accordance with the provisions of article 224 second paragraph of the General Companies Act and other applicable regulations.

The following table sets forth for the periods and dates indicated, the dividend payments made by us, expressed in pesos.

<i>Year Ended December 31,</i>	<i>Pesos Per Share/ADS</i>				
	<i>1Q</i>	<i>2Q</i>	<i>3Q</i>	<i>4Q</i>	<i>Total</i>
2005		8.00		4.40	12.40
2006		6.00			6.00
2007	6.00				6.00
2008	10.76	6.50		6.35	23.61
2009		6.30		6.15	12.45
2010		5.50		5.80	11.30
2011		7.00		7.15	14.15
2012				0.77	0.77
2013			0.83		0.83
2014			1.18		1.18
2015			1.28		1.28
2016			2.26		2.26
2017				1.82	1.82
2018				3.05	3.05

**Amount Available for Distribution**

Under Argentine law, dividends may be lawfully paid only out of our retained earnings reflected in the annual audited financial statements prepared in accordance with accounting rules prevailing in Argentina and CNV regulations and approved by a shareholders meeting. The Board of Directors of a listed Argentine company that makes public offering of its shares may declare interim dividends, based on special or quarterly financial statements with the report of the external auditor and the Supervisory Committee, in which case the members of the Board and of the Supervisory Committee are jointly and severally liable for the repayment of such dividend if retained earnings at the close of the fiscal year in which the interim dividend was paid would not have been sufficient to permit the payment of such dividend.

According to the Argentine General Corporations Law and our by-laws, the Company is required to maintain a legal reserve of at least 5% of the fiscal year's income until such reserve equals 20% of our then-outstanding capital stock. The legal reserve is not available for distribution to shareholders.

Under our by-laws, the Company's liquid and realized profits are applied as follows:

first, at least 5% of net income, plus (less) prior year adjustments, is segregated to build the legal reserve until such reserve is equal to 20% of our subscribed capital;

second, an amount is segregated to pay the accrued fees of the members of the Board of Directors and of the Supervisory Committee. See Item 6. Directors, Senior Management and Employees Compensation of members of our Board of Directors ;

third, an amount is segregated to pay dividends on preferred stock, if any; and

## **Table of Contents**

fourth, the remainder of net profit in whole or in part may be distributed as dividends to common shareholders or allocated for voluntary or contingent reserves as determined by the shareholders' meeting. Our Board of Directors submits the Company's financial statements for the preceding fiscal year, together with reports thereon by the Supervisory Committee and the external auditor, at the annual ordinary shareholders' meeting for approval. Within four months of the end of each fiscal year, an ordinary shareholders' meeting must be held to consider our yearly financial statements and determine the allocation of our net profit for such year.

Under applicable CNV regulations, cash dividends must be paid to shareholders within 30 days from the shareholders' meeting approving such dividends. In cases where the shareholders' meeting delegates the authority for the distribution of dividends to the Board of Directors, the Company has consistently paid the declared dividends within 30 days from the relevant Board of Directors' resolution. In the case of payment of stock dividends, or payment of both stock and cash dividends, both shares and cash are required to be available within three months of the receipt of notice of the authorization of the CNV for the public offering of the shares arising from such dividends. In accordance with the Argentine Civil and Commercial Code, the statute of limitations to the right of any shareholder to receive dividends declared by the shareholders' meeting is five years from the date on which it has been made available to the shareholder. However, according to Article 2,537 of the Argentine Civil and Commercial Code, the statute of limitations on the right of any shareholder to receive dividends declared before August 1, 2015 is three years.

Owners of ADSs are entitled to receive any dividends payable with respect to the underlying Class D shares. Cash dividends are paid to the Depositary in pesos, directly or through BoNY, as depositary, although the Company may choose to pay cash dividends outside Argentina in a currency other than pesos, including U.S. dollars. The deposit agreement provides that the Depositary shall convert cash dividends received by the Depositary in pesos to dollars, to the extent that, in the judgment of the Depositary, such conversion may be made on a reasonable basis, and, after deduction or upon payment of the fees and expenses of the Depositary, shall make payment to the holders of ADSs in U.S. dollars.

## **Preemptive and Accretion Rights**

Except as described below, in the event of a capital increase, a holder of existing shares of a given class has a preferential right to subscribe a number of shares of the same class sufficient to maintain the holder's existing proportionate holding of shares of that class. Preemptive rights also apply to issuances of convertible securities, but do not apply upon conversion of such securities. Pursuant to the Argentine General Corporations Law, in exceptional cases and on a case-by-case basis when required for the best interest of the Company, the shareholders at an extraordinary meeting with a special majority may decide to limit or suspend shareholders' preemptive rights, provided that such limitation or suspension of the shareholders' preemptive rights is included in the agenda of the meeting and the shares to be issued are paid in kind or are issued to cancel preexisting obligations.

Under its by-laws, the Company may only issue securities convertible into Class D shares, and the issuance of any such convertible securities must be approved by a special meeting of the holders of Class D shares.

Holders of ADSs may be restricted in their ability to exercise preemptive rights if a registration statement under the Capital Markets Law relating thereto has not been filed or is not effective. Preemptive rights are exercisable during the 30 days following the last publication of notice informing shareholders of their right to exercise such preemptive rights in the Official Gazette and in an Argentine newspaper of wide circulation. Pursuant to the Argentine General Corporations Law, if authorized by an extraordinary shareholders' meeting, companies authorized to make public offering of their securities, such as YPF, may shorten the period during which preemptive rights may be exercised from 30 to 10 days following the publication of notice of the offering to the shareholders to exercise preemptive rights in the Official Gazette and a newspaper of wide circulation in Argentina. Pursuant to our by-laws, the terms and

conditions on which preemptive rights may be exercised with respect to Class C shares may be more favorable than those applicable to Class A, Class B and Class D shares.

Shareholders who have exercised their preemptive rights have the right to exercise accretion rights, in proportion to their respective ownership, with respect to any non-preempted shares, in accordance with the following procedure:

Any non-preempted Class A shares will be converted into Class D shares and offered to holders of Class D shares that exercised preemptive rights and indicated their intention to exercise additional preemptive rights with respect to any such Class A shares.

Any non-preempted Class B shares will be assigned to those provinces that exercised preemptive rights and indicated their intention to exercise accretion rights with respect to such shares; any excess will be converted into Class D shares and offered to holders of Class D shares that exercised preemptive rights and indicated their intention to exercise accretion rights with respect to any such Class B shares.

## **Table of Contents**

Any non-preempted Class C shares will be assigned to any PPP participants who exercised preemptive rights and indicated their intention to exercise accretion rights with respect to such shares; any excess will be converted into Class D shares and offered to holders of Class D shares that exercised preemptive rights and indicated their intention to exercise accretion rights with respect to any such Class C shares.

Any non-preempted rights will be assigned to holders of Class D shares that exercised their preemptive rights and indicated their intention to exercise accretion rights; any remaining Class D shares will be assigned pro rata to any holder of shares of another class that indicated his or her intention to exercise accretion rights.

The term for exercise of additional preemptive rights is the same as that fixed for exercising preemptive rights.

## **Voting of the Underlying Class D Shares**

Under the by-laws, each Class A, Class B, Class C and Class D share entitles the holder thereof to one vote at any meeting of the shareholders of YPF, except that a specified number of Directors is elected by majority vote of each class (except as provided below). See *Directors Election of Directors* above for information regarding the number of directors that holders of each class of shares are entitled to elect and certain other provisions governing nomination and election of directors. The Depositary has agreed that, as soon as practicable after receipt of a notice of any meeting of shareholders of YPF, it will mail a notice to the holders of ADRs, evidencing ADSs, registered on the books of the Depositary which will contain the following:

a summary in English of the information contained in the notice of such meeting;

a statement that the holders of ADRs at the close of business on a specified record date will be entitled, subject to any applicable provisions of Argentine law, the by-laws of YPF and the Class D shares, to instruct the Depositary to exercise the voting rights, if any, pertaining to the Class D shares evidenced by their respective ADSs; and

a statement as to the manner in which such instructions may be given to the Depositary.

The Depositary shall endeavor, to the extent practicable, to vote or cause to be voted the amount of Class D shares represented by the ADSs in accordance with the written instructions of the holders thereof. The Depositary will vote Class D shares, as to which no instructions are received, in accordance with the recommendations of the Board of Directors of YPF. The Depositary will not vote Class D shares, as to which no instructions have been received, in accordance with the recommendations of the Board of Directors, however, unless YPF has provided to the Depositary an opinion of Argentine counsel stating that the action recommended by the Board of Directors is not illegal under Argentine law or contrary to the by-laws or Board regulations of YPF. In addition, the Depositary will, if requested by the Board of Directors and unless prohibited by any applicable provision of Argentine law, deposit all Class D shares represented by ADSs for purposes of establishing a quorum at meetings of shareholders, whether or not voting instructions with respect to such shares have been received.

## *Voting*

Under our by-laws, each Class A, Class B, Class C and Class D share entitles the holder thereof to one vote at any meeting of our shareholders, except that the Class A shares (i) vote separately with respect to the election of our Board of Directors and are entitled to appoint one director and one alternate director and, (ii) have certain veto rights, as described below.

*Class A Veto Rights*

Under the by-laws, so long as any Class A shares remain outstanding, the affirmative vote of such shares is required in order to: (i) decide upon the merger of the company; (ii) approve any acquisition of shares by a third party representing more than 50% of the company's capital; (iii) transfer to third parties all the exploitation rights granted to YPF pursuant to the Hydrocarbons Law, applicable regulations thereunder or the Privatization Law, if such transfer would result in the total suspension of the company's exploration and production activities; (iv) voluntarily dissolve the company; and (v) transfer our legal or fiscal domicile outside Argentina. The actions described in clauses (iii) and (iv) above also require prior approval of the Argentine Congress through enactment of a law.

## **Table of Contents**

### *Reporting Requirements*

Pursuant to our by-laws, any person who, directly or indirectly, through or together with its affiliates and persons acting in concert with it, acquires Class D shares or securities convertible into Class D shares, so that such person controls more than 3% of the Class D shares, is required to notify the Company of such acquisition within five days of its closing, in addition to complying with any requirements imposed by any other authority in Argentina or elsewhere where our Class D shares are traded. Such notice must include the name or names of the person or persons, if any, acting in concert with it, the date of the acquisition, the number of shares acquired, the price at which the acquisition was made, and a statement as to whether it is the purpose of the person or persons to acquire a greater shareholding in, or control of, us. Each subsequent acquisition by such person or persons, as long as it exceeds the above mentioned 3% of the Class D shares, requires a similar notice.

### **Certain Provisions Relating to Acquisitions of Shares**

Pursuant to our by-laws:

each acquisition of shares or convertible securities, as a result of which the acquirer, directly or indirectly, through or together with its affiliates and persons acting in concert with it (jointly referred to as an Offeror ), would hold or control shares that, in concert with the prior holdings of such Offeror, if any, of shares of such class, would represent:

15% or more of the outstanding capital stock, or

20% or more of the outstanding Class D shares; and

each subsequent acquisition by an Offeror (other than subsequent acquisitions by an Offeror owning or controlling more than 50% of our capital prior to such acquisition) (collectively, Control Acquisitions ), must be carried out in accordance with the procedure described under Restrictions on Control Acquisitions .

In addition, any merger, consolidation or other combination with substantially the same effect involving an Offeror that has previously carried out a Control Acquisition, or by any other person or persons, if such transaction would have for such person or persons substantially the same effect as a Control Acquisition ( Related Party Share Acquisition ), must be carried out in accordance with the provisions described under Restrictions on Related Party Share Acquisitions below. The voting, dividend and other distribution rights of any shares acquired in a Control Acquisition or a Related Party Share Acquisition carried out other than in accordance with such provisions will be suspended, and such shares will not be counted for purposes of determining the existence of a quorum at shareholders meetings.

The Expropriation Law has not triggered these obligations.

### *Restrictions on Control Acquisitions*

Prior to consummating any Control Acquisition, an Offeror must obtain the approval of the Class A shares, if any are outstanding, and make a public tender offer for all of the outstanding shares and convertible securities of the Company. Such public tender offer shall not be needed for the subsequent acquisitions of an Offeror, who already owns or controls shares that represent 15% or more of the outstanding capital stock, or 20% or more of the outstanding Class D shares, as long as such Offeror does not own or control, previously or as a consequence of these acquisitions, shares that represent more than 50% of the capital stock. For any subsequent acquisition made by an Offeror already owning or controlling more than 50% of the capital stock of the Company prior to such acquisition it is neither required to obtain the approval of the Class A shares, nor to make a public tender offer. The Offeror will be required to provide the Company with notice of, and certain specified information with respect to, any such tender offer at least fifteen business days prior to the commencement of the offer, as well as the terms and conditions of any agreement with any shareholder proposed for the Control Acquisition (a Prior Agreement ). The Company will send each shareholder and holder of convertible securities a copy of such notice at the Offeror's expense. The Offeror is also required to publish a notice containing substantially the same information in a newspaper of general circulation in Argentina, New York and each other city in which the Company's securities are traded on an exchange or other securities market, at least once per week, beginning on the date notice is provided to us, until the offer expires.



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**Table of Contents**

Our Board of Directors shall call a special meeting of the holders of Class A shares to be held 10 business days following the receipt of such notice for the purpose of considering the tender offer. If the special meeting is not held, or if the shareholders do not approve the tender offer at such meeting, neither the tender offer nor the proposed Control Acquisition may be completed.

The tender offer must be carried out in accordance with a procedure specified in our by-laws and in accordance with any additional or stricter requirements of jurisdictions, exchanges or markets in which the offer is made or in which our securities of the Company are traded. Under the by-laws, the tender offer must provide for the same price for all shares tendered, which price may not be less than the highest of the following (the Minimum Price ):

- (i) the highest price paid by, or on behalf of, the Offeror for Class D shares or convertible securities during the two years prior to the notice provided to the Company, subject to certain antidilution adjustments with respect to Class D shares;
- (ii) the highest closing price for the Class D shares on the BASE during the thirty-day period immediately preceding the notice provided to the Company, subject to certain antidilution adjustments;
- (iii) the price resulting from clause (ii) above multiplied by a fraction, the numerator of which shall be the highest price paid by or on behalf of the Offeror for Class D shares during the two years immediately preceding the date of the notice provided to the Company and the denominator of which shall be the closing price for the Class D shares on the BASE on the date immediately preceding the first day in such two-year period on which the Offeror acquired any interest in or right to any Class D shares, in each case subject to certain antidilution adjustments; and
- (iv) the net earnings per Class D share during the four most recent full fiscal quarters immediately preceding the date of the notice provided to us, multiplied by the higher of (A) the price/earnings ratio during such period for Class D shares (if any) and (B) the highest price/earnings ratio for the Company in the two-year period immediately preceding the date of the notice provided to the Company, in each case determined in accordance with standard practices in the financial community.

Such offer must remain open for a minimum of 20 days and a maximum of 30 days following the provision of notice to the shareholders or publication of the offer, and shareholders must have the right to withdraw tendered shares at any time up until the close of the offer. Following the close of such tender offer, the Offeror will be obligated to acquire all tendered shares or convertible securities, unless the number of shares tendered is less than the minimum, if any, upon which such tender offer was conditioned, in which case the Offeror may withdraw the tender offer. Following the close of the tender offer, the Offeror may consummate any Prior Agreement within thirty days following the close of the tender offer; provided, however, that if such tender offer was conditioned on the acquisition of a minimum number of shares, the Prior Agreement may be consummated only if such minimum was reached. If no Prior Agreement existed, the Offeror may acquire the number of shares indicated in the notice provided to the Company on the terms indicated in such notice, to the extent such number of shares were not acquired in the tender offer, provided that any condition relating to a minimum number of shares tendered has been met.

The Expropriation Law has not triggered these obligations.

*Restrictions on Related Party Share Acquisitions*

The price per share to be received by each shareholder in any Related Party Share Acquisition must be the same as, and must not be less, than the highest of the following:

- (i) the highest price paid by or on behalf of the party seeking to carry out the Related Party Share Acquisition (an Interested Shareholder ) for (A) shares of the class to be transferred in the Related Party Share Acquisition (the Class ) within the two-year period immediately preceding the first public announcement of the Related Party Share Acquisition or (B) shares of the Class acquired in any Control Acquisition, in each case, subject to certain antidilution adjustments;
- (ii) the highest closing sale price of shares of the Class on the BASE during the thirty days immediately preceding the announcement of the Related Party Share Acquisition or the date of any Control Acquisition by the Interested Shareholder, subject to certain antidilution adjustments;
- (iii) the price resulting from clause (ii) multiplied by a fraction, the numerator of which shall be the highest price paid by or on behalf of the Interested Shareholder for any share of the Class during the two years immediately preceding the announcement of the Related Party Transaction and the denominator of which shall be the closing sale price for shares of the Class on the date immediately preceding the first day in the two-year period referred to above on which the Interested Shareholder acquired any interest or right in shares of the Class, in each case, subject to certain antidilution adjustments; and

## **Table of Contents**

- (iv) the net earnings per share of the shares of the Class during the four most recent full fiscal quarters preceding the announcement of the Related Party Transaction multiplied by the higher of the (A) the price/earnings ratio during such period for the shares of the Class and (B) the highest price/earnings ratio for the Company in the two-year period preceding the announcement of the Related Party Transaction, in each case determined in accordance with standard practices in the financial community.

In addition, any transaction that would result in the acquisition by any Offeror of ownership or control of more than 50% of our capital stock, or that constitutes a merger or consolidation of us, must be approved in advance by the Class A shares while any such shares remain outstanding.

## **The Recently amended Capital Markets Law and CNV Regulations:**

CNV passed in December 2018 the General Resolution No. 779 which regulates the new regime of tender offers established by Law No. 27,440 which amended the Capital Markets Law and was published in May 2018. Under this new regime, a mandatory tender offer at a fair price (determined according to such law) shall be issued by anyone who acting individually or in coordination with others, has effectively obtained a controlling interest of a public company, which is deemed to occur: i) directly or indirectly, when obtaining a percentage of votes equal to or higher than 50% of a public company or, ii) when the percentage of votes obtained is below 50% but acts as controller of a public company (i.e. has an interest in the capital stock of the company or securities with voting rights that grants the necessary votes to adopt resolutions in ordinary general shareholders meetings or to appoint or revoke the majority of the directors or members of the Statutory Auditor's Committee). The tender offer shall be made as soon as possible after closing of the share acquisition but no later than 1 month from such closing.

## **Material Contracts**

None.

## **Exchange Regulations**

See Item 3. Key Information Exchange Regulations for information on the monetary and currency exchange control restrictions in effect in Argentina.

## **Taxation**

### **Argentine Tax Considerations**

The following discussion is a summary of the material Argentine tax considerations relating to the purchase, ownership and disposition of our Class D shares or ADSs.

#### ***Dividends tax***

Dividends paid on our Class D shares or ADSs, whether in cash, property or other equity securities, are subject to income tax withholding for dividends paid in excess of our taxable accumulated income for the previous fiscal period, at a rate of 35% in respect of such excess. This is a final tax, and it is not applicable if dividends are paid in shares rather than in cash. On December 29, 2017, Law No. 27,430 introducing modifications to the income tax was published in the Official Gazette, and this equalization tax no longer applied to income accrued from January 1, 2018.

The law also establishes dividend withholding tax rates of 7% for profits accrued during fiscal years starting January 1, 2018 to December 31, 2019, and 13% for profits accrued in fiscal years starting January 1, 2020 and onwards.

***Personal assets tax***

Argentine individuals and undivided estates, foreign individuals and undivided estates, and foreign entities are subject to personal assets tax of 0.25% of the value of any shares or ADSs issued by Argentine entities, held at December 31 of each year. The tax is levied on the Argentine issuers of such shares or ADSs, such as the Company, which must pay this tax in substitution of the relevant shareholders,

## **Table of Contents**

and is based on the equity value (valor patrimonial proporcional), of the shares derived from the latest financial statements at December 31 of each year. Pursuant to the Personal Assets Tax Law, we are entitled and expect to seek reimbursement of such paid tax from the applicable shareholders, including by foreclosing on the shares, or by withholding dividends.

On July 22, 2016, Law 27,260 was published in the Official Gazette which makes changes to the Argentine tax laws and establishes a new tax debt settlement plan and new benefits for compliant taxpayers. According to this law, the Company has applied for an exemption in 2017, for the benefit of its shareholders, from this tax. That exemption will apply for fiscal years 2016 to 2018, inclusive.

### ***Tax on debits and credits in bank accounts***

Tax on debits and credits in bank accounts is levied, with certain exceptions, for debits and credits on checking accounts maintained at financial institutions located in Argentina and other transactions that are used as a substitute for the use of checking accounts. The general tax rate is 0.6% for each debit and credit, although in certain cases a decreased rate may apply. The account holder may use up to 34% of the tax paid in respect of credits as a credit against other federal taxes. On December 29, 2017, Law No. 27,432 introducing modifications to this credit mechanism was published in the Official Gazette. The PEN may fix the tax percentage to be computed as payment on account of the income tax, which will be progressively increased by up to 20% per year as of January 1, 2018, and it may also establish that this tax will be fully computed as payment on account of the income tax in 2022.

On May 7, 2018 Decree No 409/2018 established that the account holder may use up to 33% of the tax paid in respect of credits and debits as a credit against other federal taxes. This rule was applicable as of January 1, 2018.

### ***Value added tax***

The sale, exchange or other disposition of our Class D shares or ADSs and the distribution of dividends are exempt from the value added tax.

### ***Stamp taxes***

Stamp taxes may apply in certain Argentine provinces if transfer of our Class D shares or ADSs is performed or executed in such jurisdictions by means of written agreements. Transfer of our Class D shares or ADSs is exempt from stamp tax in the City of Buenos Aires.

### ***Estate and gift tax***

The province of Buenos Aires has imposed a tax on the reception of assets through inheritance or gift, effective January 1, 2011. The tax rates vary from 1.6026% to 8.784%, depending on the value of the transferred assets and the relationship between the transferor and the transferee. The transfer of Class D shares or ADSs among residents of the province of Buenos Aires shall be subject to this tax if other applicable conditions are met.

### ***Other taxes***

Subject to the discussion above regarding estate and gift taxes in the province of Buenos Aires, there are no Argentine inheritance or succession taxes applicable to the ownership, transfer or disposition of our Class D shares or ADSs. In addition, neither the minimum presumed income tax nor any local gross turnover tax in the City of Buenos Aires is applicable to the ownership, transfer or disposition of our Class D shares or ADSs.

In the case of litigation regarding the Class D shares or ADSs before a court of the City of Buenos Aires, a 3% court fee would be charged, calculated on the basis of the claim.

*Tax treaties*

Argentina has tax treaties for the avoidance of double taxation currently in force with Australia, Belgium, Bolivia, Brazil, Canada, Chile, Denmark, Finland, France, Germany, Italy, Mexico, the Netherlands, Norway, Russia, Spain, Sweden, Switzerland, the United

**Table of Contents**

Kingdom and Uruguay. The tax treaties between Argentina and the United Arab Emirates, Qatar, Turkey, China and Japan have been signed, but the treaties have not yet been ratified by their respective governments. There is currently no tax treaty or convention in effect between Argentina and the United States. It is not clear when, if ever, a treaty will be ratified or entered into effect. As a result, the Argentine tax consequences described in this section will apply, without modification, to a holder of our Class D shares or ADSs that is a U.S. resident. Foreign shareholders located in certain jurisdictions with a tax treaty in force with Argentina may be (i) exempted from the payment of the personal assets tax and (ii) entitled to apply for reduced withholding tax rates on payments to be made by Argentine parties.

***Modifications to the Income Tax Law***

On December 29, 2017, Law No. 27,430 and 27,432 introducing modifications to the Income Tax and other taxes was published in the Official Gazette. This summary describes some of the main changes to the corporate income tax and cross-border transaction provisions. On December 27, 2018, this law has been regulated by the National Executive Office, by Decrees Nos. 1,170/2018, 279/2018 and 976/2018.

*Income tax***Corporate income tax rate and dividend withholding tax**

The law decreases the corporate income tax rate from 35% to 30% for fiscal years starting January 1, 2018 to December 31, 2019, and to 25% for fiscal years starting January 1, 2020 and onwards. The law also establishes a dividend withholding tax and repeals the current equalization tax. See section Dividends tax.

**Nonresident's capital gains tax**

The new law establishes a 15% withholding on capital gains derived from the sale of shares or other similar securities (calculated on the actual or presumed gains equivalent to 90% of the sale price). The law establishes an exemption applicable to foreign beneficiaries who sell listed shares under the supervision of the CNV. Furthermore, an exemption is established for the interest and sale results of government bonds, NO and ADRs. These exemptions will only apply to non-resident foreign beneficiaries do not reside or whose funds do not derive from non-cooperating jurisdictions. Finally, such exemptions do not apply to those benefits derived from the securities known as Lebac.

In the case of ADRs, the law established that the source thereof is given by the residence of the issuer of the respective shares. The law established that the income from the purchase-sale of an ADR is of Argentine source if the company that issues the share is Argentine and that it is from a foreign source if the issuer is foreign.

**Indirect transfers made by nonresidents**

The law establishes a tax on the indirect transfer of assets located in Argentina. In particular, the tax is triggered on the sale or transfer by nonresidents of shares or other participations in foreign entities when the following two conditions are met: (i) at least 30% of the value of the foreign entity derives from assets located in Argentina; and (ii) the participation being transferred represents (at the moment of the sale or during the 12 prior months) at least 10% of the equity of the foreign entity.

The applicable rate is generally 15% (calculated on the actual net gain or a presumed net gain equal to 90% of the sale price), of the proportional value that corresponds to the Argentine assets.

For other Tax Regulations see Note 30.j) to the Audited Consolidated Financial Statements.

Additionally, on March 21, 2019, the Company's management informed the Board of Directors of the decision to adhere to the tax revaluation and to the payment plan for lawsuits maintained within the Argentine Tax Court as mentioned in Note 30.j. The quantified effects, as of January 1, 2019, are detailed below.

With respect to the tax revaluation, which expired on March 29, 2019 and to which the Company adhered, in relation to the category of Mines, quarries, forests and similar goods, the regulation establishes the payment of a special tax of 10%, which implies a loss of approximately Ps. 4,600 and will allow a greater deduction of the depreciation of the revalued assets on income tax (including its annual revaluation for tax deduction purposes) from 2018 fiscal period inclusive, and which it also implies the recognition of a gain of approximately Ps. 32,700 as a result of the recognition of the effect of such revaluation on deferred tax.

Additionally, in relation to the dispute with AFIP over the cost deduction for wells abandonment on income tax (see also Note 28.b.4), the Company has decided to adhere to the payment plan for the years 2005-2010, for an amount of approximately Ps. 5,500, to be paid on 60 installments, plus a variable interest. The loss due to the recording of the liabilities for all the years not prescribed (including the previous mentioned amount) would amount to approximately Ps. 18,800.

The effects resulting from these recently adopted decisions will impact the Company's financial statements for the first quarter of the year 2019.

#### **United States Federal Income Tax Considerations**

The following are the material U.S. federal income tax consequences of owning and disposing of our Class D shares or ADSs. This discussion does not purport to be a comprehensive description of all the tax considerations that may be relevant to a particular person's decision to hold such securities.



**Table of Contents**

This discussion applies only if you are a U.S. Holder (as defined below) and you hold our Class D shares or ADSs as capital assets for U.S. federal income tax purposes, and it does not describe all of the tax consequences that may be relevant to holders, subject to special rules, such as:

certain financial institutions;

insurance companies;

dealers and traders in securities or financial instruments, who use a mark-to-market method of tax accounting;

persons holding Class D shares or ADSs as part of a hedge, straddle, wash sale, conversion transaction, integrated transaction or similar transaction or persons entering into a constructive sale with respect to the Class D shares or ADSs;

persons whose functional currency for U.S. federal income tax purposes is not the U.S. dollar;

certain taxpayers who file applicable financial statements required to recognize income for U.S. federal income tax purposes no later than when the associated revenue is reflected on such financial statements;

entities classified as partnerships for U.S. federal income tax purposes;

persons liable for the alternative minimum tax;

persons who acquired our Class D shares or ADSs pursuant to the exercise of an employee stock option or otherwise as compensation;

persons holding Class D shares or ADSs in connection with a trade or business conducted outside of the United States;

tax-exempt entities, including individual retirement accounts or Roth IRAs ; or

persons holding Class D shares or ADSs that own or are deemed to own ten percent or more of the total combined vote or value of the outstanding shares.

The discussion does not address non-U.S. federal income taxes like any state, local or foreign taxes, the Medicare tax on net investment income or the federal alternative minimum tax. Special rules also apply to individuals, certain of which may not be discussed below. Prospective investors should note that no rulings have been, or are expected to be, sought from the U.S. Internal Revenue Service (the IRS ) with respect to any of the U.S. federal income tax consequences discussed below, and no assurance can be given that the IRS or a court will not take contrary positions.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds Class D shares or ADSs, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and upon the activities of the partnership. Partnerships holding Class D shares or ADSs and partners in such partnerships should consult their tax advisers as to the particular U.S. federal income tax consequences of holding and disposing of the Class D shares or ADSs.

This discussion is based on the Internal Revenue Code of 1986, as amended (the Code ), administrative pronouncements, judicial decisions and final, temporary and proposed Treasury regulations, all as of the date hereof. These laws are subject to change, possibly on a retroactive basis. It is also based in part on representations by the Depository and assumes that each obligation under the deposit agreement and any related agreement will be performed in accordance with its terms.

You are a U.S. Holder if you are a beneficial owner of Class D shares or ADSs and are, for U.S. federal income tax purposes:

a citizen or individual resident of the United States for U.S. federal income tax purposes;

a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia; or

an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

In general, if you own ADSs, you will be treated as the owner of the underlying shares represented by those ADSs for U.S. federal income tax purposes. Accordingly, no gain or loss will be recognized if you exchange ADSs for the underlying shares represented by those ADSs.

The U.S. Treasury has expressed concerns that parties to whom American depositary shares are released before the underlying shares are delivered to the depository, or intermediaries in the chain of ownership between U.S. Holders and the issuer of the shares underlying the American depositary shares, may be taking actions that are inconsistent with the claiming of foreign tax credits by U.S. holders of American depositary shares. Such actions would also be inconsistent with the claiming of the reduced rate of tax, described below, applicable to dividends received by certain non-corporate holders. Accordingly, the creditability of Argentine taxes, and the availability of the reduced tax rate for dividends received by certain non-corporate holders, each described below, could be affected by actions taken by such parties or intermediaries.

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**Table of Contents**

Please consult your own tax adviser concerning the U.S. federal, state, local and foreign tax consequences of owning and disposing of Class D shares or ADSs in your particular circumstances.

This discussion assumes that YPF is not, and will not become, a passive foreign investment company, as described below.

***Taxation of distributions***

Distributions paid on Class D shares or ADSs, other than certain pro rata distributions of ordinary shares, will be treated as dividends to the extent paid out of current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Because we do not maintain calculations of earnings and profits under U.S. federal income tax principles, it is expected that distributions will generally be reported to U.S. Holders as dividends. Subject to applicable limitations (including a minimum holding period requirement), the discussion above regarding concerns expressed by the U.S. Treasury and the discussion below regarding passive foreign investment company rules, certain dividends paid by qualified foreign corporations to certain non-corporate U.S. Holders that constitute qualified dividend income are taxable at a reduced rate. Dividends paid on the Class D shares or ADSs generally will be treated as qualified dividend income if (i) the Class D shares or ADSs are readily tradable on an established securities market in the United States, (ii) the U.S. Holder meets the holding period requirement for the Class D shares or ADSs (generally more than 60 days during the 121-day period that begins 60 days before the ex-dividend date), and (iii) we were not in the year prior to the year in which the dividend was paid, and are not in the year in which the dividend is paid, a passive foreign investment company (as defined below). A foreign corporation is treated as a qualified foreign corporation with respect to dividends paid on stock that is readily tradable on an established securities market in the United States, such as the NYSE, where our ADSs are listed. As it relates to certain corporate U.S. Holders, U.S. tax rules may apply to reduce the tax rate on dividend income based on the holders' ownership and minimum holding period in the Class D shares or ADSs. You should consult your own tax adviser to determine whether the favorable rate may apply to dividends you receive in respect of our Class D shares or ADSs and whether you are subject to any special rules that limit your ability to be taxed at this favorable rate. The amount of a dividend will include any amounts withheld by us in respect of Argentine income taxes. The dividends will be treated as foreign-source dividend income and may, other than as discussed above, not be eligible for the dividends-received deduction generally allowed to U.S. corporations under the Code.

Any dividends paid in Argentine pesos will be included in your income in a U.S. dollar amount calculated by reference to the exchange rate in effect on the date of your, or in the case of ADSs, the Depositary's, receipt of the dividend, regardless of whether the payment is in fact converted into U.S. dollars. If the dividend is converted into U.S. dollars on the date of receipt, you generally would not recognize foreign currency gain or loss in respect of the dividend income. You may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of receipt. Foreign currency gain or loss that you recognize will generally be treated as U.S.-source ordinary income or loss.

Subject to generally applicable limitations that may vary depending upon your circumstances (including a minimum holding period requirement and limits on credits that may be claimed with respect to qualified dividend income) and, in the case of ADSs, subject to the discussion above regarding concerns expressed by the U.S. Treasury, Argentine income taxes, if any, withheld from dividends on Class D shares or ADSs will be creditable against your U.S. federal income tax liability. Amounts paid on account of the Argentine personal assets tax may not be eligible for credit against your U.S. federal income tax liability. You should consult your tax adviser to determine the tax consequences applicable to you as a result of the payment of the Argentine personal assets tax or the withholding of the amount of such tax from distributions, including whether such amounts are includible in income or are deductible for U.S. federal income tax purposes. The rules governing the foreign tax credit are complex. You are urged to consult your tax

adviser regarding the availability of the foreign tax credit under your particular circumstances.

***Sale or other disposition of Class D shares or ADSs***

For U.S. federal income tax purposes, gain or loss you realize on the sale or other disposition of Class D shares or ADSs generally will, subject to the discussion below regarding passive foreign investment company rules, be capital gain or loss and will be long-term capital gain or loss if you held the Class D shares or ADSs for more than one year. Certain non-corporate U.S. Holders (including individuals) generally will be subject to U.S. federal income tax on long-term capital gain at preferential rates. The amount of your gain or loss will be equal to the difference between the amount realized on the disposition and your adjusted tax basis in the relevant Class D shares or ADSs, each as determined in U.S. dollars. The deductibility of capital losses is subject to limitations.

If Argentine income tax is withheld on the sale or other taxable disposition of a Class D share or ADS, the amount realized by a U.S. Holder will include the gross amount of the proceeds of the sale or other taxable disposition before deduction of such tax. Capital gain or loss, if any, realized by a U.S. Holder on the sale or other taxable disposition of the Class D share or ADS generally will be treated as U.S.-source gain or loss for U.S. foreign tax credit purposes. Consequently, in the case of a gain from the disposition of a Class D share or ADS that is subject to Argentine income tax, the U.S. Holder may not be able to benefit from the U.S. foreign tax credit for the tax unless the U.S. Holder can apply the credit against U.S. federal income tax payable on other income from foreign sources. Alternatively, the U.S. Holder may take a deduction for the Argentine income tax if it does not elect to claim a foreign tax credit for any non-U.S. income taxes paid during the taxable year.

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**Table of Contents*****Passive foreign investment company rules***

YPF believes that it was not a passive foreign investment company ( PFIC ) for U.S. federal income tax purposes for the taxable year of 2018 and does not expect to be a PFIC in the foreseeable future. However, since PFIC status depends upon the composition of a company's income and assets and the market value of its assets from time to time, there can be no assurance that YPF will not be considered a PFIC for any taxable year. If YPF were treated as a PFIC for any taxable year during which you held a Class D share or ADS, you generally would be subject to additional filing requirements, imputed interest charges and other disadvantageous tax treatment (including the denial of taxation at the lower rates applicable to long-term capital gains with respect to any gain from the sale or exchange of Class D shares or ADSs). Certain elections might be available that would result in alternative treatments (such as mark-to-market treatment). U.S. Holders should consult their tax advisers to determine whether any of these elections would be available and, if so, what the consequences of the alternative treatments would be in their particular circumstances.

In addition, if YPF were to be treated as a PFIC in a taxable year in which it paid a dividend or the prior taxable year, the reduced dividend rate discussed above with respect to dividends paid by qualified foreign corporations to certain non-corporate holders would not apply.

***Information reporting and backup withholding***

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting and may be subject to backup withholding unless (i) you are an exempt recipient or (ii) in the case of backup withholding, you provide a correct taxpayer identification number and certify that you are not subject to backup withholding.

The amount of any backup withholding from a payment to you will be allowed as a credit against your U.S. federal income tax liability and may entitle you to a refund, provided that the required information is timely furnished to the IRS.

Certain U.S. Holders may be required, generally on IRS Form 8938, to report information relating to their ownership of securities of a non-U.S. person, subject to certain exceptions (including an exception for stock held in certain accounts maintained by a U.S. financial institution, such as our ADSs). A U.S. Holder who fails to timely furnish the required information may be subject to a penalty. U.S. Holders are urged to consult their tax advisers regarding the effect, if any, of these rules on their ownership and disposition of Class D shares or ADSs.

**Documents on Display**

YPF is subject to the information requirements of the U.S. Securities Exchange Act (the Exchange Act ), except that as a foreign issuer, YPF is not subject to the proxy rules or the short-swing profit disclosure rules of the Exchange Act. In accordance with these statutory requirements, YPF files or furnishes reports and other information with the SEC. Reports and other information filed or furnished by YPF with the SEC may be inspected and copied at the public reference facilities maintained by the SEC at 100 F Street, N. E., Washington, D.C. 20549. Copies of such material may be obtained by mail from the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates. You may obtain information on the operation of the Public Reference Section by calling the SEC at +1-800-732-0330. All of the SEC filings made electronically by YPF are available to the public on the SEC's website at <http://www.sec.gov>.

**ITEM 11. Quantitative and Qualitative Disclosures about Market Risk**

The following quantitative and qualitative information is provided about financial instruments to which we are a party as of December 31, 2018, and from which we may derive gains or incur losses from changes in market, interest rates, foreign exchange rates or commodity prices. We do not enter into derivative or other financial instruments for trading purposes.

This discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results could vary materially as a result of a number of factors including those set forth in Item 3. Key Information Risk Factors.

*Foreign currency exposure*

The value of financial assets and liabilities denominated in a currency different from the Company's functional currency is subject to variations resulting from fluctuations in exchange rates. Since YPF's functional currency is the U.S. dollar, the currency that generates the greatest exposure is the Argentine peso, the Argentine legal currency. See Note 2.b.1 to the Audited Consolidated Financial Statements.

**Table of Contents**

In addition, our costs and receipts denominated in currencies other than the Argentine peso, including the U.S. dollar, often do not match. We generally follow a policy of not hedging our debt obligations in U.S. dollars. See Item 3. Key Information Risk Factors Risks Relating to Argentina We may be exposed to fluctuations in foreign exchange rates.

Additionally, YPF is enabled to operate as settlement agent in the Rosario Futures Market ( ROFEX ).

The annual rate of devaluation of the Argentine peso was approximately 101.4% considering the period-end exchange rates for U.S. dollars as of December 31, 2018 and 2017. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions for additional information. The main effects of a devaluation of the Argentine Peso on our net profit are those related to the accounting of deferred income tax related mainly to fixed assets, which we expect would have a negative effect; current income tax which we expect would have a positive effect; increased depreciation and amortization resulting from the remeasurement in pesos of our fixed and intangible assets; and exchange rate differences as a result of our exposure to the peso, which we expect would have a positive effect due to the fact that our functional currency is the U.S. dollar. See Item 3. Key Information Risk Factors Risks Relating to Argentina We may be exposed to fluctuations in foreign exchange rates.

As mentioned in Note 2.b.1 to Audited Consolidated Financial Statements, the Company has determined that the U.S. dollar is its functional currency. Therefore, the effect of changes in the dollar exchange rate on dollar currency positions have no impact on the exchange difference recorded in the consolidated statements of comprehensive income included in the Audited Consolidated Financial Statements, but affect the amount of our assets and liabilities remeasured in pesos as a consequence of devaluation and considering our reporting currency (pesos). For additional information about our assets and liabilities denominated in currencies other than pesos (principally U.S. dollars) see Note 33 to our Audited Consolidated Financial Statements.

***Interest rate exposure***

The table below provides information about our assets and liabilities as of December 31, 2018 that may be sensitive to changes in interest rates. See Item 3. Key Information Risk Factors Risks Relating to Argentina Variations in interest rates and exchange rate on our current and/or future financing arrangements may result in significant increases in our borrowing costs . See additionally, Note 4 and Note 16 to the Audited Consolidated Financial Statements.

<i>Less than 1 year</i>	<i>1 2 years</i>	<i>2 3 years</i>	<i>Expected Maturity Date 3 4 years (in millions of pesos)</i>	<i>4 5 years</i>	<i>More than 5 years</i>	<i>Total</i>
	34,771					34,771
	2.18%-2.25%					
	889					889
	BADLAR <sup>(1)</sup> +4.5%					

	11,911	2,224	37,648	21,823	17,224	145,223	236,053
	3.5%-8.875%	3.5%-8.25%	6.95%-8.25%	6.95%-16.5%	6.95%-8.75%	6.95%-10%	
	21,697	880	10,096				32,673
	2.1%-7%	4.2%-7%	4.2%-6.125%				
	4,038	17,499	2,183	833	833	167	25,553
	BADLAR <sup>(1)</sup>	BADLAR <sup>(1)</sup>	BADLAR <sup>(1)</sup>	BADLAR <sup>(1)</sup>	BADLAR <sup>(1)</sup>	BADLAR <sup>(1)</sup>	
	+0%-+10%	+0%-+6%	+0%-+6%	+0%-+0,1%	+0%-+0,1%	+0.1%	
	17,933	6,979	5,264	467	468	440	31,551
	LIBOR	LIBOR	LIBOR	LIBOR	LIBOR		
	+1.25%-4% /	1.25%-4%/	+3%-+3.5% /	+3.45%-+3.5% /	+3.45%-+3.5% /		
	BADLAR <sup>(1)</sup>	BADLAR <sup>(1)</sup>	BADLAR <sup>(1)</sup>	BADLAR <sup>(1)</sup>	BADLAR <sup>(1)</sup>		
	+2 - +4.5%	+2 -+4.5%	+2 - +4.5%	+2 - +4.5%	+2 - +4.5%		

(1) Refers to the average interest rate that banks pay for deposits of more than Ps. 1 million.



**Table of Contents**

***Crude oil and other hydrocarbon product price exposure***

Our results of operations are also exposed to volatility mainly in the prices of certain oil products, especially in connection with imports. Although we have occasionally contracted financial derivatives in the past with the aim of decreasing exposure to these commodities price risks, as of the date of this annual report YPF was not a party to any commodity hedging instruments in connection with crude oil and other hydrocarbon product prices. For information on our hydrocarbons delivery commitments as of December 31, 2018, see Item 4. Information on the Company Upstream Delivery commitments.

**ITEM 12. Description of Securities Other than Equity Securities**

***American Depositary Shares***

Our ADSs are listed on the NYSE under the symbol YPF. The Bank of New York Mellon is the Depositary. Each ADS represents the right to receive one share.

The Depositary collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The Depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The Depositary may collect its annual fee for depositary services by deductions from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them. The Depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

The table below sets forth the fees payable, either directly or indirectly, by a holder of ADSs as of the date of this annual report.

Persons depositing or withdrawing shares must pay: U.S.\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	For: Issuance of ADRs (including, without limitation, issuance pursuant to a stock dividend or stock split declared by YPF, an exchange of stock or a distribution of rights) and surrender of ADRs
Cancellation of ADSs for the purpose of withdrawal  A fee equivalent to the fee that would be payable if securities distributed to a holder had been shares and the shares had been deposited for issuance of ADSs	Sale, on behalf of the holder, of rights to subscribe for additional shares or any right of any nature distributed by YPF
Transfer fees, as may from time to time be in effect	Transfer and registration of shares on YPF share register to or from the name of the depositary or its agent when a holder deposits or withdraws shares
Expenses of the depositary	Cable, telex and facsimile transmission expenses, as provided in the deposit agreement  Expenses incurred by the depositary in the conversion

of foreign currency<sup>(1)</sup>

Taxes and other governmental charges the depositary or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes As necessary

- (1) Pursuant to our deposit agreement, whenever the depositary shall receive foreign currency, as a cash dividend or other distribution which, in the judgment of the depositary, can be converted on a reasonable basis into U.S. dollars and transferred to the United States, it will convert such foreign currency into U.S. dollars and transfer the resulting U.S. dollars (after deduction of its customary charges and expenses in effecting such conversion) to the United States.

**Table of Contents**

In 2018, the Depositary made a payment of U.S.\$112,497 to YPF.

**PART II**

**ITEM 13. Defaults, Dividend Arrearages and Delinquencies**

None.

**ITEM 14. Material Modifications to the Rights of Security Holders and Use of Proceeds**

None.

**ITEM 15. Controls and Procedures**

*Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures*

As of December 31, 2018, YPF, under the supervision and with the participation of YPF's management, including our current Principal Executive Officer and Principal Financial Officer, performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) or Rule 15d-15(e) under the Exchange Act). There are, as described below, inherent limitations to the effectiveness of any control system, including disclosure controls and procedures. Accordingly, even effective disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives.

Based on this evaluation, the Chief Executive Officer and the Controller concluded that there was reasonable assurance that the design and operation of these disclosure controls and procedures were effective as of December 31, 2018, in ensuring that information required to be disclosed in reports that the company files under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (2) accumulated and communicated to our management, including our Principal Executive Officer and Principal Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

*Management's Report on Internal Control Over Financial Reporting*

Management of YPF is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act). YPF's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS and includes those policies and procedures that:

Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of YPF;

Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS, and that our receipts and expenditures are being made only in

accordance with authorizations of YPF's management and directors; and

Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, any system of internal control over financial reporting, no matter how well designed, may not prevent or detect misstatements, due to the possibility that a control can be circumvented or overridden or that misstatements due to error or fraud may occur that are not detected. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

## **Table of Contents**

Under the supervision and with the participation of YPF's management, including our current Principal Executive Officer and Principal Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting using the criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Based on this assessment, our management concluded that, our internal control over financial reporting was effective as of December 31, 2018.

Our internal control over financial reporting as of December 31, 2018 has been audited by Deloitte & Co. S.A., an independent registered public accounting firm, as stated in their report included in the F-pages of this annual report.

### *Changes in Internal Control Over Financial Reporting*

There were no changes in the YPF's internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during the period covered by this annual report on Form 20-F that have materially affected, or are reasonably likely to materially affect our internal control over financial reporting.

## **ITEM 16.**

### **ITEM 16A. Audit Committee Financial Expert**

Our Board of Directors, at its meeting held on April 27, 2018, determined that Carlos Alberto Felices is the Audit Committee Financial Expert. YPF believes that Mr. Felices possesses the attributes of an Audit Committee Financial Expert set forth in the instructions to Item 16A of Form 20-F. Mr. Felices is an independent director.

### **ITEM 16B. Code of Ethics**

YPF has adopted a Code of Ethics and Conduct (Code of Ethics) applicable to the Board of Directors, all YPF employees, contractors, sub-contractors, vendors, suppliers and business partners conducting business with YPF, which was most recently amended effective August 8, 2017. The amendment introduced a new value to the Code of Ethics regarding gender equality. Since August 15, 2003, we have not waived compliance with the Code of Ethics. YPF undertakes to provide to any person without charge, upon request, a copy of such Code of Ethics.

The Code of Ethics establishes the implementation of an ethics hotline to receive complaints regarding the lack of fulfilment of the Code of Ethics, an Ethics Committee that will consider complaints received, the appointment of an Ethics Officer (Chief Compliance Officer), who will conduct pertinent investigations, the incorporation of a policy on prohibited periods for trading YPF securities to be followed by officers and those others to whom the Code of Ethics is applicable when conducting stock transactions, among other requirements.

A copy of the Code of Ethics can be found at the Company's web page, [www.ypf.com](http://www.ypf.com), or it can be requested in writing by telephone or facsimile from us at the following address: YPF S.A.

Office of Investors Relations

Macacha Güemes 515

C1106BKK Buenos Aires, Argentina

### **Ethics Committee**

The Board of Directors created the Ethics Committee, which is in charge of implementing the Code of Ethics and Conduct of YPF, and assessing and establishing the actions required to address the reported situations. It also supervises YPF's Ethics Line. It is composed of five members, three of which shall serve as Internal Auditor, Legal Affairs Corporate Vice-President and Human Resources Vice-President, while the other two will be appointed by the Chairman of the Board of Directors of YPF S.A. from among employees which perform in operative or business areas. As of the date of this annual report, the Ethics Committee is composed of the following members: Javier Fevre (Internal Auditor) Germán Fernández Lahore (Legal Affairs Corporate Vice President), José Manuel Aggio (Human Resources Vice President), Marcos Browne (Gas and Energy Executive Vice President) and Carlos Alfonsi (Operations and Transformation Executive Vice President).

**Table of Contents****ITEM 16C. Principal Accountant Fees and Services**

The following table provides information on the aggregate fees billed by our principal accountants, Deloitte & Co. S.A. and affiliates by type of service rendered for the periods indicated.

<i>Services Rendered</i>	<i>2018</i>		<i>2017</i>		<i>2016</i>	
	<i>Fees</i>	<i>Expenses</i>	<i>Fees</i>	<i>Expenses</i>	<i>Fees</i>	<i>Expenses</i>
	<i>(in thousands of pesos)</i>					
Audit Fees	71,944	710	61,318	668	53,855	857
Audit-Related Fees <sup>(1)</sup>	3,502		3,666		1,801	
Tax Fees	827		1,011		638	
All Other Fees	35,038		7,156		2,434	
	111,311	710	73,151	668	58,728	857

(1) Mainly Includes accounting certification, special reports, agreed upon procedures (including Due Diligence reports) and other assurance reports provided by auditors to be presented within regulatory agencies and bodies, financial institutions and others.

The annual shareholders meeting of YPF appoints the external auditor of YPF, along with the Audit Committee's non-binding opinion, which is submitted for consideration to the annual shareholders meeting.

The Audit Committee of YPF has a pre-approval policy regarding the contracting of YPF's external auditor, or any affiliate of the external auditor, for professional services. The professional services covered by such policy include audit and non-audit services provided to YPF or any of its subsidiaries.

The pre-approval policy is as follows:

1. The Audit Committee must pre-approve all audit and non-audit services to be provided to YPF or any of its subsidiaries by the external auditor (or any of its affiliates) of YPF.
2. The Chairman of the Audit Committee has been delegated the authority to approve the hiring of YPF's external auditor (or any of its affiliates) without first obtaining the approval of the Audit Committee for any of the services which require pre-approval as described in (1) above.

Services approved by the Chairman of the Audit Committee as set forth above must be ratified at the next plenary meeting of the Audit Committee.

All services described in the table above were approved by the Audit Committee of YPF.

Regarding the amounts of Tax Fees mainly corresponds to services related to tax compliance and advice for certain subsidiaries.

In relation to the amounts of All Other Fees : i) for year 2016 through 2018 includes fees billed related to a quality assurance service for a subsidiary system implementation and services related to sustainability reports for YPF; ii) also for year 2017 an assistance service on SAP GRC tool; ii) and for year 2018 also includes services to YPF related to assistance on a cybersecurity transformation project and, on a lesser extent, information security for compliance with PCI requirements.

**ITEM 16D. Exemptions from the Listing Standards for Audit Committees**

None



**Table of Contents****ITEM 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

<b>Period</b>	<b>Total Number of Shares Purchased</b>	<b>Average Prices Paid per Share (Ps. per share) (b)</b>	<b>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</b>	<b>Maximum Approximate Ps. Value of Shares that May Yet Be Purchased Under the Plans or Programs (a)</b>
January 2018				
February 2018				
March 2018				
April 2018				
May 2018				120,000,000
May 2018 (from 5/10 to 5/18)	250,795	478.47	250,795	536.34
June 2018				
July 2018				
August 2018				
September 2018				
October 2018				
November 2018				
December 2018				

(a) On April 27, 2018, the General and Extraordinary Shareholders Meeting was held, approving the amount of Ps. 120 million to establish a reserve to purchase Company shares, in order to make it possible for the Board of Directors to acquire Company shares when they consider it opportune, and to fulfill commitments under the bonus and incentive plans, both currently existing and those that may arise in the future. The Board of Directors, at its meeting held on May 8, 2018, approved a Stock Compensation Plan for employees, which allows YPF to repurchase its shares on the BASE and NYSE for an aggregate amount of up to Ps. 120 million.

(b) The average prices paid per share include commissions.

See Note 2.b.10.iii to the Audited Consolidated Financial Statements.

**ITEM 16F. Change in Registrant's Certifying Accountant**

During the years ended December 31, 2018, 2017 and 2016 and through the date of this annual report, the principal independent accountant engaged to audit our financial statements, Deloitte & Co S.A., has not resigned, indicated that it has declined to stand for re-election after the completion of its current audit or been dismissed.

**ITEM 16G. Corporate Governance**

See Item 6. Directors, Senior Management and Employees Compliance with New York Stock Exchange Listing Standards on Corporate Governance.

**ITEM 16H. Mine Safety Disclosure**

None

**PART III**

**ITEM 17. Financial Statements**

The registrant has responded to Item 18 in lieu of responding to this Item.

**Table of Contents**

**ITEM 18. Financial Statements**

The following financial statements are filed as part of this annual report:

Reports of Independent Registered Public Accounting Firm

Consolidated Statement of Financial Position of YPF as of December 31, 2018, 2017 and 2016 F-3

Consolidated Statements of Comprehensive Income of YPF for the years ended December 31, 2018, 2017 and 2016 F-4

Consolidated Statements of Changes in Shareholders' Equity of YPF for the years ended December 31, 2018, 2017 and 2016 F-5

Consolidated Statements of Cash Flow of YPF for the years ended December 31, 2018, 2017 and 2016 F-8

Notes to the Audited Consolidated Financial Statements of YPF for the years ended December 31, 2018, 2017 and 2016 F-9

**ITEM 19. Exhibits**

1.1 By-laws (Estatutos) of YPF S.A. as amended (Spanish Version) \*

1.2 By-laws (Estatutos) of YPF S.A. as amended (English Version) \*

11.1 Code of Ethics \*\*

12.1 Section 302 Certification by Chief Executive Officer

12.2 Section 302 Certification by Controller (Principal Financial Officer)

13.1 Section 906 Certification

15.1 Consent of Gaffney, Cline & Associates

15.2 Reserves Audit Report of Gaffney, Cline & Associates for YPF S.A. as of December 31, 2018, dated March 1, 2019.

101. INS XBRL Instance Document.

101. SCH XBRL Taxonomy Extension Schema Document.

101. CAL XBRL Taxonomy Extension Calculation Linkbase Document.

101. LAB XBRL Taxonomy Extension Label Linkbase Document.

101. PRE XBRL Taxonomy Extension Presentation Linkbase Document.

101. DEF XBRL Taxonomy Extension Definition Document.

\* Incorporated by reference to YPF's 2016 annual report on Form 20-F filed on April 7, 2017.

\*\* Incorporated by reference to YPF's 2017 annual report on Form 20-F filed on April 23, 2018.

Table of Contents

**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

YPF SOCIEDAD ANÓNIMA

By: /s/ Diego Pando

Name: Diego Pando

Title: Controller (Principal Financial Officer)

Dated: April 3, 2019

**Table of Contents**

**YPF SOCIEDAD ANONIMA**

**CONSOLIDATED FINANCIAL STATEMENTS**

**AS OF DECEMBER 31, 2018, 2017 and 2016**

**Table of Contents**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and shareholders of YPF SOCIEDAD ANONIMA

**Opinions on the Financial Statements and Internal Control over Financial Reporting**

We have audited the accompanying consolidated statements of financial position of YPF SOCIEDAD ANONIMA (an Argentine Corporation) and its controlled companies (the Company) as of December 31, 2018, 2017, and 2016, the related consolidated statements of comprehensive income, changes in shareholders' equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

**Basis for Opinions**

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting (Item 15). Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that

**Table of Contents**

a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

**Definition and Limitations of Internal Control over Financial Reporting**

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Co. S.A.

Buenos Aires City, Argentina

April 3, 2019

We have served as the Company's auditor since 2002.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

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**YPF SOCIEDAD ANONIMA  
CONSOLIDATED FINANCIAL STATEMENTS AS OF DECEMBER 31, 2018, 2017 AND 2016**

**CONTENT**

<b>Note</b>	<b>Description</b>	<b>Page</b>
	<u>Glossary of terms</u>	F-1
	<u>Legal Information</u>	F-2
	<u>Consolidated statements of financial position</u>	F-3
	<u>Consolidated statements of comprehensive income</u>	F-4
	<u>Consolidated statements of changes in shareholders' equity</u>	F-5
	<u>Consolidated statements of cash flow</u>	F-8
	<u>Notes to the consolidated financial statements:</u>	
1	<u>General information, structure and organization of the business of the Group</u>	F-9
2	<u>Basis of preparation of the consolidated financial statements</u>	F-10
3	<u>Acquisitions and dispositions</u>	F-45
4	<u>Financial risk management</u>	F-49
5	<u>Segment information</u>	F-54
6	<u>Financial instruments by category</u>	F-56
7	<u>Intangible assets</u>	F-60
8	<u>Property, plant and equipment</u>	F-60
9	<u>Investments in associates and joint ventures</u>	F-63
10	<u>Inventories</u>	F-67
11	<u>Other receivables</u>	F-67
12	<u>Trade receivables</u>	F-67
13	<u>Cash and cash equivalents</u>	F-67
14	<u>Provisions</u>	F-68
15	<u>Income Tax</u>	F-75
16	<u>Loans</u>	F-76
17	<u>Other liabilities</u>	F-78
18	<u>Accounts payable</u>	F-78
19	<u>Revenues</u>	F-78
20	<u>Costs</u>	F-81
21	<u>Expenses by nature</u>	F-81
22	<u>Other net operating results</u>	F-83
23	<u>Net financial results</u>	F-83
24	<u>Investments in joint operations</u>	F-83
25	<u>Shareholders' equity</u>	F-85



26	<u>Earnings per share</u>	F-85
27	<u>Issues related to Maxus Entities</u>	F-86
28	<u>Contingent assets and contingent liabilities</u>	F-95
29	<u>Contractual commitments</u>	F-101
30	<u>Main regulations and other</u>	F-114
31	<u>Balances and transactions with related parties</u>	F-136
32	<u>Employee benefit plans and similar obligations</u>	F-139
33	<u>Assets and liabilities in currencies other than the Peso</u>	F-142
34	<u>Subsequent events</u>	F-143

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
CONSOLIDATED FINANCIAL STATEMENTS AS OF DECEMBER 31, 2018, 2017 AND 2016**

**GLOSSARY OF TERMS**

<b>Term</b>	<b>Definition</b>
ADR	American Depositary Receipt
ADS	American Depositary Share
AESA	Subsidiary A-Evangelista S.A.
AFIP	Argentine Tax Authority
ASC	Accounting Standards Codification
Associate	Company over which YPF has significant influence as provided for in IAS 28
BNA	Banco de la Nación Argentina
BO	Official Gazette of the Argentine Republic
BOE	Barrel of Oil Equivalent
BONAR	Argentine Treasury Bonds
CAMMESA	Compañía Administradora del Mercado Mayorista Eléctrico S.A.
CDS	Associate Central Dock Sud S.A.
CFO	Chief Financial Officer
CGU	Cash-Generating Units
CIMSA	Subsidiary Compañía de Inversiones Mineras S.A.
CNDC	Argentine Antitrust Authority
CNV	Argentine Securities Commission
CPI	Consumer price index
CSJN	Argentine Supreme Court of Justice
DOP	Deliver or pay
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
Eleran	Subsidiary Eleran Inversiones 2011 S.A.U.
ENARGAS	Argentine Gas Regulator
FACPCE	Argentine Federation of Professional Councils in Economic Sciences
FASB	Financial Accounting Standards Board
FOB	Free on Board
Group	YPF and its subsidiaries
IAS	International Accounting Standard
IASB	International Accounting Standards Board
IEASA (former ENARSA)	Integración Energética Argentina S.A. (former Energía Argentina S.A.)
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standard

IDS	Associate Inversora Dock Sud S.A.
INDEC	National Institute of Statistics and Census
IVA	Value Added Tax
Joint venture	Company jointly owned by YPF as provided for in IFRS 11
JO	Joint operation
IPIM	Internal Wholesale Price Index
IVA	Value Added Tax
LGS	Argentine General Corporations Law No. 19,550 (T.O. 1984), as amended
LNG	Liquefied natural gas
LPG	Liquefied Petroleum Gas
MEGA	Joint Venture Company Mega S.A.
Metroenergía	Subsidiary Metroenergía S.A.
Metrogas	Subsidiary Metrogas S.A.
MINEM	Former Ministry of Energy and Mining
MMBtu	Million British thermal units
NO	Negotiable Obligations
Oiltanking	Associate Oiltanking Ebytem S.A.
Oldelval	Associate Oleoductos del Valle S.A.
OPESSA	Subsidiary Operadora de Estaciones de Servicios S.A.
OTA	Associate OleoductoTrasandino (Argentina) S.A.
OTC	Associate OleoductoTrasandino (Chile) S.A.
PEN	National Executive Power
Peso	Argentine Peso
Profertil	Joint Venture Profertil S.A.
Refinor	Joint Venture Refinería del Norte S.A.
ROD	Record of Decision
SEC	U.S. Securities and Exchange Commission
SEE	Secretariat of Electric Energy
SGE	Government Secretariat of Energy
Subsidiary	Company controlled by YPF in accordance with the provisions of IFRS 10.
TCF	Trillion Cubic Feet
Termap	Associate Terminales Marítimas Patagónicas S.A.
TSEP	Transportation system entry point
UNG	Unaccounted Natural Gas
US\$	U.S. dollar
US\$/Bbl	U.S. dollar per barrel
Y-GEN I	Joint venture Y-GEN Eléctrica S.A.U.
Y-GEN II	Joint venture Y-GEN Eléctrica II S.A.U.
YPF Brasil	Subsidiary YPF Brasil Comercio Derivado de Petróleo Ltda.
YPF Chile	Subsidiary YPF Chile S.A.
YPF EE	Joint venture YPF Energía Eléctrica S.A.
YPF Gas	Associate YPF Gas S.A.
YPF Holdings	Subsidiary YPF Holdings, Inc.
YPF International	Subsidiary YPF International S.A.
YPF or the Company	YPF Sociedad Anónima
YTEC	Subsidiary YPF Tecnología S.A.
WEM	Wholesale Electricity Market

## **Table of Contents**

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## **YPF SOCIEDAD ANONIMA CONSOLIDATED FINANCIAL STATEMENTS AS OF DECEMBER 31, 2018, 2017 AND 2016**

### **LEGAL INFORMATION**

#### **Legal address**

Macacha Güemes 515 Ciudad Autónoma de Buenos Aires, Argentina

#### **Fiscal year number 42**

Beginning on January 1, 2018

#### **Principal business of the Company**

The Company's purpose shall be to perform, on its own, through third parties or in association with third parties, the exploration, development and production of oil, natural gas and other minerals and refining, marketing and distribution of oil and petroleum products and direct and indirect petroleum derivatives, including petrochemicals, chemicals, including those derived from hydrocarbons and non-fossil fuels, biofuels and their components, as well as production of electric power from hydrocarbons, through which it may manufacture, use, purchase, sell, exchange, import or export them. It shall also be the Company's purpose to render, directly, through a subsidiary, or in association with third parties, telecommunications services in all forms and modalities authorized by the legislation in force after applying for the relevant licenses, as required by the regulatory framework, as well as the production, industrialization, processing, commercialization, conditioning, transportation and stockpiling of grains and products derived from grains, as well as any other activity complementary to its industrial and commercial business or any activity which may be necessary to attain its objective. In order to fulfill these objectives, the Company may set up, become associated with or have an interest in any public or private entity domiciled in Argentina or abroad, within the limits set forth in the Bylaws.

#### **Filing with the Public Registry**

Bylaws filed on February 5, 1991 under No. 404, Book 108, Volume A , Sociedades Anónimas, with the Public Registry of Buenos Aires City, in charge of the Argentine Registrar of Companies (Inspección General de Justicia); and Bylaws in substitution of previous Bylaws, filed on June 15, 1993, under No. 5109, Book 113, Volume A , Sociedades Anónimas, with the above mentioned Registry.

#### **Duration of the Company**

Through June 15, 2093.

Last amendment to the Bylaws

April 29, 2016 registered with the Argentine Registrar of Companies (Inspección General de Justicia) on December 21, 2016 under No. 25,244, Book 82 of Corporations.

Capital structure

393,312,793 shares of common stock, Pesos 10 par value and 1 vote per share.

Subscribed, paid-in and authorized for stock exchange listing (in Pesos)

3,933,127,930

MIGUEL ANGEL GUTIERREZ  
President

F-2

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

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**YPF SOCIEDAD ANONIMA  
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

(Amounts expressed in millions of Argentine Pesos)

	Notes	2018	2017	2016
<b>ASSETS</b>				
<b>Noncurrent Assets</b>				
Intangible assets	7	20,402	9,976	8,114
Property, plant and equipment	8	699,087	354,443	308,014
Investments in associates and joint ventures	9	32,686	6,045	5,488
Assets held for disposal	3		8,823	
Deferred income tax assets, net	15	301	588	564
Other receivables	11	9,617	1,335	3,909
Trade receivables	12	23,508	2,210	87
Investment in financial assets	6			7,737
<b>Total noncurrent assets</b>		<b>785,601</b>	<b>383,420</b>	<b>333,913</b>
<b>Current Assets</b>				
Assets held for disposal	3	3,189		
Inventories	10	53,324	27,149	21,808
Contract assets	19	420	142	12
Other receivables	11	21,867	12,684	13,456
Trade receivables	12	72,646	40,649	33,645
Investment in financial assets	6	10,941	12,936	7,548
Cash and cash equivalents	13	46,028	28,738	10,757
<b>Total current assets</b>		<b>208,415</b>	<b>122,298</b>	<b>87,226</b>
<b>TOTAL ASSETS</b>		<b>994,016</b>	<b>505,718</b>	<b>421,139</b>
<b>SHAREHOLDERS EQUITY</b>				
Shareholders contributions		10,518	10,402	10,403
Reserves, other comprehensive income and retained earnings		348,682	141,893	108,352
<b>Shareholders equity attributable to shareholders of the parent company</b>		<b>359,200</b>	<b>152,295</b>	<b>118,755</b>
Non-controlling interest		3,157	238	(94)

<b>TOTAL SHAREHOLDERS EQUITY</b>		<b>362,357</b>	<b>152,533</b>	<b>118,661</b>
<b>LIABILITIES</b>				
<b>Noncurrent Liabilities</b>				
Liabilities associated with assets held for disposal	3		4,193	
Provisions	14	83,388	54,734	47,358
Deferred income tax liabilities, net	15	91,125	37,645	42,465
Contract liabilities	19	1,828	1,470	
Taxes payable		2,175	220	98
Loans	16	270,252	151,727	127,568
Other liabilities	17	549	277	336
Accounts payable	18	3,373	185	2,187
<b>Total noncurrent liabilities</b>		<b>452,690</b>	<b>250,451</b>	<b>220,012</b>
<b>Current Liabilities</b>				
Liabilities associated with assets held for disposal	3	3,133		
Provisions	14	4,529	2,442	1,994
Income tax liability		357	191	176
Contract liabilities	19	4,996	1,460	14
Taxes payable		10,027	6,879	4,440
Salaries and social security		6,154	4,132	3,094
Loans	16	64,826	39,336	26,777
Other liabilities	17	722	2,383	4,390
Accounts payable	18	84,225	45,911	41,581
<b>Total current liabilities</b>		<b>178,969</b>	<b>102,734</b>	<b>82,466</b>
<b>TOTAL LIABILITIES</b>		<b>631,659</b>	<b>353,185</b>	<b>302,478</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS EQUITY</b>		<b>994,016</b>	<b>505,718</b>	<b>421,139</b>

Accompanying notes are an integral part of consolidated financial statements

MIGUEL ANGEL GUTIERREZ  
President

**Table of Contents**

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**YPF SOCIEDAD ANONIMA  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME  
FOR THE YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016**

(Amounts expressed in millions of Argentine Pesos except per share information, expressed in Argentine Pesos)

	Notes	2018	2017	2016
<b>Net income</b>				
Revenues	19	435,820	252,813	210,100
Costs	20	(359,570)	(211,812)	(177,304)
<b>Gross profit</b>		<b>76,250</b>	<b>41,001</b>	<b>32,796</b>
Selling expenses	21	(27,927)	(17,954)	(15,212)
Administrative expenses	21	(13,922)	(8,736)	(7,126)
Exploration expenses	21	(5,466)	(2,456)	(3,155)
Recovery / (Impairment) of property, plant and equipment	2.c and 8	2,900	5,032	(34,943)
Other net operating results	22	11,945	(814)	3,394
<b>Operating profit / (loss)</b>		<b>43,780</b>	<b>16,073</b>	<b>(24,246)</b>
Income from equity interests in associates and joint ventures	9	4,839	1,428	588
Financial income	23	100,083	17,623	16,759
Financial loss	23	(63,681)	(28,629)	(24,944)
Other financial results	23	5,123	2,208	2,039
Net financial results	23	41,525	(8,798)	(6,146)
<b>Net profit / (loss) before income tax</b>		<b>90,144</b>	<b>8,703</b>	<b>(29,804)</b>
Income tax	15	(51,538)	3,969	1,425
<b>Net profit / (loss) for the year</b>		<b>38,606</b>	<b>12,672</b>	<b>(28,379)</b>
<b>Other comprehensive income</b>				
<i>Items that may be reclassified subsequently to profit or loss:</i>				
Translation differences from subsidiaries, associates and joint ventures		(18,307)	(641)	(938)
Result from net monetary position in subsidiaries, associates and joint ventures <sup>(1)</sup>		14,006		



Exchange differences reversed to profit for the period <sup>(2)</sup>	1,572		
Translation differences from Assets held for disposal		(499)	
<i>Items that may not be reclassified subsequently to profit or loss:</i>			
Translation differences from YPF	175,329	23,057	28,352
<b>Other comprehensive income for the year</b>	<b>172,600</b>	<b>21,917</b>	<b>27,414</b>
<b>Total comprehensive income / (loss) for the year</b>	<b>211,206</b>	<b>34,589</b>	<b>(965)</b>
<b>Net profit / (loss) for the year attributable to:</b>			
Shareholders of the parent company	38,613	12,340	(28,237)
Non-controlling interest	(7)	332	(142)
<b>Other comprehensive income for the year attributable to:</b>			
Shareholders of the parent company	169,674	21,917	27,414
Non-controlling interest	2,926		
<b>Total comprehensive income / (loss) for the year attributable to:</b>			
Shareholders of the parent company	208,287	34,257	(823)
Non-controlling interest	2,919	332	(142)
<b>Earnings per share attributable to shareholders of the parent company</b>			
Basic and Diluted	26	98.43	31.43 (72.13)

- (1) Result associated to subsidiaries, associates and joint ventures with the Peso as functional currency. See accounting policy in Note 2.b.1.
- (2) Corresponds to reversal to net profit for the year, for the partial disposal of the investment in YPF EE. See Note 3.

Accompanying notes are an integral part of consolidated financial statements

MIGUEL ANGEL GUTIERREZ  
President

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

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**YPF SOCIEDAD ANONIMA  
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY  
FOR THE YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016**

(Amounts expressed in millions of Argentine Pesos)

	2018								
	Adjustment		Shareholders contributions		Adjustment		Share- Acquisition		
	Subscribed	to	Treasury	to	based	cost of	Share trading	issuance	Total
	capital	contributions	shares	treasury	benefit	treasury	premium	premiums	
	contributions	sshares	shares	plans	shares	premium	premiums		
<b>Balance at the beginning of the fiscal year</b>	3,924	6,085	9	16	36	(91)	(217)	640	10,402
Modification to the balance at the beginning of the fiscal year <sup>(5)</sup>									
<b>Balance at the beginning of the fiscal year modified</b>	3,924	6,085	9	16	36	(91)	(217)	640	10,402
Accrual of share-based benefit plans <sup>(4)</sup>					308				308
Repurchase of treasury shares	(3)	(4)	3	4		(120)			(120)
Settlement of share-based benefit plans <sup>(2)</sup>	2	3	(2)	(3)	(229)	222	(65)		(72)
As decided by the Shareholders Meeting on April 27, 2018 <sup>(3)</sup>									
As decided by the Board of Directors on December 12, 2018 <sup>(3)</sup>									
Other comprehensive income									
Net profit (loss)									
	3,923	6,084	10	17	115	11	(282)	640	10,518

**Balance at the end of the fiscal year**

	2018								
	Reserves			Equity attributable to Shareholders					
	Legal	Future dividends	Purchase of treasury shares	Initial cost adjustment	Other comprehensive income	Retained earnings	of the parent company	Non-controlling interest	Total Shareholders equity
<b>Balance at the beginning of the fiscal year</b>	2,007		100		127,446	12,340	152,295	238	152,533
Modification to the balance at the beginning of the fiscal year <sup>(5)</sup>						(298)	(298)		(298)
<b>Balance at the beginning of the fiscal year modified</b>	2,007		100		127,446	12,042	151,997	238	152,235
Accrual of share-based benefit plans <sup>(4)</sup>							308		308
Repurchase of treasury shares							(120)		(120)
Settlement of share-based benefit plans <sup>(2)</sup>							(72)		(72)
As decided by the Shareholders Meeting on April 27, 2018 <sup>(3)</sup>		1,200	11,020	120		(12,340)			
As decided by the Board of Directors on December 12, 2018 <sup>(3)</sup>		(1,200)					(1,200)		(1,200)
Other comprehensive income					169,674		169,674	2,926	172,600
Net profit (loss)						38,613	38,613	(7)	38,606
<b>Balance at the end of the fiscal year</b>	2,007		11,020	220	297,120 <sup>(1)</sup>	38,315	359,200	3,157	362,357

- (1) Includes 307,720 corresponding to the effect of the translation of the financial statements of YPF, (21,680) corresponding to the effect of the translation of the financial statements of investments in subsidiaries, associates and joint ventures with functional currencies other than the U.S. dollar and 11,080 corresponding to the recognition of the result for the net monetary position of subsidiaries, associates and joint ventures with the Peso as functional currency, as detailed in Note 2.b.1.
- (2) Net of employees income tax withholdings related to the share-based benefit plans.
- (3) See Note 25.
- (4) See Note 32.
- (5) Corresponds to the change in the accounting policy described in Note 2.b.26.

MIGUEL ANGEL GUTIERREZ  
President

F-5

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY  
FOR THE YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016 (Cont.)**

(Amounts expressed in millions of Argentine Pesos)

	<b>2017</b>								
	<b>Adjustment</b>		<b>Shareholders contributions</b>		<b>AdjustmentShare- Acquisition</b>		<b>Share trading</b>		
	<b>Subscribed</b>	<b>to</b>	<b>Treasury</b>	<b>to</b>	<b>based</b>	<b>cost of</b>	<b>Share</b>	<b>issuance</b>	<b>Total</b>
	<b>capital</b>	<b>contributions</b>	<b>shares</b>	<b>treasury</b>	<b>benefit</b>	<b>treasury</b>	<b>premium</b>	<b>premiums</b>	
	<b>contributions</b>	<b>shares</b>	<b>shares</b>	<b>shares</b>	<b>plans</b>	<b>shares</b>	<b>premium</b>	<b>premiums</b>	
<b>Balance at the beginning of the fiscal year</b>	3,923	6,085	10	16	61	(152)	(180)	640	10,403
Accrual of share-based benefit plans <sup>(3)</sup>					162				162
Repurchase of treasury shares	(3)	(4)	3	4		(100)			(100)
Settlement of share-based benefit plans <sup>(2)</sup>	4	4	(4)	(4)	(187)	161	(37)		(63)
As decided by the Shareholders Meeting on April 28, 2017									
As decided by the Board of Directors on June 8, 2017, July 9, 2017 and December 14, 2017									
Other comprehensive income									
Net income									
<b>Balance at the end of the fiscal year</b>	3,924	6,085	9	16	36	(91)	(217)	640	10,402

**2017**

**Reserves**

**Equity  
attributable to**

	Future Legal dividends	Investments	Purchase of treasury shares	Initial IFRS adjustment	Other comprehensive income	Retained earnings	Shareholders of the parent company	Non- controlling interest	Total shareholders' equity	
<b>Balance at the beginning of the fiscal year</b>	2,007	5	24,904	490	3,648	105,529	(28,231)	118,755	(94)	118,661
Amortization of share-based benefit plans <sup>(3)</sup>								162		162
Purchase of treasury shares								(100)		(100)
Amortization of share-based benefit plans <sup>(2)</sup>								(63)		(63)
Decided by the Shareholders Meeting on April 28, 2017	711	(24,904)	(390)	(3,648)		28,231				
Decided by the Board of Directors on April 28, 2017, July 9, 2017 and September 14, 2017	(716)							(716)		(716)
Other comprehensive income					21,917			21,917		21,917
Net income						12,340		12,340	332	12,672
<b>Balance at the end of the fiscal year</b>	2,007			100		127,446 <sup>(1)</sup>	12,340	152,295	238	152,684

(1) Includes 132,391 corresponding to the effect of the translation of the financial statements of YPF S.A. and (4,945) corresponding to the effect of the translation of the financial statements of investments in subsidiaries, associates and joint ventures with functional currencies other than the U.S. dollar, as detailed in Note 2.b.1.

(2) Net of employees' income tax withholdings related to the share-based benefit plans.

(3) See Note 32.

MIGUEL ANGEL GUTIERREZ  
President

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY  
FOR THE YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016 (Cont.)**

(Amounts expressed in millions of Argentine Pesos)

	2016								
	Adjustment		Shareholders contributions		Adjustment		Share- Acquisition		
	Subscribed	to	Treasury	to	based	cost of	Share trading	issuance	Total
	capital	contributions	shares	treasury	benefit	treasury	premium	premiums	
	contributions	sshares	shares	plans	shares	premium	premiums		
<b>Balance at the beginning of the fiscal year</b>	3,922	6,083	11	18	67	(277)	(115)	640	10,349
Accrual of share-based benefit plans <sup>(3)</sup>					153				153
Repurchase of treasury shares	(2)	(3)	2	3		(50)			(50)
Settlement of share-based benefit plans <sup>(2)</sup>	3	5	(3)	(5)	(159)	175	(65)		(49)
As decided by the Shareholders meeting of April 29, 2016									
As decided by the Board of Directors of June 9, 2016									
Other comprehensive income									
Net loss									
<b>Balance at the end of the fiscal year</b>	3,923	6,085	10	16	61	(152)	(180)	640	10,403

**2016**

	Legal	Reserves Investments	Equity attributable to
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	Future dividends		Purchase treasury shares	Initial adjustment	IFRS	Other comprehensive income	Retained earnings	Shareholders of the parent company	Non- controlling interest	Total shareholders equity
<b>Balance at the beginning of the fiscal year</b>	2,007	5	21,264	440	3,648	78,115	4,585	120,413	48	120,461
Accrual of share-based benefit plans <sup>(3)</sup>								153		153
Repurchase of treasury shares								(50)		(50)
Settlement of share-based benefit plans <sup>(2)</sup>								(49)		(49)
As decided by the Shareholders meeting of April 29, 2016		889	3,640	50			(4,579)			
As decided by the Board of Directors of June 9, 2016		(889)						(889)		(889)
Other comprehensive income						27,414		27,414		27,414
Net loss							(28,237)	(28,237)	(142)	(28,379)
<b>Balance at the end of the fiscal year</b>	2,007	5	24,904	490	3,648	105,529 <sup>(1)</sup>	(28,231)	118,755	(94)	118,661

(1) Includes 109,334 corresponding to the effect of the translation of the financial statements of YPF and (3,805) corresponding to the effect of the translation of the financial statements of investments in subsidiaries, associates and joint ventures with functional currencies other than the U.S. dollar, as detailed in Note 2.b.1.

(2) Net of employees' income tax withholdings related to the share-based benefit plans.

(3) See Note 32.

Accompanying notes are an integral part of consolidated financial statements

MIGUEL ANGEL GUTIERREZ  
President



F-7

**Table of Contents**

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**YPF SOCIEDAD ANONIMA  
CONSOLIDATED STATEMENTS OF CASH FLOW  
FOR THE YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016**

(Amounts expressed in millions of Argentine Pesos)

	2018	2017	2016
<b>Cash flows from operating activities</b>			
Net income	38,606	12,672	(28,379)
<i>Adjustments to reconcile net income to cash flows provided by operating activities:</i>			
Income from equity interest in associates and joint ventures	(4,839)	(1,428)	(588)
Depreciation of property, plant and equipment	87,569	53,512	44,752
Amortization of intangible assets	1,749	838	717
Consumption of materials and retirement of property, plant and equipment and intangible assets	12,101	4,592	5,791
Charge on income tax	51,538	(3,969)	(1,425)
(Recovery) / Impairment of property, plant and equipment and intangible assets	(2,900)	(5,032)	34,943
Net increase in provisions	(3,422)	4,924	6,040
Exchange differences, interest and other <sup>(1)</sup>	(28,611)	7,611	3,298
Share-based benefit plans	308	162	153
Accrued insurance	(417)	(206)	
Result of companies revaluation	(11,980)		
Income on deconsolidation of subsidiaries			(1,528)
<i>Changes in assets and liabilities:</i>			
Trade receivables	(25,912)	(8,073)	(16,079)
Other receivables	(9,873)	895	5,406
Inventories	951	(1,556)	1,396
Accounts payable	18,769	3,747	(1,103)
Taxes payables	2,615	2,550	(1,776)
Salaries and social security	1,904	1,065	784
Other liabilities	(1,178)	(717)	190
Decrease in provisions due to payment/use	(2,652)	(1,388)	(1,753)
Contract assets	(278)	(130)	73
Contract liabilities	2,179	2,661	(30)
Dividends received	583	328	420
Proceeds from collection of lost profit insurance	496		607
Income tax payments	(2,248)	(1,084)	(2,726)

<b>Net cash flows from operating activities</b>	<b>125,058</b>	<b>71,974</b>	<b>49,183</b>
<b>Investing activities:<sup>(2)</sup></b>			
Acquisition of property, plant and equipment and intangible assets	(88,293)	(59,618)	(64,160)
Contributions and acquisitions of interests in associates and joint ventures	(280)	(891)	(448)
Proceeds from sales of financial assets	7,879	4,287	1,072
Interests received from financial assets	750	980	483
Payments from business combinations	(2,307)		
Payments from acquisition of financial assets			(3,476)
Proceeds from collection of damaged property's insurance			355
<b>Net cash flows used in investing activities</b>	<b>(82,251)</b>	<b>(55,242)</b>	<b>(66,174)</b>
<b>Financing activities:<sup>(2)</sup></b>			
Payment of loans	(55,734)	(36,346)	(73,286)
Payments of interest	(26,275)	(17,912)	(16,330)
Proceeds from loans	39,673	54,719	101,322
Repurchase of treasury shares	(120)	(100)	(50)
Dividends paid	(1,200)	(716)	(889)
Contributions of non-controlling interests			50
<b>Net cash flows provided by financing activities</b>	<b>(43,656)</b>	<b>(355)</b>	<b>10,817</b>
<b>Translation differences provided by cash and cash equivalents</b>	<b>18,139</b>	<b>1,665</b>	<b>1,692</b>
<b>Reclassification of assets held for disposal</b>		<b>(61)</b>	
<b>Deconsolidation of subsidiaries</b>			<b>(148)</b>
<b>Net increase / (decrease) in cash and cash equivalents</b>	<b>17,290</b>	<b>17,981</b>	<b>(4,630)</b>
Cash and cash equivalents at the beginning of year	28,738	10,757	15,387
Cash and cash equivalents at the end of year	46,028	28,738	10,757
<b>Net increase / (decrease) in cash and cash equivalents</b>	<b>17,290</b>	<b>17,981</b>	<b>(4,630)</b>

(1) Does not include exchange differences generated by cash and cash equivalents, which is exposed separately in the statement.

(2) The main investing and financing transactions that have not affected cash and cash equivalents correspond to:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Acquisition of property, plant and equipment and concession extension easements not paid	11,561	6,019	6,559
Net (decreases) increases related to hydrocarbon wells abandonment obligation costs	(11,710)	(4,913)	2,243
Contributions in joint ventures		19	
Dividends to collect			100
Increase in investments in financial assets through a decrease in trade receivables and other receivables			9,918

Accompanying notes are an integral part of consolidated financial statements.

MIGUEL ANGEL GUTIERREZ  
President

F-8

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

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**YPF SOCIEDAD ANONIMA**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**AS OF DECEMBER 31, 2018, 2017 AND 2016**

(Amounts expressed in millions of Argentine Pesos, except shares and per shares amounts expressed in Argentine Pesos, and as otherwise indicated)

**1. GENERAL INFORMATION, STRUCTURE AND ORGANIZATION OF THE BUSINESS OF THE GROUP**

**General information**

YPF Sociedad Anónima is a stock corporation (*sociedad anónima*) incorporated under the laws of the Argentine Republic, with a registered office at Macacha Güemes 515, in the City of Buenos Aires.

YPF and its subsidiaries form the leading energy group in Argentina, which operates a fully integrated oil and gas chain with leading market positions across the domestic Upstream and Downstream segments.

**Structure and organization of the economic Group**

The following table shows the organizational structure, including the main companies of the Group, as of December 31, 2018:

- (1) Held directly and indirectly.
- (2) See Note 3
- (3) See Note 30.h.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**1. GENERAL INFORMATION, STRUCTURE AND ORGANIZATION OF THE BUSINESS OF THE GROUP (Cont.)**

Organization of the business

As of December 31, 2018, the Group carries out its transactions and operations in accordance with the following structure:

Upstream;

Gas and Power;

Downstream;

Central administration and others, which covers the remaining activities not included in the previous categories.

Activities covered by each business segment are detailed in Note 5.

Almost all operations, properties and clients are located in Argentina. However, the Group also holds participating interests in exploratory and production areas in Chile and Bolivia. The Group also sells lubricants and derivatives in Brazil and Chile.

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS**

**2.a) Basis of preparation**

Application of IFRS

The consolidated financial statements of the Group for the year ended December 31, 2018 are presented in accordance with IFRS as issued by IASB and interpretations issued by the IFRIC.

Moreover, some additional issues required by the LGS and/or CNV s regulations have been included.

The amounts and other information corresponding to the years ended on December 31, 2017 and 2016 are an integral part of the consolidated financial statements mentioned above and are intended to be read only in relation to these financial statements.

These consolidated financial statements were approved by the Board of Directors meeting and authorized to be issued on March 7, 2019.

#### Current and Noncurrent classification

The presentation in the statement of financial position makes a distinction between current and noncurrent assets and liabilities, according to the activities operating cycle. Current assets and liabilities include assets and liabilities, which are realized or settled within the 12-month period from the end of the fiscal year.

All other assets and liabilities are classified as noncurrent. Current and deferred tax assets and liabilities (payable income tax) are presented separately from each other and from other assets and liabilities, as current and noncurrent, as applicable.

#### Fiscal year-end

The Company s fiscal year begins on January 1 and ends on December 31, each year.

#### Accounting criteria

The consolidated financial statements have been prepared under historical cost criteria, except for financial assets measured at fair value through profit or loss and share-based compensation, which were measured at fair value.

Non-monetary assets and liabilities of subsidiaries having the Peso as functional currency, were adjusted for inflation. See Note 2.b.1.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**Use of estimates**

The preparation of financial statements at a certain date requires the Management to make estimates and assessments affecting the amount of assets and liabilities recorded, contingent assets and liabilities disclosed at such date, as well as income and expenses recorded during the period. Future results might differ from the estimates and assessments made on the date of preparation of these consolidated financial statements.

The description of any significant estimates and accounting judgments made by Management in applying the accounting policies, as well as the key estimates and areas with greater degree of complexity which require more critical judgments, are disclosed in Note 2.c.

**Consolidation policies**

For purposes of presenting the consolidated financial statements, the full consolidation method was used with respect to all subsidiaries, which are those companies which the Group controls. The Group controls an entity when it is exposed, or is entitled to the variable results arising from its equity interest in the entity, and has the ability to affect those results through its power over the entity. This capacity is, in general but not solely, obtained by the direct or indirect ownership of more than 50% of the voting shares of a company.

Interest in JO and other agreements which gives the Group a contractually-established percentage over the rights of the assets and obligations that emerge from the contract, have been consolidated line by line on the basis of the mentioned participation over the assets, liabilities, income and expenses related to each contract. Assets, liabilities, income and expenses of JO are presented in the consolidated statement financial position and in the consolidated statement of comprehensive income, in accordance with their respective nature.

Note 9 details the fully consolidated controlled subsidiaries. Furthermore, Note 24 details the main JO, proportionally consolidated.

In the consolidation process, balances, transactions and profits between consolidated companies and JO have been eliminated.

The Company's consolidated financial statements are based on the most recent available financial statements of the companies which YPF controls, taking into consideration, where applicable, significant subsequent events and



transactions, information available to the Company's management and transactions between YPF and such subsidiaries, which could have produced changes to their shareholders' equity. The date of the financial statements of such subsidiaries used in the consolidation process may differ from the date of YPF's financial statements due to administrative reasons. The accounting principles and procedures used by subsidiaries have been homogenized, where appropriate, with those used by YPF in order to present the consolidated financial statements based on uniform accounting and presentation policies. The financial statements of subsidiaries whose functional currency is different from the presentation currency are translated using the procedure set out in Note 2.b.1.

The Group holds 100% of capital of the consolidated companies, with the exception of the holdings in Metrogas and YTEC. The Group takes into account quantitative and qualitative aspects to determine which subsidiaries have significant non-controlling interests. In accordance with the previously mentioned, there are no material non-controlling interests to be disclosed, as required by IFRS 12 "Disclosure of Interests in Other Entities".

#### Financial information of subsidiaries, associates and joint ventures in hyperinflationary economies

Under IAS 29 "Financial Reporting in Hyperinflationary Economies" the financial statements of an entity whose functional currency is the currency of a hyperinflationary economy shall be stated in terms of the measuring unit current at the end of the reporting period. The standard sets forth quantitative and qualitative factors to be contemplated in order to determine whether or not an economy is hyperinflationary. In recent years, inflation in Argentina has been high, with an accumulated inflation rate exceeding 100% over the last three years. In addition, certain recent qualitative and quantitative factors, such as the significant devaluation of the Peso, lead to the conclusion that the restatement by inflation of annual or interim financial statements corresponding to annual or interim periods ending after July 1, 2018, should be applied.

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**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

Companies could not present their restated financial statements because Decree No. 664/03 of the PEN prohibited regulatory agencies (including the CNV) from receiving financial statements adjusted for inflation.

Law No. 27,468, published on December 4, 2018 in the Official Gazette repealed Decree No. 1,269/02 of the PEN as amended (including the aforementioned Decree No. 664/03 of the PEN). The provisions of the aforementioned law became in full force and effect as of December 28, 2018, the date of the publication of the CNV General Resolution No. 777/18, which established that annual financial statements, interim and special periods closing from December 31, 2018 inclusive, must be submitted adjusted for inflation, as established by IAS 29. The FACPCE s guidelines will be applied to those issues not specifically addressed in the aforementioned regulations.

Although the application of IAS 29 does not directly affect YPF because its functional currency is the U.S. dollar as mentioned in section b) of this Note, it does affect the investments that the Company has in its subsidiaries, associates and joint ventures whose functional currency is the Peso, all of which have restated their financial statements.

In compliance with IAS 29 guidelines, the adjustment was based on the last date on which subsidiaries, associates and joint ventures whose functional currency is the Peso restated their financial statements to reflect the effects of inflation. For this purpose, in general terms, the inflation from the date of acquisition or addition, or from the date of asset revaluation, as applicable, was computed in balances of non-monetary assets and liabilities. As a result of the adjustment for inflation in such financial statements, the value of non-monetary items increased, with the cap of their recoverable value, and with the consequent effect on deferred tax. Regarding income statement, in addition to the restatement of revenues, costs, expenses and other items, the net monetary position effect was included in a separate item in the Other financial results.

In accordance with the above, the application of IAS 29 generated an increase in equity, net income and other comprehensive income for the fiscal year of the Company.

**2.b) Significant Accounting Policies**

**2.b.1) Functional and reporting currency and tax effect on Other comprehensive income**

**Functional currency**

YPF, based on parameters set out in IAS 21 The effects of change in foreign exchange rates , has defined the U.S. dollar as its functional currency. Consequently, non-monetary cost-based measured assets and liabilities, as well as income or expenses, are remeasured into functional currency by applying the exchange rate prevailing at the date of the transaction.

Transactions in currencies other than the functional currency of the Company are deemed to be foreign currency transactions and are remeasured into functional currency by applying the exchange rate prevailing at the date of the transaction (or, for practical reasons and when exchange rates do not fluctuate significantly, the average exchange rate for each month). At the end of each year or at the time of payment, the balances of monetary assets and liabilities in currencies other than the functional currency are measured at the exchange rate prevailing at such date and the exchange differences arising from such measurement are recognized as Net financial results in the consolidated statement of comprehensive income for the year in which they arise.

Assets, liabilities and results of subsidiaries, associates and joint ventures are shown in their respective functional currencies. The effects of the conversion into U.S. dollars of the financial information of those companies whose functional currency is other than the U.S. dollar are recorded as Other comprehensive income in the Consolidated Statement of Comprehensive Income.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**Presentation currency**

According to CNV Resolution No. 562, the Company must present its financial statements in pesos. Therefore, the financial statements prepared in the Company's functional currency are translated into the presentation currency, as per the following procedures:

Assets and liabilities of each of the balance sheets presented are translated using the exchange rate on the balance sheet closing date;

Items of the consolidated statement of comprehensive income are translated using the exchange rate at the time the transactions were generated (or, for practical reasons, and provided the exchange rate has not changed significantly, using each month's average exchange rate);

All translation differences resulting from the foregoing are recognized under Other Comprehensive Income in the statement of comprehensive income.

**Effects of the translation of investments in subsidiaries, associates and joint ventures with the Peso as functional currency corresponding to a hyperinflationary economy**

Under IAS 21, the financial statements of a subsidiary with the functional currency of a hyperinflationary economy are to be restated according to IAS 29 before they are included in the consolidated financial statements of its parent company with a functional currency of a non-hyperinflationary economy, except for their comparative figures.

Following the aforementioned guidelines, the results and financial position of subsidiaries with the Peso as functional currency were translated into U.S dollars by the following procedures: all amounts (i.e., assets, liabilities, stockholders equity items, expenditures and revenues) were translated at the exchange rate effective at the closing date of the financial statements, except for comparative amounts, which were presented as current amounts in the financial statements of the previous fiscal year (i.e., these amounts were not be adjusted to reflect subsequent variations in price levels or exchange rates). Thus, the effect of the restatement of comparative amounts was recognized in other comprehensive income.

These criteria were also implemented by the Group for its investments in associates and joint ventures.

When an economy ceases to be hyperinflationary and an entity ceases to restate its financial statements in accordance with IAS 29, it will use the amounts restated according to the price level of the date on which the entity ceased to make such restatement as historical costs, in order to translate them into the presentation currency.

#### Tax effect on Other Comprehensive Income

Results included in Other Comprehensive Income in connection with translation differences generated by investments in subsidiaries, associates and joint ventures whose functional currency is other than U.S. dollar as well as conversion differences arising from the translation of YPF's financial statements into its presentation currency (Pesos), have no effect on the income tax or in the deferred tax since at the time they were generated, the relevant transactions did not make any impact on net income or taxable income.

### **2.b.2) Financial Assets**

#### Classification

In accordance with IFRS 9 Financial instruments, the Group classifies its financial assets into two categories:

##### Financial assets at amortized cost

Financial assets are measured at amortized cost if both of the following criteria are met: (i) the objective of the Group's business model is to hold the assets to collect the contractual cash flow, and (ii) the contractual terms only require specific dates for payment of principal and interest.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

In addition, and for assets that meet the above conditions, IFRS 9 contemplates the option of designating, at the time of the initial recognition, an asset as measured at its fair value, if doing so would eliminate or significantly reduce the valuation or recognition inconsistency that could arise in the event that the valuation of the assets and liabilities or the recognition of profit or losses resulting therefrom be carried out on different bases. The Group has not designated a financial asset at fair value by using this option.

As of the closing date of these consolidated financial statements, the Group's financial assets at amortized cost include certain elements of cash and cash equivalents, trade receivables and other receivables.

Financial assets at fair value through profit or loss  
If either of the two criteria above are not met, the financial asset is classified as an asset measured at fair value through profit or loss .

As of the closing date of these consolidated financial statements, the Group's financial assets at fair value through profit or loss include mutual funds and public securities.

**Recognition and measurement**

Purchases and sales of financial assets are recognized on the date on which the Group commits to purchase or sell the assets. Financial assets are recognized when the rights to receive cash flows from the investments and the risks and rewards of ownership have expired or have been transferred.

Financial assets at amortized cost are initially recognized at fair value plus transaction costs. These assets accrue interest based on the effective interest rate method.

Financial assets at their fair value through profit or loss are initially recognized at fair value and transaction costs are recognized as an expense in the statement of comprehensive income. They are subsequently valued at fair value. Changes in fair values and results from sales of financial assets at fair value through profit or loss are recorded in Net financial results in the statement of comprehensive income.

In general, the Group uses the transaction price to ascertain the fair value of a financial instrument on initial recognition. In other cases, the Group records a gain or loss on initial recognition only if the fair value of the financial instrument can be supported by other comparable and observable market transactions for the same type of instrument or if it is based in a technical valuation that only inputs observable market information. Unrecognized gains or losses on initial recognition of a financial asset are recognized later on, only to the extent they arise from a change in the factors (including time) that market participants would consider upon setting the price.

Gains/losses on debt instruments measured at amortized cost and not included for hedging purposes are charged to income when the financial assets are derecognized or an impairment loss is recognized and during the amortization process using the effective interest rate method. The Group reclassifies all investments on debt instruments only when its business model for managing those assets changes.

#### Impairment of financial assets

The Group assesses the impairment of its financial assets according to the expected credit losses model. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

For trade receivables, the Group applies the simplified approach allowed by IFRS 9, which requires expected lifetime losses to be recognized from initial recognition of the receivables. See Note 2.b.18.

#### Offsetting financial instruments

Financial assets and liabilities are offset when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**2.b.3) Inventories**

Inventories are valued at the lower value between their cost and their net realizable value. Cost includes acquisition costs (less trade discount, rebates and other similar items), transformation and other costs, which have been incurred when bringing the inventory to its present location and condition. The net realizable value is the estimated selling price in the ordinary course of business less selling expenses.

In the case of refined products, costs are allocated in proportion to the selling price of the related products (isomargen method) due to the difficulty for distributing the production costs to each product. Raw materials, packaging and other inventory are valued at their acquisition cost.

The Group assesses the net realizable value of the inventories at the end of each year and recognizes in profit or loss in the consolidated statement of comprehensive income the appropriate valuation adjustment if the inventories are overstated. When the circumstances that previously caused impairment no longer exist or when there is clear evidence of an increase in the inventories net realizable value because of changes in economic circumstances, the amount of a write-down is reversed.

**2.b.4) Intangible assets**

The Group initially recognizes intangible assets at their acquisition or development cost. This cost is amortized on a straight-line basis over the useful lives of these assets. At the end of each year, such assets are measured at their acquisition or development cost, considering the criteria adopted by the Group in the transition to IFRS, less any accumulated amortization and any accumulated impairment losses.

The main intangible assets of the Group are as follows:

i. Service concessions arrangements

Includes transportation and storage concessions. These assets are valued at their acquisition cost, considering the criteria adopted by the Group in the transition to IFRS, net of accumulated amortization. They are depreciated using the straight-line method during the course of the concession period.



The Argentine Hydrocarbons Law allows the executive branch of the Argentine government to award 35-year concessions for the transportation of oil, gas and petroleum products following submission of competitive bids. The term of a transportation concession may be extended for an additional ten-year term. Pursuant to Law No. 26,197, provincial governments have the same powers. Holders of production concessions are entitled to receive a transportation concession for the oil, gas and petroleum products that they produce. The holder of a transportation concession has the right to:

Transport oil, gas and petroleum products;

Build and operate oil, gas and products pipelines, storage facilities, pump stations, compressor plants, roads, railways and other facilities and equipment necessary for the efficient operation of a pipeline system.

In addition, a transportation concession holder is under an obligation to transport hydrocarbons to third parties, without discrimination, in exchange for a tariff. This obligation, however, is applicable to oil or gas producers only to the extent the concession holder has available additional capacity, and is expressly subject to the transportation requirements of the concession holder. Transportation tariffs are subject to approval by the Federal Energy Secretariat for oil and petroleum derivatives pipelines, and by ENARGAS, for gas pipelines. Upon expiration of a transportation concession, oil pipelines and related facilities revert to the Argentine Government, without any payment to the concession holder.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

In connection with the foregoing, the Privatization Law granted the Company 35-year transportation concessions for the transportation facilities operated by Yacimientos Petrolíferos Fiscales S.E. as of such date. The main pipelines related to said transportation concessions are the following:

La Plata / Dock Sud

Puerto Rosales / La Plata

Monte Cristo / San Lorenzo

Puesto Hernández / Luján de Cuyo

Luján de Cuyo / Villa Mercedes

Thus, assets meeting certain requirements set forth by the IFRIC 12, which the Company Management's judgment are met in the facilities mentioned in the preceding paragraphs, are recognized as intangible assets.

ii. Exploration rights

The Group classifies exploration rights as intangible assets, which are valued at their cost, considering the criteria adopted by the Group in the transition to IFRS, net of the related impairment, if applicable.

Investments related to unproved oil reserves or fields under evaluation are not depreciated. These investments are reviewed for impairment at least once a year, or whenever there are indicators that the assets may have become impaired. Any impairment loss or reversal is recognized in profit or loss in the consolidated statement of comprehensive income. Exploration costs (geological and geophysical expenditures, expenditures associated with the maintenance of unproved reserves and other expenditures relating to exploration activities), excluding exploratory

well drilling costs, are charged to expense in the consolidated statement of comprehensive income as incurred.

iii. Other intangible assets

In this section, it mainly includes costs relating to computer software development expenditures, as well as assets that represent the rights to use technology and knowledge ( know how ) for the manufacture and commercial exploitation of equipment related to oil extraction. These items are valued at their acquisition cost, considering the criteria adopted by the Group in the transition to IFRS, net of the related depreciation and impairment, if applicable.

These assets are amortized on a straight-line basis over their useful lives, which range between 3 and 14 years. The Group reviews annually the mentioned estimated useful life.

The Group has no intangible assets with indefinite useful lives as of December 31, 2018, 2017 and 2016.

**2.b.5) Investments in associates and joint ventures**

Investments in associates and joint ventures are valued using the equity method.

According to this method, the investment is initially recognized at cost under Investments in associates and joint ventures in the statement of financial position, and the book value increases or decreases to recognize the investor's interest in the income of the associate or joint venture after the acquisition date, which is reflected in the statement of comprehensive income under Income from equity interest in associates and joint ventures. The investment includes, if applicable, the goodwill identified in the acquisition.

Associates are considered those in which the Group has significant influence, understood as the power to participate in the financial and operating policy decisions of the investee but does not have control or joint control over those policies. Significant influence is presumed in companies in which a company has an interest of 20% or more and less than 50%.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

Joint arrangements are contractual agreements through which the Group and the other party or parties have joint control. Under the provisions of IFRS 11, Joint arrangements , and IAS 28, Investments in Associates and Joint Ventures , investments in which two or more parties have joint control (defined as a joint arrangement ) will be classified as either a joint operation (when the parties that have joint control have rights to the assets and obligations for the liabilities relating to the joint arrangement) or a joint venture (when the parties that have joint control have rights to the net assets of the joint arrangement). Considering such classification, joint operations will be proportionally consolidated and joint ventures will be accounted for under the equity method.

Associates and joint ventures have been valued based upon the latest available financial statements of these companies as of the end of each year, taking into consideration, if applicable, significant subsequent events and transactions, available management information and transactions between the Group and the related company, which have produced changes on the latter s shareholders equity. The dates of the financial statements of such related companies used in the consolidation process may differ from the date of the Company s financial statements due to administrative reasons. The accounting principles and procedures used by associates and joint ventures have been homogenized, where appropriate, with those used by the Group in order to present the consolidated financial statements based on uniform accounting and presentation policies. The financial statements of associates and joint ventures whose functional currency is different from the presentation currency are translated using the procedure set out in Note 2.b.1.

Investments in companies in which the Group has no significant influence or joint control, are valued at cost.

Investments in companies with negative shareholders equity are disclosed in the Other Liabilities account.

On each closing date or upon the existence of signs of impairment, it is determined whether there is any objective evidence of impairment in the value of the investment in associates and joint ventures. If this is the case, the Group calculates the amount of the impairment as the difference between the recoverable value of associates and joint ventures and their book value, and recognizes the difference under Income from equity interest in associates and joint ventures in the statement of comprehensive income. The recorded value of investments in associates and joint ventures does not exceed their recoverable value.

Note 9 details the investments in associates and joint ventures.

**2.b.6) Property, plant and equipment**

General criteria

Property, plant and equipment are valued at their acquisition cost, plus all the costs directly related to the location of such assets for their intended use, considering the deemed cost criteria adopted by the Group in the transition to IFRS.

Borrowing costs of assets that require a substantial period to be ready for their intended use are capitalized as part of the cost of these assets.

Major inspections, necessary to restore the service capacity of the related asset are capitalized and depreciated on a straight-line basis over the period until the next overhaul is scheduled.

The costs of renewals, betterments and enhancements that extend the useful life of properties and/or improve their service capacity are capitalized. As property, plant and equipment are retired, the related cost and accumulated depreciation are derecognized.

Repair, conservation and ordinary maintenance expenses are recognized in the statement of comprehensive income as incurred.

These assets are reviewed for impairment at least once a year, or whenever there are indicators that the assets may have become impaired, as detailed in Note 2.b.8.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

Depreciation

Property, plant and equipment, other than those related to oil and gas exploration and production activities, are depreciated using the straight-line method, over the years of estimated useful life of the assets, as follows:

	<b>Years of Estimated Useful Life</b>
Buildings and other constructions	50
Refinery equipment and petrochemical plants	20-25
Infrastructure of natural gas distribution	20-50
Transportation equipment	5-25
Furniture, fixtures and installations	10
Selling equipment	10
Electric power generation facilities	15-20
Other property	10

Land is classified separately from the buildings or facilities that may be located on it and is deemed to have an indefinite useful life. Therefore, it is not depreciated.

The Group reviews annually the estimated useful life of each class of assets.

Oil and gas exploration and production activities

The Group recognizes oil and gas exploration and production transactions using the successful-efforts method. The costs incurred in the acquisition of new interests in areas with proved and unproved reserves are capitalized as incurred under Mineral properties, wells and related equipment. Costs related to exploration permits are classified as intangible assets.

Exploration costs, excluding the costs associated with exploratory wells, are charged to expense as incurred. Costs of drilling exploratory wells, including stratigraphic test wells, are capitalized pending determination as to whether the wells have found proved reserves that justify commercial development. If such reserves are not found, the mentioned costs are charged to expense. Occasionally, an exploratory well may be determined to have found oil and gas reserves,

but classification of those reserves as proved cannot be made. In those cases, the cost of drilling the exploratory well will continue to be capitalized if the well has found a sufficient quantity of reserves to justify its completion as a producing well, and the Group is making sufficient progress assessing the reserves as well as the economic and operating viability of the project. If any of the mentioned conditions are not met, the cost of drilling exploratory wells is charged to expense. In addition, the exploratory activity involves, in many cases, the drilling of multiple wells through several years in order to completely evaluate a project. As a consequence, some exploratory wells may be kept in evaluation for long periods, pending the completion of additional wells and exploratory activities needed to evaluate and quantify the reserves related to each project. The detail of the exploratory well costs in evaluation stage is described in Note 8.

Drilling costs applicable to productive wells and to developmental dry holes, as well as tangible equipment costs related to the development of oil and gas reserves, have been capitalized.

The capitalized costs described above are depreciated as follows:

- a) The capitalized costs related to productive activities have been depreciated by field on a unit-of-production basis by applying the ratio of produced oil and gas to estimate proved, developed oil, and gas reserves.
- b) The capitalized costs related to the acquisition of property and the extension of concessions with proved reserves have been depreciated by field on a unit-of-production basis by applying the ratio of produced oil and gas to the estimated proved oil and gas reserves.

Revisions in estimates of crude oil and gas proved reserves are considered prospectively in the calculation of depreciation. Revisions in estimates of reserves are performed at least once a year. Additionally, estimates of reserves are audited by external independent petroleum engineers on a three-year rotation plan.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**Costs related to hydrocarbon well abandonment obligations**

Costs related to hydrocarbon well abandonment obligations are capitalized at their discounted value along with the related assets, and are depreciated using the unit-of-production method. As compensation, a liability is recognized for this concept at the estimated value of the discounted payable amounts. Revisions of the payable amounts are performed upon consideration of the current costs incurred in abandonment obligations considering internal and external available information. Due to the number of wells in operation and/or not abandoned and as well as the complexity with respect to different geographic areas where the wells are located, current costs incurred in plugging activities, weighted by the complexity level of the wells, are used for estimating the plugging activities costs of the wells pending abandonment. Current costs incurred are the best source of information in order to make the best estimate of asset retirement obligations. Future changes in the costs mentioned above, the useful life of the wells and their estimate of abandonment, as well as changes in regulations related to abandonment, which are not possible to be predicted at the date of issuance of these consolidated financial statements, could affect the value of the abandonment obligations and, consequently, the related asset, affecting the results of future operations. Such changes are recognized pursuant to IFRIC 1.

**Environmental property, plant and equipment**

The Group capitalizes the costs incurred in limiting, neutralizing or preventing environmental pollution only in those cases where at least one of the following conditions is met: (a) the expenditure improves the safety or efficiency of an operating plant (or other productive assets); (b) the expenditure prevents or limits environmental pollution at operating facilities; or (c) the expenditure is incurred to prepare assets for sale and does not raise the assets' carrying value above their estimated recoverable value.

The environmental related property, plant and equipment and the corresponding accumulated depreciation are disclosed in the consolidated financial statements together with the other elements that are part of the corresponding property, plant and equipment which are classified according to their accounting nature.

**2.b.7) Provisions and contingent liabilities**

The Group makes a distinction between:



i. Provisions

Represent legal or assumed obligations arising from past events, the settlement of which is expected to give rise to an outflow of resources and which amount and timing are uncertain. Provisions are recognized when the liability or obligation-giving rise to an indemnity or payment arises, to the extent that its amount can be reliably estimated and that the obligation to settle is probable or certain. Provisions include both obligations whose occurrence does not depend on future events (such as provisions for environmental liabilities and provision for hydrocarbon wells abandonment obligations); as well as obligations that are probable and can be reasonably estimated whose realization depends on the occurrence of future events that are out of the control of the Group (such as provisions for contingencies). The amount recorded as provision corresponds to the best estimate of expenditures required to settle the obligation, taking into consideration the relevant risks and uncertainties. See Note 14.

ii. Contingent liabilities

Represent possible obligations that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more future events not wholly within the control of the Group, or present obligations arising from past events, the amount of which cannot be estimated reliably or whose settlement is not likely to give rise to an outflow of resources embodying future economic benefits. Contingent liabilities are not recognized in the consolidated financial statements, but rather are disclosed to the extent they are significant, as required by IAS 37, Provisions, contingent liabilities and contingent assets . See Note 28.

When a contract qualifies as onerous, the related unavoidable liabilities are recognized in the consolidated financial statements as provisions, net of the expected benefits.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

Except for provisions for hydrocarbon wells abandonment obligations, where the timing of settlement is estimated on the basis of the work plan of the Group, and considering the estimated production of each field (and therefore its abandonment), in relation to other noncurrent provisions, it is not possible to reasonably estimate a specific schedule of settlement of the provisions considering the characteristics of the concepts included.

In relation to certain provisions and contingent liabilities, the Group, in accordance with the established exemption contemplated in IAS 37, has decided not to set forth certain critical information that could seriously impair it in the claims made by third parties.

**2.b.8) Impairment of property, plant and equipment and intangible assets**

To evaluate the impairment of property, plant and equipment and intangible assets, the Group compares their carrying value with their recoverable amount at the end of each year, or more frequently, if there are indicators that the carrying value of an asset may not be recoverable.

In order to assess impairment, assets are grouped into CGU, whereas the assets do not generate cash flows that are independent of those generated by other assets or CGU, considering regulatory, economic, operational and commercial conditions. Considering the above mentioned, the Group's assets were grouped into nine CGU, which are described below:

i. Upstream Segment

The assets included in this segment have been grouped into four CGU: one of them groups the assets of YPF fields with crude oil reserves, and three of them group the assets of fields with natural gas reserves, according to Argentina's basins.

CGU Oil;

CGU Gas Neuquina Basin;

CGU Gas Noroeste Basin;

CGU Gas Austral Basin;

As of December 31, 2016, there were the Gas CGU Neuquina Basin YSUR and CGU Gas Austral Basin YSUR, which after the operative merger of the YSUR Group with YPF, were incorporated to the CGU Gas Neuquina Basin and CGU Gas Austral Basin, both of YPF.

ii. Gas and Power Segment

The assets of this segment have been grouped into three CGU: CGU Gas and Power YPF, which mainly includes the commercialization and regasification of natural gas; CGU Metrogas, which includes assets related to natural gas distribution activities; and CGU YPF EE, which includes the assets related to the generation and commercialization of electric energy. In connection with CGU YPF EE, see Notes 3 and 5.

iii. Downstream Segment

The assets of this segment have been grouped in the CGU Downstream YPF, which mainly comprises the assets involved in crude oil refining (or supplementing that activity), the petrochemical industry and the marketing of such products.

iv. Central Administration and Others

It includes the CGU AESA, which primarily comprises the assets used for construction purposes related to the activities of the subsidiary.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

This aggregation is the best reflection of how the Group currently makes its assets management decisions for the generation of independent cash flows.

The recoverable amount is the higher of the fair value less costs of disposal and the value in use. In assessing the value in use, the estimated future cash flows are discounted to their present value using a rate that reflects the weighted average cost of capital employed for the Group.

If the recoverable amount of a CGU is estimated to be less than its carrying amount, the carrying amount of the CGU is reduced to its recoverable amount, and an impairment loss is recognized in the consolidated statement of comprehensive income.

Any impairment loss is allocated to the assets comprising the CGU on a pro-rata basis based on their carrying amount. Consequently, the basis for future depreciation or amortization will take into account the reduction in the value of the asset as a result of any accumulated impairment losses.

Upon the occurrence of new events or changes in existing circumstances, which prove that an impairment loss previously recognized could have disappeared or decreased, a new estimate of the recoverable amount of the corresponding asset is calculated to determine whether a reversal of the impairment losses recognized in previous periods needs to be made. See Note 2.c.

In the event of a reversal, the carrying amount of the asset (or the CGU) is increased to the revised estimate of its recoverable amount so that the increased carrying amount does not exceed the carrying amount that would have been determined in case no impairment loss had been recognized for the asset (or the CGU) in the past.

**2.b.9) Methodology used in the estimation of recoverable amounts**

The methodology used to estimate the recoverable amount of property, plant and equipment and intangible assets consists of using the higher of: i) the calculation of the value in use, based on expected future cash flows from the use of such assets, discounted at a rate that reflects the weighted average cost of capital, and, if available, ii) the price that would be received in a regular transaction between market participants to sell the asset as of the date of these consolidated financial statements, less the disposal costs of such assets.

In the assessment of the value in use, cash flow forecasts based on the best estimate of income and expense available for each CGU using sector inputs, past results and future expectations of business evolution and market development are utilized. The most sensitive aspects included in the cash flows used in all the CGU are the purchase and sale prices of hydrocarbons (including applicable gas distribution fees), outstanding regulations, estimates of cost increases, personnel costs and investments.

The cash flows from Upstream assets are generally projected for a period that covers the economically productive useful lives of the oil and gas fields and is limited by the contractual expiration of the concession permits, agreements or exploitation contracts. The estimated cash flows are based on production levels, commodity prices and estimates of the future investments that will be necessary in relation to undeveloped oil and gas reserves, production costs, field decline rates, market supply and demand, contractual conditions and other factors. The unproved reserves are weighted with risk factors, based on the type of each one of the Upstream assets.

Downstream and Gas and Power cash flows are estimated on the basis of projected sales trends, contribution margins by unit, fixed costs and investment flows, in line with the expectations regarding the specific strategic plans of each business. However, cash inflows and outflows relating to planned restructurings or productivity enhancements are not considered. The projections' evaluation horizon is 10 years, considering annual rent for the last period, based on the long useful life of these CGU assets.

The reference prices considered are based on a combination of market prices available in those markets where the Group operates, also taking into consideration specific circumstances that could affect different products the Group commercializes and management's estimations and judgments.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**2.b.10) Employee benefit plans and share-based payments**

i. Retirement plan

Effective March 1, 1995, the Group has established a defined contribution retirement plan that provides benefits for each employee who elects to join the plan. Each plan member will pay an amount between 3% and 10% of his monthly compensation, and the Group will pay an amount equal to that contributed by each member.

The plan members will receive from the Group the contributed funds before retirement only in the case of voluntary termination under certain circumstances or dismissal without cause and, additionally, in case of death or incapacity. The Group has the right to discontinue this plan at any time, without incurring termination costs.

ii. Performance Bonus Programs

These programs cover certain of the Group's personnel. These bonuses are based on compliance with corporate business unit objectives and performance. They are calculated considering the annual compensation of each employee, certain key factors related to the fulfillment of these objectives and the performance of each employee, and are paid in cash.

iii. Share-based benefit plan

From the year 2013, YPF has decided to implement a share-based benefit plan. This plan, organized in annual programs, covers certain executive and management positions and key personnel or personnel with critical technical knowledge. The above-mentioned plan is aimed at aligning the performance of these personnel with the objectives of the strategic plan of the Company.

This plan consists in giving participation, through shares of the Company, to each selected employee with the condition of remaining in it for the previously defined period (up to three years from the grant date, hereinafter "service period"), being this the only condition necessary to access the agreed final retribution.

For accounting purposes, YPF recognizes the effects of the plans in accordance with the guidelines of IFRS 2, Share-based Payment . In this order, the total cost of the plans granted is measured at the grant date, using the fair value or market price of the Company's share in the United States market. The above-mentioned cost is accrued in the Company's net income for the year, over the vesting period, with the corresponding increase in Shareholders' equity in the Share-based Benefit Plans' account.

## **2.b.11) Revenue recognition**

### Revenue from ordinary activities arising from contracts entered into with customers

In compliance with IFRS 15, the Group has classified the main contracts with customers, as follows:

Contracts for the sale of fuel in consignment;

Contracts for the direct sale of fuel;

Contracts for the sale of natural gas;

Contracts and agreements for the sale of other refined products;

Construction contracts.

In the first four types of contracts, related to the sale of goods, income is recognized when the control of the goods is transferred to the customer. Even in the case of consignment contracts, revenue is not recognized until the good is sold to the intermediary's customer. It is emphasized that in these contracts there are no performance obligations that are separate or different from the delivery of goods.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

In the case of the construction contracts, revenue is recognized considering the estimated final margin for each project that arises from technical studies on sales and the estimated total costs of each of them, as well as their physical progress. In this type of contracts, performance obligations are satisfied over time.

As mentioned in Note 2.b.26, as IFRS 15 became effective, the Group has adopted the full retrospective approach for the implementation of this standard, which has not affected the accounting policies related to the recognition of revenues from contracts with customers for the years ended 2017 and 2016.

In compliance with IAS 18, in fiscal years 2017 and 2016, revenue was recognized on sales of crude oil, refined products and natural gas, in each case, when title and risks were transferred to the customer following the conditions described below:

The Group has transferred to the buyer the significant risks and rewards of ownership of the goods.

The Group does not retain neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold.

The amount of revenue can be measured reliably.

It is probable that the economic benefits associated with the transaction will flow to the Group.

The costs incurred or to be incurred in respect of the transaction can be measured reliably.

In compliance with IAS 11, in fiscal years 2017 and 2016, revenues and costs related to construction activities performed by AESA are accounted for in the consolidated statement of comprehensive income for the year using the percentage of completion method, considering the final contribution margin estimated for each project at the date of issuance of the financial statements, which arises from technical studies on sales and total estimated costs for each of them, as well as their physical progress. The adjustments in contract values, changes in estimated costs and anticipated



losses on contracts in progress are reflected in earnings in the year when they become evident.

Revenue recognition related to Government incentive programs

The following are the main revenues that fall within the scope of the IAS 20 Accounting for Government grants and disclosure of government assistance :

Incentives for the Additional Injection of Natural Gas Stimulus Program and benefits from the Stimulus Program for Investments in the Natural Gas Production Development from Unconventional Reservoirs Granted by the former Planning and Strategic Coordination Commission of the National Plan of Hydrocarbons Investment by Resolutions No. 1/2013 and No. 14/2015 and by the MINEM by Resolution 46-E/2017, respectively (see Note 30.g), they constitute economic compensation for the companies committed to increase their respective production. These incentives have been included in Revenues in the consolidated statement of comprehensive income.

Compensation for providing gas oil to public transport of passengers at a differential price  
Economic compensations to hydrocarbon producing and refining companies committed to ensure the supply of gasoil in the necessary volumes to meet domestic needs. These incentives have been included in Revenues in the consolidated statement of comprehensive income.

Procedure to compensate for the lower income that Natural Gas Piping Distribution Service Licensed Companies receive from their users  
Compensations received as a result of (i) the application of benefits and/or discounts to users under the regulations in force regarding tariffs of the natural gas distribution service through networks and (ii) the higher costs of UNG with respect to those established for their recognition in tariffs. These incentives have been included in Revenues in the consolidated statement of comprehensive income.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

Payment of the daily differences accumulated on a monthly basis between the price of gas purchased by Distributors and the natural gas price included in the tariff schemes effective from April 1, 2018 to March 31, 2019

Under Decree No. 1053/18, the Argentine Government assumed the payment of the differences exclusively arising from exchange rate variations and corresponding to natural gas volumes delivered in such term. These incentives have been included as reversals in Costs in the consolidated statement of comprehensive income.

Temporary economic assistance to Metrogas

Enacted by the MINEM under Resolution No. 312-E/2016 and by the former Argentine Energy Secretariat under Resolution No. 263/2015 (see Note 30.h), its purpose was to fund the expenses and investments related to the normal operation of the natural gas distribution service through networks, while preserving the chain of payment to natural gas producers until the Tariff Review was concluded. The incentives were included in the item Other net operating results in the consolidated statement of comprehensive income.

Incentive for investment in capital goods, computers and telecommunications for domestic manufacturers  
It takes place through a fiscal bond, provided that manufacturers have industrial establishments located in Argentina, a requirement that is satisfied by the controlled company AESA. The Group recognizes such incentive when the formal requirements established by Decrees of the PEN No. 379/2001, No. 1551/2001, its amendments and regulations are satisfied, to the extent that there is reasonable certainty that the grants will be received. The bond received may be computed as a tax credit for the payment of national taxes (i.e., income tax, tax on minimum presumed income, value added tax and domestic taxes) and may be transferred to third parties only one time. The incentives have been included in the item Other net operating results in the consolidated statement of comprehensive income.

Recognition of these incomes are made at their fair value when there is a reasonable certainty that incentives will be received and that regulatory requirements related therewith have been fulfilled.

**2.b.12) Leases**

The Group's leases are classified as operating or financial leases, taking into account the economic substance of the contracts.

The Group as a lessee:

#### Operating leases

A lease is classified as an operating lease when the lessor does not transfer substantially to the lessee the entire risks and rewards incidental to ownership of the asset.

Costs related to operating leases are recognized on a straight-line basis in Rental of real estate and equipment and Operation services and other service contracts of the consolidated statement of comprehensive income for the year in which they arise.

#### Financial Leases

Leases are classified as financial when the lessor transfers to the lessee substantially all the risks and benefits inherent in the leased property.

The Group has no significant financial leases as they are defined by current IFRS regulations.

The Group does not own significant assets leased to third parties.

See also Note 2.b.26 regarding the initial application of IFRS 16 Leases on January 1, 2019.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**2.b.13) Net income per share**

Net income per share is calculated by dividing the net income for the year attributable to YPF's shareholders by the weighted average of shares of YPF outstanding during the year net of repurchased shares as mentioned in Note 25.

Diluted net income per share is calculated by dividing the net income for the fiscal year by the weighted average of shares outstanding, and when dilutive, adjusted for the effect of all potentially dilutive shares, including share options, on an as if they had been converted.

In computing diluted net income per share, income available to ordinary shareholders, used in the basic earnings per share calculation, is adjusted by those results that would result of the potential conversion into ordinary stock. The weighted average number of ordinary shares outstanding is adjusted to include the number of additional ordinary shares that would have been outstanding if the dilutive potential ordinary shares had been issued. Diluted net income per share is based on the most advantageous conversion rate or exercise price over the entire term of the instrument from the standpoint of the security holder. The calculation of diluted net income per share excludes potential ordinary shares if their effect is anti-dilutive.

As of the date of the issuance of these consolidated financial statements, there are no YPF instruments outstanding that imply the existence of potential ordinary shares (taking into account the Company's intent to cancel the share-based benefit plans through their repurchase in the market), thus the basic net income per share matches the diluted net income per share. See Note 26.

**2.b.14) Financial liabilities**

Financial liabilities are initially recognized at their fair value less the transaction costs incurred. Because the Group does not have financial liabilities whose characteristics require the recognition at their fair value, according to IFRS, after their initial recognition, financial liabilities are measured at amortized cost. Any difference between the financing received (net of transaction costs) and the repayment value is recognized in the consolidated statement of comprehensive income over the life of the related debt instrument, using the effective interest rate method.

The Group eliminates a financial liability (or a part thereof) from its statement of financial position when it has been extinguished, i.e., when the obligation specified in the corresponding contract has been paid or canceled, or has expired.

The Group will account for a swap of financial instruments with substantially different conditions by eliminating the original financial liability and registering a new financial liability. Similarly, the Group will account for a substantial change in the current conditions of an existing financial liability or part of it as a cancellation of the original financial liability and the recognition of a new financial liability.

At the closing of these consolidated financial statements, the Group's financial liabilities at amortized cost include accounts payable, other liabilities, loans and liabilities associated with assets held for disposal.

## **2.b.15) Taxes, withholdings and royalties**

### Income tax and tax on minimum presumed income

The Group recognizes income tax applying the deferred tax method, which considers the effect of temporary differences between the carrying amount of an asset or a liability and its tax base and the tax loss carryforwards and other tax credits, which may be used to offset future taxable income, at the statutory rate then in force, at the time of its use or reversion.

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

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**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

Tax expense for the year includes current and deferred income tax. Income tax is recognized in the consolidated statement of net income, except to the extent that it relates to items recognized in other comprehensive income or directly in equity, in which case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

Tax expense is calculated on the basis of the tax laws enacted or substantially enacted at the date of the fiscal year end, in the countries where the Company and its subsidiaries operate and generate taxable income. The Group periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. The Group establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

According to the amendments introduced by the Argentine Tax Reform Law No. 27,430 published in the Official Gazette on December 29, 2017 (see Note 30.j), the general tax rate is reduced from 35% for fiscal years 2016 y 2017 to 30% for fiscal years 2018 and 2019 and to 25% from year 2020. Accordingly, although the gradual changes of the income tax rate are not applicable to the measurement of the current tax, the main accounting impact of the new regulations occurs in the measurement of deferred assets and tax liabilities. See Note 15.

Additionally, upon the determination of taxable profit on minimum presumed income is calculated by applying the current 1% tax rate to taxable assets as of the end of each year. This tax supplements income tax. The tax liability will coincide with the higher of the determination of tax on minimum presumed income and the Group's tax liability related to income tax, calculated applying the current income tax rate to taxable income for the year. However, if the tax on minimum presumed income exceeds income tax during one tax year, such excess may be computed as prepayment of any income tax excess over the tax on minimum presumed income that may be generated in the next ten years. It is worth mentioning that it was overruled for the years beginning on January 1, 2019, as established by Law No. 27,260.

**Personal assets tax – Substitute responsible**

Individuals and foreign entities, as well as their undistributed estates, regardless of whether they are domiciled or located in Argentina or abroad, are subject to personal assets tax of 0.25% of the value of any shares or ADSs issued by Argentine entities, held at December 31 of each year. The tax is levied on the Argentine issuers of such shares or ADSs, such as YPF, which must pay this tax in substitution of the relevant shareholders, and is based on the equity value (following the equity method), or the book value of the shares derived from the latest financial statements at December 31 of each year. Pursuant to the Personal Assets Tax Law, the Group is entitled to seek reimbursement of

such paid tax from the applicable shareholders, using the method the Group considers appropriate. However, according to Law 27,260 YPF has requested the exemption of this tax (for the benefit of its shareholders). This exemption applied to fiscal periods 2016 to 2018.

Royalties and withholding systems for hydrocarbon exports

A 12% (or 15%, if applicable) royalty is payable on the value at the wellhead of crude oil production and the commercialized natural gas volumes, on the wellhead value of such products, which is similar to the final sales price less transportation and storage costs.

Pursuant to the extension of the original terms of exploitation concessions, the Group has agreed to pay an extraordinary production royalty and in some cases a royalty of 10% is payable over the production of unconventional hydrocarbons (see Note 30.a).

Royalty expense and extraordinary production royalties are accounted for as a production cost.

Besides, the Group is subject to the withholding regimes for hydrocarbon exports outlined in Note 30.d.

## **Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

## **YPF SOCIEDAD ANONIMA NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS AS OF DECEMBER 31, 2018, 2017 AND 2016**

### **2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

#### **2.b.16) Shareholders' equity accounts**

Shareholders' equity accounts have been valued in accordance with accounting principles in effect as of the transition date. The accounting transactions that affect shareholders' equity accounts were accounted for in accordance with the decisions taken by the Shareholders' meetings, and legal standards or regulations.

#### **Subscribed capital stock and adjustments to contributions**

Consists of the shareholders' contributions represented by shares and includes the outstanding shares at face value net of treasury shares mentioned in the following paragraph Treasury shares and adjustment to treasury shares . The subscribed capital account has remained at its historical value and the adjustment required previous Argentine GAAP (Generally Accepted Accounting Principles) to state this account in constant Pesos is disclosed in the Adjustments to contributions' account.

The adjustment to contributions cannot be distributed in cash or in kind, but is allowed its capitalization by issuing shares. In addition, this item may be used to compensate for accumulated losses.

#### **Treasury shares and adjustments to treasury shares**

Corresponds to the reclassification of the nominal value and the corresponding adjustment for inflation (Adjustment to Contributions) of shares issued and repurchased by YPF in market transactions, as is required by the CNV's regulations in force.

#### **Share-based benefit plans**

Corresponds to the balance related to the share-based benefit plans as mentioned in Note 2.b.10.iii.

#### **Acquisition cost of repurchased shares**

Corresponds to the cost incurred in the acquisition of the shares that YPF holds as treasury shares. Additionally, see Note 25.

Considering CNV regulations RG 562, the balance of this account restricts the distribution of retained earnings.



Share trading premium

Corresponds to the difference between accrued amount in relation to the share-based benefit plans and acquisition cost of the shares settled during the year in relation with the mentioned plans.

Considering the debit balance of the premium, distribution of retained earnings is restricted by the balance of this premium.

Issuance premiums

Corresponds to the difference between the amount of subscription of the capital increase and the corresponding face value of the shares issued.

Legal reserve

In accordance with the provisions of LGS, YPF has to appropriate to the legal reserve no less than 5% of the algebraic sum of net income, prior year adjustments, and transfers from other comprehensive income to retained earnings and accumulated losses from previous years, until such reserve reaches 20% of the subscribed capital plus adjustment to contributions. As of December 31, 2018, the legal reserve has been fully integrated, amounting to 2,007.

Reserve for future dividends

Corresponds to the allocation made by the YPF's Shareholders' meeting, whereby a specific amount is transferred to the reserve for future dividends.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**Reserve for investments and reserve for purchase of treasury shares**

Corresponds to the allocation made by the YPF s Shareholders meeting, whereby a specific amount is being assigned to be used in future investments and in the purchase of YPF s shares to meet the obligations arising from share-based benefit plan described in Note 2.b.10.iii.

**Initial IFRS adjustment reserve**

Corresponds to the initial adjustment in the transition to IFRS application, which was approved by the Shareholders meeting of April 30, 2013, in accordance with the General Resolution No. 609 of the CNV. Such reserve was disaffected for absorption of negative balance on the Retained earnings in the fiscal year ended December 31, 2017, according the aforementioned Resolution.

**Other comprehensive income**

Includes income and expenses recognized directly in equity accounts and the transfer of such items from equity accounts to the income statement of the year or to retained earnings, as defined by IFRS.

**Retained earnings**

Includes accumulated gains or losses without a specific appropriation that being positive can be distributed upon the decision of the Shareholders meeting, while not subject to legal restrictions. Additionally, it includes the net income of previous years that was not distributed, the amounts transferred from other comprehensive income and adjustments to income of previous years produced by the application of accounting standards.

Additionally, pursuant to the regulations of the CNV, when the net balance of other comprehensive income account is positive, it will not be distributed or capitalized nor used to compensate accumulated losses, and when the net balance of these results at the end of a year is negative, a restriction on the distribution of retained earnings for the same amount will be imposed.

**Non-controlling interest**

Corresponds to the interest in the net assets of Metrogas (30%) and YTEC (49%), representing the rights on shares that are not owned by YPF.

### **2.b.17) Derivative financial instruments and hedge transactions**

Derivative financial instruments are recognized at fair value. The method of recognizing the resulting gain or loss depends on whether the derivative is designated as a hedge instrument, and, if so, the nature of the item being hedged.

The Group manages exposures to several risks using different financial instruments. The Group does not use derivative financial instruments for speculative purposes.

The Group's policy is to apply hedge accounting to hedging relationships where it is both permissible and practical under IFRS 9, and its application reduces volatility. Transactions that may be effective hedges in economic terms may not always qualify for hedge accounting under IFRS 9.

During the fiscal year ended December 31, 2018, the Group only used derivative financial instruments traded on active markets (futures contracts in U.S. dollars) and has not applied hedge accounting.

During the fiscal year ended as of December 31, 2017, the Group did not used derivative financial instruments.

During the fiscal year ended December 31, 2016, the Group only used derivative financial instruments traded on active markets (futures contracts in U.S. dollars) and has not applied hedge accounting.

Gains or losses from these derivative financial instruments are classified as **Other financial results**, in the statement of comprehensive income.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

Fair values of derivative financial instruments that are traded in active markets are computed by reference to market prices. The fair value of derivative financial instruments that are not traded in an active market is determined using valuation techniques. The Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each fiscal year.

**2.b.18) Trade receivables and other receivables**

Trade receivables are initially recognized at fair value and subsequently measured at amortized cost using the effective interest rate method.

Under IFRS 9, a provision for bad debt is created by preparing a matrix per category and grouping the assets based on the type of customer: i) related parties, ii) public sector and iii) private sector. These groups were subsequently divided into sub-groups based on special characteristics indicative of the repayment capacity, such as i) payment arrears, ii) existence of guarantees and iii) existence of a legal proceeding already initiated or in process of initiation for collection purposes, among others. Once each group was defined, an expected bad-debt rate is assigned based on historical default rates adjusted to future economic conditions.

The carrying amount of the assets is reduced through the use of the provision account, and the amount of the loss is recognized in the statement of comprehensive income within *Selling expenses* , as well as subsequent recoveries.

As IFRS 9 became effective, the Group has retroactively applied the changes in the standard, without restating the comparative amounts. Therefore, the difference between the previous accounting amounts and the new initial amounts resulting from the initial application of the standard were recognized as an adjustment in the *Retained Earnings* as of January 1, 2018. The information disclosed for 2017 and 2016 reflects the requirements set forth in IAS 39, and not those of IFRS 9 in relation to impairment of financial assets.

In compliance with IAS 39, in fiscal years 2017 and 2016, the impairment of a financial asset was recorded only when there was an objective evidence of the impairment of the asset, based on the difference between the book value of the asset and the current value of the estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate.

**2.b.19) Cash and cash equivalents**

In the statement of cash flow, cash and cash equivalents include cash in hand, deposits held at call with banks and other short-term highly liquidity investments with original maturities of three months or less. They do not include bank overdrafts.

#### **2.b.20) Dividends distribution**

Dividends payable by the Group are recognized as liabilities in the period in which they are approved.

#### **2.b.21) Business combinations**

Business combinations are accounted for by applying the acquisition method when the Group takes effective control over the acquired company.

The Group recognizes in its financial statements the identifiable assets acquired, the liabilities assumed, any non-controlling interest and goodwill, if any, in accordance with IFRS 3.

The acquisition cost is measured as the sum of the consideration transferred, measured at fair value at its acquisition date and the amount of any non-controlling interest in the acquired entity. The Group will measure the non-controlling interest in the acquired entity at fair value or at the non-controlling interest's proportionate share of the acquired entity's identifiable net assets.

If the business combination is achieved in stages, the Group will remeasure its previously held equity interest in the acquired entity at its acquisition date fair value and recognize a gain or loss in the statement of comprehensive income.

The goodwill cost is measured as the excess of the consideration transferred over the identifiable assets acquired and liabilities assumed net by the Group. If this consideration is lower than the fair value of the assets identifiable and liabilities assumed, the difference is recognized in the statement of comprehensive income.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

IFRS 3 authorizes a term of 12 months from the acquisition date to complete the measurement process of a business combination. When this is not recorded at the closing of the fiscal year in which the business combination takes place, the Group reports provisional amounts.

**2.b.22) Total or partial disposal of foreign operation whose functional currency is other than the U.S. dollar**

On the disposal of a foreign operation (a disposal of the Group's entire interest, or a partial disposal involving loss of control over a subsidiary), all of the translation differences accumulated in equity in respect of that operation attributable to the equity holders of the Company are reclassified to profit or loss of that fiscal year.

In the case of a partial disposal that does not result in the Group losing control over a subsidiary that includes a foreign operation, the proportionate share of accumulated translation differences is reclassified to non-controlling interest and are not recognized in profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated using the closing rate. Translation differences arising are recognized in other comprehensive income.

**2.b.23) Segment Information**

Operating segments are reported in a manner consistent with the internal reporting provided to the top authority decision-maker, who is the person responsible for allocating resources and assessing the performance of the operating segments. Operating segments are described in Note 5.

**2.b.24) Assets held for disposal and related liabilities**

An asset (or group of assets) is classified as held for disposal together with its related liabilities when the Group is expected to recover their value by means of a sale transaction (rather than through use) and where such sale is highly probable. In the event that the Group is engaged in a disposal plan, which involves the loss of control of a subsidiary, it will classify the assets and liabilities of such subsidiary as held for disposal provided that they comply with the criteria required by the IFRS 5 and its interpretations, regardless of whether the Group withholds a non-controlling interest in its former subsidiary after the transaction.

In order to apply the above classification, the asset (or group of assets) must be available for its immediate disposal or dilution in its current conditions, exclusively subject to the usual and habitual terms for the disposal or dilution of this asset (or group of assets).

For the transaction to be highly probable the appropriate level of Management or Board of Directors of the Company must be committed to a plan and an active program must have been actively initiated. In addition, the disposal of the asset (or groups of assets) must be actively negotiated at a reasonable price in relation to its or their current fair value. Moreover, the transaction must also be expected to meet the conditions for recognition as a completed disposal within one year after the classification date, with the exceptions permitted by IFRS 5, and the activities required to complete the plan should indicate that it is unlikely that significant changes are made to the plan or that it will be canceled.

Assets classified as held for disposal will be measured at the lower of their carrying amount or fair value less sale-related costs.

As of December 31, 2018, the Group classified certain areas as assets held for disposal. See Note 3.

As of December 31, 2017, the Group classified the investment in YPF EE as an asset held for disposal. See Note 3.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**2.b.25) Borrowing costs**

Borrowing costs that are directly attributable to the acquisition, construction or production of suitable assets for which a prolonged period is required to place them in the conditions required for their use or sale, are capitalized as part of the cost of those assets until the assets are substantially ready for use or sale. Interests are capitalized according to the average debt rate of the Group. Foreign exchange differences for loans in foreign currency are capitalized if they are considered an adjustment to interest costs. The rest of the borrowing costs are recognized as expenses in the period in which they are incurred.

**2.b.26) New standards issued**

As required by IAS 8 Accounting policies, changes in accounting estimates and errors , below is a brief summary of the standards or interpretations issued by the IASB, whose application is mandatory as of the closing date of these consolidated financial statements, as well as of those whose application has not been mandatory as of the closing date of these consolidated financial statements and have, therefore, not been adopted by the Group.

**Those standards or interpretations issued by the IASB, the application of which is mandatory as of the closing date of these consolidated financial statements, have been adopted by the Group, if applicable**

**IFRS 15 - Income from ordinary activities arising from contracts entered into with customers**

IFRS 15 is in effect for periods to be reported as from January 1, 2018, or afterwards, and may also be implemented in advance. Entities may decide whether to retrospectively apply the model or to use a modified transitional approach, to which the standard will be retrospectively applied only with regard to those contracts that are not completed by the initial date of application (e.g., January 1, 2018 for an entity with a fiscal year ended December 31).

It replaced the following Income Standards and Interpretations:

IAS 18 Revenue;



IAS 11 Construction contracts;

IFRIC 13 Customer loyalty programs;

IFRIC 15 Agreements for the construction of real estate;

IFRIC 18 Transfers of assets from customers; and

SIC 31 Revenue Barter transactions involving advertising services.

IFRS 15 presents a five-step approach to explain income from ordinary activities arising from contracts entered into with customers:

1. Identify the contract entered into with the customer.
2. Identify the separable obligations of the contract.
3. Determine the transaction price.
4. Allocate the transaction price between the obligations of the contract.
5. Recognize the income when the entity meets the obligations.

It is mainly based on the principle that the entity has to recognize revenue to represent the transfer of goods or services promised to customers in an amount that reflects the consideration that the entity expects to receive in exchange for the goods or services at the time a performance obligation is satisfied. An asset is transferred when (or as) the customer obtains control over that asset, with control defined as the ability to direct the use of and obtain substantially all of the remaining benefits from the asset.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

It has also introduced more prescriptive indications:

If the contract (or a combination of contracts) contains more than one promised good or service, when and how the goods and services should be delivered.

If the transaction price distributed to each performance obligation should be recognized as income over the course of a period of time or at a certain point in time. Under IFRS 15, an entity recognizes revenue when a performance obligation is satisfied, namely, when the control of the goods and services which has a particular obligation is transferred to the customer. The new model does not include separate guidelines for the sale of goods and the render of services . Instead, it requires that entities evaluate whether the revenue should be recognized over a period of time or at a given point in time, regardless of whether the said revenue includes the sale of goods or the render of services .

Where the transaction price contains an estimation of variable payments, how the amount and the time will affect the recognition of revenue. The concept of estimation of variable consideration is broad. A transaction price is considered variable on account of discounts, refunds, credits, price concessions, incentives, performance bonuses, penalties and contingency agreements. The new model introduces a major condition for a variable consideration to be recognized as revenue: only until it is highly improbable that a significant change in the accumulated revenue amount will occur, once the uncertainty associated with the variable consideration has been resolved.

When the incurred costs to execute a contract and the costs to perform it may be recognized as an asset. The accounting policies related to revenues from ordinary activities from contracts entered into with customers of the Group are described in detail in Note 2.b.11.

The Group has adopted the full retrospective approach for the implementation of this standard, which has not affected the accounting policies related to the recognition of revenues from contracts with customers and therefore the initial retained earnings have not been affected either.

The Group has not identified a significant impact on its financial statements with respect to: (i) changes in transactions within the scope of the new standard; (ii) the identification of performance obligations; (iii) the determination and distribution of the price; and (iv) the recognition of income accounts; with respect to the income recognition criteria previously applied.

The Group has adopted the standard's terminology, identifying Contract Assets and Contract Liabilities. Thus, certain reclassifications have been made in the comparative amounts of the statements of financial position for the fiscal year ended December 31, 2017 and 2016, as shown below:

	Amounts as of December 31, 2017		Reclassifications IFRS 15		Amounts restated as of December 31, 2017	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
<b>Assets</b>						
Inventories		27,291		(142)		27,149
Contract Assets				142		142
<b>Liabilities</b>						
Accounts Payable	1,655	47,371	(1,470)	(1,460)	185	45,911
Contract Liabilities			1,470	1,460	1,470	1,460

	Amounts as of December 31, 2016		Reclassifications IFRS 15		Amounts restated as of December 31, 2016	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
<b>Assets</b>						
Inventories		21,820		(12)		21,808
Contract Assets				12		12
<b>Liabilities</b>						
Accounts Payable	2,187	41,595		(14)	2,187	41,581
Contract Liabilities				14		14

Additionally, IFRS 15 introduces requirements aimed at providing new disaggregation of information to be disclosed. Based on the revenue analysis carried out by the Company's Management, Note 19 has been broken down by (i) type of good or service; (ii) sales channels, and (iii) target market, according to the reported business segments.

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**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**IFRS 9 - Financial Instruments**

In July 2014, the IASB completed the amendment to the accounting for financial instruments and issued IFRS 9 Accounting for financial instruments (in its revised version of 2014 in effect for annual periods beginning on or after January 1, 2018), which will replace IAS 39 Financial Instruments: Recognition and Measurement after the expiration of the effective date thereof.

The following describes the key requirements of IFRS 9:

**Classification and measurement of financial assets and liabilities**

The IFRS 9 requires that all recognized financial assets that are within the scope of IAS 39 Financial Instruments: Recognition and Measurement be subsequently measured at amortized cost or at fair value. Specifically, the debt instruments that are maintained within a business model whose objective is to collect the contractual cash flows, and which have contractual cash flows that are only principal and interest payments on the amount of outstanding capital, are generally measured at amortized cost at the end of subsequent accounting periods. All other investments in debt and equity securities are measured at their fair values as of the closing of subsequent accounting periods.

The most significant effect of IFRS 9 with respect to the classification and measurement of financial liabilities is related to the accounting for changes in the fair value of a financial liability (designated at fair value through profit or loss) attributable to the changes in the credit risk of such liability. Specifically, under IFRS 9, for financial liabilities that are designated at fair value through profit or loss, the amount of the change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognized in other comprehensive income, unless the recognition of the effects of the changes in the credit risk of the liability in other comprehensive income creates or increases a measurement inconsistency (accounting asymmetry) in the results. The changes in fair value attributable to the credit risk of the financial liability are not reclassified subsequently to the results of the fiscal year. Previously, under IAS 39, the total amount of the change in the fair value of the financial liability designated at fair value through profit or loss was recognized in the income statement of the fiscal year.

The Group has adopted IFRS 9 as of the transition date in advance in accordance with the regulations in force in 2013, which deal with everything related to the classification and measurement of financial assets and liabilities, so it is not expected that there will be an impact on the described treatments.

**Hedge accounting**

The general hedge accounting requirements of IFRS 9 maintain the three types of hedge accounting mechanisms included in IAS 39. However, the eligible types of hedge accounting transactions are now much more flexible, especially by expanding the types of instruments that are classified as hedging instruments and the types of risk components of non-financial elements ideal for hedge accounting.

In addition, the effectiveness test has been reviewed and replaced by the principle of economic relationship. A retrospective evaluation is no longer required to measure the effectiveness of the coverage. Many more disclosure requirements have been added regarding the entity's risk management activities.

The initial application of this standard related to hedge accounting, has not had any impact because the Group has not carried out these types of transactions in the fiscal years ended December 31, 2018, 2017 and 2016.

#### Impairment Methodology

The impairment model in accordance with IFRS 9 reflects expected credit losses, as opposed to credit losses incurred under IAS 39. In regard to the impairment in IFRS 9, it is no longer necessary for a credit event to occur before it is incurred. In contrast, an entity always accounts for both the expected credit losses and their changes. The amount of expected credit losses must be updated on each reporting date to reflect changes in credit risk from initial recognition.

The Group estimated the impairment of its financial assets and contract assets in compliance with the accounting policy outlined in Note 2.b.18 to these consolidated financial statements.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

Thereby, it is replaced the previous accounting policy under which the impairment of a financial asset was recorded only when there was an objective evidence of the impairment of the asset, based on the difference between the book value of the asset and the current value of the estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate.

In compliance with the exception provided under IFRS 9, the Group has retroactively applied the changes in the standard, without restating the comparative amounts. Therefore, the difference between the previous accounting amounts and the new initial amounts resulting from the initial application of the standard were recognized as an adjustment in the Retained Earnings as of January 1, 2018. The information disclosed for 2017 reflects the requirements set forth in IAS 39, and not those of IFRS 9 in relation to impairment of financial assets. The implementation of the impairment method introduced by the standard generated a loss of 425 with the consequent effect on the deferred tax of 127. The net effect shown in the statement of changes in shareholders' equity was 298, not being significant for the financial position and/or performance of the Group.

**Amendments to IAS 40 Investment Properties**

In December 2016, the IASB made amendments to IAS 40 applicable to fiscal years beginning on or after January 1, 2018.

IAS 40 has been modified to reflect that in relation to transfers, an entity will transfer an investment property to, or from investment properties when, and only when, there is a change in use. This change in use occurs when a property meets or fails to meet the definition of investment property and there is evidence of a change in use. It also clarifies that the change in the management's intentions regarding the use of a property does not provide evidence of a change of use.

The adoption of the foregoing modifications did not have any effects on the consolidated financial statements of the Group.

**Amendments to IFRS 4 Application of IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts**

In September 2016, the IASB issued amendments to IFRS 4 that are applicable to those fiscal years beginning on or after January 1, 2018.

The adoption of the foregoing modifications did not have any effects on the consolidated financial statements of the Group.

**Amendments to IFRS 2 Classification and Measurement of Share-based Payment Transactions**

In June 2016, the IASB amended IFRS 2, and such amendments are to be applied for fiscal years beginning on or after January 1, 2018, though they may be implemented in advance.

IFRS 2 has been amended to reflect the following:

For share-based payment transactions that are settled in cash, the goods or services purchased and the liability, which they incur, will be measured at the fair value of the liability, subject to the requirements of this standard. Until the liability is settled, the fair value of the liability is remeasured at the end of each reporting period, as well as on the settlement date, recognizing any change in fair value in the results for the period.

The conditions for the irrevocability of concession and conditions other than the irrevocability of the concession, other than market conditions, will not be taken into account when estimating the fair value of the share-based payment that is settled in cash on the date of measurement. Instead, they will be taken into account by adjusting the number of incentives included in the measurement of liabilities arising from the transaction. Accordingly, an amount will be recognized for the goods or services received during the period up to the irrevocability of the concession. This amount will be based on the best available estimate of the number of incentives that are expected to be irrevocable.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

If the terms and conditions of a share-based payment transaction to be settled in cash are modified to become a share-based payment transaction that is settled by equity securities, such transaction will be accounted for as of the date of the modification. Specifically: (a) a share-based payment transaction that is settled by equity securities is measured by reference to the fair value of the equity securities granted on the date of the modification. The share-based payment transaction settled by equity securities is recognized in equity on the date of the change, in proportion to the goods or services that have been received; (b) the liability for the share-based payment transaction settled in cash on the date of the amendment will be written off in the accounts on the same date; and (c) any difference between the carrying amount of the written off liability and the amount of equity recognized on the date of the change will be recognized immediately in the income statement for such period.

The adoption of the foregoing modifications did not have any effects on the consolidated financial statements of the Group.

**IFRIC 22 Transactions in Foreign Currency and Advance Payments**

In December 2016, the IASB approved the interpretation of IFRIC 22 Transactions in foreign currency and advance payments , which is applicable for the fiscal years beginning on or after January 1, 2018, though they may be implemented in advance. The scope of this interpretation applies to a foreign currency transaction (or any part thereof) where an entity recognizes a non-financial asset or non-financial liability arising from the payment or collection of an early consideration before the entity recognizes the asset, expense or related income (or any part thereof that may be appropriate). This interpretation does not apply when an entity measures the related asset, expense or income at the time of the initial recognition: (a) at fair value; or (b) the fair value of the consideration paid or received as of a date other than that of the initial recognition of the non-monetary asset, or non-monetary liability, arising from the anticipated consideration (e.g., measurement of the goodwill by applying the IFRS 3 Business Combinations ).

The adoption of the foregoing modifications did not have any effects on the consolidated financial statements of the Group.

**Annual improvements to IFRS 2014 2016 Cycle**

In December 2016, the IASB issued the annual improvements 2014 2016, which are applicable to fiscal years beginning on or after January 1, 2018, though they may be implemented in advance.



Standard	Amended Subject	Detail
IFRS 1 First-time Adoption of International Financial Reporting Standards	Elimination of short-term exemptions for first-time adopters of IFRS.	The amendment introduces the deletion of paragraphs that consider the limited exemption of comparative disclosure from IFRS 7 for first-time adopters of IFRS, disclosures of transfers of financial assets and paragraph 39AA considered the annual best improvements to IFRS 2014-2016 Cycle.
IAS 28 Investments in associates and joint ventures	Measurement at fair value of an associate or joint venture.	The amendment introduces changes in relation to the exemption and the procedures to be applied to the equity method, clarifies that an entity will apply this exemption or the method separately to each associate or joint venture, in the case of exemption in the initial recognition of the associate or joint venture, and with respect to the method on a date that is the later of: a) when the associate or joint venture that is an investment entity is initially recognized; b) when the associate or joint venture becomes an investment entity; or c) when the associate or joint venture that is an investment entity becomes a parent company.

The adoption of the foregoing modifications did not have any effects on the consolidated financial statements of the Group.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**Standards or interpretations issued by the IASB, the application of which is not mandatory as of the closing date of these consolidated financial statements and which, therefore, have not been adopted by the Group**

**IFRS 16 Leases**

**Type of modification**

IFRS 16 was issued in January 2016. Under this standard all leases will be recognized in the statement of financial position by lessees, since the distinction between finance and operating leases is eliminated. The new standard recognizes a financial asset (the right to use the leased item) and a financial liability to pay the lease. The only exceptions are short-term and low value leases.

**Description of IFRS 16 requirements**

IFRS 16 is in effect for reporting periods beginning on January 1, 2019 and its implementation in advance is permitted for entities that have applied IFRS 15 Revenue from ordinary activities from contracts entered into with customers prior to the date of initial application of IFRS 16.

It will replace IAS 17 Leases and its interpretations after the effective date thereof.

IFRS 16 sets out the principles required for the recognition, measurement, presentation and disclosure of leases. The purpose thereof is to ensure that lessees and lessors provide relevant information in a way that faithfully represents those transactions. The changes incorporated by such standard mainly impact the lessees accounting.

This standard applies to all leases, including leases of rights-of-use assets in a sublease, with the exception of specific leases covered by other standards:

Leases to explore or use minerals, oil, natural gas and similar non-renewable resources;

Leases of biological assets within the scope of IAS 41 Agriculture kept by a lessee;

Contracts included in the scope of application of IFRIC 12 Service Concession Agreements ;

Intellectual property licenses granted by a lessor within the scope of IFRS 15 Revenue from contracts with customers ; and

Rights kept on by a lessee under license agreements that are within the scope of IAS 38 Intangible assets for items such as movies, videos, games, manuscripts, patents and copyrights.

The model introduced by this standard is based on the definition of the term lease , which is mainly related to the concept of control. IFRS 16 makes a difference between lease contracts and service contracts on the basis of whether an identified asset is under the customer s control, which is deemed to exist if the customer has the right to: i) substantially obtain all the economic benefits from the use of the asset; and ii) control the use of the asset.

Lessor s accounting:

IFRS 16 requires the lessor to classify the lease as operating or finance. A finance lease is a lease in which substantially all the risks and benefits derived from ownership of the asset are transferred. A lease will be classified as operating if it does not transfer substantially all the risks and benefits derived from the ownership of an underlying asset.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

The classification of the lease is made on the effective date of the agreement and is evaluated again only if there is an amendment to the lease. Changes in estimates (e.g., changes in the economic life or in the residual value of the underlying asset) or changes in circumstances (e.g., non-compliance by the lessee) will not result in a new classification of the lease for accounting purposes.

**Lessee s accounting:**

The standard establishes that once the lease is identified, an entity should recognize the following items:

Right-of-use asset, whose cost includes:

- (a) the amount of the initial measurement of the lease liability (as described below);
- (b) any rent paid to the lessor prior to the commencement date or on the same date, after discounting any incentive received for the lease;
- (c) the initial direct costs incurred by the lessee; and
- (d) an estimate of the costs to be incurred by the lessee in dismantling and eliminating the underlying asset, restoring the place where the underlying asset is located or restoring the underlying asset to the condition required by the terms and conditions of the lease, unless such costs are incurred at the time of making of the inventories. The lessee could incur in certain obligations because of such costs either on the date of commencement of the term of the lease, or because of having used the underlying asset during a specified period.

Subsequently, the valuation of the right of use of assets will be based on the cost model or the revaluation model under IAS 16 Property, Plant and Equipment (recognizing therefore the amortization and impairment in the profit and loss account and, if applicable the revaluation model, revaluations in equity). However, the IFRS 16 requires that the

right to use a leased property investment be valued at its fair value under the provisions set forth in IAS 40 Investment properties for the investment property it holds.

Lease liability, measured at the present value of the lease payments that have not been paid on that date. Lease payments will be discounted using the interest rate implied in the lease, if that rate could be easily determined. If that rate cannot be easily determined, the lessee will use the lessee's incremental borrowing rate.

Lease liabilities must include the following items:

- (a) fixed payments (including in substance fixed payments), less any lease incentive receivable;
- (b) variable payments, which depend on an index or a rate, initially measured by using the index or rate (e.g., payments related to the consumer price index, prices related to a benchmark interest rate such as LIBOR, or payments that vary to reflect changes in market rental prices) on the effective date of the contract;
- (c) amounts that the lessee expects to pay as residual value guarantees;
- (d) the price of the purchase option if the lessee is reasonably certain to exercise that option; and
- (e) payment of penalties for terminating the lease, if the lease period reflects that the lessee will exercise an option to terminate it (i.e., because there is a reasonable certainty thereon).

Subsequently, the lessee will increase the liability for the lease to reflect the accrued interest (and recognized in the income statement), deduct the installments that are being paid from such liability and recalculate the book value to reflect any review, amendment to the lease or review of the so-called in-substance fix payments.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

The lessee must review the lease liability in the following cases:

- (a) when there is a change in the amount expected to be paid under a residual value guarantee;
- (b) when there is a change in future rental payments to reflect the variation of an index or an interest rate used to determine such rental payments (including, for example, a market rent review);
- (c) when there is a change in the term of duration of the lease as a result of a change in the non-cancellable period of the lease (for example, if the lessee does not exercise an option previously included in the determination of the lease period); or
- (d) when there is a change in the evaluation of the purchase option of the underlying asset.

**Preliminary assessment**

During fiscal year 2018, the Group has developed the IFRS 16 implementation project to evaluate the application effects of this standard, including the impacts on the consolidated financial statements, key performance indicators and financial metrics, as well as the development of accounting policies. Additionally, an evaluation of the necessary changes in the systems and processes has been carried out. For these purposes, the Group has reviewed substantially all of the Group's leasing arrangements in light of the new lease accounting rules in IFRS 16.

Based on such analysis, it was preliminarily concluded that the new definition of lease does not significantly change the scope of the contracts deemed as leases.

The Group expects to recognize right-of-use assets and lease liabilities of about 23,059, as of January 1, 2019, in the consolidated statement of financial position measured at the present value of future lease payments.

Regarding the comprehensive statement of income, the Group expects that the net fiscal year result will decrease by about 541 for fiscal year 2019, as a result of recognizing depreciations of right-of-use assets and the accrual of interest

of lease liabilities.

On the other hand, as the payment of the principal portion of lease liabilities will be classified as cash flows from financing activities, the Group expects a decrease thereof and that cash flows from operating activities will increase in about 9,224 for 2019.

The application of this standard will have no effect on the retained earnings since the Group intends to apply the simplified model without restating any comparative figures, recognizing a right-of-use asset equivalent to the lease liability on the initial date of transition (January 1, 2019). There are no adjustments to be made due to impairment arising from the provision for onerous contracts related to these right-of-use assets.

With regard to short-term leases, and leases of low-value assets, the Group intends to continue recognizing them as straight-line expense over the effective term of the lease, unless another systematic basis is more representative, in accordance with the option indicated by the standard.

Moreover, the Group intends to apply the practical solution of the standard whereby leases expiring within the term of 12 months from the date of the initial application, regardless of the original date, and which comply with the conditions to be classified as short term leases, follow the treatment described in the previous paragraph.

The group's activities as a lessor are not material and hence the Group does not expect any significant impact on the financial statements.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**IFRS 9 Prepayment with negative compensation**

In October 2017, an amendment was introduced in connection with the feature of prepayment with negative compensation, whereby the lender (i.e., the holder) might be forced to accept in payment a prepayment amount that is substantially lower than the unpaid amounts of principal and interest. In these cases, the amendment proposes that financial assets with this feature should be measured at amortized cost or fair value with changes in other comprehensive income.

The Group estimates that the implementation of this last amendment, effective as from January 1, 2019, which may be applied in advance, will not have a significant impact on its financial statements as the Group does not perform this type of transactions.

**IFRIC 23 Uncertainty about income tax treatment**

The Interpretation issued in June 2017 clarifies how to apply the recognition and measurement requirements of IAS 12 when there is uncertainty regarding income tax treatment.

For such purpose, the entity must evaluate whether the tax authority will accept an uncertain tax treatment used, or proposed to be used, or which is intended to be used in its income tax filing.

If an entity concludes that the tax authority is likely to accept an uncertain tax treatment, the entity will determine the tax position consistent with the tax treatment used or intended to be used on its income tax filing. If an entity concludes that such acceptance is improbable, the entity will reflect the effect of the uncertainty in determining the fiscal result, the tax bases, unused tax losses, unused tax credits and tax rates. An entity will reflect the effect of the uncertainty for each uncertain tax treatment by using one of the following methods, depending on which method the entity expects to better predict the resolution of the uncertainty:

The most probable amount the only most probable amount in a range of possible outcomes. The most probable amount may better predict the resolution of the uncertainty if the possible outcomes are dual or are concentrated



in a value.

The expected value is the addition of the amounts weighted by their probability in a range of possible outcomes. The expected value may better predict the resolution of the uncertainty if there is a range of possible outcomes that are not dual or are concentrated in a value.

This amendment will be effective for the fiscal years beginning on or after January 1, 2019 and may be early applied.

The Group estimates that the application of the aforementioned interpretation will not have a significant effect on its financial statements. Additionally, see Note 28.b.4.

#### **Amendments to IAS 28 Long-term Investments in associates and joint ventures**

In October 2017, the IASB issued amendments to IAS 28, which are applicable to the fiscal years beginning on or after January 1, 2019, allowing early application.

The amendment defines that the long-term investments in associates and joint ventures, which are not accounted for using the equity method, will be accounted for in accordance with IFRS 9.

The Group estimates that the application of the aforementioned interpretation will not have a significant effect on its financial statements.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**IFRS 17 Insurance contracts**

The IFRS 17 issued in May 2017 is applicable to those fiscal years beginning on or after January 1, 2021, allowing its early application and replacing IFRS 4.

The Group does not anticipate that this standard will have effects on its financial statements because it does not provide this type of services.

**Amendments to IFRS 10 and IAS 28 Sale or contribution of assets between an investor and its associate or joint venture**

In September 2014, the IASB amended IFRS 10 and IAS 28 to clarify that in transactions involving a controlled company, the extent of the gain or loss to be recognized in the financial statements depends on whether the sold or contributed controlled company is considered a business in accordance with IFRS 3.

On August 10, 2015, the IASB issued a proposal to postpone the effective date of these changes indefinitely depending on the outcome of its research project on accounting by the equity method, which was approved on December 17, 2015.

**Annual improvements to IFRS 2015-2017 Cycle**

In December 2017, the IASB issued the 2015-2017 cycle of annual improvements that are applicable for the years beginning on or after January 1, 2019, allowing early application.

A summary of the main modified standards and their purpose follows:

<b>Standard</b>	<b>Amended Subject</b>	<b>Detail</b>
IFRS 3 Business Combinations and IFRS 11 Joint arrangements	Holdings previously held in a joint operation	The amendment to IFRS 3 establishes that when obtaining control of a business that was a joint operation, the acquirer will apply the requirements for a business combination carried out in

stages, including the re-measurement of its previously held share in the joint operation at the fair value on the acquisition date. On the other hand, the amendment to IFRS 11 establishes that when obtaining joint control of a business that was a joint operation, it does not measure again its previously held shares.

IAS 12	Income Tax	Exposure of the effect of dividends on Income Tax	The amendment clarifies that the entity will recognize the consequences of the dividends on the income tax where it has recognized the transactions or events that gave rise to those distributable profits.
IAS 23	Borrowing Costs	Capitalization of generic loans	The amendment to this standard clarifies that, for the capitalization of costs from generic loans, it must necessarily consider all outstanding loans when determining the capitalization rate, except those taken specifically to finance an eligible asset that is not yet ready for its intended use or sale; i.e., if any specific loan remains unpaid after the related eligible asset is ready for its intended use or for sale, that loan becomes part of the funds that the entity took as generic loans.

The Group estimates that the application of the amendments to the mentioned standards will not have a significant effect on its financial statements.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**Amendments to IAS 19 Employee benefits**

In February 2018, the IASB issued amendments to this standards guidance, in relation to the accounting for Plans amendments, curtailments and settlements.

An entity shall determine the cost of services for the current period and the net interest for the remainder of the annual period, using actuarial assumptions determined at the beginning of the annual reporting period. However, if an entity remeasures the liability (asset) for net defined benefits, it will determine the current cost of the service and the net interest for the remainder of the annual period, using actuarial assumptions updated after the plan change.

Another modification consists in recognizing in results any reduction in the surplus, even if that surplus was not previously recognized due to the impact of the asset ceiling.

The Group estimates that the application of this amendment, effective as of January 1, 2019, allowing early application, will not have any significant effects on its financial statements.

**Amendments to IFRS 3 Business combinations**

In October 2018, the IASB has issued Definition of a Business (Amendments to IFRS 3), aimed at resolving the difficulties that arise when an entity determines whether it has acquired a business or a group of assets. The amendments are effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after 1 January 2020. Early application is allowed.

**The amendments:**

clarify that to be considered a business, an acquired set of activities and assets must include, at least, an input and a substantive process that together significantly contribute to the ability to create outputs;

remove the assessment of whether market participants are capable of replacing any missing inputs or processes and continuing to produce outputs;

add guidance and illustrative examples to help entities assess whether a substantive process has been acquired;

narrow the definitions of a business and of outputs by focusing on goods and services provided to customers and by removing the reference to an ability to reduce costs; and

add an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business.

The Group estimates that the application of these amendments will not have significant effects on its financial statements.

**Amendments to IAS 1 Presentation of financial statements and IAS 8 Accounting policies, changes in accounting estimates and errors Definition of material**

In October 2018, the IASB issued amendments that are applicable to fiscal years beginning on or from January 1, 2020, allowing for its anticipated application.

The amendments to the definitions of material or with relative importance seek to unify the definition of such concepts to the definitions of Conceptual Framework, also amended in 2018.

The Group estimates that the implementation of these amendments will not affect its financial statements.

**Amendments to References to the Conceptual Framework for Financial Reporting**

In March 2018, the IASB issued the revised Conceptual Framework applicable to annual periods beginning on or after January 1, 2020. This revision process did not imply a substantial change in the set of definitions, concepts and guidelines used as a basis for preparing financial information.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**2.c) Accounting Estimates and Judgments**

The items in the financial statements and areas which require the highest degree of judgment and estimates in the preparation of these financial statements are:

**Crude oil and natural gas reserves**

Estimating crude oil and gas reserves is an integral part of the Group's decision-making process. The volume of crude oil and gas reserves is used to calculate depreciation using the unit of production ratio and to assess the impairment of the capitalized costs related to the Upstream assets (see Notes 2.b.8, 2.b.9 and the last paragraph of this Note).

The Group prepares its estimates of crude oil and gas reserves in accordance with the rules and regulations established for the crude oil and natural gas industry by Rule 4-10 (a) of Regulation S-X of the SEC.

**Provision for litigation and other contingencies**

The final costs arising from litigation and other contingencies, and the perspective given to each issue by the Management of the Company may vary from their estimates due to different interpretations of laws, contracts, opinions and final assessments of the amount of the claims. Changes in the facts or circumstances related to these types of contingencies and the strategy defined in each case can have, consequently, a significant effect on the amount of the provisions for litigation and other contingencies recorded or the perspective given by the Management of the Company.

**Provision for environmental costs and obligations for the abandonment of hydrocarbon wells**

Given the nature of its operations, the Group is subject to various laws and regulations relating to the protection of the environment. These laws and regulations may, among other things, impose liability on companies for the cost of pollution cleanup and environmental damages resulting from operations. YPF management believes that the Group's operations are in substantial compliance with laws and regulations of Argentina and the countries where the Group operates, relating to the protection of the environment as such laws have historically been interpreted and enforced.

The Group periodically conducts new studies to increase its knowledge of the environmental situation in certain geographic areas where it operates in order to establish the status, cause and remedy action of a given environmental issue and, depending on its years of existence, analyze the Argentine Government's possible responsibility for any environmental liabilities existing prior to December 31, 1990. The Group cannot estimate what additional costs, if any, will be required until such studies are completed and evaluated; however, provisional remedial actions or other measures may be required.

In addition to the hydrocarbon wells abandonment legal obligation, the Group has accrued environmental remediation which evaluations and/or remediation works are probable and can be reasonably estimated, based on the Group's existing remediation program. Legislative changes, on individual costs and/or technologies may cause a re-evaluation of the estimates. The Group cannot predict what environmental legislation or regulation will be enacted in the future or how future laws or regulations will be administered. In the long-term, these potential changes and ongoing studies could materially affect the Group's future results of operations.

The main guidelines on the provision for the obligations for the abandonment of hydrocarbon wells are set forth in detail in Note 2.b.6.

#### Income tax and deferred income tax

The proper assessment of income tax expenses depends on several factors, including interpretations related to tax treatment for transactions and/or events that are not expressly provided for by current tax law, options established by the law or its regulations, as well as estimates of the timing and realization of deferred income taxes. The actual collection and payment of income tax expenses may differ from these estimates due to, among others, changes in applicable tax regulations and/or their interpretations, as well as unanticipated future transactions affecting the Group's tax balances.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

**Provision for impairment of property, plant and equipment and intangible assets**

The methodology used in estimating the recoverable amount of property, plant and equipment and intangible assets is detailed in Note 2.b.8 and 2.b.9.

The determination of whether an asset is impaired, and by how much, involves management's estimates of highly uncertain matters such as the effects of inflation and deflation on operating expenses, discount rates, production profiles, reserves and future prices of the products, including the prospects of supply and demand conditions of the world or regional market for crude oil, natural gas and refined products, all of which affects the prices taken into account in the projection. Consequently, for oil and natural gas assets, the expected future cash flows are determined using management's best estimate of future oil and natural gas prices and production volumes and reserves. The foregoing implies the use of assumptions about future commodity prices, production and development costs, field decline rates, current tax regimes and other factors. These assumptions and the management decisions on which the estimates of expected cash flows are based are subject to changes as new information becomes available. Changes in economic conditions may also affect the rate used to discount future cash flow estimates.

In general, the Group does not consider temporarily low (or high) prices or margins as an indication of impairment (or reversal of an impairment charge). The impairment assessment mainly reflects long-term oil and natural gas prices that are consistent with intermediate points between the maximum and minimum ranges observed in the market and that are in the range of price forecasts published by third-party experts of the industry and government agencies, within which are the long and short term projections of the US Energy Information Administration and the Brent crude forward curve. The assumptions of future prices used by the Management of the Company tend to be stable because it does not consider short-term increases or decreases in prices to be indicative of long-term levels, but they are subject to change. Besides, oil prices do not rise above the historical oil prices observed in the past, applied to projected future production volumes. Gas prices correspond to the average weighted price per basin and channel, determined according to the market's supply and demand.

With regard to the oil market of prior periods, the applicable domestic prices of petroleum products were established for the short term mainly based on negotiations between Producers and Refiners of the country, without keeping a direct or specific reference with respect to the international quotations of such products. In 2016, due to the continued fall in international average prices for Brent crude oil, it was agreed to reduce in about 10% the domestic crude oil price per barrel with respect to effective price as of December 31, 2015. Additionally, in August 2016, a new agreement between producers, refiners and the MINEM allowed for a new gradual reduction in the domestic crude oil



price per barrel in a monthly 2% in August, September and October, reaching an accumulated 6% drop by November 2016.

As detailed on Note 30.e., in January 2017, Producers and Refiners reached a new agreement in which a path of prices was established for the sale of oil in the domestic market for the purpose of achieving parity with the international markets during 2017, which took place during the last quarter of 2017.

In relation with the gas market, incentive schemes were established in recent years in order to increase the total injection of natural gas (see Note 30.g). In particular, in 2018 an excess in the supply with respect to the domestic demand took place at specific times of the year, an unusual situation in the past, which affected natural gas production due to the temporary shutdown of wells, as well as to the reinjection of the hydrocarbon. In this new scenario and under the new regulations (see Note 30) and agreements, domestic gas prices declined, and therefore it is expected a future reduction in natural gas sales prices compared to those contemplated in the 2017 projections.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)**

Based on the aforementioned methodology, the expected decrease in the crude oil price as of December 31, 2016 together with the evolution of the cost behavior in terms of macroeconomic variables and the operational behavior of the Group's assets, caused CGU Oil to record an impairment charge for property, plant and equipment in the Upstream segment of 34,943 as of December 31, 2016.

The discount rate after taxes used as of December 31, 2016 was 8.67%, the recoverable value, after taxes, as of such date of the CGU Oil was 71,495.

As of December 31, 2017, the Group recognized a reversal in the charge for impairment of the value of its assets for the CGU Oil of 5,032, which arises from the combination of multiple factors, such as the variation in production and associated investments considered in the cash flows, the effect of variations in operating and abandonment costs, the variation in the discount rate and, to a lesser extent, the variation in oil prices, taking into account also the book value of the assets as of December 31, 2017 affected by depreciation charges for the year and investments made, among others.

The discount rate after taxes used as of December 31, 2017 was 8.28% for 2018 and 2019 and 8.42% for 2020 and thereafter, the recoverable value after taxes as of such date of the CGU Oil was 82,802.

As of December 31, 2018, the Group recognized a reversal in the charge for impairment of the value of its assets for the CGU Oil of 39,837 and an impairment charge of property, plant and equipment, mainly for the CGU Gas Neuquina Basin of 28,326 and CGU Gas Austral Basin of 8,246.

The reversal of impairment charge of the CGU Oil assets is mainly due to the increase in oil reserves coupled with estimated cost improvements, all of which is mainly set off by: (i) the rise in the discount rate as a result of the higher country risk and cost of debt and (ii) larger investments associated to higher reserves contemplated in cash flows. All the foregoing taking into account the book value of assets as of December 31, 2018, affected by the depreciation charges for the fiscal year and the investments made, among others.

The impairment of the CGU Gas Neuquina Basin and CGU Gas Austral Basin assets arises from a combination of multiple factors, mainly from the anticipated reduction in gas market prices due to the lower sales price to distributors and power plants (see Note 30 in sections Terms and Conditions for the Distribution of Natural Gas through Networks and Natural Gas Sales for Electricity Generation ) and the higher discount rate due to higher country risk and cost of debt, all of which is partially set off by a reduction in costs.

The discount rate after taxes used as of December 31, 2018 was 10.94% for 2019 and 11.19% for 2020 and thereafter, the recoverable value after taxes as of such date of the CGU OIL, CGU Gas Neuquina Basin and CGU Gas Austral Basin are 254,549, 108,509 and 8,606, respectively.

As mentioned above, as of the fiscal year end 2018, the Company's Management does not anticipate any relevant changes in long-term price curves, as it does not consider the recent (positive) changes in commodity prices, all the foregoing taking into account the high volatility observed, until the variables affecting them shall evidence certain stability in the course of time.

## **2.d) Comparative Information**

Balance items as of December 31, 2017 and 2016 presented in these financial statements for comparison purposes arise from the consolidated financial statements then ended.

Additionally, certain amounts in the statement of financial position have been reclassified and new disclosures have been made due to the accounting policy changes mentioned in Note 2.b.26.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**3. ACQUISITIONS AND DISPOSITIONS**

**Agreement for YPF EE s capitalization**

On December 14, 2017, the Board of Directors of the Company approved the terms of a memorandum of understanding signed with GE Energy Financial Services, Inc. ( GE EFS ) which established the framework conditions under which the parties would agree to the capitalization of YPF EE. This Agreement, the framework conditions of which were approved by the Board of Directors of the Company, established that GE EFS intended to contribute capital through a vehicle company and subscribe for shares of YPF EE in order to have a shareholding of 25% of its capital stock.

As of December 31, 2017, the Group had classified its investment in YPF EE as assets and liabilities held for disposal in separate lines from the rest of the assets and liabilities, given that as of that date they had met all the requirements for this classification (see Note 2.b.24). Given that, at the time of classification, the fair value less costs of the transaction was higher, the investment in YPF EE has been valued at its book value, therefore, no impairment has been recorded at the time of reclassification. Although YPF EE represented a component within YPF because it was an individual CGU within the Gas and Energy segment, it did not qualify as a discontinued operation since it did not represent a significant line of business nor a geographical area.

On February 6, 2018, YPF entered into a definitive and binding agreement with EFS Global Energy B.V. ( GE ) and GE Capital Global Energy Investments B.V., companies indirectly controlled by GE EFS, which establishes the conditions for the capitalization of YPF EE (the Share Subscription Agreement ). The Share Subscription Agreement establishes that, subject to compliance with certain conditions precedent, GE will subscribe for shares of YPF EE in order to achieve a participation equal to 24.99% of its capital stock and jointly control this company with YPF.

On March 20, 2018, GE EFS Power Investments B.V., a subsidiary of EFS Global Energy B.V (both companies indirectly controlled by GE Energy Financial Services, Inc.; jointly GE ), subscribed YPF EE shares representing 24.99% of its capital stock. Since then, GE EFS Power Investments and YPF jointly control YPF EE, undertaking to contribute as follows:

Subscription price of US\$ 275 million:

US\$ 135 million on the closing date of the transaction; and

US\$ 140 million 12 months after the closing date of the transaction.

Contingent price of up to the maximum sum of US\$ 35 million subject to the evolution of the electric market prices (33.33% as of 24 months from the closing date of the transaction and 16.67% each subsequent year). In this way, the capital structure of YPF EE after the issuance of shares is as follows:

<b>Shareholder</b>	<b>Number of Shares</b>	<b>Interest holding in the capital stock</b>	<b>Class of Shares</b>
YPF	2,723,826,879	72.69218%	A
<u>OPESSA</u>	86,476,112	2.30783%	A
<b>Group</b>	<b>2,810,302,991</b>	<b>75.00001%</b>	<b>A</b>
<b><u>GE</u></b>	<b>936,767,364</b>	<b>24.99999%</b>	<b>B</b>
<b>Total</b>	<b>3,747,070,355</b>	<b>100.00000%</b>	

F-45

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**3. ACQUISITIONS AND DISPOSITIONS (Cont.)**

The following table shows the main assets and liabilities held for disposal as of December 31, 2017:

Group of assets held for disposal:

	<b>December 31, 2017</b>
Property, plant and equipment	4,982
Investments in associates and joint ventures	2,117
Inventories	1
Other receivables	914
Trade receivables	713
Investments in financial assets	78
Cash and cash equivalents	61
Subtotal	8,866
Eliminations	(43)
Total	8,823

Liabilities associated to the group of assets held for disposal:

	<b>December 31, 2017</b>
Provisions	96
Deferred tax liabilities	282
Salaries and social security	47

Other liabilities	1
Loans	4,072
Accounts payable	938
<b>Subtotal</b>	<b>5,436</b>
Eliminations	(1,243)
<b>Total</b>	<b>4,193</b>

As a result of the implementation of IFRS 10 and the aforementioned capitalization process of YPF EE, the Group recorded a gain of 11,980 (11,879 through YPF and 101 through OPESSA) included in the item *Other net operating results*, which includes a gain of 13,552 (13,451 through YPF and 101 through OPESSA) due to the dilution of its interest in YPF EE with the consequent loss of control over it and the subsequent revaluation of its residual interest (3,438 y 10,114, respectively) and a loss of 1,572 (fully corresponding to YPF) for the reversal to net profit for the period of the accrued translation corresponding to the investment in this Company.

In order to determine the fair value of the investment in YPF EE, the Group has considered all the elements available as of the date of these financial statements, including the best estimation of the occurrence of the contingent payments provided in the operation. However, for the measurement of this fair value the Group has a term of one year to evaluate all the facts and circumstances existing as of the transaction date that might modify such measurement.

Regarding the participation held after the aforementioned transaction, the Group has followed the guidelines of IFRS 10 *Consolidated financial statements* and has concluded that from the entry of GE in YPF EE, GE and YPF jointly control YPF EE. Consequently, the Group applied IFRS 11 *Joint Arrangements* defining such company as a joint venture, and measured it according to the equity method under the IAS 28 *Investments in associates and joint ventures*.

Some of the main evaluated assumptions are described below:

- (i) Any decisions about the relevant activities of YPF EE thereof are to be taken jointly, there being no power of one shareholder over the other in relation to such activities, regardless of the different percentages of equity interests held in YPF EE by each of them. Although the Group owns a 75.00001% stake in YPF EE, according to the shareholders' agreement, the following is required for decision-making purposes regarding the relevant activities: the approval of at least one Director appointed by each class of shares at the meeting of the Board of Directors and the approval of each class of shares for the adoption of such decisions at the Shareholders' meeting;
- (ii) No shareholder has any power, as defined in IFRS 10, to the detriment of any other, independently of the number of Directors or personnel (key or not) appointed by each class of shares, in the management of the Company for its own benefit or to unilaterally modify the variable investment returns or ultimately, to unilaterally direct any of the decisions associated with the relevant activities.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**3. ACQUISITIONS AND DISPOSITIONS (Cont.)**

**Acquisition of strategic assets of Oil Combustibles S.A. ( Oil )**

On May 11, 2018, Oil 's bankruptcy was determined and, by means of a resolution dated June 1, 2018, the intervening judge decided to grant YPF and Destilería Argentina de Petróleo S.A. ( DAPSA ) the management of Oil in accordance with the terms of the offer presented by both companies, pursuant to which YPF and DAPSA were entitled for a two-month period to use the logistic assets (docks and fuel storage tanks located in the Oil River Terminal on the Paraná River), to exclusively and directly supply fuel to the entire network of Oil gas stations by DAPSA, and to match the best purchase offer made by any third party, whether for the whole or a part of Oil 's facilities, and for the exclusive supply of Oil 's commercial network as part of the liquidation process of Oil 's assets.

On July 27, 2018, YPF and DAPSA filed a brief stating that they were able to continue the management for two additional months under certain conditions, which was accepted by the bankruptcy trustee and the judge.

The hearing for the opening of bids for the parties interested in acquiring Oil 's industrial assets, originally scheduled for September 14, 2018, was held on October 1, 2018.

On October 2, 2018, YPF received notice of the decision adopted by the judge in charge of Oil Combustibles S.A. 's bankruptcy proceedings, which awarded the industrial assets of the bankrupt company to YPF and DAPSA, pursuant to the local and international bidding process carried out in connection with the sale of Oil Combustibles S.A. 's assets.

The total price of the transaction amounted to US\$ 85 million, which was paid on November 2, 2018. From such amount, US\$ 63 million correspond to net assets acquired by YPF. These, especially the docks and fuel storage tanks located in the Paraná River fluvial terminal, will allow the expansion of YPF 's logistics capacity for actual and future business.

YPF requested the unavailability of the funds, which will remain deposited in the judicial account at the order of the court until the conveyance of title and registration of the real estate acquired in favor of YPF.

Additionally, on November 6, 2018, Division D of the Argentine Court of Appeals rejected the appeal filed by some of the former Oil shareholders which challenged the award in favor of YPF and DAPSA under the bidding process described herein.



The acquisition of these assets qualified as a business combination under IFRS 3.

The following table resumes consideration and fair value of the acquired assets and the liabilities assumed on the acquisition date:

	<b>Fair value at the acquisition date</b>
<b>Fair value of identifiable assets and assumed liabilities:</b>	
Property, plant and equipment	2,327
Inventories	445
Provisions	(465)
<b>Total net identifiable assets / Consideration</b>	<b>2,307</b>

#### **Agreement for the exploitation of the Aguada Pichana and Aguada de Castro Areas**

Once the agreements have been finalized and the corresponding conditions have been fulfilled (see Note 29.b), YPF's interests are as follows:

- (i) In the APE area, the interest of YPF is 22.50% (which implied the sale of a 4.77% stake);
  - (ii) In the APO area, the interest of YPF is 30% (which implied the purchase of a 2.73% stake);
  - (iii) In the ACA area, the interest of YPF is 30% (which implied the sale of a 20% stake).
- Consequently, the Group has recorded a profit of 1,167 included in the item Other net operating results.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**3. ACQUISITIONS AND DISPOSITIONS (Cont.)**

**Assignment of interest in Bajo del Toro area.**

On October 12, 2018, the Province of Neuquén issued Decree No. 1755/18, which approved the assignment in favor of Statoil Holding Netherlands B.V. ( Statoil ), fulfilling the precedent conditions. On November 23, 2018, YPF received the aforementioned US\$ 30 million.

Consequently, the Group has recorded a profit of 871 included in the item Other net operating results .

**Assignment of interest in the Aguada de la Arena and Río Neuquén areas**

As part of the acquisition by Pampa Energía S.A. ( PEPASA ) of the total shares of Petrobras Participaciones S.L., which held 67.2% of the capital and voting rights of Petrobras Argentina S.A. ( PESA ), YPF and PEPASA entered into an agreement subject to certain conditions precedent under which, once the acquisition by PEPASA of shareholding control of PESA had been completed, PESA transferred to YPF its interest in the operating concessions of two areas located in the Neuquén basin with production and high potential for gas development (of the tight and shale type), to be operated by YPF, in the percentages detailed below: (i) 33.33% participation in the Río Neuquén area, located in the Province of Neuquén and in the Province of Río Negro; and (ii) 80% participation in the Aguada de la Arena area, located in the Province of Neuquén.

In order to implement this agreement, PEPASA and YPF signed a Framework Agreement for the Financing and Acquisition of Units and a Loan Agreement under which YPF, on July 25, 2016, granted PEPASA a guaranteed loan for the Indirect acquisition of the aforementioned areas in the amount of US\$ 140 million, equivalent to the acquisition price of the aforementioned units, which does not differ from the fair value of the participation in said areas.

On October 14, 2016, the assignment of the interest in the operating concessions between YPF and PESA was consummated, as follows: (i) an interest of 33.33% in the Río Neuquén area for the sum of US\$ 72 million; and (ii) an interest of 80% in the Aguada de la Arena area, for the sum of US\$ 68 million.

On February 23, 2017, YPF and Petrouuguay S.A. subscribed the definitive agreement for the assignment in favor of YPF of 20% of the interest in the Aguada de la Arena area for US\$ 18 million. Thus, YPF increased its participation to 100% in the aforementioned area.

On March 31, 2017, YPF cancelled, 33.33% of its participation in the Río Neuquén area and 80% of its participation in the Aguada de la Arena area through a payment in kind pursuant to an assignment in favor of PESA of its contractual position under the loan contract with PEPASA.

On September 5, 2018 the Province of Neuquén issued Decree No. 1401/18 which authorized the assignment of 33.33% of the Río Neuquén area in favor of YPF. Besides, on December 17, 2018, by Decree No. 2314/18, the Province of Neuquén approved the assignment of 100% interest in the Aguada de la Arena area to YPF (together with the assignment to YPF of the 20% of the transportation concession of the area).

#### **Assignment agreement of the Cerro Bandera area**

YPF and Oilstone Energía S.A. ( OESA ) entered into an agreement for the assignment of 100% of the exploitation concession of the Cerro Bandera area in the province of Neuquén (the Concession ) on November 22, 2017. It should be noted that OESA operates the block since 2011 under the respective operating Agreement subscribed with YPF.

The agreement considers the assignment of the Concession for US\$14 million. Moreover, the agreement sets forth that YPF maintains rights, under certain terms and conditions, to (i) the Vaca Muerta and Molles formations, in which it may continue to carry out exploration and potential exploitation works; and (ii) an exploratory project in the northern region of the Concession, and its potential exploitation.

On April 27, 2018, the Executive Power of the Province of Neuquén issued Decree No. 525/18 which authorized the assignment of 100% of the exploitation concession in respect of Cerro Bandera provided for in the assignment agreement.

Based on the above, the Group has recorded a profit of 284 included in the item Other net operating results .

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**3. ACQUISITIONS AND DISPOSITIONS (Cont.)**

**Assignment agreement of the Bajo del Piche, Barranca de Los Loros, El Medanito and El Santiagueño areas**

On June 11, 2018, YPF and Petróleos Sudamericanos S.A. ( PS ) entered into an agreement for the assignment of 100% of the exploitation concessions over the areas known as Bajo del Piche, Barranca de Los Loros, El Medanito and El Santiagueño, located in the provinces of Neuquén and Río Negro for an amount of US\$ 22.3 million.

On December 2, 2018, by Decree No. 1677/18, the Province of Río Negro approved the assignment. Also, on December 20, 2018, YPF and PS signed the documents required to execute the assignment.

On January 2, 2019, YPF and PS signed a memorandum whereby from such date PS takes possession of the facilities located in such areas, taking responsibility for the same and releasing YPF from its role as operator of those exploitation concessions.

Therefore, as of December 31, 2018 these areas were classified as assets held for disposal. Besides, liabilities related to the abandonment of these areas were classified as liabilities associated to assets held for disposal.

**Assignment agreement of the Al Sur de la Dorsal, Anticlinal Campamento, Dos Hermanas and Ojo de Agua areas**

On December 20, 2018, YPF and Oilstone Energía S.A. ( OESA ) have entered into an agreement for the assignment by YPF to OESA of 100% of the exploitation concessions in respect of the Al Sur del Dorsal, Anticlinal Campamento, Dos Hermanas and Ojo de Agua areas, located in the province of Neuquén.

The agreement sets forth the assignment of the concession for a consideration of US\$ 12 million. The effectiveness of the assignments is subject to the compliance with certain precedent conditions, which are mainly related to the authorization by the Executive Power of the Province of Neuquén of the assignments described in the agreements.

Therefore, as of December 31, 2018, these areas were classified as assets held for disposal. Besides, liabilities related to the abandonment of these areas were classified as liabilities associated to assets held for disposal.

#### **4. FINANCIAL RISK MANAGEMENT**

The Group's activities expose it to a variety of financial risks: market risk (including foreign currency risk, interest rate risk, and price risks), credit risk and liquidity risk. Within the Group, risk management functions are conducted in relation to financial risks associated to financial instruments to which the Group is exposed during a certain period or as of a specific date.

This section provides a description of the principal risks that could have a material adverse effect on the Group's strategy in each operations center, performance, results of operations and financial condition. The risks facing the businesses, set out below, do not appear in any particular order of potential materiality or probability of occurrence.

The sensitivity analysis of market risks included below are based on a change in one factor while holding all other factors constant. In practice this is unlikely to occur, and changes in some of the factors may be correlated, for example, changes in interest rate and changes in foreign currency rates.

This sensitivity analysis provides only a limited, point-in-time view. The actual impact on the Group's financial instruments may differ significantly from the impact shown in the sensitivity analysis.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**4. FINANCIAL RISK MANAGEMENT (Cont.)**

**Market Risk management**

The market risk to which the Group is exposed is the possibility that the valuation of the Group's financial assets or financial liabilities as well as certain expected cash flows may be adversely affected by changes in interest rates, exchange rates or certain other price variables.

The following is a description of these risks as well as a detail of the extent to which the Group is exposed and a sensitivity analysis of possible changes in each of the relevant market variables.

**Exchange Rate Risk**

The value of financial assets and liabilities denominated in a currency different from the Company's functional currency is subject to variations resulting from fluctuations in exchange rates. Since YPF's functional currency is the U.S. dollar, the currency that generates the greatest exposure is the Peso (the Argentine legal currency).

The Group does not use derivatives as a hedge against exchange rate fluctuations.

Otherwise, according to the Company's functional currency, and considering the currency exchange process, the fluctuations in the exchange rate related to the financial assets and liabilities' value in Pesos do not have any effect in the Other comprehensive income in Shareholders' equity.

The following table provides a breakdown of the effect a variation of 10% in the prevailing exchange rates on the Group's net income, taking into consideration the exposure of financial assets and liabilities denominated in Pesos as of December 31, 2018:

	<b>Appreciation (+) / depreciation (-) of exchange rate of Peso against U.S. dollar</b>	<b>Income (loss) for fiscal year ended December 31, 2018</b>
Impact on net income before income tax corresponding to	+10%	2,605

financial assets and liabilities	-10%	(2,605)
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Interest Rate Risk

The Group is exposed to risks associated with fluctuations in interest rates on loans and investments. Changes in interest rates may affect the interest income or loss derived from financial assets and liabilities tied to a variable interest rate. Additionally, the fair value of financial assets and liabilities that accrue interests based on fixed interest rates may also be affected.

The table below provides information about the financial assets and liabilities as of December 31, 2018 that accrues interest considering the applicable rate:

	<b>Financial Assets<sup>(1)</sup></b>	<b>Financial Liabilities<sup>(2)</sup></b>
Fixed interest rate	34,771	274,640
Variable interest rate	889	60,438
<b>Total<sup>(3)</sup></b>	<b>35,660</b>	<b>335,078</b>

(1) Includes temporary investments, loans with related parties and trade receivables with interest-bearing payment agreements. It does not include the rest of the trade receivables that are mostly non-interest bearing.

(2) Includes only financial loans. Does not include accounts payable, which mostly do not accrue interest.

(3) Includes principal and interest.

The variable rate financial loans represent 18% of the total loans as of December 31, 2018, and include NO, pre-financing of exports, financing of imports and financial loans with local and international entities. The portion of the loan, which accrues variable interest rate, is mainly exposed to the fluctuations in LIBOR and BADLAR. Approximately 26,277 accrues variable interest of BADLAR plus a spread between 0% and 10% and 30,879 accrues variable interest of LIBOR plus a spread between 1.25% and 4%.

Approximately 86% (289,569) of the total of the financial loans of the Group is denominated in U.S. dollars, 3% (11,563) is in Swiss francs and the remainder is mainly in Pesos, as of December 31, 2018.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**4. FINANCIAL RISK MANAGEMENT (Cont.)**

Financial assets mainly include, in addition to trade receivables, which have low exposure to interest rate risk, bank deposits, fixed-interest deposits and investments in mutual funds such as money market or short-term fixed interest rate instruments.

The Group's strategy to hedge interest rate risk is based on investing funds at a variable interest rate, which partially offset financial loans at a variable interest rate, as well as on maintaining relatively low percentages of debt at a variable interest rate.

The Group does not usually use derivative financial instruments to hedge the risks associated with interest rates.

The table below shows the estimated impact on consolidated statement of comprehensive income that an increase or decrease of 100 basis points in the interest rate would have.

	<b>Increase (+) / decrease (-) in the interest rates (basis points)</b>	<b>Income (loss) for fiscal year ended December 31, 2018</b>
Impact on net income after income tax	+100	(248)
	-100	248

**Price Risks**

The Group is exposed to the own price risk for investments in financial instruments (public securities and mutual funds), which were classified in the statement of financial position as at fair value through profit or loss. The Group continuously monitors the change in these investments for significant movements.

As of December 31, 2018, the aggregate value of financial assets at fair value through profit or loss amounts to 18,733.

The following table shows the effect that a 10% variation in the prices of investments in financial instruments would have on the Group's results as of December 31, 2018:



	<b>Increase (+) / decrease (-) in the prices of investments in financial instruments</b>	<b>Income (loss) for the year ended December 31, 2018</b>
Impact on net income before income tax	+10%	1,873
	-10%	(1,873)

The Group does not use derivative financial instruments to hedge the risks associated with the fluctuation of the price of commodities as well as the risk inherent to investments in public securities and mutual funds.

Likewise, although not considered a financial risk, until recently, the Group was not significantly exposed to commodity price risks, as a result, among other reasons, of the existing regulatory, economic and government policies in force that determined that local prices charged for gasoline, diesel and other fuels were not affected in the short-term by fluctuations in the price of such products in international and regional markets. That is, there was a gap between domestic market prices and international market prices, which was evident in certain periods with price variations in directions (or values) substantially different from those observed in the international market.

However, since the second semester of 2016 a local process was initiated to achieve an orderly transition towards international prices, which implied a gradual decrease in the sales prices of local crude oils (Medanito and Escalante). In the same way, Producers and Refiners entered into new agreements for the above mentioned transition for the purpose of achieving parity with international markets.

The negative domestic macroeconomic conditions that prevailed in 2018 represented a challenge for the new market model, which prevented the full deployment of such conditions over the year. Also, see Note 2.c.

In consequence, the aforementioned price risk exposure has changed and it will depend on the capacity of the Group to transfer to its fuel prices on the local market, the variations in international prices as well as the possibility of adapting its costs to such changes.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**4. FINANCIAL RISK MANAGEMENT (Cont.)**

**Liquidity Risk management**

Liquidity risk is associated with the possibility of a mismatch between the need of funds to meet short, medium or long-term obligations.

As mentioned in previous paragraphs, the Group intends to align the maturity profile of its financial debt to be related to its ability to generate enough cash flows for its cancellation, as well as to finance the projected expenditures for each year. As of December 31, 2018 the availability of liquidity reached 46,028, considering cash of 6,678 and other liquid financial assets of 39,350. Uncommitted bank credit lines together with the capital market constitute an important source of funding. Likewise, YPF has the ability to issue additional debt under the negotiable obligations global program originally approved by the Shareholders meeting in 2008 expanded in September 2012, in April 2013, in February 2015, in April 2016 and extended in 2017

The following table sets forth the maturity dates of the Group's financial liabilities as of December 2018:

	December 31, 2018						Total
	Maturity date						
	0 - 1 year	1 - 2 year	2 -3 year	3 - 4 year	4 - 5 year	More than 5 years	
<b>Financial liabilities</b>							
Loans	64,826	27,581	55,191	23,124	18,526	145,830	335,078
Other liabilities	722	80	52	35	33	349	1,271
Accounts payable <sup>(1)</sup>	83,733	2,101	9	1,244			87,087
	149,281	29,762	55,252	24,403	18,559	146,179	423,436

(1) The amounts disclosed are the contractual, undiscounted cash flows associated to the financial liabilities given that they do not differ significantly from their face values

Most of the Group's loans contain usual covenants for contracts of this nature. Approximately 56% of the outstanding loans as of December 31, 2018 are subject to financial covenants related to the average ratio and debt service coverage

ratio.

Under the terms of the loan agreements and NO, if the Group breached a covenant or if it could not remedy it within the stipulated period, it would default, a situation that would limit its liquidity and, given that the majority of its loans contain cross default provisions, it could result in an early enforceability of its obligations.

### **Credit Risk management**

Credit risk is defined as the possibility of a third party not complying with its contractual obligations, thus negatively affecting results of operations of the Group.

Credit risk in the Group is measured and controlled on an individual customer basis. The Group has its own systems to conduct a permanent evaluation of credit performance of all of its debtors, and the determination of risk limits with respect to third parties, in line with best practices using for such end internal customer records and external data sources.

Financial instruments that potentially expose the Group to a credit concentration risk consist primarily of cash and cash equivalents, trade receivables and other receivables. The Group invests excess cash primarily in high liquid investments with financial institutions with a strong credit rating both in Argentina and abroad. In the normal course of business and based on ongoing credit evaluations to its customers, the Group provides credit to its customers and certain related parties.

Likewise, the Group accounts for doubtful trade losses in the statement of comprehensive income, based on specific information regarding its clients.

Provisions for doubtful accounts are measured by the criteria mentioned in Note 2.b.18.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**4. FINANCIAL RISK MANAGEMENT (Cont.)**

The maximum exposure to credit risk of the Group of December 31, 2018 based on the type of its financial instruments and without excluding the amounts covered by guarantees and other arrangements mentioned below is set forth below:

	<b>Maximum exposure as of December 31, 2018</b>
Cash and cash equivalents	46,028
Other financial assets	124,731

Considering the maximum exposure to the risk of the Other financial assets based on the concentration of the counterparties, credit with the National Government and direct agencies accounts for approximately 34% (36,979), while the Group's remaining debtors are diversified.

Following is the breakdown of the financial assets past due as of December 31, 2018:

	<b>Current trade receivable</b>	<b>Other current receivables</b>
Less than three months past due	19,720	1,262
Between three and six months past due	5,926	48
More than six months past due	3,337	788
	28,983	2,098

At such date, the provision for doubtful trade receivables amounted to 2,776 and the provisions for other doubtful receivables amounted to 619. These provisions are the Group's best estimate of the losses incurred in relation with accounts receivables.

**Guarantee Policy**

As collateral of the credit limits granted to customers, the Group receives several types of guarantees from its customers. In the gas stations and distributors market, where generally long-term relationships with customers are established, mortgages prevail. For foreign customers, joint and several bonds from their parent companies prevail. In the industrial and transport market, bank guarantees prevail. To a lesser extent, the Group has also obtained other guarantees such as credit insurances, surety bonds, guarantee customer supplier, and car pledges, among others.

The Group has effective guarantees granted by third parties for a total amount of 24,377, 10,789 and 9,300 as of December 31, 2018, 2017 and 2016, respectively.

During the fiscal year ended December 31, 2018, the Group did not execute guarantees. During the fiscal years ended December 31, 2017 and 2016, the Group executed guarantees received for an amount of 2 and 1, respectively.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**5. SEGMENT INFORMATION**

The different segments in which the Group is organized take into consideration the different activities from which the Group obtains income and incurs expenses. The aforementioned organizational structure is based on the way in which the highest decision-making authority analyzes the main financial and operating magnitudes for making decisions about resource allocation and performance assessment also considering the Group's business strategy.

**Upstream**

The Upstream segment carries out all activities relating to the exploration, development and production of oil and natural gas.

Revenue is generated from (i) the sale of produced crude oil to the Downstream segment and, marginally, from its sale to third parties; (ii) the sale of produced gas to the Gas and Power segment.

**Gas and Power**

The Gas and Power segment generates its revenue from the development of activities relating to: (i) the natural gas commercialization to third parties and the Downstream segment, (ii) the commercial and technical operation of LNG regasification terminals in Bahía Blanca (until October 31, 2018) and Escobar, by hiring two regasification vessels, and (iii) the natural gas distribution.

Additionally, for the years ended December 31, 2017 and 2016, it included revenues derived from the generation of conventional and renewable electricity corresponding to YPF EE. See Note 3.

In addition to the proceeds derived from the sale of natural gas to third parties and the intersegment, which is then recognized as a purchase to the Upstream segment, and including Stimulus Plan for Natural Gas production in force (see Note 30.g), Gas and Power accrues a fee in its favor with the Upstream segment to carry out such commercialization.

**Downstream**

The Downstream segment develops activities relating to: (i) crude oil refining and petrochemical production, (ii) commercialization of refined and petrochemical products obtained from such processes, (iii) logistics related to the

transportation of crude oil and gas to refineries and the transportation and distribution of refined and petrochemical products to be marketed in the different sales channels.

It obtains its income from the marketing mentioned in item (ii) above, which is developed through the Retail, Industry, Agro, LPG, Chemicals and Lubricants and Specialties businesses.

It incurs in all expenses relating to the aforementioned activities, including the purchase of crude oil from the Upstream segment and third parties and the natural gas to be consumed in the refinery and petrochemical industrial complexes from the Gas and Power segment.

#### **Central Administration and Others**

It covers other activities, not falling into the aforementioned categories, mainly including corporate administrative expenses and assets and construction activities.

Sales between business segments were made at internal transfer prices established by the Group, which generally seek to approximate market prices.

Operating profit and assets for each segment have been determined after consolidation adjustments.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**5. SEGMENT INFORMATION (Cont.)**

	Upstream	Gas and Power	Downstream	Central Administration and Others	Consolidation Adjustments <sup>(1)</sup>	Total
<b>For the year ended December 31, 2018</b>						
Revenues from sales	3,108	91,176	338,042	8,363	(4,869)	435,820
Revenues from intersegment sales	207,480	7,862	1,688	13,186	(230,216)	
Revenues	210,588	99,038	339,730	21,549	(235,085)	435,820
Operating profit / (loss)	22,483	16,786 <sup>(4)</sup>	7,818	(6,055)	2,748	43,780
Income / (loss) from equity interests in associates and joint ventures		4,435	404			4,839
Depreciation of property, plant and equipment	72,052 <sup>(3)</sup>	928	12,285	2,304		87,569
Recovery of property, plant and equipment <sup>(2)</sup>	2,900					2,900
Acquisition of property, plant and equipment	63,171	1,968	15,632	2,877		83,648
Assets	480,263	129,885	307,312	82,762	(6,206)	994,016
<b>For the year ended December 31, 2017</b>						
Revenues from sales	739	56,805	195,321	2,534	(2,586)	252,813
Revenues from intersegment sales	115,955	4,075	988	7,133	(128,151)	
Revenues	116,694	60,880	196,309	9,667	(130,737)	252,813
Operating profit / (loss)	3,877	3,259	15,813	(4,400)	(2,476)	16,073
		634	794			1,428



Income / (loss) from equity interests in associates and joint ventures						
Depreciation of property, plant and equipment	45,279 <sup>(3)</sup>	290	6,926	1,017		53,512
Recovery of property, plant and equipment <sup>(2)</sup>	5,032					5,032
Acquisition of property, plant and equipment	39,411	3,867	8,179	1,639		53,096
Assets	251,525	45,395	158,800	53,934	(3,936)	505,718
<b>For the year ended December 31, 2016</b>						
Revenues from sales	18,745	26,514	162,538	2,303		210,100
Revenues from intersegment sales	95,398	3,212	925	7,447	(106,982)	
Revenues	114,143	29,726	163,463	9,750	(106,982)	210,100
Operating profit / (loss)	(26,845)	2,008	3,093	(1,615)	(887)	(24,246)
Income / (loss) from equity interests in associates and joint ventures	(1)	302	287			588
Depreciation of property, plant and equipment	38,125	290	5,507	830		44,752
Impairment of property, plant and equipment and intangible assets <sup>(2)</sup>	34,943 <sup>(3)</sup>					34,943
Acquisition of property, plant and equipment	51,396	2,134	9,839	1,679		65,048
Assets	236,173	25,866	125,536	34,739	(1,175)	421,139

(1) Corresponds to the elimination among segments of the YPF Group.

(2) See Notes 2.c. and 8.

(3) Includes depreciation of charges for impairment of property, plant and equipment.

(4) Includes the result for revaluation of the interest in YPF EE. See Note 3.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**5. SEGMENT INFORMATION (Cont.)**

The distribution of revenues by geographic area, according to the markets for which they are intended, for the years ended on December 31, 2018, 2017 and 2016, and property, plant and equipment by geographic area as of December 31, 2018, 2017 and 2016 are as follows:

	Revenues			Property, plant and equipment		
	2018	2017	2016	2018	2017	2016
Argentina	390,892	230,728	193,707	698,222	353,868	307,350
Mercosur and associated countries	20,056	8,694	7,964	865	575	664
Rest of the world	15,711	8,785	6,142			
Europe	9,161	4,606	2,287			
	435,820	252,813	210,100	699,087	354,443	308,014

Intangible assets are mainly geographically located in Argentina.

As of December 31, 2018, no foreign client represents 10% or more of the Group's revenue from its ordinary activities.

**6. FINANCIAL INSTRUMENTS BY CATEGORY**

The following tables show the financial assets and liabilities by category of financial instrument and a reconciliation to the corresponding line item in the statements of financial position, as appropriate. Since the line items Trade receivables , Other receivables , Accounts payable and Other liabilities contain both financial instruments and non-financial assets and liabilities (such as tax receivables, and receivables and payables in kind, among other) reconciliation is presented in the columns headed Non-financial assets and Non-financial Liabilities .

**Financial Assets**

	<b>2018</b>				
	<b>Financial Assets at fair value through profit or loss</b>	<b>Financial Assets at amortized cost</b>	<b>Subtotal Financial Assets</b>	<b>Non-financial Assets</b>	<b>Total</b>
Other receivables <sup>(1)</sup>		14,860	14,860	17,250	32,110
Trade receivables <sup>(2)</sup>		98,930	98,930		98,930
Investment in financial assets	10,941		10,941		10,941
Cash and cash equivalents	7,792	38,236	46,028		46,028
	18,733	152,026	170,759	17,250	188,009

	<b>2017</b>				
	<b>Financial Assets at fair value through profit or loss</b>	<b>Financial Assets at amortized cost</b>	<b>Subtotal Financial Assets</b>	<b>Non-financial Assets</b>	<b>Total</b>
Other receivables <sup>(1)</sup>		6,793	6,793	7,541	14,334
Trade receivables <sup>(2)</sup>		44,182	44,182		44,182
Investment in financial assets	12,936		12,936		12,936
Cash and cash equivalents	19,051	9,687	28,738		28,738
	31,987	60,662	92,649	7,541	100,190

	<b>2016</b>				
	<b>Financial Assets at fair value through profit or loss</b>	<b>Financial Assets at amortized cost</b>	<b>Subtotal Financial Assets</b>	<b>Non-financial Assets</b>	<b>Total</b>
Other receivables <sup>(1)</sup>		8,277	8,277	9,145	17,422
Trade receivables <sup>(2)</sup>		34,816	34,816		34,816
Investment in financial assets	15,285		15,285		15,285
Cash and cash equivalents	2,808	7,949	10,757		10,757
	18,093	51,042	69,135	9,145	78,280

(1) Does not include the provision for other doubtful receivables.

(2) Does not include the provision for doubtful trade receivables.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**6. FINANCIAL INSTRUMENTS BY CATEGORY (Cont.)**

Financial Liabilities

	<b>2018</b>				
	<b>Financial Liabilities at amortized cost</b>	<b>Financial liabilities at fair value through profit or loss</b>	<b>Subtotal financial liabilities</b>	<b>Non-financial liabilities</b>	<b>Total</b>
Loans	335,078		335,078		335,078
Other liabilities	1,271		1,271		1,271
Accounts payable	87,087		87,087	511	87,598
	423,436		423,436	511	423,947
	<b>2017</b>				
	<b>Financial Liabilities at amortized cost</b>	<b>Financial liabilities at fair value through profit or loss</b>	<b>Subtotal financial liabilities</b>	<b>Non-financial liabilities</b>	<b>Total</b>
Loans	191,063		191,063		191,063
Other liabilities	2,660		2,660		2,660
Accounts payable	45,638		45,638	458	46,096
	239,361		239,361	458	239,819

	<b>2016</b>				
	<b>Financial Liabilities at amortized cost</b>	<b>Financial liabilities at fair value through profit or loss</b>	<b>Subtotal financial liabilities</b>	<b>Non-financial liabilities</b>	<b>Total</b>
Loans	154,345		154,345		154,345
Other liabilities	4,726		4,726		4,726
Accounts payable	43,273		43,273	495	43,768
	202,344		202,344	495	202,839

Gains and losses on financial and non-financial instruments are allocated to the following categories:

	<b>2018</b>		
	<b>Financial and non- financial Assets / Liabilities at amortized cost</b>	<b>Financial Assets / Liabilities at fair value through profit or loss</b>	<b>Total</b>
Interest income	3,033		3,033
Interest loss	(28,717)		(28,717)
Net financial accretion	7,627		7,627
Net exchange differences	54,459		54,459
Fair value gains on financial assets at fair value through profit or loss		2,596	2,596
Gains on derivative financial instruments		933	933
Result from net monetary position	1,594		1,594
	37,996	3,529	41,525

	<b>2017</b>		
	<b>Financial and non-financial Assets / Liabilities at amortized cost</b>	<b>Financial Assets / Liabilities at fair value through profit or loss</b>	<b>Total</b>
Interest income	1,598		1,598
Interest loss	(18,385)		(18,385)
Net financial accretion	(3,169)		(3,169)

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Net exchange differences	8,950		8,950
Fair value gains on financial assets at fair value through profit or loss		2,208	2,208
	(11,006)	2,208	(8,798)

F-57

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**6. FINANCIAL INSTRUMENTS BY CATEGORY (Cont.)**

	<b>2016</b>		
	<b>Financial and non-financial Assets / Liabilities at amortized cost</b>	<b>Financial Assets / Liabilities at fair value through profit or loss</b>	<b>Total</b>
Interest income	1,472		1,472
Interest loss	(18,109)		(18,109)
Net financial accretion	(3,159)		(3,159)
Net exchange differences	11,611		11,611
Fair value gains on financial assets at fair value through profit or loss		1,826	1,826
Gains on derivative financial instruments		213	213
	(8,185)	2,039	(6,146)

**Fair value measurements**

IFRS 9 defines the fair value of a financial instrument as the amount for which an asset could be exchanged, or a financial liability settled, between knowledgeable, independent parties in an arm's length transaction. All financial instruments recognized at fair value are allocated to one of the valuation hierarchy levels of IFRS 7. This valuation hierarchy provides for three levels.

In the case of Level 1, valuation is based on unadjusted quoted prices in active markets for identical financial assets or liabilities that the Group can refer to at the end of the period. A market is deemed active if transactions take place with sufficient frequency and in sufficient quantity for price information to be available on an ongoing basis. Since a quoted price in an active market is the most reliable indicator of fair value, this should always be used if available. Financial instruments assigned by the Group to this level comprise investments in listed mutual funds and public securities.



In the case of Level 2, fair value is determined by using valuation methods based on inputs directly or indirectly observable in the market. If the financial instrument concerned has a fixed contract period, the inputs used for valuation must be observable for the whole of this period. The Group has not valued financial instruments under this category.

In the case of Level 3, the Group uses valuation techniques not based on inputs observable in the market. This is only permissible insofar as no market data are available. The inputs used reflect the Group's assumptions regarding the factors, which market players would consider in their pricing. The Group uses the best available information for this, including internal company data. The Group has not valued financial instruments under this category.

YPF's Corporate Finance Division has a team in place in charge of the valuation of financial instruments required to be reported in the financial statements, including the fair value of Level 3 instruments. The team directly reports to the CFO. The CFO and the valuation team discuss the valuation methods and results upon the acquisition of a financial instrument and, if necessary, on a quarterly basis, in line with the Group's quarterly reports.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**6. FINANCIAL INSTRUMENTS BY CATEGORY (Cont.)**

The tables below show the Group's financial assets measured at fair value as of December 31, 2018, 2017 and 2016 and their allocation to their fair value levels.

<b>Financial Assets</b>	<b>2018</b>			<b>Total</b>
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	
<b>Investment in financial assets:</b>				
- Public securities	10,941 <sup>(1)</sup>			10,941
	10,941			10,941
<b>Cash and cash equivalents:</b>				
- Mutual funds	7,792			7,792
	7,792			7,792
	18,733			18,733

<b>Financial Assets</b>	<b>2017</b>			<b>Total</b>
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	
<b>Investment in financial assets:</b>				
- Public securities	12,936 <sup>(1)</sup>			12,936
	12,936			12,936
<b>Cash and cash equivalents:</b>				
- Mutual funds	19,051			19,051
	19,051			19,051
	31,987			31,987

Financial Assets	2016			Total
	Level 1	Level 2	Level 3	
<b>Investments in financial assets:</b>				
- Mutual funds	53			53
- Public securities	15,232 <sup>(1)</sup>			15,232
	15,285			15,285
<b>Cash and cash equivalents:</b>				
- Mutual funds	2,808			2,808
	2,808			2,808
	18,093			18,093

(1) As of December 31, 2018 and 2017, it has been classified as Current. As of December 31, 2016, 7,737 have been classified as Noncurrent and 7,495 has been classified as Current.

The Group has no financial liabilities measured at fair value through profit or loss.

The Group's policy is to acknowledge transfers among the several categories of valuation hierarchies when occurred, or when there are changes in the prevailing circumstances requiring such transfer. During the years ended December 31, 2018, 2017 and 2016, there were no transfers between the different hierarchies used to determine the fair value of the Group's financial instruments.

#### Fair value of financial assets and financial liabilities measured at amortized cost

The estimated fair value of loans, considering unadjusted listed prices (Level 1) for NO and interest rates offered to the Group (Level 3) for the other financial loans remaining, amounted to 293,972, 200,264 and 157,133 as of December 31, 2018, 2017 and 2016, respectively.

The fair value of other receivables, trade receivables, cash and cash equivalents, accounts payable and other liabilities do not differ significantly from their book value.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**7. INTANGIBLE ASSETS**

The evolution of the Group's intangible assets for the years ended December 31, 2018, 2017 and 2016 is as follows:

	Service concession	Exploration rights	Other intangibles	Total
Cost	9,527	2,990	4,260	16,777
Accumulated amortization	5,553	155	3,710	9,418
<b>Balance as of December 31, 2015</b>	<b>3,974</b>	<b>2,835</b>	<b>550</b>	<b>7,359</b>
<u>Cost</u>				
Increases	642	75	171	888
Translation effect	2,127	612	936	3,675
Decreases and reclassifications	(547)	(584)	127	(1,004)
<u>Accumulated amortization</u>				
Increases	437		280	717
Translation effect	1,245		848	2,093
Decreases and reclassifications		(6)		(6)
Cost	11,749	3,093	5,494	20,336
Accumulated amortization	7,235	149	4,838	12,222
<b>Balance as of December 31, 2016</b>	<b>4,514</b>	<b>2,944</b>	<b>656</b>	<b>8,114</b>
<u>Cost</u>				
Increases	947	8	198	1,153
Translation effect	2,141	513	953	3,607
Decreases and reclassifications	(13)	(149)	185	23
<u>Accumulated amortization</u>				
Increases	615		223	838
Translation effect	1,330		885	2,215
Decreases and reclassifications		(149)	17	(132)
Cost	14,824	3,465	6,830	25,119
Accumulated amortization	9,180		5,963	15,143

<b>Balance as of December 31, 2017</b>	5,644	3,465	867	9,976
<u>Cost</u>				
Increases	1,303	276	765	2,344
Translation effect	15,544	3,414	6,636	25,594
Adjustment for inflation <sup>(1)</sup>			591	591
Decreases and reclassifications	31	(248)	(100)	(317)
<u>Accumulated amortization</u>				
Increases	1,190		559	1,749
Translation effect	9,740		6,243	15,983
Adjustment for inflation <sup>(1)</sup>			58	58
Decreases and reclassifications			(4)	(4)
Cost	31,702	6,907	14,722	53,331
Accumulated amortization	20,110		12,819	32,929
<b>Balance as of December 31, 2018</b>	11,592	6,907	1,903	20,402

- (1) Corresponds to adjustment for inflation of opening balances of intangible assets in subsidiaries with the Peso as functional currency which was charged to other comprehensive income.

## 8. PROPERTY, PLANT AND EQUIPMENT

	2018	2017	2016
Net book value of property, plant and equipment	740,103	382,630	345,679
Provision for obsolescence of materials and equipment	(3,955)	(1,652)	(1,380)
Provision for impairment of property, plant and equipment	(37,061)	(26,535)	(36,285)
	699,087	354,443	308,014

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA**  
**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2018, 2017 AND 2016**

**8. PROPERTY, PLANT AND EQUIPMENT (Cont.)**

Changes in Group's property, plant and equipment for the years ended December 31, 2018, 2017 and 2016 are as follows:

Land and buildings	Mining property, wells and related equipment	Refinery equipment and petrochemical plants	Transportation equipment	Materials and equipment warehouse	Drilling and drilling progress	Exploratory and drilling in progress	Furniture, fixtures and installations	Selling equipment	Infrastructure for natural gas distribution	Electric power generation facilities	Other
13,949	458,066	69,429	3,650	13,478	76,803	3,647	5,603	10,778	2,931	1,573	8
5,920	324,922	41,138	2,392				4,699	6,921	1,181	1,283	5
8,029	133,144	28,291	1,258	13,478	76,803	3,647	904	3,857	1,750	290	2
140	3,831 <sup>(4)</sup>	1	3	6,968	52,610	1,392	25			2	
2,975	104,086	16,601	802	2,494	14,602	626	1,260	2,430			1
1,365	59,645	26,529	1,096	(8,701)	(91,342)	(3,687)	1,201	1,138	260	187	
360	40,729 <sup>(4)</sup>	4,312	414				668	642	75	111	
1,257	73,288	9,288	516				1,052	1,558			1
(40)	(6,937)	(3)	(37)				(18)	(2)	45		
18,429	625,628	112,560	5,551	14,239	52,673	1,978	8,089	14,346	3,191	1,762	9
7,497	432,002	54,735	3,285				6,401	9,119	1,301	1,394	6
10,932	193,626 <sup>(1)</sup>	57,825	2,266	14,239	52,673	1,978	1,688	5,227	1,890	368	2

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49	(4,370) <sup>(4)</sup>	103	66	7,394	47,453	2,207	20				
3,028	113,481	19,728	1,032	2,101	8,568	373	1,466	2,744			
(112)	40,614	2,284	965	(7,741)	(49,165)	(1,687)	879	1,698	215	(1,762) <sup>(6)</sup>	
437	54,980 <sup>(4)</sup>	5,395	602				717	854	80	87	
1,303	81,108	9,983	609				1,196	1,684			
13	(1,756)	(953)	16				372	(1)		(1,481) <sup>(6)</sup>	
21,394	775,353	134,675	7,614	15,993	59,529	2,871	10,454	18,788	3,406		
9,250	566,334	69,160	4,512				8,686	11,656	1,381		
12,144	209,019 <sup>(1)</sup>	65,515	3,102	15,993	59,529	2,871	1,768	7,132	2,025		
425	(10,216) <sup>(4)</sup>	370	38	19,885	67,264	5,438	59				
20,845	808,772	138,924	7,400	15,332	61,084	3,851	10,935	20,016			
5,096	152		797	1,107	792		1,371		20,519		
287	30,807	6,482	313	(17,327)	(64,288)	(4,188)	1,898	2,194	243		
758	82,939 <sup>(4)</sup>	9,517	960				1,561	1,680	677		
9,356	609,973	73,643	4,639				9,158	12,396			
2,785	141		565				1,309		10,584		
(35)	(27,457)	(25)	(97)				(7)	(35)	(134)		
48,047	1,604,868	280,451	16,162	34,990	124,381	7,972	24,717	40,998	24,168		
22,114	1,231,930	152,295	10,579				20,707	25,697	12,508		
25,933	372,938 <sup>(1)</sup>	128,156	5,583	34,990	124,381	7,972 <sup>(2)</sup>	4,010	15,301	11,660		

(1) Includes 16,154, 10,003 and 9,147 of mineral property as of December 31, 2018, 2017 and 2016, respectively.

(2) As of December 31, 2018, there are 58 exploratory wells in progress. During year ended on such date, 41 wells were drilled, 13 wells were charged to exploratory expense and 5 were transferred to prove properties which are included in the account Mineral property, wells and related equipment.

(3) Includes 60, 7 and 2 of net book value charged to property, plant and equipment provisions for the years ended December 31, 2018, 2017 and 2016, respectively.

(4) Includes (11,710), (4,913) and 2,243 corresponding to hydrocarbon wells abandonment costs and 5,521, 2,258 and 934 of depreciation recovery for the years ended December 31, 2018, 2017 and 2016, respectively.

(5) Includes reductions for the deconsolidation of subsidiaries of 500, net.

(6) Includes 6,772 and 1,790 of cost and accumulated depreciation, respectively, corresponding to the reclassification of assets of YPF EE as held for disposal. See Note 3.

(7) Includes 1,470 and 1,092 of cost and accumulated depreciation, respectively, corresponding to additions for the acquisition of a participation in several areas.

(8) Includes 2,327 corresponding to business combination. See Note 3.

(9) Corresponds to adjustments for inflation of opening balances of property, plant and equipment of subsidiaries with the Peso as functional currency which was charged to other comprehensive income.

(10) Includes 31,800 and 28,673 of cost and accumulated depreciation, respectively, corresponding to the reclassification of certain areas that were reclassified as assets held for disposal. See Note 3.

F-61



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**8. PROPERTY, PLANT AND EQUIPMENT (Cont.)**

The Group capitalizes the financial cost as a part of the cost of the assets. For the year ended December 31, 2018, 2017 and 2016, the rate of capitalization has been 10.50%, 11.63% and 13.03%, respectively, and the amount capitalized amounted to 660, 707 and 1,234, respectively, for the years mentioned above.

Set forth below is the evolution of the provision for obsolescence of materials and equipment for the years ended December 31, 2018, 2017 and 2016:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Amount at beginning of year</b>	1,652	1,380	762
Increase charged to profit/ (loss)	629	11	428
Decreases charged to profit/ (loss)		(45)	
Amounts incurred due to utilization	(60)	(7)	(2)
Translation differences	1,666	248	192
Transfers and other movements	68	65	
<b>Amount at end of year</b>	<b>3,955</b>	<b>1,652</b>	<b>1,380</b>

Set forth below is the evolution of the provision for impairment of property, plant and equipment for 2018, 2017 and 2016:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Amount at beginning of year</b>	26,535	36,285	2,455
Increases charged to profit/ (loss) <sup>(1)</sup>	36,937		36,188
Decreases charged to profit/ (loss) <sup>(1)</sup>	(39,837)	(5,032)	(1,245)
Depreciation <sup>(2)</sup>	(10,208)	(9,955)	(2,877)
Translation differences	23,634	5,237	1,869
Deconsolidation of subsidiaries			(105)

<b>Amount at end of year</b>	37,061	26,535	36,285
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(1) See Note 2.c).

(2) Included in Depreciation of property, plant and equipment in Note 21.

Set forth below is the cost evolution for the exploratory wells in evaluation stage as of the years ended on December 31, 2018, 2017 and 2016:

	2018	2017	2016
<b>Amount at beginning of year</b>	1,236	1,475	1,777
Additions pending the determination of proved reserves	2,179	758	1,112
Decreases charged to exploration expenses	(382)	(591)	(700)
Decreases of assets held for disposal			(15)
Reclassifications to mineral property, wells and related equipment with proved reserves	(703)	(581)	(1,004)
Translation difference	1,737	175	305
<b>Amount at end of year</b>	4,067	1,236	1,475

The following table shows the cost for exploratory wells under assessment for a period greater than a year and the number of projects related as of December 31, 2018.

	Amount	Number of projects	Number of wells
Between 1 and 5 years	656	3	8
More than 5 years	375	1	1
<b>Total</b>	1,031	4	9

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**9. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES**

The following table shows the value of the investments in associates and joint ventures at an aggregate level as of December 31, 2018, 2017 and 2016:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Amount of investments in associates	2,374	911	1,478
Amount of investments in joint ventures	30,324	5,146	4,022
Provision for impairment of investments in associates and joint ventures	(12)	(12)	(12)
	32,686	6,045	5,488

The main movements during the years ended December 31, 2018, 2017 and 2016, which affected the value of the aforementioned investments, correspond to:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Amount at the beginning of year</b>	6,045	5,488	4,371
Acquisitions and contributions	280	910	448
Income on investments in associates and joint ventures	4,839	1,428	588
Translation differences	3,180	662	601
Distributed dividends	(583)	(328)	(520)
Interest maintained in YPF EE	17,285 <sup>(1)</sup>		
Adjustment for inflation <sup>(2)</sup>	1,640		
Reclassification of assets held for disposal		(2,117)	
Other movements		2	
Amount at the end of year	32,686	6,045	5,488

(1) Corresponds to the fair value of the interest maintained in the investment in YPF EE following the loss of control. See Note 3.

- (2) Corresponds to the recognition of the result for the net monetary position of subsidiaries, associates and joint ventures with the Peso as functional currency, which was charged to other comprehensive income, as detailed in Note 2.b.1.

The following table shows the principal amounts of the results of the investments in associates and joint ventures of the Group, calculated according to the equity method therein, for the years ended December 31, 2018, 2017 and 2016. The Group has adjusted, if applicable, the values reported by these companies to adapt them to the accounting criteria used by the Group for the calculation of the equity method value in the aforementioned dates:

	Associates			Joint ventures		
	2018	2017	2016	2018	2017	2016
Net income	1,025	543	225	3,814	885	363
Other comprehensive income	406	34	35	4,414	628	566
<b>Comprehensive income for the year</b>	<b>1,431</b>	<b>577</b>	<b>260</b>	<b>8,228</b>	<b>1,513</b>	<b>929</b>

The Group does not have investments in subsidiaries with significant non-controlling interests. Likewise, the Group does not have investments in associates and joint ventures that are significant, with the exception of the investment in YPF EE.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**9. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (Cont.)**

The management information corresponding to the assets and liabilities as of December 31, 2018 of YPF EE are detailed below:

	<b>December 31, 2018<sup>(1)</sup></b>
Noncurrent assets	35,682
Current assets	12,596
<b>Total assets</b>	<b>48,278</b>
Noncurrent liabilities	13,348
Current liabilities	9,776
<b>Total liabilities</b>	<b>23,124</b>
<b>Total shareholders equity</b>	<b>25,154</b>
	<b>Results as from loss of control date</b>
Revenues	4,181
Costs	(1,655)
<b>Gross profit</b>	<b>2,526</b>
Operating profit	4,686
Income from equity interest in associates and joint ventures	673
<b>Net financial results</b>	<b>280</b>

Net profit before income tax	5,639
Income tax	(1,150)
Net profit	4,489

- (1) On this information, accounting adjustments have been made for the calculation of equity interest and results of YPF EE. The equity and adjusted results do not differ significantly from the YPF EE management information disclosed here.

F-64

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**9. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (Cont.)**

The following table shows information of the subsidiaries:

Name and Issuer of Subsidiaries: <sup>(7)</sup>	Description of the Securities			Main Business	Registered Address	Information of the issuer					
	Class	Face Value	Amount			Last available financial statements		Capital stock	Net profit / (loss)	Equity	Holdings Capital
YPF International	Common	Bs.	100	66,897	Investment	Calle La Plata 19, Santa Cruz de la Sierra, República de Bolivia	12-31-18	15	(2)	52	100
YPF Holdings	Common	US\$	0.01	810,614	Investment and finance	10333 Richmond Avenue I, Suite 1050, TX, U.S.A.	12-31-18	30,475	(415)	(8,075)	100
YPFadora de acciones de YPF S.A.	Common	\$	1	163,701,747	Commercial management of YPF's gas stations	Macacha Güemes 515, Buenos Aires, Argentina	12-31-18	164	993	2,017	99
YPF Angelista	Common	\$	1	307,095,088	Engineering and construction services	Macacha Güemes 515, Buenos Aires, Argentina	12-31-18	307	(373)	1,780	100

gas S.A.					Gregorio Aráoz de Lamadrid						
					Providing the public service of natural gas distribution	1360, Buenos Aires, Argentina.	12-31-18	569	(6)	13,322	70
Common	\$	1	398,419,700								
Chile S.A. <sup>(6)</sup>					Lubricants and aviation fuels trading and hydrocarbons research and exploration	Villarica 322; Módulo B1, Qilicura, Santiago	12-31-18	1,717	(475)	2,171	100
Common			50,968,649								
tecnología					Investigation, development, production and marketing of technologies, knowledge, goods and services	Macacha Güemes 515, Buenos Aires, Argentina	12-31-18	459	(21)	1,485	51
Common	\$	1	234,291,000								
añía de iones as S.A.					Exploration, exploitation, processing, management, storage and transport of all types of minerals; assembly, construction and operation of facilities and structures and processing of products related to mining	Macacha Güemes 515, Buenos Aires, Argentina	12-31-18	236	(92)	312	100
Common	\$	1	236,474,420								
el Toro II	Quotas	\$	1	1,270,815,165	Exploration, discovery, exploitation, purchase, production, storage, transport, import, export and marketing of all types of	Macacha Güemes 515, Buenos Aires, Argentina	12-31-18	1,271	152	2,131	100



liquid or  
gaseous  
hydrocarbons  
and exercise  
all acts that  
are not  
prohibited by  
law including  
but not  
limited to the  
execution of  
money loans  
as lender  
and/or  
borrower

F-65

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**9. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (Cont.)**

The following table shows the investments in associates and joint ventures:

					<b>12-31-2018</b>		<b>Information of the issuer</b>		
<b>Description of the Securities</b>					<b>Last available financial state</b>				
<b>Class</b>	<b>Face Value</b>	<b>Amount</b>	<b>Book value</b>	<b>Cost (1)</b>	<b>Main Business</b>	<b>Registered Address</b>	<b>Date</b>	<b>stock</b>	<b>Net profit / (loss)</b>
Common	\$ 1	1,879,916,921	19,320	1,085	Exploration, mining and marketing of hydrocarbons and generation, transport and marketing of electric energy	Macacha Güemes 515, Buenos Aires, Argentina	09-30-18	3,747	1,812
Common	\$ 1	244,246,140	3,405		Separation, fractionation and transportation of natural gas liquids	San Martín 344, P. 10°, Buenos Aires, Argentina	12-31-18	643	953
Common	\$ 1	391,291,320	6,133		Production and marketing of fertilizers	Alicia Moreau de Justo 740, P. 3, Buenos Aires, Argentina	09-30-18	783	(542)
Common	\$ 1	45,803,655	1,307		Refining	Maipú 1, P. 2°, Buenos Aires, Argentina	09-30-18	92	(113)
			30,165	1,085					

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Common	\$	10	4,072,749	710	Oil transportation by pipeline	Florida 1, P. 10°, Buenos Aires, Argentina	09-30-18	110	561	
Common	\$	10	476,034	226	Oil storage and shipment	Av. Leandro N. Alem 1180, P. 11°, Buenos Aires, Argentina	09-30-18	14	364	
Common	\$	10	351,167	424	Hydrocarbon transportation and storage	Terminal Marítima Puerto Rosales Provincia de Buenos Aires, Argentina.	12-31-18	12	600	
Preferred	\$	1	15,579,578	42	Gas transportation by pipeline	San Martín 323, P.13°, Buenos Aires, Argentina	12-31-17	156	116	
Common	\$	0.01	11,869,095,145	625	280	Electric power generation and bulk marketing	Pasaje Ingeniero Butty 220, P.16°, Buenos Aires, Argentina	09-30-18	1,231	1,932
Preferred	\$	1	12,135,167	60		Oil transportation by pipeline	Macacha Güemes 515, P.3°, Buenos Aires, Argentina	09-30-18	34	98
Common	\$	1	59,821,434	258		Gas fractionation, bottling, distribution and transport for industrial and/or residential use	Macacha Güemes 515, P.3°, Buenos Aires, Argentina	09-30-18	176	134
				188	208					
				2,533	488					
				32,698	1,573					

- (1) Corresponds to cost and contributions, net of dividends collected and capital reductions.
- (2) Corresponds to holding in shareholders' equity plus adjustments to conform to YPF accounting principles.
- (3) Includes Gasoducto del Pacífico (Cayman) Ltd., A&C Pipeline Holding Company, Poligás Luján S.A.C.I., Oleoducto Transandino (Chile) S.A., Bizoy S.A., Civeny S.A., Bioceres S.A., Petrofaro S.A. and Oleoducto Loma Campana-Lago Pellegrini.
- (4) Additionally, the Group has a 22.49% indirect holding in capital stock through YPF EE.
- (5) As stipulated by shareholders' agreement, joint control is held in this company by shareholders.
- (6) The U.S. dollar has been defined as the functional currency of this company.
- (7) Additionally, consolidates YPF Services USA Corp., YPF Brasil Comércio Derivado de Petróleo Ltda, Wokler Investment S.A., YPF Colombia S.A.S., Miwen S.A., Eleran Inversiones 2011 S.A.U., Lestery S.A., Energía Andina S.A, Bajo de Toro I S.R.L. and YPF Ventures S.A.U.
- (8) The investments that YPF holds in CDS, IDS, YGEN I e YGEN II through its subsidiary YPF EE were reclassified to Assets held for disposal on December 31, 2017.

F-66

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**10. INVENTORIES**

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Refined products	33,583	16,260	13,390
Crude oil and natural gas	14,571	8,474	6,551
Products in process	1,177	640	411
Raw materials, packaging materials and others	3,993	1,775	1,456
	53,324 <sup>(1)</sup>	27,149 <sup>(1)</sup>	21,808 <sup>(1)</sup>

(1) As of December 31, 2018, 2017 and 2016, the cost of inventories does not exceed their net realizable value.

**11. OTHER RECEIVABLES**

	<b>2018</b>		<b>2017</b>		<b>2016</b>	
	<b>Noncurrent</b>	<b>Current</b>	<b>Noncurrent</b>	<b>Current</b>	<b>Noncurrent</b>	<b>Current</b>
Trade	150	2,210	74	2,892		1,733
Tax credit, export rebates and production incentives	3,534	3,315	360	3,131	291	4,648
Loans to third parties and balances with related parties <sup>(1)</sup>	3,565	4,920	185	1,116	2,495 <sup>(3)</sup>	1,703
Collateral deposits	1	575	1	315	17	214
Prepaid expenses	240	2,207	180	934	159	702
Advances and loans to employees	25	572	17	412	12	335
Advances to suppliers and custom agents <sup>(2)</sup>	1	4,212	2	1,700		1,691
Receivables with partners in JO	2,644	2,379	743	1,165	816	1,361
Insurance receivables		758		206		
Miscellaneous	32	770	31	870	134	1,111
	10,192	21,918	1,593	12,741	3,924	13,498
Provision for other doubtful receivables	(575)	(51)	(258)	(57)	(15)	(42)

9,617	21,867	1,335	12,684	3,909	13,456
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- (1) See Note 31 for information about related parties.
- (2) Includes among others, advances to customs agents for the payment of taxes and import rights related to the imports of fuels and goods.
- (3) Includes the loan granted to Pampa Energía S.A. See Note 3.

## 12. TRADE RECEIVABLES

	2018		2017		2016	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Accounts receivable and related parties <sup>(1)(2)</sup>	23,508	75,422	2,210	41,972	87	34,729
Provision for doubtful trade receivables		(2,776)		(1,323)		(1,084)
	23,508	72,646	2,210	40,649	87	33,645

- (1) See Note 31 for information about related parties.
- (2) See Note 19 for information about credits for contracts included in trade receivables.

### Changes in the provision for doubtful trade receivables

	2018	2017	2016
<b>Balance at beginning of year</b>	1,323	1,084	848
Modification of balance at beginning of the fiscal year <sup>(1)</sup>	425		
<b>Balance at beginning of the fiscal year</b>	1,748	1,084	848
Increases charged to expenses	444	222	197
Decreases charged to income	(91)	(194)	(28)
Translation differences	607	92	67
Result from net monetary position <sup>(2)</sup>	92		
Other movements	(24)	119	
<b>Balance at end of period</b>	2,776	1,323	1,084

- (1) Corresponds to the change in the accounting policy described in detail in Note 2.b.26.
- (2) Includes adjustment for inflation of opening balances which was charged to other comprehensive income and the adjustment for inflation of the fiscal year, which was charged to results.

**13. CASH AND CASH EQUIVALENTS**

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Cash and banks	6,678	9,672	7,922
Short-term investments	31,558 <sup>(1)</sup>	15	27
Financial assets at fair value through profit or loss <sup>(2)</sup>	7,792	19,051	2,808
	46,028	28,738	10,757

(1) Includes term deposits and other investments with the BNA for 5,084 as of December 31, 2018.

(2) See Note 6.

F-67

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA**  
**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2018, 2017 AND 2016**

**14. PROVISIONS**

Changes in the Group's provisions for the fiscal years ended December 31, 2018, 2017 and 2016 are as follows:

	Provision for lawsuits and contingencies		Provision for environmental liabilities		Provision for hydrocarbon well abandonment obligations		Provision for pensions		Total	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
<b>Amount as of December 31, 2015</b>	10,375	149	1,620	1,400	27,380	429	248	31	39,623	2,009
Increases charged to expenses	1,579	335	962	32	3,023		97		5,661	367
Decreases charged to income	(158)	(258)			(10)	(77)	(1)		(169)	(335)
Amounts incurred due to payments/utilization	9	(239)		(869)	(48)	(584)		(13)	(39)	(1,705)
Net exchange and translation differences	1,221	7	159	52	6,245	94	26	3	7,651	156
Deconsolidation of subsidiaries	(2,213)	(11)	(1,351)	(607)	(515)		(357)	(34)	(4,436)	(652)
Reclassifications and other movements	(1,608) <sup>(2)</sup>	586	(860)	860	1,548 <sup>(1)</sup>	695 <sup>(1)</sup>	(13)	13	(933)	2,154
<b>Amount as of December 31, 2016</b>	9,205	569	530	868	37,623	557			47,358	1,994
Increases charged to expenses	2,394	83	1,483		2,946				6,823	83
Decreases charged to income	(1,570)	(410)	(6)		8	2			(1,568)	(408)
Amounts incurred due to	(25)	(187)		(661)		(515)			(25)	(1,363)



payments/utilization									
Net exchange and translation differences	1,483	75			6,874	121		8,357	196
Reclassifications and other movements	180 <sup>(3)</sup>	558	(811)	811	(5,580) <sup>(1)</sup>	571 <sup>(1)</sup>		(6,211)	1,940
<b>Amount as of December 31, 2017</b>	11,667	688	1,196	1,018	41,871	736		54,734	2,442
Increases charged to expenses	3,320	357	3,021		3,785			10,126	357
Decreases charged to income	(371)	(266)			(14,250)			(14,621)	(266)
Amounts incurred due to payments/utilization	(76)	(129)		(933)		(1,514)		(76)	(2,576)
Net exchange and translation differences	6,826	471	495	80	43,674	758		50,995	1,309
Increases due to business combination <sup>(4)</sup>			465					465	
Result from net monetary position <sup>(5)</sup>	(204)	66						(204)	66
Reclassifications and other movements	73	(64)	(1,457)	1,457	(16,647) <sup>(1)</sup>	1,804 <sup>(1)</sup>		(18,031)	3,197
<b>Amount as of December 31, 2018</b>	21,235	1,123	3,720	1,622	58,433	1,784		83,388	4,529

(1) Includes (11,710), (4,913) and 2,243 corresponding to the annual recalculation of abandonment of hydrocarbon wells cost for the years ended December 31, 2018, 2017 and 2016, respectively; (3,133) and (96) corresponding to liabilities reclassified as Liabilities associated to assets held for disposal as of December 31, 2018 and 2017, respectively.

(2) Includes (950) corresponding to resolutions for contractual claims that were reclassified to Other liabilities (see Note 14.a.2); and (75) corresponding to tax claims that were reclassified as Tax Charges.

(3) Includes (2,098) corresponding to resolutions for contractual claims that were reclassified to Other liabilities (see Note 14.a.2); and 2,932 of reclassifications of Other liabilities (see Note 27).

(4) See Note 3.

(5) Includes adjustment for inflation of opening balances which was charged to other comprehensive income and the adjustment for inflation of the fiscal year, which was charged to results.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**14. PROVISIONS (Cont.)**

The Group is part to a number of labor, commercial, civil, tax, criminal, environmental, customs and administrative proceedings that, either alone or in combination with other proceedings, could, if resolved in whole or in part adversely against it, result in the imposition of material costs, judgments, fines or other losses. While the Group believes that such risks have been provisioned appropriately based on the opinions and advice of our legal advisors and in accordance with applicable accounting standards, certain loss contingencies are subject to change as new information develops and results of the presented evidence are obtained, among other factors. It is possible that losses resulting from such risks, if proceedings are decided in whole or in part adversely to the Group, could significantly exceed the recorded provisions.

Additionally, due to its operations, the Group is subject to various laws and regulations relating to the protection of the environment. These laws and regulations may impose, among other things, liability on companies for the cost of pollution cleanup and environmental damages resulting from operations. Management believes that the Group's operations are in substantial compliance with laws and regulations currently in force relating to the protection of the environment as such laws have historically been interpreted and enforced.

However, the Group is periodically conducting new studies to increase its knowledge concerning the environmental situation in certain geographic areas where the Group operates in Argentina, in order to establish their status, causes and necessary remediation and, based on the aging of the environmental issue, to analyze the possible responsibility of the Argentine Government, in accordance with the contingencies assumed by the Argentine Government for which YPF has the right of indemnity for liabilities existing as of December 31, 1990. Until these studies are completed and evaluated, the Group cannot estimate what additional costs, if any, will be required. However, it is possible that other work, including provisional remedial measures, may be required.

**14.a) Provision for lawsuits and contingencies**

The Group has accrued pending lawsuits, claims and contingencies, which are probable and can be reasonably estimated. The most significant pending lawsuits and contingencies accrued are described in the following paragraphs.

**14.a.1) Liabilities and contingencies assumed by the Argentine Government before 1990**

Under YPF's Privatization Law, the Argentine Government took over certain obligations of the predecessor company as of December 31, 1990. In certain lawsuits related to events or acts that took place before December 31, 1990, YPF has been required to make advance payments established in certain judicial decisions. YPF has the right to be

reimbursed for these payments by the Argentine Government pursuant to the above-mentioned indemnity.

**14.a.2) Claims arising from restrictions in the natural gas market**

DOP Claims

Pursuant to Resolution No. 265/2004 of the Secretariat of Energy, the Argentine Government created a program of useful cutbacks of natural gas exports and their associated transportation services. Such program was initially implemented by means of Regulation No. 27/2004 of the Under-Secretariat of Fuels, which was subsequently substituted by the Program of Rationalization of Gas Exports and Use of Transportation Capacity (the Program ) approved by Resolution No. 659/2004 of the Secretariat of Energy. Additionally, Resolution No. 752/2005 provided that industrial users and thermal generators (which according to this resolution will have to request volumes of gas directly from the producers) could also acquire the natural gas from the cutbacks on natural gas exports through the Permanent Additional Injection mechanism created by this resolution. Through the Program and/or the Permanent Additional Injection, the Argentine Government requires natural gas exporting producers to deliver additional volumes to the domestic market in order to satisfy natural gas demand of certain consumers in the Argentine market ( Additional Injection Requirements ). Such additional volumes are not contractually committed by YPF, which is thus forced to affect natural gas exports, which execution has been conditioned. The mechanisms established by the Resolutions No. 659/2004 and 752/2005 have been adapted by Secretariat of Energy Resolution No. 599/2007, which modifies the conditions for the imposition of the requirements, depending on whether the producers have signed the proposed agreement, ratified by such resolution, between the Secretariat of Energy and the producers.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**14. PROVISIONS (Cont.)**

Resolution No. 1410/2010 of the ENARGAS also approved the Procedure for Applications, Confirmations and Gas Control which sets new rules for natural gas dispatch applicable to all participants in the natural gas industry, imposing new and more severe regulations to the producers availability of natural gas. Additionally, the Argentine Government, through instructions made using different procedures, has ordered limitations on natural gas exports (in conjunction with the Program and the Permanent Additional Injection, named the Export Administration ). On January 5, 2012, the Official Gazette published Secretariat of Energy Resolution No. 172, which temporarily extends the rules and criteria established by Resolution No. 599/07, until new legislation replaces the resolution previously mentioned. This resolution was appealed on February 17, 2012 by filing a motion for reconsideration with the Secretariat of Energy.

Because of the resolutions mentioned before, in several occasions since 2004, YPF was forced to suspend, either totally or partially, its natural gas deliveries to some of its export clients, with whom YPF has undertaken firm commitments to deliver natural gas.

YPF has challenged the Program, the Permanent Additional Injection and the Additional Injection Requirements, established by Secretariat of Energy Resolutions No. 599/2007 and 172/2011 and ENARGAS Resolution No. 1410/2010, as arbitrary and illegitimate, and has invoked vis-à-vis the relevant clients that the Export Administration constitute a fortuitous case or force majeure event (act of authority) that releases YPF from any liability and/or penalty for the failure to deliver the contractual volumes. These clients have rejected the force majeure argument invoked by YPF, and some of them have demanded the payment of indemnifications and/or penalties for the failure to comply with firm supply commitments, and/or reserved their rights to future claims in such respect. On December 9, 2015, the ENARGAS rejected YPF's challenge to Resolution No. 1410/2010. YPF did not appeal the ENARGAS resolution that dismissed the presented challenge. On June 29, 2018 ENARGAS Resolution No. 124/2018 was published, approving the restated text of the internal regulations of dispatch centers applicable as from June 30, 2018 and derogates ENARGAS Resolution No. 1410/10.

Costs from contractual penalties arising from the failure to deliver natural gas until December 31, 2018, have been charged to provision to the extent that such costs are probable and can be reasonably estimated.

**AES Uruguaiana Empreendimentos S.A. ( AESU ) and Transportadora de Gas del Mercosur S.A. ( TGM )**

On June 25, 2008, AESU claimed damages in a total amount of US\$ 28.1 million for natural gas deliver or pay penalties for cutbacks accumulated from September 16, 2007 until June 25, 2008, and also claimed an additional amount of US\$ 2.7 million for natural gas deliver or pay penalties for cutbacks accumulated from January 18, 2006 until December 1, 2006. YPF has rejected both claims. On September 15, 2008, AESU notified YPF that it would no longer be complying with its obligations, alleging late payments and non-compliance by YPF. YPF rejected the arguments of this notification. On December 4, 2008, YPF notified AESU that, having ceased the force majeure conditions pursuant to the contract in force; it would suspend its delivery commitments, due to repeated breaches of AESU obligations. AESU has rejected this notification. On December 30, 2008, AESU rejected YPF's right to suspend its natural gas deliveries. On March 20, 2009, AESU formally notified YPF of the termination of the contract. On April 6, 2009, YPF promoted an arbitration process at the International Chamber of Commerce ( ICC ) against AESU, Companhia do Gas do Estado do Rio Grande do Sul ( SULGAS ) and Transportadora de Gas del Mercosur S.A. ( TGM ). On the same date, YPF was notified by the ICC of an arbitration process initiated by AESU and SULGAS against YPF in which they claimed, among other matters considered inadmissible by YPF, consequential loss, AESU's plant dismantling costs and the payment of DOP penalties mentioned above, all of which totaled approximately US\$ 1,052 million.

Additionally, YPF was notified of the arbitration process brought by TGM at the ICC, claiming from YPF the payment of approximately US\$ 10 million plus interest up to the date of effective payment, in connection with the payment of invoices related to the Transportation Gas Contract entered into in September 1998 between YPF and TGM, associated with the aforementioned exportation of natural gas contract signed with AESU.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**14. PROVISIONS (Cont.)**

On April 8, 2009, YPF requested that this claim be rejected and counterclaimed for the termination of the natural gas transportation contract based on its termination rights upon the termination by AESU and SULGAS of the related natural gas export contract. In turn, YPF initiated an arbitration process at the ICC against TGM, among others. YPF received the reply to the complaint from TGM, which requested the full rejection of YPF's claims and filed a counterclaim against YPF asking the Arbitration Tribunal to require YPF to compensate TGM for all present and future damages suffered by TGM due to the termination of the Transportation Gas Contract and the Memorandum of Agreement dated on October 2, 1998, through which YPF undertook to pay irrevocable non-capital contributions to TGM in return for the Uruguayana Project pipeline expansion, and to require AESU and SULGAS (in the case the Arbitration Tribunal finds that the termination of the Gas Contract occurred due to the failure of AESU or SULGAS) to indemnify all damages caused by such termination to TGM jointly and severally. Additionally, on July 10, 2009, TGM increased the amount of its claim to US\$ 17 million and claimed an additional amount of approximately US\$ 366 million for loss of profits, which were considered inadmissible with respect to YPF, based on the foregoing the amendment to the complaint was answered rejecting the grounds alleged by TGM.

On April 6, 2011, the Arbitration Tribunal appointed in the YPF vs. AESU arbitration decided to sustain YPF's motion, and determined the consolidation of all the related arbitrations ( AESU vs. YPF , TGM vs. YPF and YPF vs. AESU ) in the YPF vs. AESU arbitration. Consequently, AESU and TGM desisted from and abandoned their respective arbitrations, and all the matters claimed in the three proceedings are to be resolved in the YPF vs. AESU arbitration.

On January 10, 2014, YPF was served with the complaint for damages filed by AESU with the Arbitration Tribunal claiming a total amount of US\$ 815.5 million and also with the complaint for damages filed by TGM with the Arbitration Tribunal claiming a total amount of US\$ 362.6 million, which were rejected by YPF.

As a result of the legal and commercial complexities of the dispute between YPF, AESU and SULGAS, as well as the existence of litigation rights in different jurisdictions around the world (including the Republic of Argentina, the Republic of Uruguay and the United States of America), on December 30, 2016, these companies executed an agreement under which YPF undertook to pay a total of US\$ 60 million for which, without admitting facts or rights, they waived all claims that as of the date they had or could reciprocally have, with the exception, in the case of YPF, of the nullity remedies filed against the arbitral awards that remain in effect. The payment was made on January 10, 2017.

Moreover, on December 4, 2017, YPF entered into a settlement agreement with TGM terminating all existing claims between the parties, under which YPF agreed to pay TGM the sum of US\$ 114 million in compensation as total and final payment of all the arbitration and legal actions of TGM (US\$ 107 million in an initial payment on January 2, 2018 and the balance of US\$ 7 million in 7 annual installments of US\$ 1 million each, the first one maturing on February 1, 2018 and the rest on the same date of the following years). In addition, YPF committed to pay TGM the sum of US\$ 13 million (in 7 annual installments of US\$ 1.86 million each, with the same maturity date as the compensation balance) as payment on account of an interruptible exportation transport contract to be entered into by the parties and effective until 2027. This settlement agreement implied the withdrawal of the proceedings brought by YPF to obtain the declaration of the annulment of the Final Award of Damages and of the resources filed by TGM to obtain the revocation of the ruling of Division IV of the Federal Contentious Administrative Court of Appeals, which ordered the annulment of the Responsibility Award. Both the initial payment for US\$ 107 million and the first installments for US\$ 1 million and US\$ 1.86 million were made on the stipulated dates.

**Transportadora de Gas del Norte S.A. ( TGN )**

On April 8, 2009, YPF filed a complaint against TGN with ENARGAS, seeking the termination of the natural gas transportation contract with TGN in connection with the natural gas export contract entered into with AESU and other parties. The termination of the contract with that company is based on: (a) the impossibility of YPF to receive the service and of TGN to render the transportation service, due to (i) the termination of the natural gas contract with SULGAS and AESU and (ii) the legal impossibility of assigning the transportation contract to other shippers because of the regulations in effect, (b) the legal impossibility of TGN to render the transportation service on a firm basis because of certain changes in law in effect since 2004, and (c) the *Teoría de la Imprevisión* available under Argentine law, when extraordinary events render a party's obligations excessively burdensome. As of the date of these financial statements, this complaint has not been resolved.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**14. PROVISIONS (Cont.)**

In the complaint, TGN claimed the compliance with the contract and payment of unpaid invoices from February 20, 2007 until March 20, 2009 for a total of US\$ 30 million. TGN then amended the complained and claimed the payment of unpaid invoices (i) from April 20, 2009 until June 20, 2010 for a total of US\$ 31 million, (ii) from July 20, 2010 until November 20, 2010 for a total of US\$ 10 million, and (iii) from December 6, 2010 until January 4, 2011 for a total of US\$ 3 million.

Additionally, TGN notified YPF of the rescission of its transportation contract because of YPF's alleged failure to pay its transportation invoices. YPF has responded to these claims, rejecting them based on the legal impossibility of TGN to render the transportation service and in the termination of the transportation contract determined by YPF and formalized with a complaint initiated before ENARGAS.

On the trial for the collection of bills, on September 2011, YPF was notified of the resolution of the Court of Appeals rejecting YPF's claims and declaring that ENARGAS is not the appropriate forum to decide on the matter and giving jurisdiction to the Civil and Commercial Federal courts to decide on the claim for the payment of unpaid invoices mentioned above.

On September 21, 2016, evidence was submitted and the case was opened. Upon the expiration of the trial period and the submission of the final arguments, the case was set for rendering judgment.

On April 3, 2013, YPF was notified of the complaint for damages brought by TGN, whereby TGN demanded the amount of US\$ 142 million from YPF, plus interest and legal fees for the termination of the transportation contract. On May 31, 2013, YPF responded to the claim, requesting the dismissal thereof. On April 3, 2014, the evidence production period commenced for a 40-day lapse, and the court notified the parties that they would submit a copy of evidence offered by them to create an exhibit binder. YPF submitted its plea on June 21, 2017, after the closing of the evidentiary period.

After both parties' pleas were submitted, the Lower Court decided it would defer its final judgment until after deciding on the claim brought by TGN to litigate in forma pauperis. TGN appealed through separate complaints, which were dismissed by the Court of Appeals in November 2017. On June 21, 2018, TGN filed for a withdrawal to the waiver it obtained in respect of payment of Court fees and costs, based on the improvement in its financial situation during 2018, and paid the Court fees. The Court requested TGN to express the taxable basis on which payment of the Court fees was assessed and ordered to notify YPF of this waiver. YPF opposed TGN's request that each party bears its own legal costs and on November 28, 2018 the court decided to dismiss the request for the benefit of litigation without



costs and charged TGN with legal costs. TGN appealed such court decision, which as of the date of issuance of these financial statements is still pending determination. Without prejudice to this, the main file went on to dictate sentence.

**Nación Fideicomisos S.A. ( NAFISA )**

NAFISA initiated a claim against YPF in relation to payments of applicable fees to Fideicomiso Gas I and Fideicomiso Gas II, respectively, for natural gas transportation services to Uruguaiana corresponding to the transportation invoices claimed by TGN. A mediation hearing finished without resulting in an agreement, concluding the pre-trial stage. Additionally, on January 12, 2012 and following a mediation process that ended without any agreement, NAFISA filed a complaint against YPF, under article 66 of Law No. 24,076, before ENARGAS, claiming the payment of certain transportation charges in an approximate amount of 339. On February 8, 2012, YPF answered the claim raising ENARGAS' lack of jurisdiction, referring to the connection with the TGN vs. YPF trial, the consolidation in the TGN vs. YPF trial and rejecting the claim based on the theory of legal impossibility of TGN to provide the transportation services. On the same date, a similar order of consolidation was also submitted in the TGN vs. YPF trial. On April 12, 2012, ENARGAS resolved in favor of NAFISA. On May 12, 2012, YPF filed an appeal against such resolution to the National Court of Appeals in the Federal Contentious Administrative. On November 11, 2013, the court dismissed the direct appeal filed by YPF. In turn, on November 19, 2013, YPF submitted an ordinary appeal before the CSJN and on November 27, an extraordinary appeal was lodged before the CSJN. The ordinary appeal was granted and YPF timely filed the grounds of such appeal. On September 29, 2015, the CSJN upheld YPF's appeal and reversed the resolution issued by the Federal Contentious Administrative Court Division IV because ENARGAS lacks legal capacity to participate in these proceedings, as the parties are not subject to the Gas Law. The administrative instance for this case has been concluded, following the exhaustion of the administrative proceedings before ENARGAS. NAFISA has failed to file a complaint in court to date.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**14. PROVISIONS (Cont.)**

**14.a.3) Claims within the jurisdiction of the National Antitrust Protection Board CNDC**

The Users and Consumers Association claimed (originally against Repsol YPF S.A. before extending its claim to YPF) the reimbursement of the overprice allegedly charged to bottled LPG consumers between 1993 and 1997 and 1997 to 2001. In the response to the claim, YPF requested the application of the statute of limitations since at the date of the extension of the claim, the two-year limit had already elapsed.

On December 28, 2015, the lower court rendered judgment admitting the claim seeking compensation for the term between 1993 and 1997 filed by the Users and Consumers Association against YPF and ordered the Company to transfer the amount of 98 plus interest (to be estimated by the expert witness in the settlement period) to the Secretariat of Energy, to be allocated to the trust fund created by Law No. 26,020.

The judgment dismissed the claim for the items corresponding to the period between 1997 and 2001, considering the dominant position of YPF in the domestic bulk LPG market had not been sufficiently proved. The Company appealed the decision of the lower court.

Furthermore, the judgment dismissed the complaint against Repsol S.A., as Repsol YPF S.A. had no equity interest in YPF, nor any other kind of relation with YPF from 1993 to 1997, the period in which the plaintiffs claim YPF abused its dominant position.

The Company appealed the judgment, which was admitted with staying effect. The Users and Consumers Association also appealed the judgment and both parties filed their respective appellate briefs.

On December 7, 2017, the Company was served with notice of the judgment of the Court of Appeals whereby: (i) confirming the claims for compensation for the 1993 to 1997 period; (ii) extending the claim of Users and Consumers Association for the period 1997 to December 1999 for the item equity transfer of consumers to producers for the higher cost of liquefied petroleum gas , postponing the liquidation of the item for the execution stage of the judgment (the Court of Appeals did not set this amount); and (iii) partially granting the appeal filed by the defendant with respect to the item damage caused by lower or different energy consumption due to the higher cost of Liquefied Petroleum Gas . The Company has analyzed the economic impact of the judgment of the Court of Appeals, which by extending the item of paragraph (i) above for the period 1997-1999, would increase the duly estimated amount. It should be noted that the ruling confirmed by the Court of Appeals does not order YPF to pay the claimant the ultimately settled amount, but rather to transfer such funds to the National Secretariat of Energy for the funds to be

allocated to a trust fund created by Law No. 26,020, for purposes of the expansion of the natural gas network in areas with lower resources according to the criteria established by the enforcement authority. The enforcement authority, within six months from the settlement of the judgment amount, must present the corresponding feasibility studies (Dec. 470/15) together with a work plan, which must begin within six months from the presentation of the feasibility studies. Finally, the Company has filed an extraordinary appeal against the judgment of the Court of Appeals, which has been sustained and the court file has been submitted to the CSJN.

**14.a.4) Environmental claims:**

**La Plata**

In relation with the operation of the refinery that YPF has in La Plata, there are certain claims for compensation of individual damages purportedly caused by the operation of the La Plata refinery and the environmental remediation of the channels adjacent to the mentioned refinery. During 2006, YPF submitted a presentation before the Environmental Secretariat of the Province of Buenos Aires, which put forward for consideration the performance of a study for the characterization of environmental associated risks. As previously mentioned, YPF has the right to indemnity for events and claims prior to January 1, 1991, according to Law No. 24,145 and Decree No. 546/1993. Besides, there are certain claims that could result in the requirement to make additional investments connected with the operations of La Plata refinery.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**14. PROVISIONS (Cont.)**

On January 25, 2011, YPF entered into an agreement with the environmental agency of the Government of the Province of Buenos Aires (*Organismo Provincial para el Desarrollo Sostenible*, or OPDS ), within the scope of the Remediation, Liability and Environmental Risk Control Program, created by Resolution No. 88/2010 of the OPDS. Pursuant to the agreement, the parties agreed to jointly perform an eight-year work program in the channels adjacent to the La Plata refinery, including characterization and risk assessment studies of the sediments. The agreement provides that, in the case that a required remediation action is identified because of the risk assessment studies, the different alternatives and available techniques will be considered, as well as the steps needed for the implementation. Dating studies will also be performed pursuant to the agreement, in order to determine responsibilities of the Argentine Government in accordance with its obligation to hold YPF harmless in accordance with the article 9 of Law No. 24,145 of the Privatization of YPF. In this context, YPF, with the agreement of OPDS, has carried out several studies and characterizations through specialized consultants whose progress has been notified to the provincial body.

In addition to the above, there are other similar claims made by neighbors of the same locale, alleging environmental and other associated damages.

**Quilmes**

The plaintiffs who allege to be residents of Quilmes, Province of Buenos Aires, have filed a lawsuit in which they have requested remediation of environmental damages and also the payment as compensation for alleged personal damages. They base their claim mainly on a fuel leak in the pipeline running from La Plata to Dock Sud, currently operated by YPF, which occurred in 1988 as a result of an unlawful act that caused the rupture of the polyduct, when YPF was a state-owned company. Fuel would have emerged and become perceptible on November 2002, which resulted in remediation works that are being performed by the Company in the affected area, supervised by the environmental authority of the Province of Buenos Aires. The Argentine Government has denied any responsibility to indemnify YPF for this matter, and the Company has sued the Argentine Government to obtain a declaration of invalidity of such decision. The suit is still pending.

In addition to the above, YPF was notified of a similar environmental claim made by residents of the same locale, for damages. Such complaint has been answered in due course. At present, the case is undergoing the evidentiary stage.

**Other environmental claims**

In addition to claims discussed above, the Group has other legal claims against it based on similar arguments. In addition, non-judicial claims have been initiated against YPF based on similar arguments. In all these cases, considering the information available to date, the estimated time remaining until the end of the proceedings, and the results of the additional evidence presented during the continuation of the litigation, the Group has charged to provision its best estimate for the objective value of the claims.

**14.a.5) Tax claims**

The Group has received a number of complaints from the Federal Administration of Public Income AFIP and the provincial and municipal tax authorities that are not individually significant, and for which the corresponding provision has been granted, based on the best estimate according to the information available as of the date of the issuance of these consolidated financial statements.

**14.a.6) Other pending litigation**

During the normal course of its business dealings, the Group has been sued in numerous legal proceedings in labor, civil and commercial courts. The management of the Company, in consultation with its outside counsel, has established a provision considering the best estimate for these purposes, based on the information available as of the date of issuance of these consolidated financial statements, including legal fees and expenses.

**14.b) Provision for environmental expenses and obligations for the abandonment of hydrocarbon wells**

Based on the Group's current remediation plan, the Group has accrued environmental remediation costs where assessments and/or remedy actions are probable and can reasonably be estimated.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA**  
**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2018, 2017 AND 2016**

**15. INCOME TAX**

The calculation of the income tax expense accrued for the years ended December 31, 2018, 2017 and 2016 is as follows:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Current income tax	(943)	(605)	(734)
Deferred income tax	(50,595)	4,574	2,159
	<b>(51,538)</b>	<b>3,969</b>	<b>1,425</b>

The reconciliation between the charge to net income for income tax for the years ended December 31, 2018, 2017 and 2016 and the one that would result from applying the prevailing tax rate on net income before income tax arising from the consolidated statements of comprehensive income for each year is as follows:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Net income before income tax	90,144	8,703	(29,804)
Statutory tax rate	30%	35%	35%
Statutory tax rate applied to net income before income tax	(27,043)	(3,046)	10,431
Effect of the valuation of property, plant and equipment and intangible assets measured in functional currency	(100,760)	(18,185)	(19,543)
Exchange differences	67,767	12,318	12,237
Effect of the valuation of inventories	(8,666)	(1,558)	(1,819)
Income on investments in associates and joint ventures	1,452	500	206
Effect of tax rate change <sup>(1)</sup>	12,795	13,892	
Result of companies revaluation	3,594		
Miscellaneous	(677)	48	(87)
Income tax	<b>(51,538)</b>	<b>3,969</b>	<b>1,425</b>

(1) Contemplates the recovery of the deferred income tax decrease. See Notes 2.b.15 and 30.j. Breakdown of deferred tax as of December 31, 2018, 2017 and 2016 is as follows:

	2018	2017	2016
<u>Deferred tax assets</u>			
Provisions and other non-deductible liabilities	2,920	1,861	3,607
Tax losses carryforward and other tax credits	21,575	6,484	3,837
Miscellaneous	270	99	82
<b>Total deferred tax assets</b>	<b>24,765</b>	<b>8,444</b>	<b>7,526</b>
<u>Deferred tax liabilities</u>			
Property, plant and equipment	(113,821)	(43,931)	(45,579)
Miscellaneous	(1,768)	(1,570)	(3,848)
<b>Total deferred tax liabilities</b>	<b>(115,589)</b>	<b>(45,501)</b>	<b>(49,427)</b>
<b>Total Net deferred tax</b>	<b>(90,824)<sup>(1)(2)</sup></b>	<b>(37,057)</b>	<b>(41,901)</b>

(1) Includes 127 as a result of the implementation of the impairment method in the calculation of the impairment of financial assets pursuant to IFRS 9, having an impact in Retained earnings. See Note 2.b.26.

(2) Includes (3,432) corresponding to adjustment for inflation of the opening deferred liability of subsidiaries with the Peso as functional currency with effect in other comprehensive income.

For fiscal year ended December 31, 2018, the Group estimated a tax loss carryforward of 57,267. Deferred income tax assets are recognized for tax loss carryforwards to the extent their setoff through future taxable profits is probable. Tax loss carryforwards in Argentina expire within 5 years.

In order to fully realize the deferred income tax asset, the Group will need to generate taxable income. Based upon the level of historical taxable income and projections for future over the years in which the deferred income tax are deductible, Management of the Company believes that as of December 31, 2018 it is probable that the Group will realize all of the deferred income tax assets.

As of December 31, 2018, Group's tax loss carryforwards at the expected recovery rate were as follows:

Date of generation	Date of expiration	Jurisdiction	Amount
2014	2019	Argentina	300
2015	2020	Argentina	2,700
2016	2021	Argentina	796
2017	2022	Argentina	3,418
2018	2023	Argentina	14,361
			21,575

F-75



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**15. INCOME TAX (Cont.)**

As of December 31, 2018 and 2017, there are no recorded significant deferred tax assets. As of December 31, 2016, the Group did not record 1,138, corresponding to tax loss carry forwards from subsidiaries, 1,090 of which matured from 2017 onwards and 48 of which had indeterminate maturity.

As of December 31, 2018, 2017, and 2016, the Group has classified as deferred tax assets for 301, 588, and 564, respectively, and as deferred tax liability 91,125, 37,645, and 42,465, respectively, all of which arise from the net deferred tax balances of each of the separate companies included in these consolidated financial statements.

As of December 31, 2018, 2017, and 2016, the causes that generate charges to other comprehensive income, did not create temporary differences for income tax.

**16. LOANS**

Pesos	Interest rate <sup>(1)</sup>		Maturity	2018		2017		2016	
				Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Negotiable obligations <sup>(7)</sup>	16.50%	57.81%	2019-2024	26,118	6,999	29,640	5,753	29,194	4,400
Loans <sup>(3)</sup>	37.88%	54.28%	2019-2020	40	789	728	2,794	2,416	1,459
Account overdraft							10		4,037 <sup>(5)</sup>
				26,158	7,788	30,368	8,557	31,610	9,896
<b><u>Currencies other than the Peso</u></b>									
Negotiable obligations <sup>(2)(4)(6)</sup>	3.50%	10.00%	2019-2047	219,510	17,417	114,686	15,075	86,116	4,360
Export pre-financing	2.00%	6.75%	2019		20,724 <sup>(8)</sup>	383	6,521 <sup>(8)</sup>	1,908	6,491
Imports financing	3.79%	6.56%	2019-2020	968	13,176		4,595		2,439
Loans <sup>(6)</sup>	4.20%	6.70%	2019-2024	23,616	5,721	6,290	4,588	7,934	3,591

244,094	57,038	121,359	30,779	95,958	16,881
270,252	64,826	151,727	39,336	127,568	26,777

- (1) Annual interest rate as of December 31, 2018.
- (2) Disclosed net of 410, 309 and 672 corresponding to YPF's own negotiable obligations repurchased through open market transactions, as of December 31, 2018, 2017, and 2016, respectively.
- (3) Includes loans granted by BNA. As of December 31, 2018, it includes 500, which accrues variable interest at a BADLAR plus a margin of 3.5 points. As of December 31, 2017, it includes 2,500, 1,500 of which accrues variable interest at a BADLAR plus a margin of 3.5 points and 1,000 at a fixed rate of 20%. As of December 31, 2016, it includes 2,105; 105 of which accrues interest at a BADLAR variable rate plus a spread of 4 percentage points and 2,000 of which accrues interest at a BADLAR variable rate plus a spread of 3.5 percentage points. See Note 31.
- (4) Includes 2,634, 1,528 and 3,253 as of December 31, 2018, 2017, and 2016, respectively, of nominal value of negotiable obligations that will be canceled in Pesos at the applicable exchange rate in accordance with the terms of the series issued.
- (5) Includes 1,440 corresponding to overdrafts granted by BNA as of December 31, 2016. See Note 31.
- (6) Includes 492 and 4,960 corresponding to financial loans and NO secured by cash flows as of December 31, 2017, and 2016, respectively.
- (7) Includes 15,850, 15,850 and 11,248 as of December 31, 2018, 2017 and 2016, respectively, of nominal value of NO that will be canceled in U.S. dollars at the applicable exchange rate according to the conditions of the issued series.
- (8) Includes pre-financing of exports granted by BNA. As of December 31 2018, it includes 5,264, 3,008 of which accrue a 2% fixed interest rate and 2,256 a 6.5% fixed interest rate. As of December 31, 2017, it includes 1,116 accruing a 2% fixed interest rate.

The breakdown of the Group's borrowings as of the year ended on December 31, 2018, 2017 and 2016 is as follows:

	2018	2017	2016
<b>Balance at beginning of the year</b>	191,063	154,345	105,751
Proceed from loans	39,673	54,719	101,322
Payments of loans	(55,734)	(36,346)	(73,286)
Payments of interest	(26,275)	(17,912)	(16,330)
Accrued interest <sup>(1)</sup>	27,998	17,995	16,623
Net exchange differences and translation	160,016	21,465	20,265
Result from net monetary position <sup>(2)</sup>	(1,663)		
Reclassifications and other movements		(3,203) <sup>(3)</sup>	
<b>Balance at the end of the year</b>	335,078	191,063	154,345

- (1) Includes capitalized financial costs. See Note 8.
- (2) Includes adjustment for inflation of opening balances which was charged to other comprehensive income and the adjustment for inflation of the fiscal year, which was charged to results.
- (3) Includes 3,130 of loans reclassified to the item Liabilities associated with assets held for disposal. See Note 3.

On April 28, 2017, the General and Extraordinary Shareholders Meeting approved an extension in the effective term of the Global Medium Term Notes Program of the Company for a term of 5 years.

The maximum nominal amount at any time outstanding of the Program of US\$ 10,000 million or its equivalent in other currencies.

F-76

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA**  
**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2018, 2017 AND 2016**

**16. LOANS (Cont.)**

Details regarding the NO of the Group are as follows:

Year	Principal value		Ref.	Class	Interest rate <sup>(3)</sup>	Principal Maturity	2018		2017		Noncurrent	
							Noncurrent	Current	Noncurrent	Current		
1998	US\$	15	(1) (6)		Fixed	10.00%	2028	557	9	276	5	
2012	\$	2,110	(2) (4) (6) (7)	Class XI								
2012/3	\$	2,828	(2) (4) (6) (7)	Class XIII							1,427	1,
					BADLAR plus							
2013	\$	2,250	(2) (4) (6) (7)	Class XVII	2.25%	52.75%	2020	1,125	1,330	2,250	96	2,
2013	US\$	89	(2) (5) (6)	Class XIX								
					BADLAR plus							
2013	\$	1,265	(2) (4) (6)	Class XX	2.25%	50.70%	2020	633	657	1,265	12	1,
2013	US\$	92	(2) (5) (6)	Class XXII	Fixed	3.50%	2020	456	461	451	230	
2013	US\$	150	(2) (6)	Class XXIV							498	
2013/4/5	US\$	862	(2) (6)	Class XXVI							8,422	13,
2014/5/6	US\$	1,522	(2) (4) (6)	Class XXVIII	Fixed	8.75%	2024	57,233	1,210	28,311	599	24,
2014	\$	500	(2) (6) (7)	Class XXIX	BADLAR	48.99%	2020	200	162	350	158	

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2014	US\$	66	(2) (5) (6)	Class XXXIII								
2014	\$	1,000	(2) (6) (7)	Class XXXIV	BADLAR plus 0.1%	48.97%	2024	833	299	1,000	54	1,
2014	\$	750	(2) (4) (6)	Class XXXV	BADLAR plus 3.5%	52.37%	2019		571	500	298	
2015	\$	950	(2) (6) (7)	Class XXXVI	BADLAR plus 4.74%	49.92%	2020	950	187	950	92	
2015	\$	250	(2) (6)	Class XXXVII								
2015	\$	935	(2) (4) (6)	Class XXXVIII	BADLAR plus 4.75%	54.72%	2020	312	390	626	362	
2015	US\$	1,500	(2) (6)	Class XXXIX	Fixed	8.50%	2025	56,062	2,025	27,731	1,002	23,
2015	\$	500	(2) (6)	Class XL								
2015	\$	1,900	(2) (6) (7)	Class XLI	BADLAR	48.87%	2020	633	801	1,267	736	1,
2015	\$	1,697	(2) (4) (6)	Class XLII	BADLAR plus 4%	52.87%	2020	1,697	243	1,697	110	1,
2015	\$	2,000	(2) (6) (7)	Class XLIII	BADLAR	50.48%	2023	2,000	196	2,000	80	2,
2015	\$	1,400	(2) (6)	Class XLIV							1,422	1,
2016	\$	150	(2) (6)	Class XLV								
2016	\$	1,350	(2) (4) (6)	Class XLVI	BADLAR plus 6%	53.09%	2021	1,350	234	1,350	114	1,
2016	US\$	1,000	(2) (6)	Class XLVII	Fixed	8.50%	2021	37,600	870	18,599	430	15,
2016	US\$	46	(2) (5) (6)	Class XLVIII	Fixed	8.25%	2020	1,723	29	852	14	
2016	\$	535	(2) (6)	Class XLIX	BADLAR plus 6%	56.42%	2020	535	62	535	31	
2016	\$	11,248	(2) (6) (8)	Class L	BADLAR plus 4%	47.84%	2020	11,248	1,238	11,248	651	11,
2016	CHF	300	(2) (6)	Class LI	Fixed	3.75%	2019		11,563	5,731	54	4,
2017	\$	4,602	(2) (6) (8)	Class LII	Fixed	16.50%	2022	4,602	110	4,602	110	
2017	US\$	1,000	(2) (6)	Class LIII	Fixed	6.95%	2027	38,024	1,180	18,889	445	
2017	US\$	750	(2) (6)	Class LIV	Fixed	7.00%	2047	27,855	70	13,846	44	
2013	US\$	177		Series A-L							3,076	2,
2013	US\$	18		Series A-U							256	
2018	\$	513		Class II	BADLAR plus 10%	57.81%	2019		519			
								245,628	24,416	144,326	20,828	115,

(1) Corresponds to the 1997 M.T.N. Program for US\$1,000 million.

(2) Corresponds to the 2008 M.T.N. Program for US\$ 10,000 million.

(3) Interest rate as of December 31, 2018.

(4) The ANSES and/or the Fondo Argentino de Hidrocarburos have participated in the primary subscription of these NO, which may at the discretion of the respective holders, be subsequently traded on the securities market where these negotiable obligations are authorized to be traded.

(5)

The payment currency of these Negotiable Obligations is the Peso at the Exchange rate applicable under the terms of the series issued.

- (6) As of the date of issuance of these financial statements, the Group has fully complied with the use of proceeds disclosed in the pricing supplements.
- (7) NO classified as productive investments computable as such for the purposes of section 35.8.1, paragraph K of the General Regulations applicable to Insurance Activities issued by the Argentine Insurance Supervisory Bureau.
- (8) The payment currency of this issue is the U.S. dollar at the exchange rate applicable in accordance with the conditions of the relevant issued series.

F-77

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**17. OTHER LIABILITIES**

	2018		2017		2016	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Liabilities for contractual claims <sup>(1)</sup>	175	41	90	2,008		950
Extension of concessions	348	436	179	342	336	508
Maxus Entities agreement <sup>(2)</sup>						2,932
Miscellaneous	26	245	8	33		
	549	722	277	2,383	336	4,390

(1) See Note 14.

(2) See Note 27.

**18. ACCOUNTS PAYABLE**

	2018		2017		2016	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Trade payable and related parties <sup>(1)</sup>	2,227	81,450	168	44,520	2,145 <sup>(2)</sup>	40,667 <sup>(2)</sup>
Guarantee deposits	19	492	17	441	13	482
Payables with partners of JO	1,127	324		122		9
Miscellaneous		1,959		828	29	423
	3,373	84,225	185	45,911	2,187	41,581

(1) For more information about related parties, see Note 31.

(2) Includes debt with Petrobras Energía Argentina S.A. See Note 3.

**19. REVENUES**

	2018	2017	2016
Sales of goods and services	435,558	243,230	194,782
Government incentives <sup>(1)</sup>	14,469	18,552	22,640
Turnover tax	(14,207)	(8,969)	(7,322)
	435,820	252,813	210,100

(1) See Note 31.

The Group's transactions and the main revenues are described in Note 5. The Group's revenues are derived from contracts with customers, except for Government incentives.

The nature and effect of the initial implementation of IFRS 15 on the Group's consolidated financial statements are described in Note 2.b.26.

**Breakdown of revenues**Type of good or service

	Upstream	Downstream	2018		Total
			Gas and Energy	Corporation and others	
Gas oil		132,073			132,073
Gasolines		97,093			97,093
Natural Gas <sup>(1)</sup>		1,000	79,433		80,433
Crude Oil		3,477			3,477
Jet fuel		25,999			25,999
Lubricants and by-products		8,928			8,928
Liquefied Petroleum Gas		12,542			12,542
Fuel oil		3,354			3,354
Petrochemicals		16,239			16,239
Fertilizers		4,231			4,231
Flours, oils and grains		7,917			7,917
Asphalts		4,129			4,129
Goods for resale at gas stations		3,381			3,381
Income from services				1,344	1,344
Income from construction contracts				5,551	5,551
Virgin naphtha		3,999			3,999
Petroleum coke		6,139			6,139
LNG Regasification			3,359		3,359
Other goods and services	3,181	6,068	4,091	2,030	15,370



3,181	336,569	86,883	8,925	435,558
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F-78



				<b>others</b>	
Gas oil		65,328			65,328
Gasolines		46,254			46,254
Natural Gas <sup>(1)</sup>	2,681	618	22,899		26,198
Crude Oil	1,075	1,060			2,135
Jet fuel		7,689			7,689
Lubricants and by-products		4,746			4,746
Liquefied Petroleum Gas	162	3,989			4,151
Fuel oil		11,099			11,099
Petrochemicals		6,418			6,418
Fertilizers		1,450			1,450
Flours, oils and grains		5,200			5,200
Asphalts		1,186			1,186
Goods for resale at gas stations		1,839			1,839
Income from services				584	584
Income from construction contracts				1,193	1,193
Virgin naphtha		512			512
Petroleum coke		1,192			1,192
LNG Regasification			2,479		2,479
Other goods and services	585	2,334	1,423	787	5,129
	4,503	160,914	26,801	2,564	194,782

(1) Includes 55,882, 28,341 and 16,645 corresponding to sales of natural gas produced by the Company for the years ended December 31, 2018, 2017 and 2016, respectively.

Sales Channels

			2018		
	Upstream	Downstream	Gas and Energy	Corporation and others	Total
Gas Stations		168,665			168,665
Power Plants		260	20,083		20,343
Distribution Companies			14,180		14,180
Retail distribution of natural gas			25,420		25,420
Industries, transport and aviation		71,746	19,750		91,496
Agriculture		35,868			35,868
Petrochemical industry		19,590			19,590
Trading		18,342			18,342
Oil Companies		12,760			12,760
Commercialization of liquefied petroleum gas		4,961			4,961
Other sales channels	3,181	4,377	7,450	8,925	23,933
	3,181	336,569	86,883	8,925	435,558

F-79

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**19. REVENUES (Cont.)**

	2017		Gas and Energy	Corporation and others	Total
	Upstream	Downstream			
Gas Stations		104,077			104,077
Power Plants		4,067	13,072		17,139
Distribution Companies			3,313		3,313
Retail distribution of natural gas			11,071		11,071
Industries, transport and aviation		36,810	11,558		48,368
Agriculture		22,030			22,030
Petrochemical industry		10,334			10,334
Trading		7,703			7,703
Oil Companies		4,207			4,207
Commercialization of liquefied petroleum gas		2,979			2,979
Other sales channels	774	3,028	5,394	2,813	12,009
	774	195,235	44,408	2,813	243,230

	2016		Gas and Energy	Corporation and others	Total
	Upstream	Downstream			
Gas Stations		86,936			86,936
Power Plants	1,684	9,567	8,316		19,567
Distribution Companies	413		831		1,244
Retail distribution of natural gas			7,488		7,488
Industries, transport and aviation	584	24,518	5,876		30,978
Agriculture		17,889			17,889
Petrochemical industry		7,881			7,881

Trading	1,075	5,888			6,963
Oil Companies		4,529			4,529
Commercialization of liquefied petroleum gas	162	1,647			1,809
Other sales channels	585	2,059	4,290	2,564	9,498
	4,503	160,914	26,801	2,564	194,782

### Target Market

Sales contracts in the domestic market resulted in 390,630, 221,145 and 178,389 for the years ended December 31, 2018, 2017 and 2016, respectively.

Sales contracts in the international market resulted in 44,928, 22,085 and 16,393 for the years ended December 31, 2018, 2017 and 2016, respectively.

### **Contract balances**

The following table reflects information regarding credits, contract assets and contract liabilities:

	2018		2017		2016	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Credits for contracts included in Trade Receivables	7,804	59,419	2,210	27,363	87	22,425
Contract assets		420		142		12
Contract liabilities	1,828	4,996	1,470	1,460		14

Contract assets are mainly related to the work carried out by the Group under the construction contracts.

Contract liabilities are mainly related to advances received from customers under the contracts for the sale of commodities, fuels, crude oil, methanol, lubricants and by-products, gas oil and natural gas, among others.

During the year ended on December 31, 2018, the Group has recognized 1,564 in revenues from ordinary activities arising from contracts entered into with customers in the statement of comprehensive income, which have been included in the balance for contract liabilities at the beginning of the year.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA**  
**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2018, 2017 AND 2016**

**20. COSTS**

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Inventories at beginning of year	27,149	21,808 <sup>(2)</sup>	19,173 <sup>(2)</sup>
Purchases	124,279	65,945	48,833
Production costs <sup>(1)</sup>	234,340	147,423	127,075
Translation effect	26,514	3,877	4,031
Inventories incorporated by business combination <sup>(3)</sup>	445		
Adjustment for inflation <sup>(4)</sup>	167		
Reclassifications and other movements		(92)	
Inventories at end of the year	(53,324)	(27,149) <sup>(2)</sup>	(21,808) <sup>(2)</sup>
	<b>359,570</b>	<b>211,812</b>	<b>177,304</b>

(1) See Note 21.

(2) Reclassifications of 12 and 85 have been made in inventories at beginning of year and 142 and 12 have been made in inventories at the years ended December 31, 2017 and 2016, respectively, in accordance with the change in the accounting policy described in detail in Note 2.b.26.

(3) See Note 3.

(4) Corresponds to adjustment for inflation of inventories opening balances of subsidiaries with the Peso as functional currency, which was charged to other comprehensive income.

**21. EXPENSES BY NATURE**

The Group presents the statement of comprehensive income by classifying expenses according to their function as part of the Costs , Administrative expenses , Selling expenses and Exploration expenses lines. The following additional information is disclosed as required, on the nature of the expenses and their relation to the function within the Group for the fiscal years ended December 31, 2018, 2017 and 2016:

**2018****Total**

	<b>Production costs<sup>(3)</sup></b>	<b>Administrative expenses</b>	<b>Selling expenses</b>	<b>Exploration expenses</b>	
Salaries and social security taxes	18,908	4,867	2,592	480	26,847
Fees and compensation for services	1,772	3,534 <sup>(2)</sup>	883	21	6,210
Other personnel expenses	5,313	571	278	50	6,212
Taxes, charges and contributions	3,634	275	5,626 <sup>(1)</sup>	28	9,563
Royalties, easements and canons	31,677		64	72	31,813
Insurance	1,335	130	118		1,583
Rental of real estate and equipment	8,983	24	766	28	9,801
Survey expenses				848	848
Depreciation of property, plant and equipment	83,700	1,758	2,111		87,569
Amortization of intangible assets	1,497	222	30		1,749
Industrial inputs, consumable materials and supplies	11,126	59	172	22	11,379
Operation services and other service contracts	14,973	372	1,302	29	16,676
Preservation, repair and maintenance	31,141	620	886	48	32,695
Unproductive exploratory drillings				3,331	3,331
Transportation, products and charges	12,714	4	9,615		22,333
Provision for doubtful trade receivables			353		353
Publicity and advertising expenses		951	978		1,929
Fuel, gas, energy and miscellaneous	7,567	535	2,153	509	10,764
	234,340	13,922	27,927	5,466	281,655

(1) Includes 2,297 corresponding to export withholdings.

(2) Includes 65 corresponding to fees and remunerations of the Directors and Statutory Auditors of YPF's Board of Directors. On April 27, 2018, the General and Extraordinary Shareholders Meeting of YPF resolved to ratify the fees corresponding to fiscal year 2017 of 48.8 and to approve as fees on account of such fees and remunerations for the fiscal year 2018, the sum of 62.

(3) The expense recognized in the consolidated statement of comprehensive income corresponding to research and development activities amounted to 700.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**21. EXPENSES BY NATURE (Cont.)**

	<b>Production costs<sup>(3)</sup></b>	<b>Administrative expenses</b>	<b>2017 Selling expenses</b>	<b>Exploration expenses</b>	<b>Total</b>
Salaries and social security taxes	12,548	3,537	1,988	330	18,403
Fees and compensation for services	1,159	2,118 <sup>(2)</sup>	544	18	3,839
Other personnel expenses	3,493	374	194	49	4,110
Taxes, charges and contributions	2,215	255	4,172 <sup>(1)</sup>		6,642
Royalties, easements and canons	17,630		31	31	17,692
Insurance	840	49	85		974
Rental of real estate and equipment	5,710	15	518		6,243
Survey expenses				214	214
Depreciation of property, plant and equipment	51,607	771	1,134		53,512
Amortization of intangible assets	688	125	25		838
Industrial inputs, consumable materials and supplies	5,813	35	83	25	5,956
Operation services and other service contracts	12,033	268	905	243	13,449
Preservation, repair and maintenance	20,204	382	458	82	21,126
Unproductive exploratory drillings				1,400	1,400
Transportation, products and charges	8,724	17	5,961		14,702
Provision for doubtful trade receivables			28		28
Publicity and advertising expenses		545	609		1,154
Fuel, gas, energy and miscellaneous	4,759	245	1,219	64	6,287
	147,423	8,736	17,954	2,456	176,569

(1) Includes 1,612 corresponding to export withholdings.

(2) Includes 48.8 corresponding to fees and remunerations of the Directors and Statutory Auditors of YPF's Board of Directors. On April 28, 2017, the General and Extraordinary Shareholders Meeting of YPF resolved to ratify the fees corresponding to fiscal year 2016 of 127 and to approve as fees on account of such fees and remunerations for the fiscal year 2017, the sum of 48.3.

(3)

The expense recognized in the consolidated statement of comprehensive income corresponding to research and development activities amounted to 449.

	<b>Production costs<sup>(3)</sup></b>	<b>Administrative expenses</b>	<b>2016 Selling expenses</b>	<b>Exploration expenses</b>	<b>Total</b>
Salaries and social security taxes	10,228	2,642	1,615	288	14,773
Fees and compensation for services	1,037	1,686 <sup>(2)</sup>	436	53	3,212
Other personnel expenses	2,773	347	140	39	3,299
Taxes, charges and contributions	1,861	382	3,399 <sup>(1)</sup>		5,642
Royalties, easements and canons	17,114		25	39	17,178
Insurance	1,037	41	89		1,167
Rental of real estate and equipment	5,097	32	505	2	5,636
Survey expenses				501	501
Depreciation of property, plant and equipment	43,077	714	961		44,752
Amortization of intangible assets	499	186	32		717
Industrial inputs, consumable materials and supplies	5,732	33	76	18	5,859
Operation services and other service contracts	10,494	242	713	125	11,574
Preservation, repair and maintenance	16,710	343	338	32	17,423
Unproductive exploratory drillings				2,050	2,050
Transportation, products and charges	6,952	9	4,964		11,925
Provision for doubtful trade receivables			169		169
Publicity and advertising expenses		344	855		1,199
Fuel, gas, energy and miscellaneous	4,464	125	895	8	5,492
	127,075	7,126	15,212	3,155	152,568

(1) Includes 1,317 corresponding to export withholdings.

(2) Includes 126 corresponding to fees and remunerations of the Directors and Statutory Auditors of YPF's Board of Directors. On April 29, 2016, the General and Extraordinary Shareholders' Meeting of YPF resolved to ratify the fees corresponding to fiscal year 2015 of 140 and to approve as fees on account of such fees and remunerations for the fiscal year 2016, the sum of 127.

(3) The expense recognized in the consolidated statement of comprehensive income corresponding to research and development activities amounted to 400.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**22. OTHER NET OPERATING RESULTS**

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Result of Companies revaluation <sup>(1)</sup>	11,980		
Result for sale of participation in areas <sup>(1)</sup>	2,322		
Lawsuits	(2,365)	(1,240)	(1,253)
Insurance	417	206	
Construction incentive <sup>(2)</sup>		188	422
Temporary economic assistance <sup>(2)</sup>			759
Results from deconsolidation of subsidiaries <sup>(3)</sup>			1,528
Income from extension of concession agreements with partners of JO			1,407
Miscellaneous	(409)	32	531
	11,945	(814)	3,394

(1) See Note 3.

(2) See Note 31.

(3) See Note 27.b.

**23. NET FINANCIAL RESULTS**

	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b><u>Financial income</u></b>			
Interest income	3,033	1,598	1,472
Exchange differences	81,869	16,025	15,287
Financial accretion	15,181		
<b>Total financial income</b>	<b>100,083</b>	<b>17,623</b>	<b>16,759</b>

**Financial loss**

Interest loss	(28,717)	(18,385)	(18,109)
Exchange differences	(27,410)	(7,075)	(3,676)
Financial accretion	(7,554)	(3,169)	(3,159)
<b>Total financial costs</b>	<b>(63,681)</b>	<b>(28,629)</b>	<b>(24,944)</b>
<b>Other financial results</b>			
Fair value gains on financial assets at fair value through profit or loss	2,596	2,208	1,826
Gains on derivative financial instruments	933		213
Result from net monetary position	1,594		
<b>Total other financial results</b>	<b>5,123</b>	<b>2,208</b>	<b>2,039</b>
<b>Total net financial results</b>	<b>41,525</b>	<b>(8,798)</b>	<b>(6,146)</b>

## 24. INVESTMENTS IN JOINT OPERATIONS

The Group participates in JO and other agreements that give to the Group a contractually established percentage over the rights of the assets and obligations that emerge from the contracts. Interest in such JO have been consolidated line by line on the basis of the mentioned interest over the assets, liabilities, income and expenses related to each contract. Interest in JO have been calculated based upon the latest available financial statements as of the end of each year, taking into consideration significant subsequent events and transactions as well as management information available.

The exploration and production JO and other agreements in which YPF participates allocate the hydrocarbon production to each partner based on the ownership interest; consequently, such hydrocarbons are commercialized directly by the partners recognizing each of them the corresponding economic effects.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**24. INVESTMENTS IN JOINT OPERATIONS (Cont.)**

The assets and liabilities as of December 31, 2018, 2017 and 2016, and expenses for the three fiscal years ended on December 31, 2018, 2017 and 2016 of the JO and other agreements in which the Group participates are as follows:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Noncurrent assets <sup>(1)</sup>	130,272	66,887	63,145
Current assets	4,024	2,417	2,602
<b>Total assets</b>	<b>134,296</b>	<b>69,304</b>	<b>65,747</b>
Noncurrent liabilities	11,484	5,876	5,946
Current liabilities	9,695	5,524	6,293
<b>Total liabilities</b>	<b>21,179</b>	<b>11,400</b>	<b>12,239</b>
	<b>2018</b>	<b>2017</b>	<b>2016</b>
Production cost	39,713	24,471	21,624
Exploration expenses	242	767	849

(1) It does not include charges for impairment of property, plant and equipment because they are recorded by the partners participating in the JO

As of December 31, 2018, the main exploration and production JO in which the Group participates are the following:

<b>Name</b>	<b>Location</b>	<b>Participation</b>	<b>Operator</b>
Acambuco			Pan American Energy
	Salta	22.50%	LLC
Aguada Pichana - Area Vaca Muerta	Neuquén	22.50%	Total Austral S.A.
Aguada Pichana - Residual	Neuquén	27.27%	Total Austral S.A.

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Aguaragüe	Salta	53.00%	Tecpetrol S.A.
CAM-2/A SUR	Tierra del Fuego	50.00%	Enap Sipetrol Argentina S.A.
Campamento Central / Cañadón Perdido	Chubut	50.00%	YPF
Consorcio CNQ 7/A	La Pampa and Mendoza	50.00%	Pluspetrol Energy S.A.
El Tordillo	Chubut	12.20%	Tecpetrol S.A.
La Tapera y Puesto Quiroga	Chubut	12.20%	Tecpetrol S.A.
Lindero Atravesado	Neuquén	37.50%	Pan American Energy LLC
Llancanelo	Mendoza	61.00% <sup>(1)</sup>	YPF
Magallanes	Santa Cruz, Tierra del Fuego and Plataforma Continental Nacional	50.00%	Enap Sipetrol Argentina S.A.
Loma Campana	Neuquén and Mendoza	50.00%	YPF
Ramos	Salta	42.00%	Pluspetrol Energy S.A.
Rincón del Mangrullo	Neuquén	50.00%	YPF
San Roque	Neuquén	34.11%	Total Austral S.A.
Yacimiento La Ventana	Río Tunuyán Mendoza	70.00%	YPF
Zampal Oeste	Mendoza	70.00%	YPF
Narambuena	Neuquén	50.00%	YPF
La Amarga Chica	Neuquén	50.00%	YPF
El Orejano	Neuquén	50.00%	YPF
Bajo del Toro	Neuquén	50.00% <sup>(2)</sup>	YPF
Bandurria Sur	Neuquén	51.00%	YPF
Aguada de Castro y Aguada Pichana			Pan American Energy
Oeste	Neuquén	30.00%	LLC

(1) See Note 29.b.

(2) YPF has a direct interest of 26% and an indirect interest of 24% through Bajo del Toro I S.R.L

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**25. SHAREHOLDERS EQUITY**

The Company's subscribed capital as of December 31, 2018, is 3,923 and 10 own treasury shares represented by 393,312,793 book-entry shares of common stock and divided into four classes of shares (A, B, C and D), with a par value of Pesos 10 and 1 vote per share. These shares are fully subscribed, paid-in and authorized for stock exchange listing.

As of December 31, 2018, there are 3,764 Class A outstanding shares. As long as any Class A share remains outstanding, the affirmative vote of Argentine Government is required for: 1) mergers, 2) acquisitions of more than 50% of YPF shares in an agreed or hostile bid, 3) transfers of all the YPF's production and exploration rights, 4) the voluntary dissolution of YPF or 5) change of corporate and/or tax address outside the Argentine Republic. Items 3) and 4) will also require prior approval by the Argentine Congress.

Until the enactment of Law No. 26,741 detailed in the next paragraphs, Repsol S.A. had a participation in the Company, directly and indirectly, of approximately 57.43% shareholding while Petersen Energía S.A.U. and its affiliates exercised significant influence through a 25.46% shareholding of YPF's capital stock.

Law No. 26,741 enacted on May 4, 2012, changed YPF's shareholding structure. The mentioned Law declared as national public interest and subject to expropriation the Class D Shares of YPF owned by Repsol S.A., its controlled or controlling entities, representing the 51% of YPF's equity. According to Law 26,741, achieving self-sufficiency in the supply of hydrocarbons as well as in the exploitation, industrialization, transportation and sale of hydrocarbons, is thereby declared of national public interest and a priority for Argentina, with the goal of guaranteeing socially equitable economic development, the creation of jobs, the increase of the competitiveness of various economic sectors and the equitable and sustainable growth of the provinces and regions. The shares subject to expropriation were distributed as follows: 51% for the Argentine federal government and 49% for certain Argentine Provinces.

The General and Extraordinary Shareholders Meeting was held on April 27, 2018 and approved the financial statements of YPF for the fiscal year ended December 31, 2017 and additionally, approved the following resolution in relation to the allocation of profits: a) to allocate the sum of 120 to create a Reserve for the purchase of treasury shares in order to give the Board of Directors the possibility of acquiring treasury shares at the time it deems appropriate, and complying, during the execution of the plans, with the commitments assumed and to be assumed by them in the future; b) to allocate the sum of 11,020 to create a reserve for investments under the terms of article 70, third paragraph of the LGS; and c) to allocate the sum of 1,200 to a reserve for future dividends, empowering the Board of Directors, until the date of the next General Shareholders Meeting at which the financial statements ended as of December 31, 2018 will be dealt with, to determine the time and amount for their distribution, taking into account the financial conditions and availability of funds as well as the operating results, investments and other matters that are deemed relevant in the development of the Company's activities, or their allocation in accordance with the provisions

set forth in article 224, second paragraph, of the LGS and other applicable regulations.

On December 12, 2018, the Board of Directors of the Company decided to pay a dividend of 3.05 per share, which was made available to the shareholders on December 27, 2018.

## 26. EARNINGS PER SHARE

The following table shows the net income and the number of shares that have been used for the calculation of the basic and diluted earnings per share:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Net profit (loss)	38,613	12,340	(28,237)
Average number of shares outstanding	392,302,437	392,625,259	391,497,615
Basic and diluted earnings per share	98.43	31.43	(72.13)

Basic and diluted earnings per share are calculated as shown in Note 2.b.13.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES**

**27.a) Legal proceedings**

**27.a.1) Introduction**

Laws and regulations relating to health and environmental quality in the United States of America affect the majority of the operations of: (a) Maxus Energy Corporation ( Maxus ) and its subsidiaries Maxus International Energy Company, Maxus (US) Exploration Company and Gateway Coal Company and (b) Tierra Solutions Inc. ( TS ) (collectively, the Maxus Entities or Debtors ). These laws and regulations set certain aspects of health and environmental quality, provide for penalties and other liabilities for the violation of such standards and establish in certain circumstances remedial obligations. However, upon the Debtors filing voluntary petitions under Chapter 11 (as define in the following section) of the United States Bankruptcy Code (the Bankruptcy Code ), actions to collect a monetary claim for such liabilities against the Debtors were stayed.

Maxus and TS could have certain potential liabilities associated with operations of Maxus former chemical subsidiary with respect to the health and environmental regulations mentioned in the previous paragraph; the sole shareholder of both companies was YPF Holdings. Nevertheless, this circumstance must be analyzed in the context of the limitations indicated below.

**27.a.2) Reorganization Process under Chapter 11 of the Bankruptcy Code of the United States (hereafter, Chapter 11 )**

On June 17, 2016, voluntary petitions under Chapter 11 of the Bankruptcy Code were filed with the United States Bankruptcy Court of the District of Delaware (hereafter, the Bankruptcy Court ) by the Debtors, subsidiaries of YPF Holdings. Prior to the Debtors bankruptcy filing, the Debtors entered into an agreement (the Agreement ) with YPF, jointly with its subsidiaries YPF Holdings, CLH Holdings Inc., YPF International and YPF Services USA Corp (jointly, the YPF Entities ), subject to Bankruptcy Court Approval, to settle all of the Debtors claims against the YPF Entities, including any alter ego claims which, in the YPF Entities opinion, have no merit.

The Agreement provided for: i) the granting of a loan by YPF Holdings for an amount of up to US\$ 63.1 million (the DIP Loan ) to finance the Debtors activities during a year-long bankruptcy case, and ii) a payment of US\$ 130 million to the Maxus Entities ( Settlement Payment ) for a release of all claims that the Debtors might have against the YPF Entities.

The first hearing corresponding to the filing under Chapter 11 (the Filing ) took place on June 20, 2016. At that hearing, the Bankruptcy Court approved, among other things, the Debtors motions under the DIP Loan, regarding

their day-to-day operations, including the Debtors' use of the system for fund management, administration, payment of salaries and benefits to retired employees.

On December 29, 2016, the Debtors filed with the Bankruptcy Court a proposed Chapter 11 Plan of Liquidation (the Plan ) and a statement revealing information from the Debtors. The Plan foresaw a US\$ 130 million Settlement Payment under the Agreement. The Plan (as filed) provided that if the Agreement was approved, portions of the US\$ 130 million Settlement Payment would be deposited into (i) a liquidating trust for distribution to creditors and (ii) an Environmental Response Trust for use in remediation. Moreover, if the Agreement were approved, the Debtors' Plan would likely be confirmed and the claims against the YPF Entities, including the alter-ego claims, would be settled and released in exchange for the US\$ 130 million Settlement Payment.

The Plan, however, provided for certain contingencies should the Bankruptcy Court not approve the Agreement. In that scenario, the Debtors' claims against YPF Entities, including the alter-ego claims or piercing the corporate veil, would be transferred into a liquidating trust, which would likely pursue those claims for the creditors' benefit.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES (Cont.)**

Subject to certain exceptions under the Bankruptcy Code, effective as of the date of the filing of the Chapter 11 petitions with the Bankruptcy Court, most decisions, as well as the issues related to creditors' claims and actions for the collection of their claims that arose prior to the filing date are automatically stayed (among others, those corresponding to claims against the Maxus Entities at the local court of New Jersey related to the Passaic River litigation, which are explained under 27.a.5.i and 27.a.6 of this note).

On March 28, 2017, the Maxus Entities and the Creditors Committee submitted an alternative restructuring plan (the Alternative Plan ) which did not include the Agreement with the YPF Entities.

Under the Alternative Plan, a Liquidating Trust may submit alter ego claims and any other claim belonging to the insolvent's estate against the Company and the YPF Entities. The liquidating trust would be financed by Occidental Chemical Corporation in its capacity as creditor of the Maxus Entities. As YPF did not approve such Alternative Plan and the Alternative Plan did not contemplate the implementation of the originally submitted Agreements, on April 10, 2017 YPF Holdings, Inc. sent a note giving notice that this situation constituted an event of default under the loan granted under the Agreement with YPF and the YPF Entities (the DIP Loan ). By the approval of the financing offered by Occidental under the Alternative Plan, the Judge ordered the repayment of the outstanding amounts (approximately US\$ 12.2 million) under the terms of the DIP Loan, which were subsequently received.

On May 22, 2017, the Bankruptcy Court of the Delaware District issued an order confirming the Alternative Plan submitted by the Creditors Committee and the Maxus Entities. The effective date of the Alternative Plan was July 14, 2017, as the conditions set forth in Article XII.B of the Alternative Plan were met. On July 14, 2017, a liquidating trust was also created, which brought the complaint referred to in 27.a.3 in 2018.

**27.a.3) Maxus Energy Corporation Liquidating Trust ( Liquidating Trust ) Claim**

On June 14, 2018, the Liquidating Trust filed a lawsuit against the Company, YPF Holdings, CLH Holdings, Inc., YPF International and other companies non-related to YPF, claiming alleged damages in an amount up to US\$ 14,000 million, principally in connection with alleged claims purportedly related to corporate restructuring transactions the Company engaged in several years ago (the Claim ). The lawsuit was filed before the United States Bankruptcy Court for the District of Delaware.

On October 19, 2018, the Company, together with the other companies of the Group that are part of the Claim, filed a motion requesting dismissal of the Claim ( Motion to Dismiss ).

On November 21, 2018, the Liquidating Trust filed its objection to the Motion to Dismiss filed by the Company together with the other companies of the Group that are part of the Claim, and to the one filed by the companies not related to YPF and which are part of the Claim.

On December 10, 2018, the Company, together with the other companies of the Group that are part of the Claim, exercised their right of reply regarding the presentation made by the Liquidating Trust

On January 22, 2019, the hearing regarding the Motion to Dismiss was held in the Bankruptcy Court.

On February 15, 2019, the Bankruptcy Court ordered the dismissal of the Motions to Dismiss filed by the Company, together with the other Group companies and the other defendant companies not related to YPF.

On March 1, 2019, the Company, together with the other companies of the Group that are part of the Claim, filed an appeal to the resolution dated February 15, 2019.

As described on Note 2.c, according to the preliminary status of the lawsuit, the complexity of the demand and the evidence that have to submit both parties, the Company will continuously reevaluate the evolution of the described circumstances as they happen and its impact on the results and the financial condition of the Group.

The Company, YPF Holdings, CLH Holdings, Inc. and YPF International will file and interpose the necessary legal remedies and will exercise the defensive measures in accordance with the applicable legal procedure in order to defend their rights.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES (Cont.)**

**27.a.4) Background of Maxus and TS**

In connection with the sale of Diamond Shamrock Chemicals Company ( Chemicals ) to Occidental Petroleum Corporation ( Occidental ) in 1986, Maxus agreed to indemnify Chemicals and Occidental from and against certain liabilities relating to the business or activities of Chemicals prior to September 4, 1986 (the selling date ), including environmental liabilities relating to chemical plants and waste disposal sites used by Chemicals prior to the selling date. The indemnity obligation and other liabilities described under 27.a.6 determined that Maxus, TS and other related companies submit a reorganization petition under the Bankruptcy Law mentioned above.

**27.a.5) Maxus and TS Matters**

The following are the alleged liabilities borne by the Debtors in their reorganization petition, updated up to the date of filing, the date on which YPF Holdings ceased to have control over the relevant activities of the Debtors (see point b) of the present Note).

**27.a.5.i) Environmental administrative issues relating to the lower 8 miles of the Passaic River**

**Newark, New Jersey**

A consent decree, previously agreed upon by the U.S. Environmental Protection Agency ( EPA ), the New Jersey Department of Environmental Protection and Energy ( DEP ) and Occidental, as successor to Chemicals, was entered in 1990 by the United States District Court of New Jersey and requires implementation of a remedial action plan at Chemical s former Newark, New Jersey agricultural chemicals plant.

**Passaic River, New Jersey**

Maxus, complying with its contractual obligation to act on behalf of Occidental, negotiated an agreement with the EPA (the 1994 AOC ) under which TS has conducted testing and studies near the Newark plant site, adjacent to the Passaic River.

In 2003, the DEP issued Directive No. 1 seeking to identify those responsible for the damages to natural resources resulting from almost 200 years of historic industrial and commercial development along a portion of the Passaic River and a part of its basin. Directive No. 1 asserts that the notified companies, including Maxus and Occidental, are jointly and severally liable for the mentioned environmental damage, despite all evidence to the contrary. Directive No.1 demanded compensation for the restoration, identification, and quantification of the damage and determination of its value. Despite negotiations between the said entities, no agreement was reached and the DEP assumed jurisdiction in this matter.

In 2004, the EPA and Occidental entered into an administrative order on consent (the 2004 AOC ) pursuant to which TS (on behalf of Occidental) has agreed to conduct testing and studies to characterize contaminated sediment and biota and evaluate remedial alternatives in the Newark Bay and a portion of the Hackensack, the Arthur Kill and Kill van Kull rivers. The initial fieldwork on this study was substantially completed. Discussions with the EPA regarding additional work that might be required are underway. The EPA issued General Notice Letters to other companies concerning the contamination of Newark Bay and the works that were performed by TS under the 2004 AOC.

In December 2005, the DEP issued a directive to TS, Maxus and Occidental directing said parties to pay the State of New Jersey s cost of developing a Source Control Dredge Plan in the lower six-mile portion of the Passaic River. The development of this plan was estimated by the DEP to cost approximately US\$ 2 million.

While some remedial works are underway, the works under the 1994 AOC was substantially subsumed by reason of an administrative arrangement dated 2007 (the 2007 AOC ) with about 70 companies (including Occidental and TS) in the lower portion of the Passaic River due to an administrative agreement of 2007 ( the 2007 AOC ).

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES (Cont.)**

Under the 2007 AOC, the lower 17 miles of the Passaic River, from the mouth at Newark Bay to Dundee Dam, should have been subjected to a Remedial Investigation / Feasibility Study ( RI/FS ). The AOC 2007 participants discussed the possibility of carrying out additional remediation work with the EPA. The companies that accepted to fund the RI/FS have negotiated an interim allocation of RI/FS costs among themselves based on a number of considerations. This group is called the Cooperative Parties Group (the CPG ). The AOC 2007 was coordinated in a federal, state, local and private sector cooperative effort called the Restoration Project for the lower reaches of the Passaic River ( PRRP ).

EPA's conclusions regarding the 2007 AOC indicated that the discharges of the underwater sewage pipe are an active source of hazardous substances in the lower sections of the Passaic River under study. During the first semester of 2011, Maxus and TS, acting on behalf of Occidental, entered into an administrative agreement with the EPA (the CSO AOC ), which establishes the implementation of studies of the underwater sewage pipe on the Passaic River, and confirms that there are no pending obligations under the AOC 1994. In the last semester of 2014, TS filed its report with the EPA (thus completing phase 1). TS estimated, as of December 31, 2015, that the total cost to implement the CSO AOC is approximately US\$ 5 million and will take approximately 2 years to be completed once EPA authorizes phase 2 (the work plan).

On May 29, 2012, Occidental, Maxus and TS withdrew from the CPG under protest and reserving all their rights. However, Occidental continues to be a member of the 2007 AOC and its withdrawal from the CPG has not changed its obligations under the 2007 AOC.

In addition, in August 2007, the National Oceanic Atmospheric Administration ( NOAA ) sent a letter to a number of entities it alleged have a liability for natural resources damages, including TS and Occidental, requesting that the group enter into an agreement to conduct a cooperative assessment of natural resources damages in the Passaic River and Newark Bay. In November 2008, TS and Occidental entered into an agreement with the NOAA to fund a portion of the costs it has incurred and to conduct certain assessment activities during 2009. Approximately 20 other PRRP members have also entered into similar agreements. In November 2009, TS declined to extend this agreement.

**Feasibility Study for the environmental remediation of the lower 8.3 miles of the Passaic River Record of Decision ( ROD )**

On June 2007, the EPA released a draft Focused Feasibility Study (the FFS 2007 ). The FFS 2007 outlines several alternatives for remedial action in approximately the lower 8.3 miles of the Passaic River. On April 11, 2014, the EPA

published a new FFS draft ( FFS 2014 ). The FFS 2014 contains four remediation alternatives analyzed by the EPA, as well as the estimate of the cost of each alternative, which consist of: (i) no action; (ii) deep dredging with 9.7 million cubic yards of filling material; (iii) filling and dredging of 4.3 million cubic yards and the placement of a physical barrier mainly built of sand and stone (tapa de ingeniería); and (iv) focused dredging with 1 million cubic yard of filling material. On March 4, 2016, the EPA issued the ROD choosing Alternative 3 as a remedy to remove the contaminated sediments. The estimated cost is US\$ 1,382 million (estimated present value at a rate of 7%).

The ROD requires the removal of 3.5 million cubic yards of sediment from the lower 8.3 miles of the Passaic River by bank-to-bank dredging, to a depth of approximately 5 to 30 feet in the federal navigation channel from mile 0 to mile 1.7, and approximately 2.5 feet in the remaining areas of the lower 8.3 miles of the Passaic River. A two-foot thick cap will be installed over the dredged areas. Contaminated segments would be transported to disposal sites outside the state. The EPA estimates the whole project will take approximately 11 years, including one year for negotiations among potentially responsible parties, three to four years for project design and six years for its implementation.

On March 31, 2016, the EPA notified to more than one hundred potentially responsible parties, including Occidental Chemical Corporation ( OCC ), of the liabilities relating to the 8.3 mile area of the Passaic River relating to the ROD. In the same notice the EPA stated that it expected OCC (against whom Maxus is litigating a dispute over indemnity) to prepare the remediation plan design and that it would send a second letter with an administrative proposal to this end, which was received by counsel to OCC, Maxus and TS on April 26, 2016.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES (Cont.)**

As of the date of the Maxus Entities' bankruptcy filing, OCC under Chapter 11, Maxus and TS were holding discussions with EPA to define their participation in a potential negotiation aimed at taking part in the design of the EPA's proposed remediation plan, taking into account that the ROD has identified over one hundred potentially responsible parties and eight contaminants of concern, many of which have not been generated at the Lister Site. As of such date, Maxus was evaluating the situation resulting from the issuance of the ROD by the EPA, as well as its subsequent associated letters.

**Removal Action Next to Lister Avenue Site**

During June 2008, the EPA, Occidental, and TS entered into an Administrative Order of Consent, pursuant to which TS, on behalf of Occidental, will undertake a removal action of sediment from the Passaic River in the vicinity of the former Diamond Alkali facility. This action results in the removal of approximately 200,000 cubic yards of sediment, which will be carried out in two different phases. The first phase, which commenced in July 2011 and was substantially completed in the fourth quarter of 2012. The EPA conducted a site inspection in January 2013, and TS received written confirmation of completion in March 2013.

The term for compliance with the second phase began after the agreement entered into with EPA regarding certain aspects related to the development of the same. The Focused Feasibility Study ( FFS ) published on April 11, 2014 provides that Phase II of the removal action was consistently implemented with the FFS. On September 18, 2014, the EPA requested that Tierra Solutions, Inc. ( TS ) conducted an additional sampling of the Phase II area. The sampling was completed in the first quarter of 2015 and TS is expected to present the validated results to the EPA during 2016.

**27.a.5.ii) Environmental administrative issues relating to the lower 17 miles of the Passaic River feasibility study**

**Feasibility study for the lower 17 miles of the Passaic River**

Notwithstanding what is discussed above, the lower 17-mile section of the Passaic River, (the area contemplated in AOC 2007), was subject to a RIF/FS study expected to be completed by 2015, after which EPA would choose a remediation action that will be made public in order to receive comments.

The CGP ( Cooperation Group Parties ) submitted in the first semester of 2015, the draft of the RI/FS in which offers potential remediation alternatives, (which comprises the lower 8 miles of the Passaic River) of the EPA. The EPA may or may not consider this report.

**27.a.5.iii) Other environmental proceedings**

Other matters relating to the eventual liability of Maxus and TS include liabilities arising from: (a) a ferrous chromate processing plant in Kearny, New Jersey; (b) the Standard Chlorine Chemical Company Superfund Site; (c) a ferrous chromate processing plant in Painesville, Ohio; (d) certain removals of contaminants located in Greens Bayou; (e) the Milwaukee Solvay Coke & Gas site located in Milwaukee, Wisconsin; (f) the Black Leaf Chemical Site, Tuscaloosa Site, Malone Services Site and Central Chemical Company Superfund Site (Hagerstown, Maryland); (g) the remediation action in Mile 10.9.

**27.a.6) Trial for the Passaic River**

In relation to the alleged contamination related to dioxin and other hazardous substances in the lower stretch of the Passaic River, Newark Bay, other nearby waterways and surrounding areas, the DEP sued YPF Holdings, TS, Maxus and several companies, including Occidental. The DEP sought remediation of natural resources damages and punitive damages and other matters.

The defendants made responsive pleadings and filings.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES (Cont.)**

In March 2008, the Court denied motions to dismiss by Occidental, TS and Maxus. The DEP filed its Second Amended Complaint in April 2008. YPF filed a motion to dismiss for lack of jurisdiction of the New Jersey Court over YPF because it was a foreign company lacking the requirements to become a party to a lawsuit in such Courts. The previously mentioned motion filed by YPF was denied in August 2008, and the denial was confirmed by the Court of Appeal.

Without prejudice to the foregoing, the Court denied the plaintiffs' motion to bar third party practice and allowed defendants to file third-party complaints. Consequently, third party claims against approximately 300 companies and governmental entities (including certain municipalities) which could have responsibility in connection with the claim were filed in February 2009. DEP filed its Third Amended Complaint in August 2010, adding Maxus International Energy Company and YPF International as additional named defendants. During the course of the litigation, the third parties filed motions to sever and stay and motions to dismiss. The motions were rejected by the judge. Some of the entities appealed the court decision, but such appeals were dismissed in March 2011.

In May 2011, the judge issued Case Management Order No. XVII (CMO XVII), which contained the Trial Plan for the case. This Trial Plan divides the case into two phases, each with its own mini-trials ( Tracks or procedural stages ) which totaled nine Tracks considered individual trials. Phase one would determine liability and phase two would determine damages. Regarding the sub-stages: (a) sub-stages I to III (Tracks I to III) correspond to damage claimed by Occidental and the State of New Jersey; (b) sub-stages IV to VII (Tracks IV to VII) correspond to liability for alter ego and fraudulent conveyance with respect to YPF, Maxus and Repsol and to the liability of third parties to Maxus; (c) sub-stage VIII (Track VIII) corresponds to damages claimed by the State of New Jersey; (d) sub-stage IX (Track IX) is the percentage of liability that would correspond to Maxus for the cleanup and remediation costs.

Specifically, sub-stage III (Track III) will determine the extent of Maxus' liability for the operation of the Lister Site; sub-stage IV (Track IV) will determine the possible scope of YPF and Repsol's liability for damages to the Lister Site (alter ego and fraudulent conveyance).

Following the issuance of CMO XVII, the State of New Jersey and Occidental filed motions for partial summary judgment. The State filed two motions: the first one against Occidental and Maxus on liability under the Spill Act, and against TS on liability under the Spill Act. In addition, Occidental filed a motion for partial summary judgment that Maxus owes a duty of contractual indemnity to Occidental for liabilities under the Spill Act. In July and August 2011, the judge ruled that, although the discharge of hazardous substances by Chemicals was proven, liability allegation could not be made if the nexus between any discharge and the alleged damage is not established. Additionally, the

Court ruled that TS has Spill Act liability to the State based on (1) its current ownership of the site where the discharges were made (Lister Avenue); and (2) that Maxus has the obligation to indemnify Occidental (previously mentioned).

In November 2011, the Special Master called for and held a settlement conference between the State of New Jersey, on the one hand, and Repsol S.A., YPF and Maxus, on the other hand to discuss the parties' respective positions, but no agreement was reached.

In February 2012, the plaintiffs and Occidental filed motions for partial summary judgment, seeking summary adjudication that Maxus has liability under the Spill Act of New Jersey. The Judge held that Maxus and TS have direct liability for the contamination generated into the Passaic River. Volume, toxicity and cost of the contamination have not been verified yet.

On September 11, 2012, the Court issued the Track VIII order. The Track VIII order governs the process by which the Court would conduct the discovery and trial of the claim for damages of the State of New Jersey (the Administration) against Occidental, Maxus and TS (caused by the Diamond Alkali Lister Avenue plant).

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES (Cont.)**

On September 27, 2012, Occidental filed its Amended Cross-Claims and the following day, the State of New Jersey (the Administration ) filed its fourth Amended Complaint. The principal changes to the Administration 's pleading concern the State 's allegations against YPF and Repsol, which were included in its cross-claim. In particular, based on the Mosconi Report of the Argentine State, three new allegations against Repsol were included involving asset stripping from Maxus and YPF.

During the fourth quarter of 2012 and the first quarter of 2013, YPF, YPF Holdings, Maxus and TS together with certain other direct defendants in the litigation, have engaged in on-going mediation and negotiation seeking to settle Track VIII with the State of New Jersey. During this time, the Court has stayed the litigation. On March 26, 2013, the State advised the Court that a proposed settlement between the State and certain third party defendants had been approved by the requisite threshold number of private and public third party defendants. The respective Boards of Directors of YPF, YPF Holdings, Maxus and TS approved at their Board meetings the settlement agreement (the Agreement ). The proposal of the Agreement, which did not imply endorsement of facts or rights and presented only for conciliatory purposes, was subject to an approval process, publication, comment period and court approval. According to the terms of the Agreement, the state of New Jersey would agree to release certain claims related with environmental liabilities within a geographic area of the Passaic River, New Jersey initiated against YPF and certain subsidiaries, recognizing to YPF and other participants in the litigation, a limited liability of up to US\$ 400 million, if they are found responsible. In return, Maxus would make cash payment of US\$ 65 million at the time of approval of the Agreement.

In September 2013, the Court published its Case Management Order XVIII ( CMO No. XVIII ), which provides a schedule for approval of the Agreement. Pursuant to the CMO XVIII, the Court rejected Occidental 's claims and approved the Agreement. Occidental appealed the approval of the Agreement, which was dismissed. Notwithstanding the foregoing, on February 10, 2014, in compliance with the settlement agreement, Maxus made a deposit of US\$ 65 million in an escrow account. On April 11, 2014, Occidental notified the parties that it would not seek an additional revision of the approval of the Agreement.

On August 20, 2014, the lawyers of the State of New Jersey reported that Occidental and the State of New Jersey had entered into an agreement on the general terms and conditions of a settlement agreement that would end the Track VIII proceedings. On December 16, 2014, the Court approved the Settlement Agreement whereby the State of New Jersey agreed to settle all claims against Occidental related to the environmental liabilities within a specific geographical area of the Passaic River, New Jersey, in consideration for the payment of US\$ 190 million in three installments, the last payable on June 15, 2015; and a sum amounting up to US\$ 400 million if the State of New Jersey

had to pay its percentage for future remedial actions.

On January 5, 2015, Maxus received a letter from Occidental requesting Maxus, pursuant to the purported contractual obligation to indemnify Occidental, to compensate Occidental for all the payments that Occidental agreed to pay to the Administration. Maxus holds that both the existence and the amount of such obligation to indemnify under the settlement agreement are pending issues that must wait for the Court decision on the Passaic River case.

In addition, on July 31, 2014 Occidental submitted its third amendment to the complaint YPF, Repsol and Maxus filed motions to limit Occidental's third amended complaint arguing that such claims were not included in the second. Occidental answered that the third amendment incorporated new facts, but not new claims. The Court rejected Occidental's arguments and dismissed the third amendment to the complaint.

Moreover, Repsol countersued Occidental alleging that the US\$ 65 million paid by Repsol as per the agreement between Repsol, YPF, YPF Holdings, Maxus and Tierra Solutions with the State of New Jersey was paid for damages caused by (a) Chemicals, for which Occidental is liable under the share purchase agreement of 1986 or (b) Occidental's individual conduct.

On April 15, 2015, Occidental sent Maxus a letter claiming indemnity protection under the share purchase agreement with respect to the counterclaim filed by Repsol against Occidental. On 28 April 2015, Maxus replied contesting the claims reserving all arguments and defenses regarding the SPA's indemnification provisions.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES (Cont.)**

Furthermore, the scheduled dates were changed through Case Management Order XXVI Depositions of witnesses residing in the U.S. and abroad began in December 2014. Nearly forty witnesses deposed in the case, including the corporate representatives of all the parties. The issues being explored include Track IV (the alter ego and fraudulent transfers of assets) and Track III (indemnity claims filed by OCC against Maxus). Depositions of witnesses were completed in mid-October 2015.

Notwithstanding the above, the Special Master authorized the parties to file briefs specifying any issue in respect of which each party believed that the court should authorize early summary judgment motions. The motions filed by the parties and the non-binding opinions as issued by the Special Master on January 14, 2016, are summarized below:

- (a) YPF filed for early summary judgment against OCC on four issues: i) dismissal of the portion of OCC's claims for alter ego liability, based on the financing of YPF's acquisition of Maxus shares in 1995; ii) dismissal of the portion of OCC's claims for alter ego liability, based on the transfer of Maxus' assets from 1995 through 1999; iii) dismissal of the portion of OCC's liability claims based on the alleged control by YPF of Maxus's Board of Directors' decision, in 1996, to sell its subsidiaries in Bolivia and Venezuela to YPF International; and iv) dismissal of the portion of OCC's claims for alter ego liability, based on the transfer of Maxus' environmental liabilities to Tierra in 1996.

The Special Master's Recommendation on YPF's motion recommended to deny the motion on the grounds that i) the statute of repose for fraudulent transfers is not applicable to the remedy of alter ego for breach of contract and ii) a finder of fact should be permitted to consider all portions of YPF actions when determining if there is alter ego liability so dismissal of portions of these claims is inappropriate.

- (b) OCC filed a motion for early summary judgment against Maxus in relation to Occidental's claim to recover the amount of US\$ 190 million (plus expenses) under the settlement agreement.

The motion sought to establish that Maxus is liable for all obligations at the Lister Site, regardless of any actions taken by OCC (including the period of time that the OCC operated Lister Site). Therefore, the Special Master's Recommendation on OCC's motion against Maxus recommended to grant the motion on the grounds that (i) the language of the SPA was not ambiguous and required Maxus to indemnify OCC for its own conduct at the Lister Site and (ii) OCC was not estopped from seeking indemnity from Maxus for its own conduct at the Lister Site because it

did not take inconsistent legal positions in prior litigations. Notwithstanding the foregoing, Occidental will have to prove the reasonableness of the US\$ 190 million amount settled with the State of New Jersey, for which Maxus may eventually be liable.

In addition, OCC filed for early summary judgment dismissing the cross-claims of Repsol against OCC, which seek to recover from OCC the US\$ 65 million payment made by Repsol to New Jersey State under the settlement agreement.

The Special Master's Recommendation on OCC's motion against Repsol recommended to deny the motion in part as to Repsol's contribution claim and to grant the motion in part as to Repsol's unjust enrichment claim, on the grounds that i) Repsol's contribution claims are permissible under the New Jersey Spill Act even if a settlement did not fully discharge liability to the State; ii) demonstrating Repsol's liability under the Spill Act is not a prerequisite for Repsol to receive contribution from OCC; iii) Repsol is not liable to OCC for indemnification as an alter ego of Maxus, and iv) OCC was not unjustly enriched when Repsol settled with the state.

(c) Repsol filed for early summary judgment against OCC to dismiss OCC's cross-claims: i) to the extent that OCC's claims are based on prescribed claims for fraudulent transfers; ii) on the grounds that OCC cannot prove that it has suffered damages due to a failure to perform an agreement; iii) on the grounds that OCC cannot prove that Repsol has caused any damage even if a non-performance occurred, because OCC has alleged that Maxus became insolvent before Repsol acquired YPF in 1999; and iv) on the grounds that OCC has failed to pierce the corporate veil between YPF and Repsol.

The Special Master's Recommendation on Repsol's motion against OCC recommended granting the motion because the OCC failed to set out any basis to pierce the corporate veil between YPF and Repsol, which the Special Master held OCC was required to do, and because OCC did not allege that YPF was insolvent.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES (Cont.)**

(d) Maxus filed for early summary judgment against OCC to dismiss the claims for damages filed by OCC regarding costs not yet incurred by OCC (future remediation costs). YPF joined in this motion.

The Special Master's Recommendation on Maxus's motion against OCC was to grant the motion on the grounds that OCC's request for declaratory judgment has no basis due to the uncertainty regarding future costs.

(e) Finally, related to the claims that OCC sought to add against YPF and Repsol for alleged interference with OCC's contractual rights under the Stock Purchase Agreement of 1986 (between Maxus and OCC), the Special Master recommended that the motion be denied on the grounds that OCC improperly delayed in seeking to supplement its claims despite having multiple earlier opportunities to do so.

The parties appealed the respective Special Master's Recommendations on February 16, 2016. On February 18, 2016, the parties sought leave from the Special Master to file additional motions for summary judgment. On March 7, 2016, the Special Master denied each of the parties' requests to file additional motions, while ruling that the parties could raise the factual issues raised in the motions at the time of trial as motions in limine. On April 5, 2016, the judge denied the motions and adopted the Special Master's Recommendations in their entirety.

On April 25, 2016, the parties moved to request permission to file interlocutory appeals and a stay of the litigation during the appellate proceedings. Maxus filed a motion requesting permission to appeal the ruling granting summary judgment to OCC against Maxus, which held that Maxus is liable under the stock purchase and sale agreement for all obligations under, or arising from, the Lister Site, even if attributable to OCC's own acts. YPF filed a motion requesting permission to appeal the ruling denying its motion for summary judgment and Occidental filed a motion, appealing the ruling that granted Repsol its motion for summary judgment. On May 24, 2016, the Superior Court of New Jersey Appellate Division denied all interlocutory appeals.

On April 5, 2016, the Superior Court issued Case Management Order XXVIII establishing the trial date as June 20, 2016. However, all litigation against Maxus and YPF has been stayed upon Maxus' filing under Chapter 11 of the Bankruptcy Code.

On June 20, 2016, Occidental filed a Notice of Removal of Claims and a motion to transfer venue of the remaining claims in the Passaic River Litigation from the New Jersey Bankruptcy Court to the Delaware Bankruptcy Court. On June 28, 2016, the New Jersey Bankruptcy Court granted Occidental's motion to transfer venue.

On July 20, 2016, Repsol filed a motion with the Delaware Bankruptcy Court to have its cross-claims seeking environmental contribution from Occidental under the Spill Act to be remanded to the New Jersey Superior Court. On November 15, 2016, the Bankruptcy Court granted Repsol's motion to remand. On November 29, 2016, Occidental filed a motion for clarification or, in the alternative, for reconsideration of the Bankruptcy Court's Order granting Repsol's motion to remand. At a hearing on January 25, 2017, the Delaware Bankruptcy Court denied Occidental's motion and allowed Repsol's cross-claims to go forward in the New Jersey Superior Court.

**27.b) Accounting matters**

In connection with the petition that the Maxus Entities filed with the Bankruptcy Court on June 17, 2016, as described in detail in part a) of this Note, the Management of the Company considered this an event that required reconsideration of whether the consolidation of such entities remained appropriate. In order to carry out this analysis, the Company followed the guidelines established in IFRS 10 Consolidated Financial Statements to reassess whether it maintained control over the activities of the Maxus Entities. This analysis, in accordance with IAS 8, was complemented by the criteria set forth in the United States Standard ASC 810 published by the FASB, the principles of which are consistent with IFRS 10, but addresses in more detail the issues related to the consolidation of entities that file a reorganization proceeding under Chapter 11.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**27. ISSUES RELATED TO MAXUS ENTITIES (Cont.)**

Generally, when an entity files a petition under Chapter 11, shareholders do not generally maintain the ability to exercise the power to make decisions that have a significant impact on the economic performance of the business of entities because that power is subject to Bankruptcy Court approval.

The petition filed by the Maxus Entities under Chapter 11 had relevant effects on the rights of YPF Holdings as a shareholder of these entities, because creditors replaced the shareholders in their legal capacity to file derivative suits against the directors on behalf of the entities for breach of the Debtors' fiduciary obligations, since the creditors would be the main beneficiaries in any increase in value of these entities. However, at the time of the filing under Chapter 11, it should be noted that YPF Holdings retained its right to designate directors of the Debtors through Shareholders Meetings, unless the Bankruptcy Court orders otherwise. In addition, the bankruptcy cases also affected the responsibilities and functions of the board of directors and management of each of the respective Maxus Entities. Each of the Maxus Entities had become a Debtor in Possession and, in accordance with the Bankruptcy Code, remained in possession of its property and, subject to certain limitations, was authorized to carry out its normal operations, unless the Bankruptcy Court ordered otherwise. Nevertheless, during the Chapter 11 cases, the directors of the Debtors do not have absolute discretion, since any transaction outside the ordinary course of business of the Debtors, such as the sale of a significant asset, the expansion of a line of business involving the use of significant funds (or the commitment to do so), or the provision of loans or other types of financing, will be subject to the approval of the Bankruptcy Court.

Likewise, on November 8, 2016, the Maxus Entities amended their by-laws in order to give greater discretion to the independent directors.

As a result, due to the Chapter 11 filing, YPF Holdings is not empowered to make decisions unilaterally, which could significantly affect the Debtors' businesses, both operationally and economically. Likewise, the Debtors are required to seek the approval of the Bankruptcy Court for typical commercial activities, if such activities could have a significant effect on their operations or on any of their stakeholders.

In view of the foregoing, the Management of the Company understands that, it is no longer able to exercise its power over such entities to significantly influence on the Maxus Entities' operations and results, a necessary condition established by IFRS 10 to establish the existence of an effective financial control and therefore, it proceeded to deconsolidate the investments in the Maxus Entities from June 17, 2016.

According to ASC 810, this loss of control may involve a gain or loss for the controlling company, since the controlling company must reconcile its non-controlling interest at fair value after deconsolidating the assets and liabilities of the entities. The obligations related to the reorganization process undertaken as described in part a) of this Note have also been considered for purposes of this calculation. As a result, in fiscal year 2016, the Group has recorded a gain of 1,528 in Other net operating results .

## **28. CONTINGENT ASSETS AND LIABILITIES**

### **28.a) Contingent assets**

The Group does not have any significant contingent assets.

### **28.b) Contingent liabilities**

The Group has the following contingencies and claims, individually significant, that the Management of the Company, in consultation with its external counsels, believes have possible outcome. Based on the information available to the Group, including the amount of time remaining before trial among others, the results of discovery and the judgment of internal and external counsel, the Group is unable to estimate the reasonably possible loss or range of loss on certain matters referred to below:

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**28. CONTINGENT ASSETS AND LIABILITIES (Cont.)**

**28.b.1) Environmental claims**

**Asociación Superficialarios de la Patagonia ( ASSUPA )**

In August 2003, ASSUPA sued 18 companies operating exploitation concessions and exploration permits in the Neuquén Basin, YPF being one of them, claiming the remediation of the general environmental damage purportedly caused in the execution of such activities, in addition to the establishment of an environmental restoration fund, and the implementation of measures to prevent environmental damages in the future. The plaintiff requested that the Argentine Government, the Federal Environmental Council (*Consejo Federal de Medio Ambiente*), the Provinces of Buenos Aires, La Pampa, Neuquén, Río Negro and Mendoza and the Ombudsman of the Nation be summoned. It requested, as a preliminary injunction, that the defendants refrain from carrying out activities affecting the environment. Both the Ombudsman's summons as well as the requested preliminary injunction were rejected by the CSJN. YPF has answered the demand requesting its rejection, opposing failure of the plaintiff and requiring the summons of the Argentine Government, due to its obligation to indemnify YPF for events and claims before January 1, 1991, according to Law No. 24,145 and Decree No. 546/1993. The CSJN gave the plaintiffs a term to correct the defects in the complaint. On August 26, 2008, the CSJN decided that such defects had already been corrected and on February 23, 2009, ordered that certain provinces, the Argentine Government and the Federal Environmental Council be summoned. Therefore, pending issues were deferred until all third parties impleaded appear before the court. As of the date of issuance of these consolidated financial statements, the provinces of Río Negro, Buenos Aires, Neuquén, Mendoza, and the Argentine government have made their presentations, which are not available to the Company yet. The Provinces of Neuquén and La Pampa have claimed lack of jurisdiction, which was answered by the plaintiff.

On December 30, 2014, the CSJN issued two interlocutory judgments. By the first, it supported the claim of the Provinces of Neuquén and La Pampa, and declared that all environmental damages related to local and provincial situations were outside the scope of his original competence, and that only inter-jurisdictional situations (such as the Colorado River basin) would fall under his venue.

By the second judgment, the Court rejected the petition filed by ASSUPA to incorporate Repsol and the directors who served in YPF until April 2012 as a necessary third party. The Court also rejected precautionary measures and other

proceedings related to such request.

In addition, it should be highlighted that YPF learned about other three court complaints filed by ASSUPA against:

(i) Concessionary companies in the San Jorge Gulf basin areas

On December 28, 2016, YPF received notice of the complaint. The deadline set for preliminary defenses was May 31, 2017, and the deadline to respond to the complaint was June 30, 2017. YPF has timely filed a defense for a legal flaw and the court ordered the suspension of the terms to answer the complaint. The terms will continue to be suspended until a final decision is entered thereon asserted by the company.

(ii) Concessionary companies in the Austral basin areas

A highly summarized action has been ordered. In addition, an interim relief has been issued by the Lower Court to notify several companies of the existence of the suit, and for the defendants to contribute certain information. YPF appealed this decision, and the Court of Appeals partially upheld the appeal, reversing the lower court ruling ordering various entities to provide notification of this claim. In the same decision, the Court of Appeals confirmed that the defendants had an obligation to provide certain information but stated that YPF and the other defendants had already complied with such obligation. On November 2, 2015, YPF was notified of the lawsuit. Following YPF's request, the court ordered on November 4, 2015 to suspend the procedural time limits.

On November 23, 2017, the plaintiff requested the Court to decide on its motion requesting the National Government and the Provinces of Santa Cruz and Tierra del Fuego to be summoned to appear as third parties in compliance with the ruling dated December 6, 2017 whereby the court ordered the issuance of such summons, so that the National Government and the provinces mentioned above enter an appearance in the case within the term of 60 days. The court ordered the suspension of deadlines until their appearance or expiration of the deadline.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**28. CONTINGENT ASSETS AND LIABILITIES (Cont.)**

On June 4, 2018, the Argentine Government answered as the third party summons sought by the plaintiff, and requested dismissal thereof. On August 14, 2018 the province of Tierra del Fuego answered a summons as a third party stating its intention not to voluntarily appear in the case and requested its exclusion thereof. On September 11, 2018, the Province of Santa Cruz answered the summons as a third party, stating that it has no interest in participating in the case and adhered to what was stated by the Province of Tierra del Fuego.

(iii) Concessionary companies in the Northwest basin areas

The action was submitted to ordinary proceedings. On December 1, 2014, the Company was notified about the complaint. The procedural deadlines were suspended at the Company's request. Subsequently, on May 3, 2016, YPF was once again notified of the complaint, and the deadlines were reinstated. Consequently, the Company filed a motion requesting that the deadlines be suspended until the plaintiff clarifies whether or not it will annex certain documentary evidence referred to in the complaint. The Judge sustained the Company's motion and suspended again the deadlines to answer the complaint. On April 19, 2017, YPF was served with notice of the ruling of the Court ordering to resume the procedural time limits against which YPF has timely filed a defense for a legal flaw. The court has not decided upon it yet and ordered the suspension of the terms to answer the complaint. The terms will continue to be suspended until a final decision is entered on such defense asserted by YPF.

**Dock Sud, Río Matanza, Riachuelo, Quilmes and Refinería Luján de Cuyo**

A group of neighbors of Dock Sud, Province of Buenos Aires, have sued 44 companies, among which YPF is included, the Argentine Government, the Province of Buenos Aires, the City of Buenos Aires and 14 municipalities, before the CSJN, seeking the remediation and the indemnification of the environmental collective damage produced in the basin of the Matanza and Riachuelo rivers. Additionally, another group of neighbors of the Dock Sud area, have filed two other environmental lawsuits, one of them desisted in relation to YPF, claiming several companies located in that area, among which YPF is included, the Province of Buenos Aires and several municipalities, for the remediation and the indemnification of the environmental collective damage of the Dock Sud area and for the individual damage they claim to have suffered. Currently, it is not possible to reasonably estimate the outcome of these claims, as long as, if applicable, the corresponding legal fees and expenses that might result. YPF has the right of indemnity by the Argentine Government for events and claims prior to January 1, 1991, according to Law No. 24,145 and Decree No. 546/1993.

By means of judgment dated July 8, 2008, the CSJN:

- (i) Determined that the Basin Matanza Riachuelo Authority ( ACUMAR ) (Law No. 26,168) should be in charge of the execution of the program of environmental remediation of the basin, being the Argentine Government, the Province of Buenos Aires and the City of Buenos Aires responsible of its development; delegated in the Federal Lower Court of Quilmes the knowledge of all the matters concerning the execution of the remediation and reparation; declared that all the litigations related to the execution of the remediation plan will accumulate and will proceed before this court and established that this process produces that other collective actions that have for object the environmental remediation of the basin be dismissed ( *littispendentia* ). YPF has been notified of certain resolutions issued by ACUMAR, by virtue of which YPF has been requested to present an Industrial Reconversion Program, in connection with certain installations of YPF. The Program has been presented although the Resolutions had been appealed by the Company;
  
- (ii) Decided that the proceedings related to the determination of the responsibilities derived from past behaviors for the reparation of the environmental damage will continue before that Court.  
In addition to the claims discussed under 14.a.4), which discusses environmental claims in Quilmes, the Company has other legal and non-judicial claims against it, based on similar arguments.

On the other hand, the monitoring tasks carried out routinely by YPF have allowed YPF to warn against degrees of affectation in the subsoil within the vicinity of the Luján de Cuyo refinery, which led to the creation of a program for surveying, evaluating and remedying liabilities that the Company is in the process of implementing with agencies in the Province of Mendoza, the costs which have been charged to provision in the remediation program of environmental issues of the Group.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**28. CONTINGENT ASSETS AND LIABILITIES (Cont.)**

**28.b.2) Contentious claims**

**Petersen Energía Inversora, S.A.U and Petersen Energía, S.A.U. (collectively, Petersen )**

On April 8, 2015, Petersen, former YPF Class D shareholder, filed a lawsuit against the Republic of Argentina and YPF in the Federal District Court for the Southern District of New York. The litigation is being conducted by the bankruptcy trustee of the previously mentioned companies due to a liquidation process pending in a Commercial Court in Spain. The complaint contains claims related to the expropriation of the controlling interest of Repsol in YPF by the Argentine Republic in 2012, asserting that the obligation by the Argentine Republic to make a purchase offer to the remaining shareholders would have been triggered. Claims are grounded on allegations that the expropriation breached contract obligations contained in the initial public offering and bylaws of YPF and seeks unspecified compensation. YPF considers that the claim against the Company has no merit and filed a motion to dismiss on September 8, 2015, the date which was set as a result of the extension of the term provided for by the Court. On the other hand, Petersen filed an objection against YPF s motion to dismiss.

On July 20, 2016, the Court held a hearing during which the parties made their arguments regarding the motion to dismiss, and responded to questions asked by the Judge. On September 9, 2016, the United States District Court for the Southern District of New York issued a decision partially dismissing the complaint filed by Petersen against YPF at this preliminary stage. The Company appealed this decision, requesting a complete dismissal of the complaint at this preliminary stage.

On June 15, 2017, a hearing was held so that the parties could orally present their arguments.

On July 10, 2018, the United States Court of Appeals for the Second Circuit held that the United States District Court for the Southern District of New York has jurisdiction over this judicial matter, but without rendering an opinion as to the merits of the complaint. The Company and the Argentine Republic appealed such resolution on July 24, 2018 requesting reconsideration by the Court of Appeals that ruled ( Panel rehearing ) or a review of the resolution by the Court of Appeals as a whole ( Rehearing en banc ).

On August 30, 2018, the Rehearing en banc filed by the Company and the Argentine Republic was rejected. For that reason, the process was suspended until the case was remanded to the United States District Court for the Southern District of New York. However, YPF requested a stay motion ( stay of mandate ), which was granted on October 2,

2018 for a period of thirty days. On October 31, 2018, the Company filed a writ of certiorari with the Supreme Court of Justice of the United States so that the process is stayed until this court finally decides on its merits.

Additionally, the republics of Mexico and Chile appeared in Court as Amicus Curiae.

On January 7, 2019, the Supreme Court of Justice of the United States requested the Solicitor General (advisor to the U.S. Ministry of Justice in charge of all the proceedings pending in the U.S. Supreme Court of Justice) to decide on the admissibility of the writ of certiorari filed by the Company and the Argentine Republic. At present, the file is waiting for the Solicitor General to request the opinion of the U.S. Department of State.

As of the date of issuance of these consolidated financial statements, there are no elements in YPF's possession that allow quantifying the possible impact that this claim could have on the Company.

The Company categorically rejects the claims asserted in the complaint for being inadmissible and will file all necessary legal remedies and take all defensive measures in accordance with the applicable legal procedure in order to defend its rights.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**28. CONTINGENT ASSETS AND LIABILITIES (Cont.)**

**Eton Park Capital Management, L.P., Eton Park Master Fund, LTD. y Eton Park Fund, L.P. (jointly referred to as Eton Park )**

On June 2, 2017, Eton Park, a former YPF shareholder, filed a complaint against the Argentine Republic and YPF in the United States District Court for the Southern District of New York, for alleged damages that it would have suffered during the process of expropriation of shares that the Argentine Republic took over the majority stake of Repsol in YPF in 2012. The complaint, which seeks unspecified compensation, states that the alleged obligations assumed in the bylaws and in the initial public offering of YPF shares were violated, which imposed obligations related to a public offering made to the rest of the shareholders.

The claim was temporarily on hold, pending the resolution of the Second Circuit of the United States on the Petersen case; however, after the resolution referred to in the preceding paragraph, Eton Park requested that procedural terms be resumed. Likewise, YPF requested the Court to summon the parties to a hearing in order to agree on how the trial should proceed, proposing the answer to the complaint be filed within 45 days from the final resolution in the Petersen case.

On July 30, 2018, the Court ruled that the suspension of the process will stand for 10 days after the date of the Appeal Court's resolution on the admissibility of the appeal in the Petersen Case, which was filed on July 24, 2018.

On August 30, 2018, the appeal filed by the Company and the Argentine Republic in the Petersen case was rejected. On October 2, 2018, the stay of mandate was granted for thirty days requested by YPF and on October 31, 2018, the Company filed the writ of certiorari, as mentioned in the Petersen Case.

On September 6, 2018, the Company made a filing so that the Eton Park process remained stayed until the stay of mandate in Petersen was still in force. On September 11, 2018, the Court granted the petition to the Company. Thus, as the Second Circuit of the United States has not made the issuance of the mandate in the Petersen case, the Eton Park case remains stayed.

As of the date of these financial statements, there are no factors that YPF can use to quantify the possible impact that this claim might have on the Company.

The Company categorically rejects the claims asserted in the complaint for being inadmissible and will file all necessary legal remedies and take all defensive measures in accordance with the applicable legal procedure in order to defend its rights.

### **28.b.3) Claims before the CNDC**

#### **Claims for fuel sale prices**

The Group was subject to certain claims before the Antitrust Board, which are related to alleged price discrimination in sale of fuels. And which were timely answered by YPF.

### **28.b.4) Tax claims**

#### **Dispute over the cost deduction for well abandonment**

The Company has consistently recorded the cost of abandoning wells in accordance with the criteria detailed in Note 2.b.6 and, in the absence of a specific treatment of that subject in the income tax law and its Regulatory Decree, has deducted the charge for well plugging costs in the calculation of this tax, based on the general criteria of the standard for deduction of expenses (accrual criteria). Nevertheless, this interpretation has been objected to by the AFIP, which would allow for deductions once the expense has been done.

Although both consider it a deductible expense, the disagreement between YPF and the AFIP stems from the criteria that each of them uses to decide when the obligation to plug arises which, in turn, is the one that determines when the deduction from the income tax should be taken.

The AFIP understands that the deduction of costs due to the abandonment of wells should be deferred until the taxpayer has the opportunity to proceed with plugging the well, once the wells have been exhausted, considering the abandonment of the well to be the event generating the charge for well plugging costs.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**28. CONTINGENT ASSETS AND LIABILITIES (Cont.)**

On the other hand, the Company, as well as other companies in the oil industry, understands that the event that generates the well plugging costs in connection with the abandonment of wells is the act of drilling, as the drilling constitutes environmental impact and, consequently, the obligation to repair such impact through well plugging arises from that moment. This obligation is not subject to any condition since there is no uncertainty as to whether well depletion will inevitably occur. The Company has learned that similar disputes have been raised by the AFIP with other companies in the oil industry.

In June 2016, the Ministry of Hydrocarbons Resources of MINEM (*Secretaría de Recursos Hidrocarburíferos del MINEM*), the competent body to clarify the origin of the legal obligation in the matter, and in response to a consultation of the Chamber of Oil Exploration and Production, ruled in favor of the position of the oil companies and concluded that the substantial event generating the charge for the abandonment of wells is the drilling.

This response of the Chamber has been reported to the AFIP by both the Ministry of Hydrocarbon Resources and by YPF but, with respect to different questions the AFIP disregarded this position and, on December 29, 2016, notified the Company of two resolutions, adjusting the income tax for the fiscal periods 2005 to 2009 and questioning the criteria followed by the Company. On February 20, 2017, YPF filed the corresponding appeal to the Fiscal Tribunal of the Nation (*Tribunal Fiscal de la Nación*) for such unilateral determinations.

The disputed amount for the years claimed by AFIP amounts to a total of 4,354 considering principal and interest.

On June 15, 2018, the Company was notified of the AFIP's determination, whereby the income tax for fiscal year 2010 was adjusted by 1,175. On July 10, 2018 the Company filed the corresponding appeal to the Fiscal Tribunal of the Nation.

On July 24, 2018, the Company was given notice of the commencement of an inspection procedure regarding fiscal year 2017.

On November 7, 2018, the Company was notified of the commencement of a determination procedure with respect to the projected adjustment for fiscal years 2011 to 2016, inclusive. The Company filed its defense on December 21, 2018.

Notwithstanding the progress of these proceedings and ongoing investigations (and prosecution of other companies in the industry), the Company, based on its opinion and that of its external advisors, considers that it has strong

arguments defending the adopted criteria to be strong. Without prejudice to the foregoing, the Company will evaluate the most convenient alternatives related to this issue. See Note 30.j.

### **Dispute over customs duties**

Between 2006 and 2009, the Customs General Administrations in Neuquén, Comodoro Rivadavia and Puerto Deseado brought certain summary proceedings based on alleged formal misstatements on future commitments of crude oil deliveries in the loading permits, for periods prior to and subsequent to the existence of export duties, for which they calculated the difference between the contractual price declared and the price in force at the time of export to determine fines under the terms of the Customs Code.

The Customs General Administration may question whether the contractual price agreed to by the Company and declared in loading permits is an appropriate amount when calculating export duties. However, the Company understands that there is no violation for declaring the contractual price of a transaction.

The summaries ended the administrative reviews before the Customs General Administration and are in full appeal before the Argentine Tax Court. On March 3, 2017, the Company was notified of an adverse judgment handed down by the Argentine Tax Court regarding the criteria employed for crude oil delivery operations after 1998 and for which fines were determined in accordance with Article 954 (c) of the Customs Code for approximately 11 exports that occurred prior to the existence of export duties. The Company appealed before the Court of Appeals with staying effects.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**28. CONTINGENT ASSETS AND LIABILITIES (Cont.)**

On March 31, 2017, the Company resolved to pay differences in export duties that had been objected to by several Customs, arising from future deliveries of crude oil commitments, by adhering to the anticipated moratorium provided for in Law 27,260. This action allowed the abatement of interest and cancellation of the applied fines underlying the substantial obligation. For this purpose, presentations were file in all pending administrative and judicial cases evidencing the payment of the export duties and, where appropriate, the request for remission of the fines applied under the provisions set forth in Law 27,260. The summary proceedings and other proceedings in which the application of a fine is the matter at issue when there were no export duties are still pending, applying in that case the fine contemplated in article 954 clause c), which amounts to 400 as of the date of this consolidated financial statements.

On April 18, 2018, the Company was notified of the judgement rendered by the Federal Appeals Court No. IV which ruled that the fines imposed by the customs authority of Neuquén were condoned, due to the fact that there were no export duties, based on section 56 of Act No. 27,260. The Customs authority filed an extraordinary appeal before CSJN. The same decision was adopted in a judgment recently rendered in another case by the same Court of Appeals, which was also appealed to the CSJN.

The Company, based on its opinion and that of its external advisors, believes the claim has no legal merit and that it has a strong case in defense of the approach adopted in the dispute mentioned above.

**28.b.5) Other claims**

Additionally, the Group has received other labor, civil and commercial claims and several claims from the AFIP and from provincial and municipal fiscal authorities, not individually significant, which have not been accrued since Management, based on the evidence available as of the date of issuance of these consolidated financial statements, has assessed them to be possible contingencies.

**29. CONTRACTUAL COMMITMENTS**

**29.a) Agreements of extension of concessions**

**Neuquén**

Loma La Lata - Sierra Barrosa Areas

On December 28, 2000, through Decree No. 1,252/2000, the Argentine Federal Executive Branch (the Federal Executive ) extended for an additional term of 10 years (until November 2027) the concession for the exploitation of Loma La Lata Sierra Barrosa area granted to YPF. The extension was granted under the terms and conditions of the Extension Agreement executed between the Argentine Government, the Province of Neuquén and YPF on December 5, 2000. Under this agreement, YPF paid US\$ 300 million to the Argentine Government for the extension of the concession mentioned above and committed, among other things, to define a disbursement and investment program of US\$ 8,000 million in the Province of Neuquén from 2000 to 2017 and to pay to the Province of Neuquén 5% of the net cash flows arising out of the concession during each year of the extension term. The previously mentioned commitments have been affected by the changes in economic rules established by the Public Emergency Law.

On July 24, 2013, in order to make feasible the implementation of a non-conventional hydrocarbons project, YPF and the Province of Neuquén signed an Agreement under which the Province of Neuquén agreed to (i) separate from the Loma La Lata Sierra Barrosa exploitation concession a surface area of 327.5 km<sup>2</sup>; (ii) incorporate such separated surface area into the surface area of the Loma Campana exploitation concession, forming a surface area of 395 km<sup>2</sup> and (iii) extend the Loma Campana exploitation concession for a term of 22 years starting from the date of its expiration (until November 11, 2048).

F-101



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

The commitments made by the Company are as follows: (i) payment of US\$ 20 million in consideration for the effect that the separation of surface from the Area Loma La Lata - Loma Campana has on the conventional production, payable within 15 days of the legislative ratification of the Agreement; (ii) payment of US\$ 45 million on the Corporate Social Responsibility concept, payable during the years 2013, 2014 and 2015; (iii) payment of 5% on the investment project profits after taxes, applicable as from December 2027; (iv) 50% reduction, as from August 2012, of the subsidy applicable to the price of natural gas for the Methanol Plant according to the terms of the Commitment Act of 1998 signed between the Company and the Province of Neuquén; (v) make an investment of US\$ 1 billion within a period of 18 months beginning on July 16, 2013; and vi) prioritize the recruitment of labor, suppliers and services based in Neuquén.

**Rincón del Mangrullo Block**

On August 1, 2017, YPF and the Province of Neuquén entered into an Agreement whereby they agreed the terms for obtaining an Unconventional Exploitation Concession in the Rincón del Mangrullo block (the Block ), which will result in an increase of the current activity of the Block and an extension of the current effective term, which expires in 2022. As of the granting of the new concession, YPF may exploit the Block until 2052, with the possibility of re-extending this term.

Through this agreement, YPF is committed to investing US\$150 million to carry out a pilot program consisting of the drilling of 13 wells to continue the development of the Mulichinco formation and investigate other formations such as Vaca Muerta and Lajas.

On August 11, 2017, the unconventional exploitation concession of the Block was granted in favor of YPF by Provincial Decree No. 1,316/17, as of that date, the Agreement entered into force.

YPF currently has subscribed an Investment Agreement with Petrolera Pampa S.A. ( Pampa ), through which the Company operates the area and Pampa participates in the production arising from certain formations of the Block, and YPF maintains 100% of the rights to Vaca Muerta and Quintuco. Within this framework, YPF will hold 100% of the new Concession of Unconventional Exploitation and the current concession of the Block, continuing with the Investment Agreement with Pampa.

**Other concessions**

Additionally, in 2008 and 2009, YPF entered into a series of agreements with the Province of Neuquén, to extend for ten additional years the term of the production concessions on several areas located in that province, which, as result of the above mentioned agreement, will expire between 2026 and 2027. As a condition for the extension of these concessions, YPF undertook the following commitments, among others, upon the execution of the agreements: (i) to make to the Province total initial payments of US\$ 204 million; (ii) to pay in cash to the Province an Extraordinary Production Royalty of 3% of the production of the areas involved. In addition, the parties agreed to make adjustments of up to an additional 3% in the event of an extraordinary income according to the mechanisms and reference values established in each signed agreement and (iii) to carry out exploration activities in the remaining exploration areas and make certain investments and expenditures in the production concessions that are the purpose of the agreements in a total amount of US\$ 3,512 million until the expiring date of the concessions.

### **Mendoza**

In April 2011, YPF entered into an agreement with the Province of Mendoza to extend for 10 years the term of certain exploitation concessions (one of which is La Ventana ), and the transportation concessions located in the province, from the expiration of the original terms of the grant.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

By signing the memorandum of agreement, YPF assumed certain commitments within which includes: (i) to make initial payments to the province of Mendoza in an aggregate amount of approximately US\$ 135 million, on the date specified in the agreement; (ii) to pay the province of Mendoza an Extraordinary Production Royalty of 3% of the production of the areas included in the agreement. In addition, the parties agreed to make additional adjustments in the event of extraordinary income due to lower export duties or a higher monthly average price of crude oil and/or natural gas according to a mechanism and reference values established in the memorandum of agreement; (iii) to carry out exploration activities and make certain investments and expenditures in a total amount of US\$ 4,113 million until the expiration of the extended term, as stipulated in the agreement; and; (iv) to make payments equal to 0.3% of the annual amount paid as Extraordinary Production Royalty intended for the Institutional Strengthening Fund, in order to purchase equipment and finance training activities, logistics and operational expenses in certain government agencies of the province of Mendoza specified in the agreement, among others.

**Santa Cruz**

During November 2012, YPF entered into an agreement with the Province of Santa Cruz to extend for 25 years the term of certain exploitation concessions, from the expiration of their original terms.

By signing the memorandum of agreement, YPF assumed certain commitments which include: (i) to make initial payments to the province of Santa Cruz in an aggregate amount of approximately of US\$ 200 million, on the date specified in the agreement; (ii) to pay the province of Santa Cruz a Production Royalty of 12% plus an additional of 3% over the production of conventional hydrocarbons; (iii) to pay the province of Santa Cruz a Production Royalty of 10% over the production of unconventional hydrocarbons; (iv) to make certain investments on the exploitation concessions, as stipulated in the agreement; (v) to carry out exploration activities in the remaining exploration areas; (vi) to contribute with social infrastructure investments within the province of Santa Cruz in an amount equivalent to 20% of the amount of the extension royalty; and (vii) to define and prioritize a remediation plan of environmental liabilities with reasonable technical criteria and the extent of remediation tasks within the term of the concessions.

Moreover, on September 1, 2017, by Decree 773/17 issued by the Government of the Province of Santa Cruz, YPF received the award of the El Turbio area that had been offered by the province through the National and International Public Tender No. 03/IESC/17. On September 25, 2017, YPF subscribed the contract for the exploration and potential exploitation of the area.

### **Salta**

On October 23, 2012, YPF entered into an agreement with the province of Salta to extend for 10 years the original term of certain exploitation concessions from the expiration of their original terms. YPF and associated signatory companies (Tecpetrol S.A., Petrobras Argentina S.A., Compañía General de Combustibles S.A. and Ledesma SAAI) by signing the memorandum of agreement made, among others, the following commitments: (i) conducting in the Aguaragüe area, on the dates indicated in the agreement and during the first two years, the following investments: a minimum amount in development plans, involving the drilling of development wells (at least 3) and expansion of production facilities and treatment of hydrocarbons of US\$ 36 million, (ii) YPF and each of the associated signatory companies will recognize for the province a special extraordinary contribution equal to 25% of the amount corresponding to royalties of 12% referred to in art. 59 and 62 of Law 17,319, (iii) YPF and each of the associated signatory companies will recognize for the province an additional payment to the special extraordinary contribution, only when conditions of extraordinary income are verified in the marketing of oil crude production and natural gas from the concessions, under price increase obtained by each party, from the sum of US\$ 90/bbl in the case of crude oil production and the sum equivalent to 70% of import gas prices, (iv) YPF and each of the associated signatory companies will pay to the province, and in the proportion that corresponds to each one, a one-time sum of US\$ 5 million in the concept of bonus extension, (v) YPF and the associated signatory companies undertake to make investments for a minimum amount of US\$ 30 million in additional exploration work to be implemented in the concessions.

F-103

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**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

On April 3, 2017, YPF subscribed an Amendment Agreement with the Province of Salta for purpose of amending the agreement entered into on October 23, 2012. The signatories are the same in both Agreements. The Amendment Agreement establishes that the obligations described in paragraphs (i), (ii) and (iv) have been met, and with respect to the obligations referred to in paragraph (v), it establishes that they will be replaced by the drilling of 2 development wells for a minimum amount of US\$ 26 million. In the event that the development wells yield satisfactory productive results for YPF and the associated companies, contingent on such results, the parties agreed to drill an additional development well. The parties have begun to fulfill this commitment and will finalize it within 365 calendar days of the effective date of such agreement. Furthermore, YPF and the signatory associated companies must drill an exploration well for an amount of US\$ 4 million within the term of 365 days of the effective date of the Amendment Agreement.

**Chubut**

On October 2, 2013, the Province of Chubut published the law for the approval of the Agreement to Extend the Exploitation Concessions El Tordillo, La Tapera and Puesto Quiroga, located in the Province of Chubut. YPF holds 12.196% of the concessions, while Petrobras Argentina S.A. holds 35.67% and Tecpetrol S.A. holds the remaining 52.133%. The Concessions were extended for a 30-year period counted as from the year 2017. The main terms and conditions agreed by the Province of Chubut comprise the commitment of the companies belonging to the JO to make the following payments and contributions: (i) paying US\$ 18 million as Historical Remediation Bonus; (ii) paying a Compensation Bonus amounting to a fixed 4% over the production of gas and oil since 2013 (this is calculated as an additional royalty); (iii) covering expenses and investments related to the protection and conservation of the environment; (iv) maintaining a minimum amount of equipment for drilling and work-overs in operation; (v) after the first ten years of extension, Petrominera S.E. will acquire a 10% interest in the exploitation concessions.

Furthermore, on December 26, 2013, YPF and the Province of Chubut signed an Agreement for the extension of the original term of the Concessions for the Exploitation of Restinga Alí, Sarmiento, Campamento Central Cañadón Perdido, Manantiales Behr and El Trébol. The Extension Agreement was ratified by the Legislature of the Province of Chubut on January 17, 2014, and by the Company's Board of Directors on February 24, 2014; thus complying with the precedent conditions established in the Extension Agreement. The following are the main terms and conditions agreed with the Province of Chubut: YPF holds 100% of the exploitation concessions, except for the concession Campamento Central Cañadón Perdido, where ENAP SIPETROL S.A. holds 50%. A 30-year extension was established for the terms of the exploitation concessions that expire in the years 2017 (Campamento Central Cañadón Perdido and El

Trébol Escalante), 2015 (Restinga Alí) and 2016 (Manantiales Behr). YPF undertook, among others, the following obligations: (i) to pay a Historical Compensation Bonus of US\$ 30 million; (ii) to pay to the Province of Chubut the Hydrocarbons Compensation Bonus amounting to 3% of the oil and gas production (calculated as an additional royalty); (iii) to meet a minimum level of investment; (iv) to maintain a minimum amount of equipment for drilling and work-over under hire and in operation; and (v) to assign to Petrominera S.E. 41% of YPF's interest in the exploitation concessions of El Tordillo, La Tapera and Puesto Quiroga (amounting to 5% of the total concessions) and in the related JO.

### **Rio Negro**

In December 2014, YPF, YSUR Energía Argentina S.R.L., YSUR Petrolera Argentina S.A. (companies merged with YPF) entered into a Renegotiation Agreement with the Province of Rio Negro to extending for 10 years the original term of the following exploitation concessions as from maturity of their original granting terms: (i) El Medanito, Barranca de los Loros, Señal Picada-Punta Barda, Bajo del Piche where YPF holds 100%, up to November 14, 2027; (ii) Los Caldenes where YPF holds 100%, up to September 19, 2036; (iii) Estación Fernández Oro, where YSUR Energía Argentina S.R.L. holds 100%, up to August 16, 2026; and (iv) El Santiagueño where YSUR Petrolera Argentina S.A. holds 100%, up to September 6, 2025.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

The Renegotiation Agreement was confirmed by the legislature of the Province of Rio Negro by the issuance of Provincial Law No. 5027 dated December 30, 2014. The companies signing the Renegotiation Agreement assumed the following commitments, among others: (i) payment of US\$ 46 million as Fixed Bonus, (ii) contributions to social development and institutional strengthening amounting to US\$ 9.2 million, (iii) supplementary contributions equivalent to 3% of the monthly oil production and 3% of the monthly gas production, (iv) annual contributions for training, research and development, (v) compliance with a minimal development and investment plan, and (vi) investment for the execution of environmental remediation plans.

**Tierra del Fuego**

**Concessions of Tierra del Fuego, Los Chorrillos and Lago Fuego**

The Company has negotiated with the Executive Office of the province of Tierra del Fuego the terms in order to extend their concessions in such province, having signed, on December 18, 2013, the Agreement of Extension of concessions of Tierra del Fuego (until November 14, 2027), Los Chorrillos (until April 18, 2026) and Lago Fuego (until November 6, 2027). On October 10, 2014, Act No. 998 and Act No. 997 approving the extension agreements were enacted.

**Magallanes Area**

On August 25, 2017, YPF signed an Extension Agreement with the province of Tierra del Fuego (hereinafter the Memorandum of Agreement ) to extend the original term of the concession for the exploitation of hydrocarbons on the Magallanes Area owned by YPF, in the fraction corresponding to the granting jurisdiction of the Province of Tierra del Fuego for a period of ten years until November 14, 2027 under the terms set forth in Article 35 of the Hydrocarbons Law No. 17,319.

Moreover, the Memorandum of Agreement executed between YPF and the Province of Tierra del Fuego establishes, among others, the following points: (i) the payment of the sum of US\$ 7.9 million as an extension bonus, (ii) a commitment to invest in the Area until the end of the extension period; and (iii) the payment to the Province of Tierra del Fuego as royalties of 15% of the computable production of crude oil and natural gas from the Area, in the portion located within the jurisdiction, in accordance with the provisions set forth in Article 59 of Law No. 17,319.

The Memorandum of Agreement was ratified by Provincial Decree N° 2.406/17 dated September 5, 2017 and provincial law N° 1,178 enacted on September 19, 2017.

### **National Executive Branch**

The National Executive Branch by Administrative Decision No. 1/2016, published on January 8, 2016, extended the term of the exploitation concession in the Magallanes area for the National Government's portion, as from November 14, 2017 for a period of 10 years, in accordance with Section 35 of Law No. 17,319.

The Administrative Decision No. 1/2016 establishes the following terms and conditions: (i) approval of the investment plan (ii) the payment of US\$ 12.5 million as an extension bonus, which has been appealed by YPF as to its calculation which has not been defined to date, and (iii) the payment of 15% of royalties on the production of hydrocarbons pursuant to Article 59 of Law No. 27,007.

### **29.b) Project investment agreements**

#### **Agreements for the development of Loma La Lata Norte and Loma Campana areas**

On July 16, 2013, the Company and subsidiaries of Chevron Corporation ( Chevron ) subscribed a Project Investment Agreement (the LC Agreement ) with the objective of the joint exploitation of unconventional hydrocarbons in the province of Neuquén. The LC Agreement contemplates an expenditure, subject to certain conditions, of US\$ 1,240 million by Chevron for the first phase of work to develop about 20 km<sup>2</sup> (the pilot project ) (4,942 acres) of the 395 km<sup>2</sup> (97,607 acres) corresponding to the area dedicated to the project, located in the aforementioned province and includes Loma La Lata Norte and Loma Campana areas. This first pilot project includes the drilling of more than 100 wells.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

During September 2013, and upon the fulfillment of certain precedent conditions (which included the granting of an extension of the Loma Campana concession maturity until 2048 and the unitization of that area with the sub-area Loma La Lata Norte), Chevron made the initial payment of US\$ 300 million.

On December 10, 2013, the Company and some of its subsidiaries and subsidiaries of Chevron successfully completed the pending documents for the settlement of the Investment Project Agreement, which enables the disbursement by Chevron of US\$ 940 million, in addition to the US\$ 300 million that such company has already disbursed. For such purposes, the Company and Chevron made the necessary contracts for the assignment in favor of Compañía de Hidrocarburo No Convencional S.R.L. ( CHNC ) of 50% of the exploitation concession Loma Campana, and supplementary agreements including the contract for the organization of the JO and the Joint Operating Agreement for the operation of Loma Campana, where YPF participates as area operator.

The Company indirectly holds 100% of the capital stock of CHNC, but under the existing contractual arrangements, it does not make financial or operative decisions relevant to CHNC and does not fund its activities either. Therefore, the Company is not exposed to any risk or rewards due to its interest in CHNC. Thus, as required by IFRS, the Company has valued its interest in CHNC at cost, which is not significant, and has not recorded any profit or loss for such interest for the years ended December 31, 2018, 2017 and 2016.

Considering the rights that Chevron could exercise in the future over CHNC to access to the 50% of the concession and supplementary rights, and as a guarantee for such rights and other obligations under the LC Agreement, a pledge over the shares of YPF 's affiliate, which is an indirect holder of YPF 's interest in CHNC, has been made in favor of Chevron.

In this context, and considering that YPF is the Loma Campana area operator, the parties have executed a Project Obligations, Indemnities and Guarantee Agreement, by virtue of which the Company makes certain representations and guarantees in relation to the LC Agreement. This guarantee on the operation and management of the Project does not include the project 's performance or return on investment, both at the exclusive risk of Chevron.

Finally, other supplementary agreements and documents related to the LC Agreement have been signed, including: (a) the agreement for the allocation of certain benefits deriving from Decree No. 929/2013 from YPF to CHNC; (b) terms and conditions for YPF 's acquisition of natural gas and crude oil pertaining to CHNC for 50% of the interest in the Loma Campana area; and (c) certain agreements for the technical assistance of Chevron to YPF.

During April 2014, YPF and certain of its subsidiaries and subsidiaries of Chevron, successfully completed the second phase of the LC Agreement and Chevron has confirmed its decision to continue with the investment project in unconventional hydrocarbons in the Loma Campana area, thereby commencing the third phase of such project. The duration of this third phase will encompass the life of the project, until the expiration of the Loma Campana concession.

During fiscal years 2018, 2017 and 2016, YPF and CHNC carried out transactions, among others, the purchases of gas and crude oil by YPF for 14,295, 5,672 and 5,912, respectively. These transactions will be consummated in accordance with the general and regulatory conditions of the market. The net balance payable to CHNC as of December 31, 2018, 2017 and 2016 amounts to 2,064, 654 and 544, respectively.

**Agreements for the development of the Chihuido de la Sierra Negra Sudeste Nambuena area**

During April 2014, YPF and Chevron signed a new project investment agreement with the objective of the joint exploration of unconventional hydrocarbons in the Province of Neuquén, within the area Chihuido de la Sierra Negra Sudeste Nambuena. The investment will be undertaken exclusively by, and at the sole risk of, Chevron. The investment will be disbursed in two stages.

To this end, the Company and Chevron entered into the necessary agreements to implement the assignment to Compañía de Desarrollo No Convencional S.R.L ( CDNC ) of (a) a 50% interest in the Nambuena Exploration Project Area and (b) a 7% legal interest in the Exploitation Concession of Chihuido de la Sierra Negra in Neuquén and Mendoza. However, contractual rights of Chevron are limited to Nambuena Area, as YPF will hold 100% ownership of the conventional production and reserves outside the Project Area and Desfiladero Bayo field. On May 29, 2015, the first phase of the agreement was settled with the fulfillment of the relevant assignments.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

In October 2017, Chevron decided to go ahead with the second phase of the project that consists of the drilling and completion of 43 horizontal wells in the period 2018 – 2019. The Company indirectly holds a 100% interest in the capital stock of CDNC; however, as pursuant to effective contractual agreements, the Company neither exercises CDNC’s relevant financial and operating decision-making rights nor funds its activities, the Company is not exposed to risks and benefits for its interest in CDNC. Therefore, according to IFRS, the Company has valued its interest in CDNC at cost, which is not significant, and has not recorded any income (loss) for the said interest for the fiscal years ended December 31, 2018, 2017 and 2016.

**Agreements for the development of El Orejano area**

On September 23, 2013, the Company, Dow Europe Holding B.V. and PBB Polisor S.A., (hereinafter, collectively, Dow ) signed an agreement (the Dow Agreement ), which contemplates an expenditure by both parties of up to US\$ 188 million which will be directed towards the joint exploitation of an unconventional gas pilot project in the Province of Neuquén, in El Orejano area. Dow contributed US\$ 120 million out of the US\$ 188 million provided by means of a financing agreement convertible into a participation in the project, which includes a first phase of work during which 16 wells would be drilled.

On October 22, 2015, both parties agreed to an addendum to the Dow Agreement which provides, among other things, for: (i) an increase in the amount to be disbursed by Dow, by US\$ 60 million, totaling US\$ 180 million, through a convertible financing in an interest in the project, for the same purposes and effects than those of the previous disbursements, and (ii) the extension of the time period during which Dow may exercise the conversion option, up to December 18, 2015. On October 30, 2015, the Company received the additional amounts committed.

On December 15, 2015, Dow exercised the option provided for in the Dow Agreement, whereby YPF has assigned 50% of its interest in the exploitation concession of El Orejano area, which amounts to a total area of 45 km<sup>2</sup>, in the Province of Neuquén.

In addition, the parties have formed a JO for the exploration, evaluation, exploitation and development of hydrocarbons in El Orejano area, which became effective on January 1, 2016 and in which Dow and YPF each have a 50% interest.

**Agreements for the development of Rincón del Mangrullo area**

On November 6, 2013, the Company and Petrolera Pampa S.A. (hereinafter "Petrolera Pampa") signed an investment agreement under which Petrolera Pampa undertakes to invest US\$ 151.5 million in exchange for 50% of the interest in the production of hydrocarbons in the area of Rincón del Mangrullo in the Province of Neuquén, pertaining to the formation Formación Mulichinco (hereinafter the "Area"), where YPF will be the area operator.

During this first stage, Petrolera Pampa has committed to invest US\$ 81.5 million for the drilling of 17 wells and the acquisition and analysis of about 40 km<sup>2</sup> of 3D seismic data.

The second phase investment includes an investment of US\$ 70 million to drill 15 wells.

As of December 31, 2015, the two stages were completed.

On May 26, 2015, a supplementary agreement (the "Amendment") to the investment agreement dated November 6, 2013 was signed. The Amendment established an interest of 50% of each of the parties in the entire production, costs and investments for the development of the Area with retroactive effect from January 1, 2015, excluding from the agreement only the formations of Vaca Muerta and Quintuco. It should be noted that on July 14, 2015, the necessary requirements for the effectiveness of the said Amendment were met.

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**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

Such investments include surface facilities in the Area of US\$ 150 million, which include the first expansion stage of the treatment facilities, bringing the current capacity of 2 to 4 million cubic meters per day to allow the conditioning and evacuation of future production from the block. The Amendment also includes the expansion of the investment commitment of Petrolera Pampa in a third investment phase of US\$ 22.5 million, for the drilling of additional wells targeting the Mulichinco Formation. This third phase began on July 1, 2016, and the disbursement of US\$ 15 million was completed by December 31, 2016. The remaining a balance of US\$ 7.5 million was completed during the fiscal year ended December 31, 2017.

As of the date of issuance of these consolidated financial statements, YPF and Petrolera Pampa has already defined the coordinates of the second exploratory well of stage 1 to be drilled in 2019. According to the results, Pampa may choose to continue with a second investment stage with the same goal.

**Agreements for the development of La Amarga Chica area**

On August 28, 2014, the Company subscribed a preliminary agreement with Petronas (E&P) Overseas Ventures Sdn. Bhd, (hereinafter, Petronas ), whereby YPF and Petronas agreed on the main terms and conditions to jointly develop a shale oil pilot project in three annual phases involving a jointly investment of up to US\$ 550 million in the La Amarga Chica area, province of Neuquén. Petronas will invest US\$ 475 million and YPF will invest US\$ 75 million. YPF will be the operator of the area and will assign a 50% interest in the concession to Petronas E&P Argentina S.A. (hereinafter PEPASA ), a Petronas affiliate. Dated December 10, 2014 the Company and PEPASA, entered into the Investment Project Agreement based on the terms established in the preliminary agreement executed with Petronas.

Likewise, the parties signed the following supplementary agreements to the Investment Project Agreement: (a) Assignment Agreement for the assignment of 50% of the concession of the La Amarga Chica area; (b) JO formation contract; (c) JO Agreement; (d) Assignment Guarantee Agreement; (e) First Option Agreement for trading crude oil; and (f) Assignment of Rights on Hydrocarbon Export Agreement.

Additionally, Petronas granted a payment guarantee for certain financial obligations assumed by PEPASA under the Investment Agreement.

Once contributions of each annual phase of the Pilot Plan have been made, PEPASA will be entitled to exercise a right of exit from the Investment Project Agreement upon surrender of its participation in the concession and the settlement

of liabilities as of the date of opt-out (without access to the 50% of the net production value of drilled wells until exercise of the opt-out options).

Upon full compliance with the parties' commitments during the Pilot Plan, each party will contribute 50% to the work schedule and cost budget based on the JO Agreement. The Investment Project Agreement provides that during the three phases of the Pilot Plan, a 3D seismic acquisition and processing program will be completed, covering the whole concession area, 35 wells will be drilled with the Vaca Muerta formation as the objective (including vertical and horizontal wells), and a series of surface installations will be built with the purpose of evacuating the area production.

As of December 31, 2018, the third and last stage of the Pilot was completed and the Parties decided on the start of the full development of the area.

**Granting of exploitation concession for Lindero Atravesado block Neuquén**

On July 10, 2015, the Province of Neuquén agreed to award to both partners, Pan American Energy LLC (Sucursal Argentina) and YPF, pro rata in accordance with their respective interests (62.5% and 37.5%, respectively) in the Lindero Atravesado joint venture, the right to an Unconventional Hydrocarbons Exploitation Concession for a 35-year term, pursuant to the provisions of sections 27 bis, 35(b) and related sections of Law No. 17,319, as amended by Law No. 27,007. As a condition to the award of the above mentioned concession rights, concession holders agreed to carry out an Unconventional Tight Gas Pilot program within 4 years, beginning on January 1, 2015, with an investment of US\$ 590 million. On July 16, 2015, an agreement in this respect was approved by Decree No. 1540/2015 of the Province of Neuquén.

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**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

**Extension of the JO Agreement for the Magallanes Area**

On November 17, 2014, Enap Sipepetrol Argentina ( ENAP ) made to YPF, and YPF accepted, an offer whereby ENAP 's rights and obligations under the Magallanes area JO Agreement were extended until the concession termination, with ENAP keeping 50% interest and continuing as Operator. The area concession includes three jurisdictions: Santa Cruz, Estado Nacional and Tierra del Fuego. In consideration for such extension, ENAP agreed to pay to YPF, or invest in the Joint Venture on behalf and on account of YPF, US\$ 100 million. The Agreement further provides for the obligation to agree on a so-called Incremental Project by September 15, 2015. An operating committee approved the Incremental Project on September 10, 2015, and its approval was ratified by YPF on October 20, 2015. Notwithstanding the foregoing, ENAP is entitled to withdraw at any time from the Incremental Project, without right to compensation or reimbursement therefor, including the Consideration and any royalties as may have been paid until termination.

**Agreement between YPF and the merged company YSUR Energía Argentina S.R.L., the Province of Neuquén and Gas y Petróleo del Neuquén S.A. ( GyP )**

On October 17, 2016, YPF and YSUR Energía Argentina SRL, (the company merged with YPF), the Province of Neuquén and GyP, entered into an agreement whereby, under Laws No. 17,319, 24,145, 26,197, 26,741 and 27,007 and other applicable legislation, they have agreed as follows, with the subsequent approval of the Agreement by Decree No. 1431/2016 of the Executive Branch of the Province of Neuquén and the ratification by Provincial Law No. 3030/2016:

- i. With regard to Pampa de las Yeguas I and La Ribera I and II areas, the reconversion of the contracts with GyP into non-conventional operating concessions without GyP participation, for an associated 35-year term, under the terms of Law No. 27,007. The total investment commitment of YPF and its partners associated with the granting of the aforementioned concessions amounts to US\$ 220 million, US\$ 170 million of which corresponds to YPF 's interests.
- ii. With regard to the La Amarga Chica , Bajada de Añelo and Bandurria Sur areas, the terms for the execution of the pilot plans were extended up to a maximum term of 5 years under Law No. 27,007.

- iii. With regard to the Aguada de Castro , Bajo del Toro , Cerro Arena , Cerro Las Minas , Chasquivil , Las Tacanas , Loma del Molle , Pampa de las Yeguas II and Salinas del Huitrín areas, the conversion of the contracts with GyP into exploration permits for non-conventional purposes without participation of GyP, for the associated term of 4 years, under the terms of Law No. 27,007, partially restoring the surface in some of the areas mentioned above. The total commitment of activity associated with the granting of the aforementioned permits will involve an estimated investment by YPF and its partners of US\$ 232 million, US\$ 155 million of which correspond to YPF s interest.
  
  - iv. Finally, the total interest of GyP in the Cerro Avispa , Cerro Partido , Loma del Mojón , Los Candeleros , Santo Domingo I , Santo Domingo II , Cortadera , Huacalera , Buta Ranquil I , Buta Ranquil II , RioBarranca Este , Corralera and Mata Mora areas has been restored to it.
  
  - v. That, in consideration of the granting of permits, concessions and extension of the deadlines for the execution of the pilot plans, YPF will pay the Province the sum of US\$ 30 million, which amount will be partially repaid to YPF by the partners.
- On November 25, 2016, Decrees No. 1732/2016 and 1733/2016 were enacted, granting the exploration permits, operating concessions and extension of the periods contemplated in the Agreement.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

**Agreement for the development the Bajada de Añelo Area**

On February 23, 2017, YPF and O&G Developments Ltd. S.A. (hereinafter O&G ), an affiliate of Shell Compañía Argentina de Petróleo S.A., executed a preliminary agreement through which YPF and O&G agreed on the principal terms and conditions for the joint development of a shale oil and shale gas pilot in two phases, for a joint investment amount of US\$ 305.8 million plus VAT, in the Bajada de Añelo area in the province of Neuquén, of which O&G will contribute 97.6% and YPF will contribute 2.4%. O&G will be the operator of the area.

On May 12, 2017, and once the preceding conditions have been fulfilled, YPF and O&G have entered into the Assignment Agreement of 50% of the concession that contemplates the joint development of a work program (the Work Program ) in two phases with the joint investment mentioned above. During the first phase of the Work Program, which will have a maximum duration of 30 months, O&G will contribute a total of US\$ 222.6 million and YPF will contribute US\$ 7.4 million. The remaining US\$ 75.8 million will be contributed by O&G during the second phase of the Work Program.

On August 18, 2017, Provincial Decree 1360/17 approved the transfer of YPF 's interest in favor of O&G and the transfer in escrow to YPF. This guarantee will be valid until O&G fulfills all of its obligations under the Assignment Agreement.

Once the first phase of the Work Program has been completed, O&G will have the option to leave the aforementioned program by returning its participating interest in the concession and the payment of accrued liabilities until the exit date. After the total commitments assumed by the Parties have been met at the stage of the Work Program, each of them will contribute 50% of the budget for the development of the area as provided for in the operation agreement.

**Subdivision of Bandurria Block - Neuquén**

On July 16, 2015, the Province of Neuquén, pursuant to decrees No. 1536/2015 and 1541/2015, approved the subdivision of the Bandurria block (465.5 km<sup>2</sup>) and awarded 100% of the area known as Bandurria Norte (107 km<sup>2</sup>) to Wintershall Energía S.A., 100% of the area known as Bandurria Centro (130 km<sup>2</sup>) to Pan American Energy LLC (Sucursal Argentina) and 100% of the area known as Bandurria Sur (228.5 km<sup>2</sup>) to YPF, awarding to YPF an Unconventional Hydrocarbons Exploitation Concession in Bandurria Sur area, for a 35-year term, with a commitment to develop a pilot plan to be completed in 3 years with a related investment of US\$ 360 million.

**Agreement for the development of the Bandurria Sur Area**

On April 12, 2017, YPF entered into a preliminary agreement with Schlumberger Oilfield Eastern Ltd. (hereinafter SPM ), an affiliate of Schlumberger Argentina S.A., through which YPF and SPM agreed the main terms and conditions for joint development of a shale oil pilot in two phases, with a total investment of US\$ 390 million in the Bandurria Sur area (hereinafter the Area ), located in the Province of Neuquén, of which SPM will provide 100%. On October 11, 2017, YPF entered into the definitive agreements with SPM. YPF continues to be the operator of the Area and SPM acquired the right to a 49% participating interest, with YPF retaining the right to the remaining 51%.

On July 18, 2018, the Executive Power of the Province of Neuquén issued Decree No. 1020/18 authorizing the assignment of the share anticipated in the final agreements.

**Agreements in relation with the Llancanelo block**

On April 18, 2017, YPF entered into a preliminary agreement of non-binding terms and conditions with Patagonia Oil Corp. ( Patagonia ), an affiliate of PentaNova Energy Corp., whereby Patagonia would acquire an 11% participating interest of YPF in the Llancanelo Block, located in the Province of Mendoza, for the total price of US\$ 40 million, maintaining YPF a 50% participating interest in such Block. Also, both companies agreed on the main terms and conditions for the development of a heavy crude pilot project in the same Block with a total investment of US \$ 54 million during the next 36 months (hereinafter, the Project ), whereby YPF would be the operator and Patagonia would contribute its expertise in heavy crude oils.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

On November 22, 2017, YPF and Alianza Petrolera Argentina S.A., an affiliate of Patagonia and PentaNova Energy Corp ( Alianza ), subscribed the assignment agreement in the terms described above (the Assignment Agreement ). The investment of the Project corresponding to the participation of YPF would be paid by Alianza as part payment of the price.

On February 11, 2019, YPF and Alianza entered into an agreement under which (i) the Assignment Agreement was terminated; and (ii) Alianza accepted the assignment of its 39% interest in the Llancanelo Block to YPF. On February 14, 2019, YPF and Alianza initiated the approval process with the authorities of the Province of Mendoza, requesting authorization to execute the assignment by public deed.

**Exploration agreement in the Charagua block (Bolivia)**

On July 26, 2017, the agreement with Yacimientos Petrolíferos Fiscales Bolivianos ( YPFB ) originally signed in January of 2017 was notarized, to begin the exploration work in Charagua, Bolivia, in a block that has a potential in natural gas resources, estimated at 2.7 TCF. Moreover, the plan of exploration and exploitation activities in Bolivian territory was presented.

During the month of October 2017, the terms for the assignment in favor of YPFB Chaco S.A. were agreed upon of 40% on the Services Contract subscribed with YPFB for the exploration of the block. On December 20, 2017, YPFB approved the Work Program and Budget for the period 2017-2018 for the Charagua Block. Moreover, the assignment agreement was entered into on January 25, 2018. The formal approval of the Legislative Assembly of the Plurinational State of Bolivia is still pending for it to become effective.

Should the expected commercial discovery be made, a Mixed Economy Company will be created by YPFB, YPF E&P (indirect subsidiary of YPF) and Chaco, with a shareholding of 51%, 29.4% and 19.6%, respectively.

**Agreement for the exploitation of the Aguada Pichana and Aguada de Castro Areas**

On July 17, 2017, the agreements executed on July 13, 2017 between YPF, Pan American Energy LLC (Argentine Branch) ( PAE ), Total Austral S.A. (Argentine Branch) ( TOTAL ), Wintershall Energía S.A. ( WIAR ) and the Province of Neuquén, entered into force by means of Decree No.1178/17 of the Provincial Executive Branch, whereby it was

agreed:

- (i) the division of the Aguada Pichana area into two new areas Aguada Pichana Este ( APE ) and Aguada Pichana Oeste ( APO ); with an area of 761 km<sup>2</sup> (629 km<sup>2</sup> net drillable area) and 605 km<sup>2</sup> (443 km<sup>2</sup> net drillable area), respectively and the granting of two Concessions of Non Conventional Exploitation of Hydrocarbons; the Parties committing to carry out a pilot program of 20 wells for the approximate amount of US\$ 300 million in APE and 11 wells for the approximate amount of US\$ 150 million in APO; and
- (ii) the granting of a Concession of Unconventional Exploitation of Hydrocarbons in the Aguada de Castro area ( ACA ), with an area of 163 km<sup>2</sup>; The Parties committed themselves to carry out a 3-well pilot program for an approximate amount of US \$ 50 million.

Based on the technical-economic results of the pilot programs and the granting of the benefits of the Stimulus Program provided for by MINEM Resolution No. 46-E/2017, the total estimated amount of the investments under the Agreements, including the investments which were already disbursed and those which have been committed, would reach an approximate sum of US\$ 1,200 million.

The operation in APE will be in charge of TOTAL and the operation in APO and ACA will be in charge of PAE.

Once the Agreements mentioned above have become in full force and effect and the precedent conditions have been complied with, the modifications of the interest of YPF will be as follows:

- (i) In the APE area, the interest of YPF will be 22.50%, which implies, with respect to the current interest, the sale of a 4.77% interest.
- (ii) In the APO area, the interest of YPF will be 30%, which implies, with respect to the current interest, the purchase of a 2.73% interest.
- (iii) In the ACA area, the interest of YPF will be 30%, which implies with respect to the current participation, the sale of a 20% interest.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

In relation to ii) and iii), on November 15, 2017, the JO Aguada de Castro and Aguada Pichana Oeste was established, which will unify the APO and ACA areas, where YPF will hold a 30% stake once the precedent conditions have been fulfilled.

Notwithstanding the changes in the aforementioned participations, all existing assets, including the production of the existing wells and any future development that is not associated with the Vaca Muerta formation, will not be modified as regards the participation of the Parties.

The execution of the Agreements implies an exchange of participations in the areas for which YPF will receive US\$ 52.3 million through investment contributions. See Note 3.

**Agreement for the exploitation of the Bajo del Toro Area**

On August 25, 2017, YPF entered into a preliminary agreement) with Statoil, whereby the parties agreed upon the main terms and conditions for exploration and potential joint development in two phases of the Bajo del Toro area (hereinafter the Area ) located in the Province of Neuquén.

On January 17, 2018, YPF and Statoil have entered into the definitive agreements (hereinafter the Definitive Agreements ) for the exploration and potential joint development of the Area. Such Definitive Agreement implemented the transfer of 50% of the exploration permit on the Area in favor of Statoil. YPF will continue to be the operator of the Area and will retain, directly and indirectly, the remaining 50% stake in the permit.

The Definitive Agreements contemplate the joint development of a work program in two phases (the Work Program ). During the first phase, the Parties will drill two horizontal wells and during the second phase, they will drill six horizontal wells and the corresponding infrastructure associated with the wells. Statoil will pay YPF the price of US\$ 30 million at the time of compliance with the precedent conditions established in the Definitive Agreements and then, additionally, it will contribute 100% of the costs and investments required by the Work Program and the potential development of the Area up to the sum of US\$ 270 million.

Upon completion of the activities corresponding to the first phase of the Work Program, Statoil will have the option to withdraw from the project by returning its share in the permit and the payment of the accrued liabilities through its exit date. In the event that Statoil does not exercise such exit right, once the activities corresponding to the second

phase of the Work Program have been completed, it will have the option to leave the project again in the same conditions as described above. See Note 3.

**La Calera Area Investment Agreement**

On September 14, 2018, YPF and Pluspetrol S.A. executed an investment agreement with the Province of Neuquén related to La Calera area, whereby the Province of Neuquén agreed to grant to both partners, according to their interests in La Calera joint operations, an unconventional hydrocarbon exploitation concession for a 35-year term. As a condition to the granting of such concession, concession holders undertook to carry out an Unconventional Development Pilot program within a maximum term of 3 years, beginning on April 1, 2017 (for the purpose of compliance with the aforementioned investment commitment, investments on the pilot program made prior to the entry into force of the agreement shall be computed). The work plan consists of drilling and completion of wells, including fracking, connections and installations for the purpose of transporting the production of 2,000-meter horizontal wells and 25 fracking stages, in connection with Vaca Muerta formation, investing an amount of about US\$ 180 million.

On November 2, 2018, the Province of Neuquén issued Decree No. 1834/18, whereby the mentioned concession was awarded.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**29. CONTRACTUAL COMMITMENTS (Cont.)**

**29.c) Contractual commitments**

The Group has signed contracts by means of which it has committed to buy certain products and services, and to sell natural gas, liquefied petroleum gas and other products. Some of the mentioned contracts include penalty clauses that stipulate compensations for a breach of the obligation to receive, deliver or transport the product object of the contract. The anticipated estimated losses for contracts in progress, if any, considering the compensations mentioned above, have been charged to the net income for the year in which they were identified.

In this order, the Group has renegotiated certain natural gas export contracts, and has agreed, between others, to limit compensations only in case of interruptions and/or suspension of deliveries from any cause, except physical force majeure. Also, the Group has agreed to make investments and export gas to temporarily import certain final products. As of the date of issuance of these financial statements, the Group is fulfilling the agreed commitments mentioned above. To the extent that the Group does not comply with such agreements, we could be subject to significant claims, subject to the defenses that the Group might have.

The Group under certain trade agreements has undertaken the obligation with third parties to buy goods and services (such as liquefied petroleum gas, electricity, gas, oil and steam) that as of December 31, 2018 amounted to about 72,612. In addition, it has exploratory, investment and expense commitments until the termination of some of its concessions for 360,706 as of December 31, 2018, including commitments for the extension of concessions mentioned in previous paragraphs.

**29.d) Operating lease commitments**

As of December 31, 2018, the main lease agreements to which the Group is a lessee correspond to:

Lease agreements of equipment for installations and production equipment in reservoirs, and natural gas compression equipment, for an average term of 3 years with the option to be renewed for one 1 additional year and for which the contingent quotas are calculated from a rate per unit of use (pesos per hour / day of use).

Lease agreements of vessels and crafts for the transportation of hydrocarbons, for an average term of 5 years and for which the contingent quotas are calculated from a rate per unit of use (pesos per hour / day of use).

Lease agreement of land for the installation and operation of gas stations, for an average term of approximately 10 years and for which the contingent installments are calculated from a rate per unit of estimated fuel sales. The charges for the contracts mentioned above for the fiscal years ended December 31, 2018, 2017 and 2016 amounted to approximately 12,314, 7,667 and 7,612, respectively, corresponding to 4,988, 2,306 and 1,698 of minimum payments and 7,326, 5,361 and 5,914 of contingent installments, and have been charged to Rental of real estate and equipment and Contracts of work and other services in the integrated consolidated statement of comprehensive income.

As of December 31, 2018, the estimated future payments related to these contracts are as follows:

	Up to 1 year	From 1 to 5 years	After 6 years
Estimated future payments	12,264	15,341	2,317

#### 29.e) Granted guarantees

As of December 31, 2018, in relation to compliance with obligations of subsidiaries, YPF has issued bank guarantees for an approximate amount of US\$ 223 million and has assumed other commitments for an approximate value of US\$ 42 million.

Additionally, see Note 29.b for a description of the Chevron transaction and see Note 16 for a description of the financial loans and NO secured by cash flows.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER**

**30.a) Hydrocarbon Law**

On October 31, 2014, the Argentine Republic Official Gazette published the text of Law No. 27,007, amending the Hydrocarbon Law No. 17,319. The most relevant aspects of the law are as follows:

As regards exploration permits, it distinguishes between those with conventional and unconventional objectives, and between explorations in the continental shelf and in territorial waters, establishing the respective terms for each type.

As regards concessions, three types of concessions are provided, namely, conventional exploitation, unconventional exploitation, and exploitation in the continental shelf and territorial waters, establishing the respective terms for each type.

The terms for hydrocarbon transportation concessions were adjusted in order to comply with the exploitation concessions terms.

As regards royalties, a maximum of 12% is established, which may reach 18% in the case of granted extensions, where the law also establishes the payment of an extension bond for a maximum amount equal to the amount resulting from multiplying the remaining proven reserves at the end of effective term of the concession by 2% of the average basin price applicable to the respective hydrocarbons over the 2 years preceding the time on which the extension was granted.

The extension of the Investment Promotion Regime for the Exploitation of Hydrocarbons (Decree No. 929/2013) is established for projects representing a direct investment in foreign currency of at least US\$ 250 million, increasing the benefits for other type of projects.

Reversion and transfer of hydrocarbon exploitation permits and concessions in national offshore areas is established when no association contracts subscribed with ENARSA to the National Secretariat of Energy

exist.

**30.b) Hydrocarbon Sovereignty Regime Decree No. 1,277/2012**

On July 25, 2012, the executive decree of Law No. 26,741, Decree No. 1,277/2012, was published, creating the Regulation of the Hydrocarbons Sovereignty Regime in the Argentine Republic . Among other matters, the mentioned decree establishes: the creation of the National Plan of Investment in Hydrocarbons; the creation of the Commission for Planning and Coordination of the Strategy for the National Plan of Investment in Hydrocarbons (the Commission ), which will elaborate on an annual basis, within the framework of the National Hydrocarbon Policy, the National Plan of Investment in Hydrocarbons; the National Registry of Investments in Hydrocarbons in which the companies undertaking activities of exploration, exploitation, refining, transport and commercialization of hydrocarbons and fuels will have to register; and the obligation for the registered companies to provide their Plan of Investments every year before September 30, including a detail of quantitative information in relation to the activities of exploration, exploitation, refining, transport and commercialization of hydrocarbons and fuels according to each company.

Additionally, the mentioned companies will have to provide their plans in relation to the maintenance and increase of hydrocarbons reserves, including: a) an investment in exploration plan; b) an investment plan in primary hydrocarbons reserves recovery techniques; and c) an investment plan in secondary hydrocarbons reserves recovery techniques, which will be analyzed by the Commission; the Commission will adopt the promotion and coordination measures that may consider necessary for the development of new refineries in the National Territory, that may allow the growth in the local processing capacity in accordance with the aims and requirements of the National Plan of Investment in Hydrocarbons; in relation to prices, and accordingly to the Decree, for the purpose of granting reasonable commercial prices, the Commission will determine the criteria that will govern the operations in the domestic market. In addition, the Commission will publish reference prices of each of the components of the costs and the reference prices for the sale of hydrocarbons and fuels, which will allow to cover the production costs attributable to the activity and to reach a reasonable margin of profit.

Not complying with the dispositions included in the Decree and supplementary rules may result in the following penalties: fine, admonition, suspension or deregistration from the registry included in section 50 of Law No. 17,319 or the nullity or expiration of the concessions or permits. Moreover, the mentioned decree abrogates the dispositions of the Decrees No. 1055/1989, 1212/1989 and 1589/1989 which set, among other matters, the right to the free disposition of hydrocarbon production.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

On December 29, 2015, the Executive Branch issued Decree No. 272/2015, resolving for the dissolution of the Commission and its Regulations, and also providing that the powers vested on the Commission were to be exercised by the MINEM.

**30.c) Investment Promotion Regime for the Exploitation of Hydrocarbons - Decree No. 929/2013**

Decree No. 929/2013 provides for the creation of an Investment Promotion Regime for the Exploitation of Hydrocarbons (the Promotional Regime ), both conventional and unconventional, which will apply throughout the territory of the Republic of Argentina. Inclusion in the Promotional Regime may be applied for by subjects registered with the Hydrocarbon Investments National Register and holding hydrocarbon exploration permits and/or exploitation concessions and/or any third party associated and together with, such holders, provided they file with the Strategic Planning and Coordination Commission of the Hydrocarbon Investments Nation Plan created by Decree No. 1,277/2012 a Hydrocarbon Exploitation Investment Project entailing a direct investment in foreign currency of at least US\$ 1,000 million, computed as of the filing of the Hydrocarbon Exploitation Investment Project to be invested during the first five years of the Project (this amount was amended by the subsequent Law No. 27,007 to US\$ 250 million). Among the benefits to subjects comprised by the Promotional Regime, the following are highlighted: i) they will be entitled, subject to the terms of Law No. 17,319 and as from the fifth successive year of actual execution of their respective Hydrocarbon Exploitation Investment Projects , to freely sell to foreign markets 20% of their production of liquid and gaseous hydrocarbons produced under the said Projects, with a 0% rate for export duties, should these be otherwise applicable; ii) they will be entitled to free availability of 100% of any foreign currency obtained from export of the hydrocarbons mentioned in the preceding item, provided that the approved Hydrocarbon Exploitation Investment Project implies the entry of foreign currency to the Argentine market of at least US\$ 1,000 million and as mentioned hereinabove; iii) it is provided that, during periods where national production is not enough to meet domestic supply needs under the terms of section 6 of Law No. 17,319, subjects included In the Promotional Regime will be entitled, as from the fifth year from approval and execution of their respective Hydrocarbon Exploitation Investment Projects , to obtain, in compensation for the percentage of liquid and gaseous hydrocarbons produced under such Projects available for export as mentioned herein above, an export price of not less than the reference export price, for whose determination the incidence of export duties otherwise applicable will not be computed.

In addition, the Decree creates the figure of Unconventional Hydrocarbon Exploitation , consisting of the extraction of liquid and/or gaseous hydrocarbons through unconventional stimulation techniques applied in fields located in shale gas or shale oil, tight sands, tight gas and tight oil, and coal bed methane geological rock formations and/or

characterized, generally, by the presence of low permeability rocks. In connection therewith, it has been provided that subjects holding hydrocarbon exploration permits and/or exploitation concessions included in the Promotional Regime will be entitled to apply for an Unconventional Hydrocarbon Exploitation Concession . In addition, holders of Unconventional Hydrocarbon Exploitation Concessions who in turn are holders of an adjacent pre-existing exploitation concession, may apply for the merging of both areas into a sole unconventional area, provided that due evidence is given of the geological continuity of the relevant areas.

**30.d) Withholding rates of hydrocarbon exports**

On September 4, 2018, Decree No. 793/2018 was published in the Official Gazette establishing, until December 31, 2020, an export duty of 12% on all goods under the tariff items of the Mercosur Common Nomenclature ( NCM ). This export duty will be capped at 4 Pesos per U.S. dollar of the taxable amount or official FOB price, as applicable. For goods other than primary products, the cap will be 3 Pesos per U.S. dollar of the taxable amount or official FOB price, as applicable.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

**30.e) Liquid hydrocarbons regulatory requirements**

Resolution No. 1,679/2004 of the Secretariat of Energy reinstated the registry of diesel and crude oil export transactions created by Executive Decree No. 645/2002, and mandated that producers, sellers, refining companies and any other market agent that wishes to export diesel or crude oil to register such transaction and to demonstrate that domestic demand has been satisfied and that they have offered the product to be exported to the domestic market. In addition, Resolution No. 1,338/2006 of the Secretariat of Energy added other petroleum products to the registration regime created by Executive Decree No. 645/2002, including gasoline, fuel oil and its derivatives, diesel, aviation fuel, asphalts, certain petrochemicals, certain lubricants, coke and petrochemical derivatives. Resolution No. 715/2007 of the Secretariat of Energy empowered the National Refining and Marketing Director to determine the amounts of diesel to be imported by each company, in specific periods of the year, to compensate for exports of products included under the regime of Resolution No. 1,679/2004; the fulfillment of this obligation to import diesel is necessary to obtain authorization to export the products included under Decree No. 645/2002.

In addition, certain regulations establish that exports are subordinate to supplying the domestic market. In this way, Resolution No. 25/2006 of the Secretariat of Domestic Commerce, issued on October 11, 2006, imposes on each Argentine refining and/or retail company the obligation to supply all reasonable diesel fuel demand, by supplying certain minimum volumes (which at minimum should be volumes supplied the year before plus the positive correlation between diesel demand and GDP accumulated from the month reference). The mentioned commercialization should be done without altering or affecting the normal operation of the diesel market.

Additionally, Rule No.168/2004 requires companies intending to export LPG to first obtain an authorization from the Secretariat of Energy, by demonstrating that local demand was satisfied or that an offer to sell LPG to local demand has been made and rejected.

In January 2008, the Secretariat of Domestic Commerce issued Resolution No.14/2008, whereby the refining companies were instructed to optimize their production in order to obtain maximum volumes according to their capacity.

Decree No. 1,189/2012 of the National Executive Branch, dated July 17, 2012, established that the jurisdictions and entities of the National public Sector included in section 8, subsection a) of Law No. 24,156 (National Administration,

formed by the central administration and the decentralized agencies including the social insurance institutions) must contract with YPF the provision of fuels and lubricants for the fleet of official cars, boats and aircrafts, except in those cases which have the prior authorization of the Chief of the Cabinet of Ministers.

#### **Agreements of local crude oil and fuel prices**

In January 2017, oil producers and refiners reached an agreement for the transition to international prices of the Argentine hydrocarbon industry, which established proposed prices for the commercialization of crude oil on the domestic market in order to achieve parity with international markets during the course of 2017. Notwithstanding the foregoing, the agreement provided for the power of either party to abandon the agreement during its term, which was also subject to compliance with certain variables such as the exchange rate or price of Brent crude oil within certain established parameters. During the last quarter of 2017, the price agreement was suspended because it considered this suspension in case the average international price of 10 days exceeds the local price, but it also states that it may be restored if the average price of Brent crude is positioned below the local price for more than 10 days.

Since then, the market players – producers and refiners – began to freely agree on domestic crude oil prices, generally valid on a calendar-month basis and linked to the Brent international benchmark, while maintaining limits on the exchange rate. Peso/US\$ and Brent's own value, depending on the capacity to transfer its price (expressed in US\$/Bbl) to the prices of the products obtained from it – basically fuels (expressed in Peso/unit) – for their market sale.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

However, and in light of the current domestic macroeconomic situation, e.g. the substantial increase in crude oil price and the short-term exchange rate, among other factors, on May 8, 2018, the MINEM and the refining companies (among them, YPF) entered into a price stabilization agreement with a compensatory account, whereby the refining companies undertook not to modify fuel prices (net of taxes) in force as of such date during the months of May and June, in order to benefit the general economic interest which, in turn, would have potential effects on the Company.

Moreover, the agreement included the creation of a compensatory account which incorporated the distortion in prices in terms of international reference prices accrued as of the date of the agreement, together with the adjustments resulting from additional cost variations (crude oil, exchange rate and biofuel price) which would not be transferred to prices during the months of May and June. The agreement set forth that such compensatory account would be transferred to the market through price increases during the second semester or, otherwise, the MINEM undertook the commitment to find mechanisms so that the refining companies may recover such difference.

On June 1, 2018, the MINEM and the refining companies (among them YPF) entered into a supplementary agreement that considered to establish a Brent reference price for crude oil purchases among refining and producing companies for the months of May (66 US\$/bbl), June (67 US\$/bbl) and July (68 US\$/bbl), 2018, and an increase in final prices of gasolines and gasoil of up to 5% and 4.5%, respectively, as from June 2, 2018, which included the variation in the liquid fuel tax, the carbon dioxide tax and the prices of biofuel prevailing as from that date. Additionally, an increase in an amount of up to 3% in the consumer prices of fuels, net of any variation in taxes, was expected to take place during the month of July.

On June 29, 2018, in face of the volatility and significant change in the variables that were the basis for the agreements above mentioned, YPF informed the MINEM on the decision to implement as from July 1, 2018, the applicable commercial policies according to the changes in the variables stated above, both for determination of sales prices of its products and of those for the purchase of crude oil, in accordance with the evolution of the general business environment and the evolution of customers in particular, consistent with the regulatory framework and current provisions. Consequently, the aforementioned agreements have ceased to be in force for YPF as from June 30, 2018; however, the Company has submitted the resulting amounts in the compensatory account to the relevant authorities, which represent contingent rights.

On December 6, 2018, YPF requested the SGE to set the guidelines for the implementation of the mechanism to recover the costs not transferred to fuel prices for the period contemplated under the Agreement, having received no response to the date of issuance of these consolidated financial statements.

**30.f) Regulatory requirements for natural gas**

**Mechanisms for allocating the demand for natural gas**

SE Resolution No. 599/2007 - ENARGAS Resolution No. 1410/2010

SE Resolution No. 599/2007 (the Resolution ) stands out which was issued on June 14, 2007. This Resolution approved an agreement with natural gas producers regarding the natural gas supply to the domestic market during the period 2007 through 2011 (the Agreement 2007-2011 ) which guaranteed the normal supply of the natural gas domestic market during the period 2007 through 2011, considering the domestic market demand registered during 2006 plus the growth of residential and small commercial customer consumption (the Priority Demand ). According to the Resolution, the Producers had to supply a part of the Priority Demand according to certain percentage determined for each producer based upon its share of production of the previous years. Considering that the Resolution provided for the continuity of the regulatory mechanisms that affect the exports, YPF filed an appeal against the resolution and expressly stated that the execution of the Agreement 2007-2011 did not mean any recognition by YPF of the validity thereof.

F-117



---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

Additionally, on October 4, 2010, the Official Gazette published ENARGAS Resolution No. 1410/ 10 that approved the Supplementary Procedure for Gas Requests, Confirmations and Control which set out new rules for natural gas dispatch applicable to all participants in the natural gas industry, imposing new and more severe regulations to the producers availability of natural gas. By virtue of these procedures, distributors were authorized to request all the natural gas necessary to cover the Priority Demand even in the case of natural gas volumes that exceed those that the Secretariat of Energy would have allocated by virtue of the Agreement ratified by the Resolution No. 599/07. The Company s appeal against Resolution No. 1410/2010 was rejected. As of the date of issuance of these consolidated financial statements, this Resolution has not been repealed. ENARGAS Resolution No. 124/18 published on June 29, 2018, approved the restated text of the internal regulations of dispatch centers applicable as of June 30, 2018 and repealing ENARGAS Resolution No. 1410/10.

[MINEM Resolution No. 89/16](#) - [ENARGAS Resolution No. 3833/16](#) [ENARGAS Resolution No. 4502/17](#)  
[ENARGAS Resolution No. 59/18](#) [ENARGAS Resolution No. 124/18](#) [ENARGAS Resolution No. 302/18](#)

On June 1, 2016, the MINEM published Resolution No. 89 whereby:

- a) ENARGAS was instructed to develop a procedure that modifies and supplements the one established in ENARGAS Resolutions No. 716/1998 and 1410/2010 and establishes daily operation conditions of the Transportation and Distribution Systems.
- b) It was decided that the volumes that may be requested by the Distributors to supply the priority and fixed demand which in case of contracting the natural gas to such destination with a natural gas producer, will reduce the requirement of natural gas to said producer as set forth in Resolution 1410/2010 to the extent of the contracted volume.

According to this Resolution, ENARGAS Resolution I/3833 was issued on June 5, 2016, which approves the Supplementary Procedure for Gas Requests, Confirmations and Control .

The purpose of the Procedure is to establish the transition mechanism and application criteria for the administration of the natural gas dispatch to preserve the operation of the transportation and distribution systems giving priority to the consumption of the Priority Demand in cases of supply crisis and/or emergencies which may put at risk the normal

provision of the natural gas public service or which may affect the provision of another public service.

The new Procedure establishes that each day the Distribution Service Providers will request in the programming computer systems of the Transport Companies for the operational day  $n + 1$ , with first priority, the natural gas necessary to supply the Priority Demand, based on their consumption estimate and in accordance with the contracted transport capacity and its supply agreements.

The confirmation of natural gas in the TSEP for Priority Demand will have priority over other segments. The confirmation of gas for segments other than the Priority Demand will maintain the confirmation priority established by the Producer in the respective contracts with direct consumers (or Marketers), which will be informed to Transportation and Distribution Service Providers.

The transportation nomination of each Distribution Service Provider will give priority to the supply of their Priority Demand over any other user of that Provider.

The Providers of the Transportation and Distribution Service that verify that the transportation capacity is not sufficient to supply the Priority Demand must summon the Emergency Committee, chaired by the president of ENERGAS, who will procure the means to allocate the volumes in the emergency situation.

On June 6, 2017 ENARGAS Resolution No 4,502/17 was issued which approved the Procedure for the administration of the office in the Emergency Executive Committee ( EEC ), modifying the procedure for the delivery request and gas confirmations which were approved by ENARGAS Resolution No. 3,833/16 and provided for measures and criteria to be adopted in a supply crisis of the Priority Demand for Natural Gas declared by the Transportation Companies, Distribution Companies or the ENARGAS.

Among such measures, it was provided that the EEC or (if the EEC disagrees to it) the ENARGAS, will define the way in which the Priority Demand will be supplied considering the quantities of natural gas available in each basin for each producer and discounting the amounts contracted to supply the Priority Demand.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

On May 18, 2018 ENARGAS Resolution No. 59/18 was published, approving the Temporary Procedure for Shipment Management in the Emergency Executive Committee (EEC), effective until the end of winter 2018. The EEC will be composed of at least one representative of the Transporters, the Providers and each carrier which, due to their geographical location and their respective demand have or may have incidence to resolve the situation. It will be chaired by a representative of the relevant Transportation Company and the decisions agreed in the EEC will be mandatory for all Active Subjects of the Gas Industry.

On June 29, 2018, ENARGAS Resolution No. 124/2018 was published in the Official Gazette which (i) approves the amended and restated internal regulations for dispatch centers as from June 30, 2018; (ii) derogates ENARGAS Resolutions No. 1410/10, 3833/16 and 4502/17; (iii) sets forth its presumption that there are no observations by ENARGAS to the proposed rescheduling made by the Transportation companies if there is no communication to the contrary within 1 hour after it has been requested; and (iv) sets forth that the Temporary Procedure for Shipment Management in the Emergency Executive Committee shall be applicable during the winter of 2018.

On October 18, 2018 ENARGAS Resolution No. 302/2018 was published, which, considering that not all of the gas supply contracts for the Priority Demand between Producers and Distribution Licensees had been executed, extended the effective term of ENARGAS Resolution No. 59/18 for 180 calendar days as from October 1, 2018.

**Terms and Conditions for the Distribution of Natural Gas through Networks**

Under the energy sector normalization process, the MINEM called on natural gas producers (including YPF) and ENARSA to establish the basic conditions that will constitute the framework for the supply agreements to be executed for Natural Gas distribution as of January 1, 2018. In the meeting, MINEM informed that given the expiration of the extension period established in Law No. 27,200 regarding the public emergency that began in 2002, Law No. 24,076 regained effectiveness, which sets forth that the price of natural gas supply agreements will be the price resulting from the free interaction of supply and demand.

In this context, on November 29, 2017, natural gas producers (including YPF) and ENARSA, at the request of the MINEM, subscribed the Terms and Conditions for the Provision of Natural Gas to Gas Distributors through Networks (the Terms and Conditions ).

The Terms and Conditions establish the basic guidelines to assure the adequate supply of natural gas to the Distributors, and consequently to residential and commercial final consumers. Moreover, they establish the continuity

of the gradual and progressive path of reduction of subsidies, all within the framework of the process of normalization of the natural gas market, which occurs within the period of validity of such Terms and Conditions until December 31, 2019 considered as the transition period until the normalization indicated above.

The guidelines established in the Terms and Conditions include, among others, the recognition of the right to transfer to the gas tariff the cost of gas acquisition paid by users and consumers; establishes the available volumes that each producer and each basin must make available daily to the distributors for each month, who may express their lack of interest before a certain date set forth in the Terms and Conditions; establishes penalties for non-compliance for any of the parties regarding their obligation to deliver or take gas; establishes gas prices for each basin for the next two years, in U.S. dollars, the parties being able to set prices lower than those established under the applicable free negotiations; establishes payment guidelines for the purchases made by the Distributors to producers; ENARSA assumes the obligation to supply the demand corresponding to areas reached by the subsidies of residential gas consumption contemplated in article 75 of Law 25,565 (corresponding to the areas of lower price of residential gas charged to users and consumers), during the period of transition.

The Terms and Conditions constitute the terms and conditions to consider in the negotiations of their respective individual agreements, without this being construed as an obligation. Additionally, the Terms and Conditions establish guidelines for early termination in the event of non-compliance by the parties.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

As a consequence of the exchange rate variation, natural gas producing and distribution companies began a renegotiation process for the special agreements executed pursuant to the Terms and Conditions, with prices denominated in U.S. dollars. The renegotiation process, still underway, comprises two major issues: i) the payment of debts arising from differences between the exchange rate at which distribution companies actually paid gas purchases and the exchange rate contractually provided (period April – September 2018), and ii) the gas price to be applied to the period October – December 2018.

On October 5, 2018, Resolution No. 20/2018 was published, establishing that in relation to differences between the price of gas provided in the contracts and the price of gas recognized in the final tariffs of distribution companies, valued for the quantity of gas purchased from April 1 to September 30, 2018, the ENARGAS would instruct distribution companies to recover the credit in favor of producers on a separate line in the invoice to be issued to its users, in 24 installments from 1 January, 2019. However, SGE Resolution No. 20/2018 was later repealed by Resolution No. 41/2018 published on October 16, 2018, alleging opportunity issues for such implementation.

On November 16, 2018, by Decree No. 1053/18, published in the Official Gazette, the Argentine Government decided to assume the payment of the daily differences accumulated on a monthly basis between the price of gas purchased by Distributors and the price of natural gas included in tariff schemes effective from April 1, 2018 to March 31, 2019, exclusively generated due to exchange rate variations and corresponding to the natural gas volumes delivered in that same period. The conditions are as follows:

30 monthly consecutive installments as from October 1, 2019, which will be determined by using the BNA effective interest rate for 30-day deposits in Argentine currency ( electronic board ).

The installments will be collected by Distributors, which will immediately pay the Producers.

Distributors and Producers must adhere to the system and expressly waive any action or complaint. As of the date of issuance of these consolidated financial statements, the complementary regulations for the application of the foregoing conditions for the distributors and producers are pending issuance by the ENARGAS.

Besides, Decree No. 1053/18 established that since April 1, 2019, contracts between natural gas producers and distributors shall provide that the higher cost due to exchange rate variations during each seasonal period shall never be transferred to natural gas full-service users.

On February 12, 2019, ENARGAS Resolution No. 72/2019 published in the Official Gazette, approved the methodology for transferring the gas price to tariffs and the general procedure to calculate the accumulated daily differences, applicable from April 1, 2019, which established, among other aspects, that for the purpose of transferring the gas price agreed in U.S. dollars to tariffs, the ENARGAS will define the exchange rate to be considered for the conversion into Pesos based on the average selling exchange rate of the BNA (foreign currencies) effective between the 1st and 15th day of the month immediately preceding the beginning of each seasonal period, or the exchange rates established in the contracts should the rates contemplated therein be lower.

#### **New natural gas exports**

National Decree No. 893/2016, dated July 25, 2016, determined that the MINEM is empowered to regulate the awarding of export permits for the following purposes: (i) provide assistance in natural gas emergency cases from foreign countries; and (ii) replace the natural restrictions of local transportation through the use of external transportation infrastructure to facilitate natural gas transportation within the Argentine market and allow an increase in local production.

On January 8, 2017, the export duties on hydrocarbon exports established by Law No. 26,732 ceased to be applicable. Thereafter, there are no export duties on natural gas exports.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

On January 13, 2017, MINEM Resolution No. 8/2017 was published, which regulated Decree No. 893/2016, establishing a special procedure for granting natural gas export permits subject to re-import commitments. The resolution is applicable for two types of exports; (i) those aimed at providing assistance in emergency cases ( Exports for Assistance ); and (ii) Exports required to make up for internal transport restrictions in order to allow both the use of infrastructure from neighboring countries to facilitate natural gas transportation to Argentine domestic market and the increase of domestic production ( Exports for Transportation Restriction ). The beneficiaries of both types of permits will be liable for the damages that might be caused to the Argentine natural gas supply system in the event of non-compliance with their re-import obligations as and when agreed and the costs of the import that the National Government must make to replace the exported gas which was not re-entered, with a penalty of 50% of such costs. Such permits would be extended for a maximum period of two years and will be subject to a possible termination if the public interest makes it advisable for the domestic market offer in accordance with MINEM criteria.

On November 27, 2017, Decree 962/2017 was published which, among other aspects, modifies Art. 3 of the Regulatory Decree of the Law No. 24,076, establishing the following principles for export authorizations: 1) that the authorizations will be issued by the MINEM once the applications have been evaluated; 2) the export agreements that involve the construction of new facilities and / or new connections to the gas pipelines, or the use of any of the existing systems, or other transportation alternatives, will be approved by the MINEM with the intervention of ENARGAS; 3) the authorizations issued by the MINEM may provide for the export of surplus gas up to the amounts established therein, provided they are subject to interruption when there are internal supply problems. In such case, we would not be required to obtain the approval for each export of surplus amounts; instead, we would only be required to submit to the ENARGAS, for informative purposes only, the respective agreement which allows us to interrupt deliveries without any penalties.

The modifications introduced by Decree No. 962/2017 do not modify the regime of temporary export permits, provided for in Decree No. 893/2016.

On August 22, 2018, MINEM Resolution No. 104/2018, later modified by SGE Resolution No. 9/2018, was published in the Official Gazette, which: i) established a new Procedure to Obtain Natural Gas Export Licenses; ii) abrogated Resolution No. 299/98 issued by the former Secretariat of Energy, as amended, and established that export licenses granted under the repealed regulation would be subject to the Procedure to Obtain Natural Gas Export Licenses; iii) abrogated Resolution No. 131/01 issued by the former Secretariat of Energy and Mining, and its amendments; iv) abrogated Resolution No. 265/04 issued by the former Secretariat of Energy and Mining, and its amendments, v) abrogated Resolution No. 883/05 issued by the former Secretariat of Energy, as amended; vi) abrogated Resolution

No. 8/17 issued by the former MINEM, as amended; and vii) delegated to Sub-secretariat of Hydrocarbon Resources the tasks related to this new Procedure.

Resolution No. 104/2018 provided that in the case of export requests from a project included in MINEN Resolution No. 46-E/2017 (Unconventional Gas Production Stimulus Program), the quantities of gas would not be computed as part of and/or within the production included under the mentioned Program.

On September 4, 2018, Decree No. 793/2018 was published in the Official Gazette imposing export duties on various goods, including natural gas. This decree set forth a 12% export duty on natural gas exports, which may not exceed 4 Pesos per each U.S. dollar of the taxable amount or official FOB price, as applicable. See Note 30.d.

On December 4, 2018, Law No. 27,467 of the Budget of the National Administration for the Year 2019 was published. Sections 81 and 82 thereof respectively establish i) that the PEN may fix export duties until December 31, 2020 which rate may not exceed 30% of the taxable value or the official FOB price, with a maximum limit of 12 % for those goods that were not subject to export duties as of September 2, 2018 or that were taxed with a 0% rate as of that date, and ii) that Decree No. 793/18 continues in full force and effect.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

**Trust Fund to finance natural gas imports**

On November 27, 2008 through Executive Decree No. 2067/08, a trust fund was created to finance imports of natural gas for its injection in the national gas pipeline system when necessary to satisfy the domestic demand. The trust fund is financed through the following mechanisms: (i) diverse tariff charges paid by users of transportation services and regularly distributed, gas consumers receiving gas directly from producers, and companies processing natural gas; (ii) special credit programs that may be agreed upon with national or international organizations; and (iii) specific contributions assessed by the Secretariat of Energy on the participants in the natural gas industry. This Decree has been object of diverse judiciary claims, and judges from all over the country have issued precautionary measures for suspension of its effects, grounded on the violation of the principle of legality on tax matters. On November 8, 2009, ENARGAS published Resolution No. 1982/11 that adjusted the tariff charges established by Executive Decree No. 2067/08 to be paid by users as from December 1, 2011.

On November 24, 2011, ENARGAS passed Resolution No. 1991/2011, enlarging the number of users obliged to pay tariff charges, including residential services, natural gas processing, industrial premises and electric power plants, among others; this has affected the operations of the Company, and has had a significant impact on our joint subsidiary companies, all of which have filed appeals against the mentioned resolution. For its part, YPF has challenged these resolutions and rejected the charge invoice made by Nación Fideicomiso. On April 13, 2012, YPF obtained a precautionary measure related to the El Portón processing plant, suspending the effects of these resolutions in relation to that plant until a decision on the administrative appeals filed by YPF had been reached.

In November 2012, Law No. 26,784 was passed which granted legal hierarchy, since such date, to the decisions enacted by the Executive Branch and ENARGAS, in relation to the charge. Dated December 11, 2014, the CSJN pronounced the Alliance judgment, deciding that the charge created by decree 2067/2008 a tariff charge and not a tax, and thus not subjected to the principle of tax legality. However, the Court left open the possibility of eventual claims or defenses in cases different from the claims raised in the Alliance judgment.

In particular, the application of the above mentioned tariff charge produces an impact so significant in Mega operations that, if not favorably resolved, Mega could have in the future serious difficulties continuing its business. On October 27, 2015, the CSJN issued a resolution on the motion for protection of constitutional rights filed by Mega (for the period until the enactment of the 2013 Budget Enactment Law No. 26,784) providing that the charge under Decree 2067/08 was unconstitutional and not applicable to Mega.

On April 1, 2016 the MINEM issued Resolution No. 28/2016, which, among others, revoked resolutions passed by the former Ministry of Federal Planning, Public Investment and Services under Section 6 of Decree No. 2067/2008 and Section 7 of Resolution No. 1,451/2008 of the aforementioned Ministry related to the assessment of tariff charges, which instructs the ENARGAS to take the necessary measures to cease applying those charges in the bills issued to users.

In April 2018 and regarding Decree 2067/08 on tariff charges, the Federal Administrative Court No 11 passed judgement on the unconstitutionality action filed by Mega (for the period after the Budget Act for 2013 No 26,784), which admitted the complaint and declared the unconstitutionality, regarding Mega, of sections 53 and 54 of the law referred to above. Such first instance judgement took effect since it was not appealed by the Argentine Government.

### **30.g) Natural gas production incentive programs**

#### **Natural Gas Additional Injection Stimulus Programs**

On December 2012, YPF and other gas producing companies of Argentina agreed with the Planning and Strategic Coordination Commission of the National Plan of Hydrocarbon Investments (the Commission ) to establish an incentive scheme for the Additional Injection (all gas injected by the companies above certain threshold) of natural gas. On February 14, 2013 Resolution No. 1/2013 of the Commission was published in the Official Gazette. This resolution formally creates the Natural Gas Additional Injection Stimulus Program .

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

Under this regulation, gas producing companies were invited to file projects for increasing total natural gas injection ( the projects ) to the Commission, in order to receive a price of US\$ 7.50/MMBtu for all gas injected in excess (above the base injection level of each company). The Projects will comply with minimum requirements established in Resolution No. 1/2013, and will be subject to approval consideration by the Commission. The Projects have a maximum term of five (5) years, renewable at the request of the beneficiary, and subject to the decision of the Commission. If the beneficiary company, for a certain month, does not reach the compromised production increase of its project, approved by the Commission, it will have to compensate its failure to achieve the minimum total injection committed in such Project. Resolution No. 60/2013, regulated by Resolution No. 83/2013, called Natural Gas Additional Injection Stimulus for Companies with Reduced Injection established a similar program for the companies that failed to comply with the requirements of Resolution No. 1/2013 and those that had failed to register in time under such Resolution. The price to be paid under the program established in Resolution No. 60/2013 varies between US\$ 4.00/MMBtu and US\$ 7.50/MMBtu, according to the highest production curve reached by the beneficiary company under the program.

On September 29, 2015, Resolution No. 185/2015 was published in the Official Gazette regulating the so-called Natural Gas Injection Stimulus for Companies without Injection in favor of those producers which do not have a previous record of natural gas injection the beneficiary companies will receive a compensation resulting from the difference between US\$ 7.50/MMBtu and the price received for the sale of the natural gas in the market. Such compensation shall be received only for natural gas originating in areas whose production rights will have been acquired from companies registered with any of the two previous programs and provided that during the period in which the transferor will have calculated its base injection , according to its program, the injection of the area operated by the current beneficiary transferee will have been null.

On May 20, 2016, Decree No. 704/2016 was published, whereby the debt was converted into pesos under the Stimulus Plan for Surplus Natural Gas Injection, the Stimulus Plan for Natural Gas Injection Program for Companies with Reduced Injection and those derived from the Supply of Propane Gas for Undiluted Propane Gas Distribution Networks Agreement at the exchange rate in force at the end of each period, and Argentine National Bonds were granted in U.S. dollars at an interest rate of 8% per annum maturing in 2020 ( BONAR 2020 US\$ ) for the cancellation thereof.

The sale of these BONAR 2020 US\$ was restricted according to the letters of accession; therefore, until and including December 2017, the Group could not sell on a monthly basis more than 3% of the aggregate amount of the BONAR 2020 US\$ received. In addition, during the months in which the Group did not exercise its right to sell the BONAR

2020 US\$ up to the above-mentioned percentage, it could accumulate the unused percentage for its sale in subsequent months. In no event could the sale in a single month of the accrued balances exceed 12% of the total BONAR 2020 US\$ received.

In order to request the cancellation of outstanding payments, beneficiaries had to sign letters of accession and submit them to the Hydrocarbon Resources Secretariat of the MINEM. YPF filed the letters of accession and reserved the right to claim the exchange differences and interest.

On July 13, 2016, the Group received, under the Natural Gas Additional Injection Stimulus Program, BONAR 2020 US\$, with a face value of US\$ 630 million. In addition, on September 21, 2016, under the Supply of Propane Gas for Undiluted Propane Gas Distribution Networks Agreement, the Group received BONAR 2020 US\$, with a face value of US\$ 12 million.

These programs had a maximum duration of 5 years, and terminated on December 31, 2017, without having been renewed.

On April 3, 2018, MINEM Resolution No. 97/2018 was published in the Official Gazette approving the procedure (the Procedure ) for the cancellation of compensations pending settlement and/or payment under the Natural Gas Surplus Injection Stimulus Program, Natural Gas Surplus Injection Stimulus Program for Companies with Reduced Injection and the Stimulus Program for New Natural Gas Projects, to which the beneficiary companies may adhere.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

Each company may choose to receive compensation under the approved procedure stating its accession within 20 business days from the publication of the resolution. It is required that the company waive any rights, actions, remedies, appeals, and claims, either administrative and/or judicial, based on the Program, except for: i) the objection to the administrative acts that determine the relevant compensation according to the Procedure; and ii) the failure to comply with the payments provided for under the Procedure for a minimum amount of 3 installments, at the option of each beneficiary Company.

The debt amount will be determined as follows: 85% of the U.S. dollar amount will be calculated according to the exchange rate at the time of the injection ( Program exchange rate ) and 15% of the U.S. dollar amount but devalued (multiplied by the quotient between the Program exchange rate and the exchange rate corresponding to the payment dates of the compensation resolutions already issued or the date of publication of Resolution 97/2018, as applicable). The debt will begin to be canceled as of January 2019 in 30 monthly and consecutive installments, in Pesos, at the monthly average reference rate set forth in the Communication A 3500 of the BCRA (Wholesale) of the month preceding each installment.

On May 3, 2018, the Group adhered to the aforementioned Procedure.

As a consequence of the foregoing, the Group recorded a gain of 804 included in the item Net financial results .

On December 4, 2018, Law No. 27,467 of the Budget of the National Administration for the year 2019 was published. Section 55 thereof authorized the issue of public debt instruments for up to US\$1,600 million, for the cancellation of compensations of the Gas Plan I for the year 2017 (in accordance with the provisions set forth in Resolution No. 97, dated March 28, 2018 of the former MINEM)

SGE Resolution No. 54/19, published on February 21, 2019, partially amended Resolution No. 97/2018, adjusting it to the payment method defined in section 55 of Law No. 27,467. It established, among other things, that in order to request cancellation according to this mechanism, beneficiary companies are required to express their consent within ten days from notice receipt, and that, upon accession to the aforementioned cancellation procedure, they had to waive any rights, actions or claims in relation to the programs, the administrative compensation acts and the payment orders they have issued.

Joint Resolution No. 21/19 issued by the Secretariats of Finance and Treasury published on February 28, 2019 in the Official Gazette, established the issuance of the Natural Gas Program Bonds for an amount of up to US\$

1,600 million, maturing on June 28, 2021, to be repaid in 29 monthly consecutive installments.

Also on February 28, 2019, the SGE notified YPF the amount of the compensations included, estimated in compliance with Resolution No. 97/18 for a total amount of US\$ 758 million.

On March 1, the Company presented its accession letter to the SGE in compliance with SGE Resolution 54/19.

### **Stimulus Program for New Natural Gas Projects**

On May 18, 2016, MINEM Resolution No. 74/2016 created the Natural Gas New Projects Stimulus Program in order to foster natural gas production for those companies submitting new natural gas projects, provided they are not beneficiaries of the Natural Gas Additional Injection Stimulus Program or the Natural Gas Injection Stimulus for Companies with Reduced Injection, created by Resolutions No. 1/2013 and 60/2013, respectively, of the former Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan.

The submission of new projects, which must be approved by the Hydrocarbon Resources Secretariat, may obtain a stimulus price of US\$ 7.50/MMBtu.

Moreover, the Natural Gas Injection Stimulus for Companies without Injection, created by Resolution No. 185/2015 of the former Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan has been abolished, but any projects submitted under such program which are pending approval must be evaluated under the Natural Gas New Projects Program.

The Natural Gas New Projects Program will be effective as from the publication of the relevant resolution in the Official Gazette (May 19, 2016) until December 31, 2018.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

Following this Resolution, no new projects may be submitted under the natural gas production incentive Program known as Gas Plus , created by Resolution No. 24/2008 of the former Energy Secretariat of the former Ministry of Federal Planning, Public Investment and Services, as amended. Notwithstanding the foregoing, any projects approved under said Program would remain in full force according to the terms of their respective approvals.

The requirements that gas must meet in order to be involved in a new natural gas project are the following: a) it must come from an exploitation concession granted as a result of a discovery reported after the effective date of Resolution No. 1/2013 of the former Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan; or b) come from an exploitation concession of areas classified as Tight Gas or Shale Gas ; or c) belong to companies without natural gas injection registers which acquire an interest in areas belonging to companies registered in the Natural Gas Additional Injection Stimulus Program or the Natural Gas Injection Stimulus for Companies with Reduced Injection , created by Resolutions No. 1/2013 and 60/2013, respectively, of the former Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan, but for which the total injection coming from the areas in question, including the acquired areas, would have been zero during the period in which the selling company would have calculated its base injection.

**Stimulus Program for Investments in Natural Gas Production Developments from non-conventional Reservoirs**

On March 6, 2017, MINEM Resolution No. 46-E/2017 was published in the Official Gazette, which created the Investment in Natural Gas Production from Non-Conventional Reservoirs Stimulus Program (hereinafter the Program ), established in order to stimulate investments in natural gas from non-conventional reservoirs in the Neuquina basin, and in effect as of its publication until December 31, 2021.

The Resolution establishes compensation for the volume of non-conventional gas production from concessions located in the Neuquina Basin included in the Program, for which such concessions must first have a specific investment plan approved by the province s application authority and the Secretariat of Hydrocarbon Resources.

The compensation will be determined by deducting from the effective sales price obtained from sales to the internal market, including conventional and non-conventional natural gas, the minimum sales prices established by the Resolution each year, multiplied by the volumes of production of non-conventional natural gas. The minimum prices established by the Resolution are US\$ 7.50/MMBtu for 2018, US\$ 7.00/MMBtu for 2019, US\$ 6.50/MMBtu for 2020

and US\$ 6.00/MMBtu for 2021.

The compensation from the Program will be distributed, for each concession included in the Program, as follows: 88% to the companies and 12% to the province corresponding to each concession included in the Program.

On November 2, 2017, MINEM Resolution 419-E/2017 was published and its Annex replaces the similar Annex of Resolution 46-E/2017. The new resolution modifies the previous one in the following aspects:

- a) It defines that the Initial Production to be calculated will be the monthly mean Non-Conventional Gas production assessed for the period between July 2016 and June 2017 . It also states that the Production Included, to the effect of the compensation, will be i) for the concessions with Initial Production lower than 500,000 m3/day, the total monthly production of Non-Conventional Gas coming from such Included Concession, to which the requesting company is entitled, and ii) for the concessions with Initial Production higher than 500,000 m3/day, the total monthly production of Non-Conventional Gas coming from such Included Concession, to which the requesting party is entitled, discounting the Initial Production.
- b) It modifies the definition of Effective Price, previously defined as the average price weighted by volume of total natural gas sales of each company in the domestic market , to the average price weighted by volume of total natural gas sales in the Argentine Republic that will be published by the Secretariat of Hydrocarbon Resources , regulating the guidelines to be followed for such calculation.
- c) A requirement to qualify for the Program is included, that is, that the investment plan submitted for each concession reaches a yearly mean production, in any consecutive period of twelve months before December 31, 2019, equal to or higher than 500,000 m3/day, and the obligation to reimburse the amounts of the compensation received (updated to reflect interest) corresponding to the concessions that do not reach the above mentioned production level, with the possibility that the Secretariat of Hydrocarbon Resources may require filing a surety bond to guarantee the eventual reimbursement of the compensations received by the participating companies, and retaining the power to suspend payments if such bond is not submitted.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

On November 17, 2017, MINEM Resolution No. 447-E/2017 was published, which extends the application of the Program to Encourage Investment in Development of Natural Gas Production from Unconventional Reservoirs (applicable to the Neuquén Basin, created by MINEM Resolution No. 46-E/2017 and amended by MINEM Resolution No. 419-E/2017) to the production of natural gas from unconventional reservoirs located in the Austral Basin.

On January 23, 2018 MINEM Resolution No 12-E/2018 was published in the Official Gazette modifying Resolution 46-E/2017, which:

- (i) makes incentives applicable to adjacent concessions which are operated in a unified manner and meet the following requirements: having a common investment plan; being operated jointly by using, substantially, the same surface facilities; in case of co-ownership, all concessions having the same share and any share assignment being carried out jointly and simultaneously by all shares.
- (ii) adjusts the payment date of the first compensation under the Program and, correlatively, makes the corresponding reviews related to the initial interim payment, setting forth that, for the requests filed until January 31, 2018, it shall be the one corresponding to January 2018, and for requests filed after January 31, 2018, it shall be the one corresponding to the month in which the request to be included in the Program has been filed.

On December 4, 2018, Law No. 27,467 of the Budget of the National Administration for the year 2019, established in its section 58 the creation of a guarantee trust for contingent liabilities of the Gas Plan IV ( Stimulus Program for Investments in Natural Gas Production Developments from Non-Conventional Reservoirs created by Resolution No. 46 dated March 2, 2017 issued by the former MINEM) in order to guarantee up to 30% of the obligations that might arise under such program as from January 1, 2019.

As of the date of these financial statements, YPF obtained the adhesion to the Program for its participation in the concessions known as Aguada Pichana Este, Aguada Pichana Oeste-Aguada de Castro, Estación Fernández Oro and La Ribera I and II.

**Natural gas sales for electricity generation**

On August 1, 2018, MINEM Resolution 46/2018 was published in the Official Gazette, which instructed the Under-Secretariat of Electric Energy to take the necessary measures for CAMMESA to implement competitive mechanisms aimed at securing the availability of gas for the production of electric energy, and established new maximum prices (20% lower than the then current prices) for natural gas at the TSEP, for each basin of origin, to be applied in order to estimate the cost of the natural gas volumes to be used in the production of electricity to be marketed on the WEM , or, generally, to be used in the provision of the electric power public distribution service from August 1, 2018.

On November 7, 2018, SGE Resolution No. 70/2018 was published in the Official Gazette, which amended Resolution No. 95/2013 issued by the former Secretariat of Energy, authorized Generators, Co-Generators and Self-Generators of the WEM to contract the supply of their own fuel for the generation of electric energy. In addition, this Resolution establishes the costs of generation with their own fuel shall be appraised in accordance with the mechanism of recognizing the Variable Production Costs recognized by CAMMESA.

### **30.h) Regulatory requirements applicable to Natural Gas distribution**

The Group participates in natural gas distribution through its subsidiary Metrogas.

The natural gas distribution system is regulated by Law No. 24,076 (the Gas Act ) that, together with Decree No. 1,738/1992, issued by the Executive Power, other regulatory decrees, the specific bidding rules (Pliego), the Transfer Agreement and the License, establishes the Regulatory Framework for Metrogas business.

The License, the Transfer Agreement and the regulations issued pursuant to the Gas Act establish requirements regarding the quality of service, capital investment, restrictions on transfer and encumbrance on assets, cross-ownership restrictions among producers, transporters and distributors, and Metrogas stock transfer.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

The Gas Act and the License created ENARGAS as the regulatory entity to administer and enforce the Gas Act and the applicable regulations. In this order, the tariffs for the gas distribution service were established by the License and are regulated by ENARGAS. ENARGAS jurisdiction extends to gas transportation, sale, storage and distribution. Its mandate under the Gas Act includes consumer protection, competition protection in gas supply and demand, and the promotion of long-term investments in the gas industry.

Gas distribution tariffs have been established in the License and are regulated by ENARGAS.

**Distribution License**

The License authorizes Metrogas to provide the public distribution service for a term of 35 years. The Gas Law provides that Metrogas may request from ENARGAS a License renewal for an addition term of ten years upon the expiration of the original 35 year-term. The ENARGAS will then evaluate Metrogas performance and make a recommendation to the Argentine Executive Branch. Metrogas is entitled to the renewal of its License unless the ENARGAS proves that it has not substantially performed all of its obligations under the Gas Law, the respective regulations and decrees and the License.

At the end of the 35 or 45-year period, as the case may be, the Gas Law requires a new competitive bidding to grant the license, for which, if it has performed its obligations, Metrogas will have the option to equal the best bid made to the Government by a third party.

Generally, upon the termination of a License due to completion of its time-period, Metrogas will be entitled to a consideration equal to the value of the designated assets or to the amount paid by the successful bidder in a new call for tenders, whichever is lower.

Metrogas has various obligations under the Gas Law, including the obligation to comply with all reasonable requests within its service area. A service request will not be deemed reasonable if it were uneconomic for a distribution company to undertake the requested service. Metrogas is obliged to operate and maintain its facilities in a safe manner, which may require certain investments to replace or upgrade its facilities pursuant to the License.

The License specifies other obligations of Metrogas, including the obligation to provide a distribution service, to maintain continuous service, to operate the system in a prudent manner, to maintain the distribution network, to make

the Mandatory Investments, to keep certain accounting records and to provide certain regular reports to the ENARGAS.

The License may be revoked by the Argentine Government, upon recommendation from the ENARGAS, in the following cases:

Serious and repeated failure by the Metrogas to meet its obligations.

Total or partial interruption in the uninterruptible service for reasons attributable to Metrogas for a term exceeding the periods set forth in the License in one calendar year.

Sale, disposition, transfer and encumbrance of Metrogas Core Assets, without the prior authorization of the ENARGAS, except where the said encumbrance is used to finance extensions and improvements to the gas pipeline system.

Bankruptcy, dissolution or liquidation of Metrogas. The bankruptcy proceedings did not affect the normal course of Metrogas operations, and therefore, could not be the reason for the revocation of the Metrogas License.

Ceasing the provision of the services provided for in the License, or the attempt to unilaterally assign or transfer, in whole or in part (without the previous authorization of the ENARGAS), or the waiver of, other than as permitted.

Transfer of the Technical Assistance Contract or the delegation of the duties specified in the Contract, without the previous authorization of the ENARGAS, during the first ten years from License granting.

In relation to restrictions, the License provides that Metrogas will not assume its parent company's debts or grant credits or encumber assets to secure debt of, or award any other benefit to, its parent company's creditors.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

**Tariff renegotiation**

The Emergency Law published in the Official Gazette on January 7, 2002 affected the legal framework for license contracts of public utility companies.

The main provisions of the Emergency Law that affected the License granted to Metrogas by the Argentine Government are: The pesification of the tariffs established in U.S. dollars convertible at the exchange rate specified in the Convertibility Law (Law No. 23,928), the prohibition of tariff adjustment based on any foreign index, thereby preventing the application of the international index fixed in the Regulatory Framework (Producer Price Index -PPI- of the United States) and the renegotiation of the License granted to Metrogas in 1992.

In addition, the Emergency Law ordered the renegotiation of public services contracts awarded by the Argentine Executive Branch, and that public utility companies were bound to continue performing all their duties.

The Emergency Law, which originally expired in December 2003, was successively extended to December 31, 2017. The terms for license renegotiation and public services concessions were also progressively extended.

Within the framework of the renegotiation process, Metrogas executed a number of agreements with the various entities on behalf of the Argentine Government.

The agreements entered into and in force as of December 31, 2018 are described below:

i. Transitional Agreement

In this regard, on March 30, 2017, Metrogas executed a Transitional Agreement with the MINEM and the Ministry of Finance providing for the temporary adjustment of prices and tariffs for the Natural Gas Distribution Public Service, the specific impact of the amounts provided therein until the subscription of the Memorandum of Agreement for Comprehensive Contractual Renegotiation and the entry into force of the definitive tariff schemes resulting from the Comprehensive Tariff Review (the CTR ). The 2017 Transitional Agreement is supplementary to the 2008 Transitional Agreement and amends the 2017 Transitional Agreement and the 2016 Transitional Agreement previously executed.

The 2017 Transitional Agreement, which is not subject to ratification by the PEN establishes a transitional tariff regime as of April 1, 2017, consisting of the readjustment of tariffs based on the guidelines necessary to maintain the

continuity of the service for the purpose of allowing Metrogas to meet its operating and maintenance, administration and marketing expenses, those expenses corresponding to the execution of the mandatory investment plan determined by the ENARGAS and to comply with the respective payment obligations, maintaining its chain of payments for the purpose of ensuring the continuity of the regular provision of the public service under their charge until the entry into force of the tariff regime resulting from the Memorandum of Agreement for a Contractual Renegotiation.

Likewise, the 2017 Transitional Agreement provides for the transfer of the impact of changes in tax regulations pending resolution, except for the income tax, and incorporates a Mandatory Investment Plan to which Metrogas is committed.

Lastly, Metrogas will not be authorized to distribute dividends without previously proving to ENARGAS the full compliance with the Mandatory Investment Plan.

On March 30, 2017, the MINEM instructed the ENARGAS, through Resolution No. 74 E/2017, to put into effect the tariff schemes resulting from the CTR process.

In this regard, it set forth that for the gradual and progressive implementation of this measure, the ENARGAS should apply on a progressive basis, the rate increases resulting from the CTR as follows: 30% of the increase, from April 1, 2017, 40% of the increase, as of December 1, 2017, and the remaining 30%, as of April 1, 2018.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

Moreover, and for cases in which the corresponding Comprehensive Contractual Renegotiation Memorandum of Agreement had not entered into force, it instructed the ENARGAS to apply to the Licensees (including Metrogas) a transitory tariff adjustment because of the CTR.

On March 31, 2017, ENARGAS Resolution No. 4,356/2017 was published in the Official Gazette through which the tariff schemes resulting from the Metrogas CTR, effective as of April 1, 2017 and the temporary tariff schemes applicable to Metrogas users were approved. Through differentiated tariffs, ENARGAS Resolution No. 4,356 / 2017 determined tariff schemes for residential users who recorded savings in their consumption equal to or greater than 15% with respect to the same period of 2015, as well as those that would apply to the beneficiaries of the Social Tariff (Resolutions No. 28/2016 of the MINEM and ENARGAS No. I-2,905/2014 and No. 3,784/2016) and the Entidades de Bien Público (Public Welfare Entities) (Law No. 27,218).

The tariff schemes corresponding to beneficiaries of the Social Tariff were rectified by ENARGAS Resolution No. 4,369 2017. The billing resulting from the application of the new transitory tariff schemes must respect the limits established in Article 10 of MINEM Resolution No. 212/2016, and therefore the criteria of ENARGAS Resolution No. I-4,044/2016 are maintained.

Likewise, ENARGAS Resolution No. 4,356/2017 overruled ENARGAS Resolutions No. I-2,407/12 and No. I-3,249/15 that enabled the collection of a fixed amount per invoice under the operation of the Fund for Gas Distribution Consolidation and Expansion Works ( FOCEGAS ).

In addition, ENARGAS Resolution No. 4,356/2017 approved: (i) the technical economic studies of the Company's CTR, (ii) the non-automatic Semi-Annual Adjustment Methodology to become effective jointly with the License Readjustment Memorandum of Agreement and (iii) the Metrogas Investment Plan for the next five-year term.

On October 24, 2017, and through ENARGAS Resolution No. 74/2017, a public hearing was called for November 15, 2017 in order to consider the transitory tariff adjustment effective as of December 1, 2017, corresponding to Metrogas.

On December 1, 2017, the Official Gazette published: (i) ENARGAS Resolution No. 131/2017 that ordered (a) to declare the validity of the Public Hearing called by ENARGAS Resolution No. 74/2017, (b) approve Metrogas temporary tariff scheme applicable as of December 1, 2017; and (c) approve new values for the Rates and Charges received by Metrogas for Additional Services; and (ii) ENARGAS Resolution N° 132/2017 that provides for a bonus

to be implemented by Metrogas in favor of certain users who (a) record savings in their consumption; or (b) are beneficiaries of the Social Tariff.

On January 31, 2018, ENARGAS Resolution No. 249/2018 was published in the Official Gazette, which called for a public hearing to be held on February 22, 2018 to consider (i) the application of the Semi-Annual Tariff Adjustment Methodology, if applicable, for the adjustment of Metrogas tariffs; (ii) the application of the transfer to tariffs of the price of the purchased gas; and (iii) methodological alternatives for a more predictable billing of residential users consumption.

On March 28, 2018, ENARGAS Resolution No. 300/2018 was published in the Official Gazette declaring the Public Hearing No. 94 valid and approving the final tariff schedules applicable as of April 1, 2018.

On September 27, 2018, SGE Resolution No. 14/2018 applicable to distribution companies billing as of October 1, 2018, was published and among other factors: i) eliminated the billing limits and discounts established by MINEM Resolutions No. 212/2016 and No. 474/2017, and established a new discount of 100% for social tariff users for the base consumption block established in Annex II to MINEM Resolution No. 474/2017, and consumptions in excess of such block will be paid at 100%; ii) established that the Trust Fund for Subsidies of Residential Gas Consumption (section 75 of Law No. 25,565) would be 2.96% over the price of gas at the TSEP per cubic meter and also that the billing should be made in accordance with the procedures to be established by the ENARGAS.

On October 8, 2018, FC ENARGAS Resolution No. 281/2018 was published in the Official Gazette declaring the validity of Public Hearing No. 96 and approving Metrogas Tariff Schedules, effective from its publication date for the summer period 2018-2019. Subsequently, FC ENARGAS Resolution No. 292/2018 issued on the Official Gazette on October 12, 2018, rectified the tariff schedules of the aforementioned FC ENARGAS Resolution No. 281/2018, with retroactive application as of October 8, 2018. ENARGAS Resolution No. 292/2018 published on October 12, 2018, modified the Tariff Schemes and the Schedule of Rates and Charges for the additional services provided by Metrogas.



---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

ii. Memorandum of Understanding for the Natural Gas Distribution License Contract (also known as Memorandum of Understanding for the Comprehensive Contractual Renegotiation )

On March 30, 2017, and within the framework of the renegotiation process of the public service contracts established by the Emergency Law, its extensions and Decrees No. 367/2016 and N° 2/2017, Metrogas subscribed with the MINEM and with the Ministry of Finance, a Memorandum of Agreement for the Adaptation of the Natural Gas Distribution License Agreement (which contains the terms of the comprehensive renegotiation and conditions for the adjustment of the License Agreement. The Memorandum of Agreement is based on the 2008 Transitional Agreement, the 2014 Transitional Agreement, the 2016 Transitional Agreement and the 2017 Transitional Agreement.

The provisions contained in the Memorandum of Agreement, once it has entered into full force and effect after being ratified by the PEN, will be applied during the contractual period ranging from January 6, 2002 and the termination of the License Agreement.

A series of guidelines to be contemplated by the CTR process are established in the terms provided for therein.

The Metrogas tariff scheme resulting from the Integral Tariff Review according to the indicated guidelines will be applicable once all the procedures provided for the entry into force of the Memorandum of Agreement has been fulfilled. The CTR will become in full force and effect not later than December 31, 2017. In the event that ENARGAS provides for the phased and progressive application of the tariff increase resulting from the Comprehensive Tariff Review, the application of the last step may not exceed April 1, 2018.

As a condition prior to ratification, the Memorandum of Agreement for the Comprehensive Contractual Renegotiation provides for the suspension and withdrawal of all claims, appeals and complaints filed, pending or in the process of being executed, whether administrative, arbitral or judicial, in the Argentine Republic or abroad, which are founded or linked to the facts or provided measures, with respect to the License Agreement, as of the Emergency Law and/or in the annulment of the PPI Index (Producer Price Index of the United States of America). Moreover, the Memorandum of Agreement must be ratified by the Shareholders Meeting of Metrogas, so that the PEN issues the Decree ratifying the terms of the Memorandum of Agreement. On April 27, 2017, the Shareholders Meeting of Metrogas ratified the Memorandum of Agreement for the Adaptation of the Natural Gas Distribution License Agreement.

Finally, the Memorandum of Agreement provides for the Company's commitment to make, during the effective term of the License, plus its potential ten-year extension and within the area of its License, additional sustainable investments equivalent to the amount of the award rendered in the arbitration proceedings in re: BG Group Plc. vs.

The Argentine Republic (UNC 54 KGA) with the proportional abatement percentage that would have been established in the payment agreement and excluding the amounts corresponding to the default interest on the payment of the award. The amount and the plan for additional investments will be determined by ENARGAS at the proposal of the Company and they will not be included in the rate base.

With respect to those Licensees whose Memorandum of Agreement had not entered into force, the ENARGAS was instructed to apply to them a temporary adjustment of tariffs on account of the CTR, taking into consideration, to such effects, the studies carried out under such CTR in compliance with the provisions set forth in Article 1 of MINEM Resolution No. 31/2016.

On March 28, 2018, Decree No 252/2018 was published in the Official Gazette whereby the PEN ratifies the Memorandum of Agreement entered into by MINEM, the Ministry of Economy and Metrogas.

iii. Temporary economic assistance

MINEM Resolution No. 312 - E/2016 was published in the Official Gazette, on December 30, 2016, which ordered a new temporary economic assistance to the Licensees of the Natural Gas Distribution Service through Networks for the period April-September 2016, for the purpose of funding the mandatory investments established (with respect to Metrogas) in ENARGAS Resolutions No. 3,726/2016 and No. 4,044/2016, and the payment to gas producers; all of which is on account of the CTR.

Under the terms of the Resolution, the transfer of the amounts assigned to Metrogas of 759 was applicable as long as, at the discretion of the ENARGAS, the financial situation of Metrogas that gave rise to the assistance was maintained taking into account the availability of funds to meet its investment obligations and payments to gas producers.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

For the release of the funds corresponding to the temporary financial assistance, Metrogas had to file a sworn statement with the ENARGAS, in the terms of ENARGAS Note No. 106/2017, on the allocation to be given to the amounts required. In accordance with the ENARGAS criteria, if the sworn statements meet the requirements of MINEM Resolution No. 312 - E/2016, they would be sent to the MINEM Hydrocarbons Secretariat in order to arrange for the transfer of the assistance. Likewise, the Resolution set forth that the Licensees could not distribute dividends under the terms of Resolution No. 31/2016 of the MINEM.

On March 31, 2017, Metrogas received the amount of 759 corresponding to MINEM Resolution No. 312 - E/2016.

iv. New gas prices at the TSEP and Metrogas transition tariff schemes

Through Resolution No. 74 - E/2017, the MINEM determined the new natural gas prices at the TSEP applicable from April 1, 2017 to the categories of users indicated therein. Moreover, it determined the new prices at the TSEP, subsidized for natural gas Residential users who register a saving in their consumption equal or superior to fifteen percent (15%) with respect to the same period in 2015. These new prices in the TSEP have been contemplated in ENARGAS Resolution No. 4.356/2017.

MINEM Resolution No. 474-E/2017 determined the new Gas prices at the TSEP as of December 1, 2017. In addition, a 10% discount is established on the Gas price for all categories of Residential users who register a saving in their consumption equal to or greater than 20% with respect to the same period in 2015, and it establishes that the bonus corresponding to the Social Tariff beneficiaries will be equivalent to: i) 100% of the Natural Gas price on the consumption block base determined by Resolution; and ii) 75% of the price of Natural Gas on a surplus consumption block of equal volume to that determined in paragraph i). Consumptions over and above the block indicated in paragraph ii) will be paid by 100%. It also establishes that the billing resulting from the application of the new tariff schedules must respect the limits established in Article 10 of Resolution No. 212 dated October 6, 2016 of the MINEM. These new prices in the TSEP have been contemplated in the ENARGAS Resolution No. 131/2017, which approved the Metrogas temporary tariff scheme, applicable as of December 1, 2017.

v. Procedure for the compensation of the lower revenues that the Distributors receive from their users for benefits and / or bonuses and for higher costs of unaccounted gas

MINEM Resolution No. 508-E/2017, published on December 29, 2017, established the procedure for the compensation of the lower revenues that the Licensees of the Natural Gas Distribution Service through Networks receive from their users, as a product of: (i) the application of benefits and/or discounts to users arising from the regulations in force in the tariff area of the distribution service of natural gas through networks, and (ii) the higher UNG costs compared to those established for its recognition in the rates, applicable as of January 1, 2018.

vi. Winter consumption financing program

On March 27, 2018, a memorandum of intent was signed with ENARGAS, natural gas producers, distribution and transportation companies in order to commit efforts aimed at the development of a natural gas winter consumption financing program jointly with the subscribing parties.

On June 12, 2018, ENARGAS Resolution No 97/2018 was published in the Official Gazette, which set forth the Natural Gas Winter Consumption Financing Program (the Program). Adherence to the Program by beneficiary users was optional and voluntary. In accordance with the terms of the Program, the residential and commercial consumers of natural gas full service could hereunder finance payment of 25% of the invoices issued between July 1 and October 31, 2018. The interest rate applicable to this option was the BNA deposit rate for electronic means for the non-financial private sector for 30-day deposits for the month prior to the one being invoiced. Accrued financing and interest thereon would be recovered through the regular invoices issued after November 1, 2018, and for three succeeding consecutive periods for bimonthly customers and for six consecutive periods for monthly customers. Financing involved each of the activity segments (gas, transport and distribution), and it was exceptional for the winter of 2018.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

vii. Amendment to Basic Rules for the Distribution License

On March 28, 2018, MINEM Resolution No. 91/2018 was published in the Official Gazette. Such resolution unifies the terms for the adjustment due to variations in prices of the purchased gas or seasonal adjustment and the six-month adjustment of tariffs, providing that once the transition period has elapsed, adjustments shall be seasonal, for the periods between April 1 to September 30 of each year, and between October 1 and March 31 of the following year.

viii. Reduction for social tariff users

On May 23, 2018, MINEM Resolution 218/2018 was published in the Official Gazette (later instrumented by ENARGAS by means of Resolution No. 86/2018) which provides for suspension of the reduction criteria application for social tariff users set forth in Resolution No. 474/2017 for consumptions made in May and June 2018. For invoicing such consumption, the social tariff regime within the scope provided for in MINEM Resolution No. 28/2016 shall be applicable, to which end the 100% reduction of the natural gas price these users consume should be considered.

**Note of ENARGAS relating to the equity interest of YPF in Metrogas**

The Company has received from Metrogas a copy of the note received by it from ENARGAS, requesting it to adjust Metrogas equity structure in line with the term provided for in Emergency Law No. 25,561 and in compliance with Section 34 of Law 24,076. In this regard, it should be noted that YPF indirectly acquired 70% of Metrogas equity, transaction that was approved by ENARGAS Resolution No. I/2,566 dated April 19, 2013; and, following the merger with YPF Inversora Energética S.A. and Gas Argentino S.A., is the holder of 70% of Metrogas shares.

On March 30, 2017, YPF filed an appeal for reconsideration requesting to overrule the ENARGAS Note and render a new decision setting a reasonable timeframe consistent with the current reality of the gas market to comply with the provisions set forth article 34 of Law 24,076.

On June 15, 2017, YPF submitted to ENARGAS a tentative schedule for the process of adapting its equity interests in Metrogas, which was expanded in detail on July 3, 2017. Such presentation does not imply withdrawal of the aforementioned appeal.

On April 5, 2018, ENARGAS rejected the reconsideration petition filed by YPF on March 30, 2017. ENARGAS decision was notified to YPF on April 6, 2018 by means of ENARGAS Resolution No. 313/2018.

YPF requested examination of the proceedings, which was granted by ENARGAS on September 10, 2018, which in turn enabled the company to file an appeal in time.

On October 8, 2018, YPF filed an appeal for resolution by the SGE. As of the date of issuance of these consolidated financial statements, this appeal is pending resolution.

**Note from the ENARGAS on deferred collection to residential users**

On August 25, 2017, the ENARGAS issued some Notes instructing the Licensees of the Gas Distribution Service ( Distributors ), by virtue of the presentation received from the MINEM, and in relation to the invoices to be issued from August 25, 2017 and until October 31, 2017 for residential users, to contemplate a fifty percent (50%) payment deferral of the total amount of the settlement corresponding to the billing period, without any interest. According to this instruction, the amounts subject to deferral must be included in the first invoice issued after October 31, 2017 in accordance with the guidelines related to the issuance of Public Service Settlement receipts for bimonthly invoicing with monthly payment obligations currently in force, i.e., in two equal and consecutive monthly installments. Such deferral is not applicable to residential users who are beneficiaries of the Social Tariff.

The Notes sent by the ENARGAS also contemplate that, if there is a financial impact on the Distributors' income by virtue of such deferral, such impact will be timely evaluated and assumed by the Argentine Government through the corresponding budgetary management.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

On September 20, 2017, YPF submitted a note to the MINEM (with a copy to ENARGAS), requesting the intervention of the MINEM so that it adopts the necessary measures to prevent the instruction given by the ENARGAS from being misinterpreted by some Distributors to place on the Producers, such as YPF, the financial impact that such a measure could cause, through the unilateral postponement of the payment obligations by the Distributors. As of the date hereof, the note submitted by YPF is yet to be answered.

As a result of the changes introduced through MINEM Resolution No. 474 E/2017 and ENARGAS Resolutions No. 131/2017 and No. 132/2017, and the guidelines established in the Terms and Conditions MINEM, Resolution No. 508-E / 2017 was published on December 29, 2017, which establishes the procedure for the compensation of the lower revenues that the Licensees of the Natural Gas Distribution Service through Networks receive from their users, as a result of: (i) the application of benefits and / or discounts to users resulting from the regulations in force regarding the tariffs applicable to the natural gas distribution service through networks; and (ii) the higher costs of the UNG with respect to those established for its recognition in the tariffs.

In accordance with the compensation procedure, the Distribution Licensees must inform to the ENARGAS within the terms established therein and based on the annualized monthly consumption and as a sworn statement, the amounts required to compensate the aforementioned differences. The same information regime is adopted in relation to UNG.

Thus, in order to calculate compensations for the amount that they do not receive for the discounts in billing as well as for the UNG differences, compensation is established resulting from the difference between the purchase price to the natural gas producer and the sale to its customers.

**30.i) Regulatory requirements applicable to the petroleum liquid gas industry**

**Benchmark prices for the butane commercialization chain**

On April 5, 2017, the Secretariat of Hydrocarbon Resources published Resolution No. 56-E/2017 in the Official Gazette, establishing new maximum benchmark prices for the different segments of the butane commercialization chain to be bottled in 10, 12 and 15 kg bottles under the Household Program (Decree No. 470/2015 and former Energy Secretariat Resolution No. 49/2015), and modifying the benchmark prices established in former Energy Secretariat Resolution No. 70/2015. The new maximum benchmark prices for the Company are Ps. 2,568/TN for butane and Ps. 2,410/TN for propane. For fractionators such as YPF GAS S.A., the prices established by Resolution

No. 56-E/2017 are Ps. 63.89 for 10 kg bottles, Ps. 76.67 for 12 kg bottles and Ps. 95.84 for 15 kg bottles.

On June 7, 2017, the Secretariat of Hydrocarbon Resources published Resolution No. 75/2017 in the Official Gazette, which modifies the regulations applicable to the Household Program (former Energy Secretariat Resolution No. 49/2015) and provides that the adjustment of benchmark prices applicable to the different segments of the butane commercialization chain to be bottled in 10 and 12 kg bottles will not be implemented automatically in quarterly periods. Instead, those adjustments will be made at the discretion of the Secretariat of Hydrocarbon Resources in its capacity as enforcement authority of the Household Program. In addition, the resolution establishes that the adjustment of benchmark prices for LPG producers and fractionators on account of the Comprehensive Tariff Review established by the Household Program in its regulations will take place only after the prior analysis of cost variations and their incidence, and taking into account regional, distribution and logistical factors.

MINEM Resolution No. 287-E/2017, published on December 1, 2017, established new maximum benchmark prices and compensations for butane and propane producers effective from December 1, 2017, and introduced amendments to the Annex to the Regulation of the Bottle-to-Bottle Program approved by Resolution No. 49/2015, among which, it is prohibited to charge the distributors for any additional service whatever its denomination, if in doing so the maximum benchmark prices and the maximum allowed deviations are exceeded.

Regulation No. 5 of the Undersecretariat of Hydrocarbon Resources was published on March 28, 2018, which established new maximum reference prices for the commercialization of butane for the sale of bottled LPG, effective as of April 1, 2018.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

**30.j) Tax Regulations**

**Tax Reform**

Laws No. 27,430 and 27,432 were published in the Official Gazette on December 29, 2017, and significantly modified several taxes. The main modifications are the following:

**Income tax**

**Corporate tax rate and withholdings on dividends**

The general income tax rate applicable to limited companies (*sociedades de capital*) is reduced from the current 35% to 30% for fiscal years beginning January 1, 2018 and ending December 31, 2019 inclusive, and to 25% for those fiscal years beginning January 1, 2020 onwards.

Moreover, a new withholding on dividends is established, which will be 7% for those fiscal years beginning on January 1, 2018 and ending on December 31, 2019, and 13% for those fiscal years beginning on or after January 1, 2020 onwards.

Finally, the tax equalization (a 35% withholding is applicable when dividends exceed the amount of the taxable income) is no longer applied on the income accrued as of January 1, 2018.

**Capital gains for foreign beneficiaries**

The new law establishes a 15% withholding on capital gains derived from the sale of shares or other similar securities (calculated on the actual or presumed gains equivalent to 90% of the sale price). The law establishes an exemption applicable to foreign beneficiaries who sell listed shares under the supervision of the CNV. Furthermore, an

exemption is established for the interest and sale results of government bonds, NO and ADRs. These exemptions will only apply to non-resident foreign beneficiaries whose funds do not derive from non-cooperating jurisdictions. Finally, such exemption does not apply to those benefits derived from the securities known as Lebacs.

In the case of ADRs, the law defines that the source thereof is given by the residence of the issuer of the respective shares.

#### Indirect transfers made by the Foreign Beneficiaries

The law establishes a tax on the indirect sale of assets located in Argentina. In particular, such tax will be levied on sales or transfers made by foreigners who own a company also abroad who owns assets in the country, when such assets are significant, i.e., when the following conditions are met: (i) at least 30% of the value of the shares in the foreign company derives from assets located in Argentina; and (ii) the transferred shares represent at least 10% of the assets of the foreign company.

The applicable rate will be 15% (calculated on real net profit or presumed net profit equivalent to 90% of the sale price) in the proportion corresponding to Argentine assets. It is applicable to indirect transfers over assets acquired as from January 1, 2018.

#### Costs for the abandonment of hydrocarbon wells

The deduction of well abandonment expenses is admitted as they are considered as an integral part of the computable cost of the investments in wells, those costs intended to satisfy the technical and environmental requirements by the concessionaire and/or permit holder required by the enforcement authority. They will be included from the date on which such obligations arise in accordance with current regulations, regardless of the period in which the effective disbursement is made.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

Other modifications

It replaces the tax transparency rules contemplating broader situations and introduces the presumed dividend concept.

Moreover, it ratifies the taxability of the sales of shares of Argentine companies made by non-residents as of the effectiveness of Law 26,983, although it establishes the taxation of results in the cases of sales made through stock exchanges or similar markets, when the stockbroker did not withhold the tax.

Tax revaluation of assets

The regulation establishes that, at the option of the companies, tax revaluation of assets is permitted for assets located in Argentina and affected to the generation of taxable profits. The special tax on the amount of the revaluation depends on the asset, being 8% for real estate not classified as inventories, 15% for real estate classified as inventories, 5% for shares, quotas and equity interests owned by individuals and 10% for the rest of the assets. As of the date of approval by the Board of Directors of these consolidated financial statements, the Group was analyzing the possibility of exercising the option. The gain generated by the revaluation is exempted according to article 291 of Law 27,430 and, the additional tax generated by the revaluation is not deductible. For information relating subsequent events after the approval by the Board of Directors of these consolidated financial statements, see Note 34.

Tax on Fuels

The main modifications are the following:

A new tax is introduced: tax on carbon dioxide, which added to the tax on fuels as of the date of publication of the rule provided a similar tax burden as the previous one.

Both taxes are levied based on a fixed amount per liter adjusted for CPI on a quarterly basis. In the case of carbon dioxide, two new products are incorporated: petroleum coke and mineral coal.

Tax on bank debit and credits

The PEN may fix the tax percentage to be computed as payment on account of the income tax, which will be progressively increased by up to 20% per year as of January 1, 2018, and it may also establish that this tax will be fully computed as payment on account of the income tax in 2022.

On May 7, 2018, by means of Decree No. 409/2018, the PEN provided that 33% of the amounts debited from the tax may be computed both for account credits and debits.

Value added tax

A system of refund of tax paid for investments in fixed assets is established, subject to the future generation of tax debits, in order to reduce the financial cost generated by the accumulation of tax credits of new investments.

Social Security

There will be a minimum monthly salary exempt from employer contributions, while the rate of the same will be unified around 19.5%, although VAT tax credits will be eliminated for employment in secondary areas. These changes will occur by 2022, gradually converging from the current situation.

**Payment Plan**

On March 1, 2019, AFIP's Resolution No. 4434/2019, was published in the Official Gazette, establishing a payment facility plan for tax liabilities being heard at the Fiscal Tribunal of the Nation (*Tribunal Fiscal de la Nación*). This financing plan, which may be submitted until June 30, 2019, establishes a variable rate with payment terms of up to 5 years. In order to adhere to this regime, the taxpayer shall previously waive any action or right, including the right of recourse, in relation to the obligation to be repaid under the payment plan.

---

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**30. MAIN REGULATIONS AND OTHER (Cont.)**

**30.k) Other regulatory requirements**

**CNV Regulatory Framework (N.T. 2013)**

Through Resolution No. 622/2013 dated September 5, 2013, CNV approved the Regulations (N.T. 2013) applicable to companies subject to this agency control, as provided for by the Capital Market Act No. 26,831, and Regulatory Decree No. 1,023 dated August 1, 2013. This Resolution superseded the former CNV Regulations (N.T. 2001 as amended) and the General Resolutions No. 615/2013 and No. 621/2013, as from the effective date of the Regulations (N.T. 2013).

The following sets forth certain requirements of the CNV:

a) CNV General Resolution No. 622

- i. Pursuant to section 1, Chapter III, Title IV of such Resolution, a description of the notes to the consolidated financial statements containing information required under the Resolution in the form of exhibits follows.

Exhibit A	Fixed Assets	Note 8 Property, plant and equipment
Exhibit B	Intangible assets	Note 7 Intangible assets
Exhibit C	Investments in companies	Note 9 Investments in associates and joint ventures
Exhibit D	Other investments	Note 6 Financial instruments by category
Exhibit E	Provisions	Note 12 Trade receivables
		Note 11 Other receivables

	Note 9 Investments in associates and joint ventures
	Note 8 Property, plant and equipment
	Note 14 Provisions
Exhibit F	Cost of goods sold and services rendered
	Note 20 Costs
Exhibit G	Assets and liabilities in foreign currency
	Note 33 Assets and liabilities in currencies other than the Peso

- ii. On March 18, 2015, the Company was registered with the CNV under the category Settlement and Clearing Agent and Trading Agent - Own account , record No. 549. Considering the Company s business, and the CNV Rules and its Interpretative Criterion No. 55, the Company will not, under any circumstance, offer brokerage services to third parties for transactions in markets under the jurisdiction of the CNV, and it will also not open operating accounts to third parties to issue orders and trade in markets under the jurisdiction of the CNV.

Likewise, in accordance with Section VI, Chapter II, Title VII of the CNV Rules and its Interpretative Criterion No. 55, the Company s equity exceeds the minimum required equity under such rules, which is 15, while the minimum required counterparty capital, which is 3, is comprised of 2,974,520 Units of Inversión MAF MONEY MARKET - Class B Mutual Fund with immediate liquidation, the total value of the Company s Units as of December 31, 2018, being 9.

b) CNV General Resolution No. 629

Due to General Resolution No. 629 of the CNV, the Company informs that supporting documentation of YPF s operations, which is not in YPF s headquarters, is stored in the following companies:

Adea S.A. located in Barn 3 Route 36, Km. 31.5 Florencio Varela Province of Buenos Aires.

File S.R.L., located in Panamericana and R.S. Peña Blanco Encalada Luján de Cuyo Province of Mendoza. Additionally, it is placed on record that the detail of the documentation given in custody is available at the registered office, as well as the documents mentioned in section 5, subsection a.3), Section I, Chapter V, Title II of the CNV Rules.

**31. BALANCES AND TRANSACTIONS WITH RELATED PARTIES**

The information detailed in the tables below shows the balances with associates and joint ventures as of December 31, 2018, 2017, and 2016 and transactions with the mentioned parties for the years ended on such dates.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**31. BALANCES AND TRANSACTIONS WITH RELATED PARTIES (Cont.)**

	2018			2017			2016		
	Other receivables Current	Trade receivables Current	Accounts payable Current	Other receivables Current	Trade receivables Current	Accounts payable Current	Other receivables Current	Trade receivables Current	Accounts payable Current
<b>Joint ventures:</b>									
Profertil	2	461	428	107	239	215	97	162	99
MEGA		2,441	6		925	149		797	80
Refinor		770	5		224	8		296	39
Bizoy S.A.	11			5			9		
Y-GEN I		2		57				2	
Y-GEN II				22					
YPF EE <sup>(1)</sup>	218	1,552	1,301						
Petrofarro S.A.		267	151		35	51			
Oleoducto Loma Campana-Lago Pellegrini S.A.	1,884								
	2,115	5,493	1,891	191	1,423	423	106	1,257	218
<b>Associates:</b>									
CDS		518			122			108	
YPF Gas	637	414	62	589	230	15	35	375	35
Oldelval		34	272			131			81
Termap			102			52			44
OTA	5		14			5			5
OTC	7			5				2	
Gasoducto del Pacífico (Argentina) S.A.	4		80	4		19	4		31
Oiltanking	21		147			96			50
Gas Austral S.A.	2	16		2	7				
	676	982	677	600	359	318	41	483	246

2,791	6,475	2,568	791	1,782	741	147	1,740	464
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	2018			2017			2016		
	Revenues	Purchases and services	Net interest income (loss)	Revenues	Purchases and services	Net interest income (loss)	Revenues	Purchases and services	Net interest income (loss)
<b>Joint ventures:</b>									
Profertil	2,751	1,964		906	901		956	620	
MEGA	8,150	438		4,058	814		2,673	337	
Refinor	2,594	323		838	225	10	998	133	3
Bizoy S.A.				1			5		
Y-GEN I	4			34			2		
Y-GEN II				41					
YPF EE <sup>(1)</sup>	2,064	1,548	47						
Petrofarro S.A.	223	150		33	58				
	15,786	4,423	47	5,911	1,998	10	4,634	1,090	3
<b>Associates:</b>									
CDS	565			102			579		38
YPF Gas	1,608	104	217	863	51	51	761	41	
Oldelval	103	1,167			596			408	
Termap	6	666			366			309	
OTA	1	47			25			25	
Gasoducto del Pacífico (Argentina) S.A.		363			202			170	
Oiltanking	4	777		1	428			350	
Gas Austral S.A.	199			78	1				
	2,486	3,124	217	1,044	1,669	51	1,340	1,303	38
	18,272	7,547	264	6,955	3,667	61	5,974	2,393	41

(1) On March 20, 2018, YPF EE was reclassified as a joint venture. Includes transactions following the loss of control over YPF EE. See Note 3.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA**  
**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2018, 2017 AND 2016**

**31. BALANCES AND TRANSACTIONS WITH RELATED PARTIES (Cont.)**

Additionally, in the normal course of business, and considering being the main energy group in Argentina, the Group's client/suppliers portfolio encompasses both private sector entities as well as national public sector entities. As required by IAS 24 Related party disclosures, among the major transactions above mentioned the most important are:

Customers / Suppliers	Ref.	Balances			Transactions		
		2018	2017	2016	2018	2017	2016
SGE	(1) (16)	26,978	13,417	10,881		12,840	16,757
SGE	(2) (16)	1,211			1,376		
SGE	(3) (16)	282	190	129	347	191	93
SGE	(4) (16)	192	162	142	107	119	132
SGE	(5) (16)	1,255			3,447		
SGE	(6) (16)	3,535			4,149		
SGE	(7) (16)			759			759
Ministry of Transport	(8) (16)	3,044	840	1,152	9,192	5,402	5,658
Secretariat of Industry	(9) (16)		24	378		188	422
CAMMESA	(10)	3,822	4,444	3,782	18,029	17,569	20,934
CAMMESA	(11)	(444)	(316)	(170)	(3,272)	(2,090)	(2,189)
IEASA	(12)	4,326	698	727	7,600	2,920	2,541
IEASA	(13)	(745)	(1,591)	(1,357)	(1,156)	(214)	(955)
Aerolíneas Argentinas S.A. and Austral Líneas Aéreas Cielos del Sur S.A.	(14)	3,454	946	364	8,710	4,300	3,066
Aerolíneas Argentinas S.A. and Austral Líneas Aéreas Cielos del Sur S.A.	(15)			(2)	(21)	(28)	(14)

- (1) Benefits of the incentive scheme for the Additional Injection of natural gas.
- (2) Benefits from the Program to Encourage Investments in the Development of Natural Gas Production from Unconventional Reservoirs.
- (3) Benefits for the propane gas supply agreement for undiluted propane gas distribution networks.
- (4) Benefits for the bottle-to-bottle program.

- (5) Procedure to compensate for the lower income that Natural Gas Piping Distribution Service Licensed Companies receive from their users for the benefit of Metrogas.
- (6) Procedure to compensate the payment of the daily differences accumulated on a monthly basis between the price of the gas purchased by Natural Gas Piping Distribution Service Companies and the price of the natural gas included in the respective tariff schemes for the benefit of Metrogas.
- (7) Temporary economic assistance to Metrogas.
- (8) The compensation for providing gas oil to public transport of passengers at a differential price.
- (9) Incentive for domestic manufacturing of capital goods, for the benefit of AESA.
- (10) The provision of fuel oil and natural gas, and electric power generation corresponding to YPF EE until the date of loss of control by YPF.
- (11) Purchases of energy.
- (12) Rendering of regasification service in the regasification projects of liquefied natural gas in Bahía Blanca (until October 31, 2018) and Escobar.
- (13) The purchase of natural gas and crude oil.
- (14) The provision of jet fuel.
- (15) The purchase of miles for the YPF Serviclub program.
- (16) Income recognized under the guidelines of IAS 20.

Additionally, the Group has entered into certain financing and insurance transactions with entities related to the national public sector. Such transactions consist of certain financial transactions that are described in Notes 13 and 16 and transactions with Nación Seguros S.A. related to certain insurance policies contracts.

On the other hand, the Group holds BONAR 2020 (see Note 30.g) and 2021, classified as Investments in financial assets .

Furthermore, in relation to the investment agreement signed between YPF and Chevron subsidiaries, YPF has an indirect non-controlling interest in CHNC with which YPF carries out transactions in connection with the mentioned investment agreement. See Note 29.b.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**31. BALANCES AND TRANSACTIONS WITH RELATED PARTIES (Cont.)**

The table below discloses the compensation for the YPF s key management personnel, including members of the Board of Directors and Vice presidents (managers with executive functions appointed by the Board of Directors), for the years ended December 31, 2018, 2017 and 2016:

	<b>2018<sup>(1)</sup></b>	<b>2017<sup>(1)</sup></b>	<b>2016<sup>(1)</sup></b>
Short-term employee benefits <sup>(2)</sup>	337	221	182
Share-based benefits	55	34	26
Post-retirement benefits	14	10	9
Termination benefits		109	94
	<b>406</b>	<b>374</b>	<b>311</b>

- (1) Includes the compensation for YPF s key management personnel, which developed their functions during the mentioned years.
- (2) Does not include Social Security contributions of 66, 50 and 45 for the years ended December 31, 2018, 2017 and 2016, respectively.

**32. EMPLOYEE BENEFIT PLANS AND SIMILAR OBLIGATIONS**

Note 2.b.10 describes the main characteristics and accounting treatment for benefit plans implemented by the Group.

i. Retirement plan

The total charges recognized under the Retirement Plan amounted to approximately 87, 80 and 80 for the years ended December 31, 2018, 2017 and 2016, respectively.

ii. Performance Bonus Programs and Performance evaluation

The amount charged to expense related to the Performance Bonus Programs was 2,141, 1,650 and 1,272 for the years ended December 31, 2018, 2017 and 2016, respectively.

iii. Share-based benefit plan

Consistent with share-based benefit plans approved in previous years, the Board of Directors:

at its meeting held on June 11, 2014, approved the creation of a new share-based benefit plan 2014-2017 effective for 3 years from July 1, 2014 (grant date), with similar characteristics to those of the 2013-2015 plan.

at its meeting held on June 8, 2015, approved the creation of a new share-based benefit plan 2015-2018 effective for 3 years from July 1, 2015 (grant date), with similar characteristics to existing plans.

at its meeting held on May 10, 2016, approved the creation of a new share-based benefit plan 2016-2019 effective for 3 years from July 1, 2016 (grant date), with similar characteristics to the previously implemented schemes.

at its meeting held on May 9, 2017, approved the creation of a new shared-based benefit plan for 2017-2020 effective for 3 years as from July 1, 2017 (grant date), with similar characteristics to the previously implemented schemes.

at its meeting held on May 8, 2018, approved the creation of a new shared-based benefit plan for 2018-2021 effective for 3 years as from July 1, 2018 (grant date), with similar characteristics to the previously implemented schemes.

The amount charged to expense in relation with the share-based plans, which are disclosed according to their nature, amounted to 308, 162 and 153 for the fiscal years ended December 31, 2018, 2017 and 2016, respectively.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**32. EMPLOYEE BENEFIT PLANS AND SIMILAR OBLIGATIONS (Cont.)**

During the fiscal years ended December 31, 2018, 2017 and 2016, the Company has repurchased 250,795, 263,298 and 171,330 own shares issued for an amount of 120, 100 and 50, respectively, and has delivered to the beneficiaries of the plan 538,252, 502,996 and 520,031 shares, respectively, for purposes of compliance with the share-based benefit plans. The cost of such repurchases is disclosed in the shareholders' equity under the name of 'Cost of acquisition of own shares', while the nominal value and its adjustment derived from the monetary restatement made under the Prior Accounting Principles have been reclassified from the accounts 'Subscribed capital' and 'Adjustment to contribution' to the 'Treasury shares' and 'Adjustment to treasury shares' accounts, respectively.

Information related to the evolution of the quantity of shares, of the plans at the end of the years ended December 31, 2018, 2017 and 2016, is as follows:

Plan 2013-2015

	2018	2017	2016
<b>Amount at the beginning of the year</b>			188,493
- Granted			9,130
- Settled			(193,878)
- Expired			(3,745)
<b>Amount at end of year<sup>(1)</sup></b>			
Expense recognized during the year			6
Fair value of shares on grant date (in U.S. dollars)			14.75

(1) The life of the plan in 2016 was 7 months.

Plan 2014-2017

2018	2017	2016
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<b>Amount at the beginning of the year</b>	99,278	234,130
- Granted	6,269	6,978
- Settled	(105,201)	(123,926)
- Expired	(346)	(17,904)
<b>Amount at end of year<sup>(1)</sup></b>		99,278
Expense recognized during the year	8	28
Fair value of shares on grant date (in U.S. dollars)	33.41	33.41

(1) The life of the plan in 2017 was 7 months, whereas the remaining life as of December 31, 2016 was 7 months.  
Plan 2015-2018

	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Amount at the beginning of the year</b>	162,051	339,459	602,079
- Granted		2,682	
- Settled	(155,385)	(168,814)	(202,227)
- Expired	(6,666)	(11,276)	(60,393)
<b>Amount at end of year<sup>(1)</sup></b>		162,051	339,459
Expense recognized during the year	12	26	63
Fair value of shares on grant date (in U.S. dollars)	19.31	19.31	19.31

(1) The life of the plan in 2018 was 7 months, whereas the remaining life of the plan was 7 months as of December 31, 2017, and between 7 and 19 months as of December 31, 2016.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**32. EMPLOYEE BENEFIT PLANS AND SIMILAR OBLIGATIONS (Cont.)**

Plan 2016-2019

	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Amount at the beginning of the year</b>	393,972	682,307	
- Granted			682,307
- Settled	(189,303)	(228,981)	
- Expired	(21,589)	(59,354)	
<b>Amount at end of year<sup>(1)</sup></b>	183,080	393,972	682,307
Expense recognized during the year	54	59	56
Fair value of shares on grant date (in U.S. dollars)	16.99	16.99	16.99

(1) The average remaining life of the plan is 7 months as of December 31, 2018, between 7 and 19 months as of December 31, 2017 and between 7 and 31 months as of December 31, 2016.

Plan 2017-2020

	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Amount at the beginning of the year</b>	644,949		
- Granted		646,149	
- Settled	(193,564)		
- Expired	(75,833)	(1,200)	
<b>Amount at end of year<sup>(1)</sup></b>	375,552	644,949	
Expense recognized during the year	142	69	
Fair value of shares on grant date (in U.S.dollars)	20.26	20.26	

(1) The average remaining life of the plan is between 7 and 19 months as of December 31, 2018 and between 7 and 31 months as of December 31, 2017.

Plan 2018-2021

	2018	2017	2016
<b>Amount at the beginning of the year</b>			
- Granted	761,512		
<b>Amount at end of year<sup>(1)</sup></b>	761,512		
Expense recognized during the year	100		
Fair value of shares on grant date (in U.S. dollars)	13.60		

(1) The average remaining life of the plan is between 7 and 31 months as of December 31, 2018.



**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**33. ASSETS AND LIABILITIES IN CURRENCIES OTHER THAN THE PESO**

	2018			2017			2016		
	Amount in currencies other than the Peso	Exchange rate in force <sup>(1)</sup>	Total	Amount in currencies other than the Peso	Exchange rate in force <sup>(1)</sup>	Total	Amount in currencies other than the Peso	Exchange rate in force <sup>(1)</sup>	Total
<b><u>Noncurrent assets</u></b>									
<b><u>Other receivables</u></b>									
U.S. dollar	10	37.50	375	2	18.55	37	169	15.79	2,669
Real							10	4.84	48
Chilean peso	11	0.05	1						
<b><u>Trade receivables</u></b>									
U.S. dollar	489	37.50	18,338	2	18.55	37			
<b><u>Investments in financial assets</u></b>									
U.S. dollar							490	15.79	7,737
<b>Total noncurrent assets</b>			18,714			74			10,454
<b><u>Current assets</u></b>									
<b><u>Trade receivables</u></b>									
U.S. dollar	907	37.50	34,013	380	18.55	7,049	397	15.79	6,269
Chilean peso	15,285	0.05	764	9,836	0.03	295	10,542	0.02	211
Real							23	4.84	111
<b><u>Other receivables</u></b>									
U.S. dollar	191	37.50	7,163	165	18.55	3,061	349	15.79	5,511
Euro	2	42.84	86	5	22.28	111	15	16.63	249
Real							4	4.84	19
Chilean peso	6,253	0.05	313	4,303	0.03	129			
Swiss franc				3	19.04	57			

**Investments in  
financial assets**

U.S. dollar	292	37.50	10,941	697	18.55	12,936	478	15.79	7,548
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**Cash and cash  
equivalents**

U.S. dollar	900	37.50	33,750	526	18.55	9,757	414	15.79	6,537
Chilean peso	1,097	0.05	55	898	0.03	27	240	0.02	5
Real							2	4.84	10
Swiss franc							(2)	15.52	6

**Total current  
assets**

			87,085			33,422			26,476
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**Total assets**

			105,799			33,496			36,930
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**Noncurrent  
liabilities****Provisions**

U.S. dollar	1,956	37.70	73,741	2,909	18.65	54,253	2,675	15.89	42,506
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**Loans**

U.S. dollar	6,475	37.70	244,094	6,200	18.65	115,628	5,741	15.89	91,222
Real							13	4.88	63
Swiss franc				300	19.13	5,731	300	15.57	4,673

**Other liabilities**

U.S. dollar	14	37.70	523	14	18.65	269	21	15.89	334
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**Accounts payable**

U.S. dollar	3	37.70	113	4	18.65	75	133	15.89	2,113
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**Total noncurrent  
liabilities**

			318,471			175,956			140,911
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**Current liabilities****Provisions**

U.S. dollar	73	37.70	2,752	57	18.65	1,063	45	15.89	715
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**Taxes payable**

Real							5	4.88	24
Chilean peso	1,752	0.05	88	1,524	0.03	46	1,055	0.02	21

**Loans**

U.S. dollar	1,206	37.70	45,475	1,647	18.65	30,725	1,054	15.89	16,754
Real							17	4.88	82
Swiss franc	302	38.31	11,563	3	19.13	54	3	15.57	45

**Salaries and social  
security**

U.S. dollar	6	37.70	226	6	18.65	112	6	15.89	96
Real							2	4.88	10
Chilean peso	274	0.05	14	247	0.03	7	501	0.02	10

**Other liabilities**

U.S. dollar	12	37.70	452	125	18.65	2,331	275	15.89	4,371
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**Accounts payable**

U.S. dollar	1,087	37.70	40,980	1,149	18.65	21,429	1,197	15.89	19,020
Euro	21	43.16	906	18	22.45	404	15	16.77	252

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Chilean peso	2,202	0.05	110	1,826	0.03	55	4,915	0.02	98
Real							9	4.88	44
Swiss franc				3	19.13	57	(2)	15.57	3
Yen	13	0.34	4	19	0.17	3			
<b>Total current liabilities</b>			102,570			56,286			41,545
<b>Total liabilities</b>			421,041			232,242			182,456

(1) Exchange rate in force at December 31, 2018, 2017 and 2016 according to BNA.

(2) Registered value less than 1.

F-142

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**34. SUBSEQUENT EVENTS**

Resolution No. 1/219 of the Secretariat of Renewable Resources and Electricity Market was published on March 1, 2019, which, effective as from March 1, 2019, abrogated Resolution No. 19/2017 issued by the former Secretariat of Electric Energy and, among other aspects, established new compensation schemes for guaranteed power availability and generation of Generators, Co-Generators and Self-Generators of the WEM (exempting from this regime the generation of Bi-national Hydroelectric Power Plants and Nuclear Generation, as well as Generators, Co-Generators and Self-Generators of the WEM with generating units with power committed within the framework of centralized contracts aimed at the Supply of the WEM demand). The power charges for the six months of lowest electric demand and for generation approved by Resolution No. 1/2019 are about 20% lower in U.S. dollars than those provided under Resolution No. 19/2017.

In connection with Fernández Oro Concession, the Secretariat of Energy issued resolutions authorizing the payment to YPF of Definitive Compensations for the first quarter of 2018 and Provisional Compensations for the third quarter of 2018, whose amounts were determined considering as a limit the estimation of the Included Production YPF initially reported. Recently, YPF has administratively challenged these resolutions, understanding that the amount of the Compensations must be determined on the basis of the production actually produced each month in the Concession, without applying any limit.

On March 21, 2019, the Company's management informed the Board of Directors of the decision to adhere to the tax revaluation and to the payment plan for lawsuits maintained within the Argentine Tax Court as mentioned in Note 30.j. The quantified effects, as of January 1, 2019, are detailed below.

With respect to the tax revaluation, which expired on March 29, 2019 and to which the Company adhered, in relation to the category of Mines, quarries, forests and similar goods, the regulation establishes the payment of a special tax of 10%, which implies a loss of approximately 4,600 and will allow a greater deduction of the depreciation of the revalued assets on income tax (including its annual revaluation for tax deduction purposes) from 2018 fiscal period inclusive, and which it also implies the recognition of a gain of approximately 32,700 as a result of the recognition of the effect of such revaluation on deferred tax.

Additionally, in relation to the dispute with AFIP over the cost deduction for wells abandonment on income tax (see also Note 28.b.4), the Company has decided to adhere to the payment plan for the years 2005-2010, for an amount of approximately 5,500, to be paid on 60 installments, plus a variable interest. The loss due to the recording of the liabilities for all the years not prescribed (including the previous mentioned amount) would amount to approximately

18,800.

The effects resulting from these recently adopted decisions will impact the Company's financial statements for the first quarter of the year 2019.

As of the date of issuance of these consolidated financial statements, there are no other significant subsequent events that require adjustments or disclosure in the financial statements of the Group as of December 31, 2018, or their description in a note to these consolidated financial statements, which were not already considered in such consolidated financial statements according to IFRS.

The consolidated financial statements as of December 31, 2018, presented for regulatory purposes before the CNV, have been approved by the Board of Director's meeting and authorized to be issued on March 7, 2019, and will be considered in the shareholders' meeting. These consolidated financial statements, which comprise those presented before the CNV on March 7, 2019, an update of Note 34 Subsequent events and the inclusion of Note 35 Supplemental information on oil and gas producing activities (unaudited), have been approved by Management on April 3, 2019.

F-143

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**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)**

The following information is presented in accordance with ASC No. 932 Extractive Activities – Oil and Gas , as amended by ASU 2010 – 03 Oil and Gas Reserves. Estimation and Disclosures , issued by FASB in January 2010.

**Oil and gas reserves**

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible (from a given date forward, from known reservoirs, and under existing economic conditions, operating methods and government regulations) prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within reasonable time. In some cases, substantial investments in new wells and related facilities may be required to recover proved reserves.

Information on net proved reserves as of December 31, 2018, 2017 and 2016 was calculated in accordance with the SEC rules and Financial Accounting Standards Board ( FASB ) Accounting Standards Codification ( ASC ) 932, as amended. Accordingly, crude oil prices used to determine reserves were calculated each month for crude oils of different quality produced by the Company. Consequently, to calculate our net proved reserves as of December 31, 2018, the Company considered the realized prices for crude oil in the domestic market taking into account the effect of export taxes as in effect as of each of the corresponding years (until 2020, in accordance with Decree No. 793/2018). For the years beyond the mentioned periods, the Company considered the unweighted average price of the first-day-of-the-month for each month within the twelve-month period ended December 31, 2018, which refers to the Brent prices adjusted by each different quality produced by the Company.

Additionally, since there are no benchmark market natural gas prices available in Argentina, the Company considered the realized prices in the domestic market according to the SEC and FASB Ss ASC 932 rules, but also taking into account the effect of certain market regulations set forth mainly during the second half of the year for certain natural gas segments.

Notwithstanding the foregoing, commodity prices have changed significantly since 2016. See Item 3. Key Information Risk Factors Risks Relating to the Argentine Oil and Gas Business and Our Business Our oil and natural gas reserves are estimates and Item 3. Key Information Risk Factors Risks Relating to the Argentine Oil and Gas Business and Our Business Our reserves and production are likely to decline .

Net reserves are defined as that portion of the gross reserves attributable to the interest of YPF after deducting interests owned by third parties. In determining net reserves, the Group excludes from its reported reserves royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in the underlying production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation, or are substantially equivalent to a production or severance tax, the related reserves are not excluded from the reported reserves despite the fact that such payments are referred to as royalties under local rules. The same methodology is followed in reporting our production amounts.

Gas reserves exclude the gaseous equivalent of liquids expected to be removed from the gas on concessions and leases, at field facilities and at gas processing plants. These liquids are included in net proved reserves of natural gas liquids.

### **Technology used in establishing proved reserves additions in 2018**

YPF's estimated proved reserves are based on estimates generated through the integration of available and appropriate data, utilizing well-established technologies that have been demonstrated in the field to yield repeatable and consistent results. Data used in these integrated assessments include information obtained directly from the subsurface via wellbore, such as well logs, reservoir core samples, fluid samples, static and dynamic pressure information, production test data, and surveillance and performance information. The data utilized also include subsurface information obtained through indirect measurements, including high quality 2-D and 3-D-seismic data, calibrated with available well control. Where applicable, geological outcrops information was also utilized. The tools used to interpret and integrate all these data included both proprietary and commercial software for reservoir modeling, simulation and data analysis. In some circumstances, where appropriate analog reservoir models are available, reservoir parameters from these analog models were used to increase the reliability of our reserves estimates.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

**Changes in YPF's Estimated Net Proved Reserves**

The table below sets forth information regarding changes in YPF's net proved reserves during 2018, 2017 and 2016, by hydrocarbon product.

Oil and Condensate	2018		2017		2016		
	Worldwide	Other Argentina/foreign	Worldwide	Other Argentina/foreign	Worldwide	Argentina	Other foreign
<b>(Millions of barrels)</b>							
<b>Consolidated entities</b>							
At January 1,	422	422	525	525	608	607	1
Developed	286	286	380	380	440	439	1
Undeveloped	136	136	145	145	168	168	
Revisions of previous estimates <sup>(1)</sup>	126	126	(71)	(72)	(75)	(74)	(1)
Extensions and discoveries	103	103	19	19	45	45	
Improved recovery	15	15	32	33	35	35	
Purchase of minerals in place					2	2	
Sale of minerals in place	(1)	(1)			(*)	(*)	
Production for the year <sup>(2)</sup>	(83)	(83)	(83)	(83)	(90)	(90)	(*)
At December 31, <sup>(3)</sup>	582	582	422	422	525	525	
Developed	339	339	286	286	380	380	
Undeveloped	243	243	136	136	145	145	
<b>Equity-accounted entities</b>							
At January 1,							
Developed							
Undeveloped							
Revisions of previous estimates <sup>(1)</sup>							
Extensions and discoveries							



Improved recovery  
 Purchase of minerals in place  
 Sale of minerals in place  
 Production for the year <sup>(2)</sup>

At December 31, <sup>(3)</sup>

Developed

Undeveloped

**Consolidated and Equity-accounted entities**

At January 1,

Developed	286	286	380	380	440	439	1
Undeveloped	136	136	145	145	168	168	
<b>Total</b>	<b>422</b>	<b>422</b>	<b>525</b>	<b>525</b>	<b>608</b>	<b>607</b>	<b>1</b>

At December 31,

Developed	339	339	286	286	380	380	
Undeveloped	243	243	136	136	145	145	
<b>Total</b>	<b>582</b>	<b>582</b>	<b>422</b>	<b>422</b>	<b>525</b>	<b>525</b>	

\* Not material (less than 1)

- (1) Revisions in estimates of reserves are performed at least once a year. Revision of oil and gas reserves is considered prospectively in the calculation of depreciation.
- (2) Crude oil production for the years 2018, 2017 and 2016 includes an estimated approximately 12, 12 and 13 mmbbl, respectively, in respect of royalty payments which are a financial obligation, or are substantially equivalent to a production or similar tax.
- (3) Proved crude oil reserves of consolidated entities as of December 31, 2018, 2017 and 2016 include an estimated approximately 83, 61 and 76 mmbbl, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

Natural Gas Liquids	2018		2017		2016	
	Worldwide	Other Argentina foreign	Worldwide	Other Argentina foreign	Worldwide	Other Argentina foreign
(Millions of barrels)						
<b>Consolidated entities</b>						
At January 1,	58	58	68	68	71	71
Developed	47	47	53	53	56	56
Undeveloped	11	11	15	15	15	15
Revisions of previous estimates <sup>(1)</sup>	(1)	(1)	4	4	5	5
Extensions and discoveries	13	13	5	5	11	11
Improved recovery						
Purchase of minerals in place						
Sale of minerals in place						
Production for the year <sup>(2)</sup>	(14)	(14)	(19)	(19)	(19)	(19)
At December 31, <sup>(3)</sup>	56	56	58	58	68	68
Developed	41	41	47	47	53	53
Undeveloped	15	15	11	11	15	15
<b>Equity-accounted entities</b>						
At January 1,						
Developed						
Undeveloped						
Revisions of previous estimates <sup>(1)</sup>						
Extensions and discoveries						
Improved recovery						
Purchase of minerals in place						
Sale of minerals in place						
Production for the year <sup>(2)</sup>						
At December 31, <sup>(3)</sup>						

Developed						
Undeveloped						
<b>Consolidated and Equity-accounted entities</b>						
At January 1,						
Developed	47	47	53	53	56	56
Undeveloped	11	11	15	15	15	15
<b>Total</b>	<b>58</b>	<b>58</b>	<b>68</b>	<b>68</b>	<b>71</b>	<b>71</b>
At December 31,						
Developed	41	41	47	47	53	53
Undeveloped	15	15	11	11	15	15
<b>Total</b>	<b>56</b>	<b>56</b>	<b>58</b>	<b>58</b>	<b>68</b>	<b>68</b>

\* Not material (less than 1)

- (1) Revisions in estimates of reserves are performed at least once a year. Revision of oil and gas reserves is considered prospectively in the calculation of depreciation.
- (2) Natural gas liquids production for the years 2018, 2017 and 2016 includes an estimated approximately 2, 2 and 2 mmbbl, respectively, in respect of royalty payments which are a financial obligation, or are substantially equivalent to a production or similar tax.
- (3) Proved natural gas liquids reserves of consolidated entities as of December 31, 2018, 2017 and 2016 include an estimated approximately 8, 6 and 8 mmbbl, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

Natural gas	2018		2017		2016		Other
	Worldwide	Argentina foreign	Worldwide	Argentina foreign	Worldwide	Argentina foreign	
<b>(Billions of standard cubic feet)</b>							
<b>Consolidated entities</b>							
At January 1,	2,520	2,520	2,923	2,923	3,072	3,067	5
Developed	1,850	1,850	2,143	2,143	2,210	2,205	5
Undeveloped	670	670	780	780	862	862	
Revisions of previous estimates <sup>(1)</sup>	178	178	(161)	(161)	(110)	(105)	(5)
Extensions and discoveries	329	329	313	313	371	371	
Improved recovery					1	1	
Purchase of minerals in place			12	12	165	165	
Sale of minerals in place	(4)	(4)			(*)	(*)	
Production for the year <sup>(2)</sup>	(542)	(542)	(567)	(567)	(576)	(576)	
At December 31, <sup>(3) (4)</sup>	2,481	2,481	2,520	2,520	2,923	2,923	
Developed	1,915	1,915	1,850	1,850	2,143	2,143	
Undeveloped	566	566	670	670	780	780	
<b>Equity-accounted entities</b>							
At January 1,							
Developed							
Undeveloped							
Revisions of previous estimates <sup>(1)</sup>							
Extensions and discoveries							
Improved recovery							
Purchase of minerals in place							
Sale of minerals in place							
Production for the year <sup>(2)</sup>							

At December 31, <sup>(3)</sup>

Developed							
Undeveloped							
<b>Consolidated and Equity-accounted entities</b>							
At January 1,							
Developed	1,850	1,850	2,143	2,143	2,210	2,205	5
Undeveloped	670	670	780	780	862	862	
<b>Total</b>	<b>2,520</b>	<b>2,520</b>	<b>2,923</b>	<b>2,923</b>	<b>3,072</b>	<b>3,067</b>	<b>5</b>
At December 31,							
Developed	1,915	1,915	1,850	1,850	2,143	2,143	
Undeveloped	566	566	670	670	780	780	
<b>Total</b>	<b>2,481</b>	<b>2,481</b>	<b>2,520</b>	<b>2,520</b>	<b>2,923</b>	<b>2,923</b>	

\* Not material (less than 1)

- (1) Revisions in estimates of reserves are performed at least once a year. Revision of natural gas reserves is considered prospectively in the calculation of depreciation.
- (2) Natural gas production for the years 2018, 2017 and 2016 includes an estimated approximately 61, 64 and 60 bcf, respectively, in respect of royalty payments which are a financial obligation, or are substantially equivalent to a production or similar tax.
- (3) Proved natural gas reserves of consolidated entities as of December 31, 2018, 2017 and 2016 include an estimated approximately 288, 289 and 337 bcf, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.
- (4) Proved natural gas reserves of consolidated entities as of December 31, 2018, 2017 and 2016 include an estimated approximately 349, 364 and 467 bcf, respectively, which is consumed as fuel at the field.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

Oil equivalent <sup>(1)</sup>	2018		2017		2016		Other
	Worldwide	Argentina foreign	Worldwide	Argentina foreign	Worldwide	Argentina foreign	
<b>(Millions of barrels of oil equivalent)</b>							
<b>Consolidated entities</b>							
At January 1,	929	929	1,113	1,113	1,226	1,224	2
Developed	663	663	815	815	889	887	2
Undeveloped	266	266	298	298	337	337	
Revisions of previous estimates <sup>(2)</sup>	157	157	(96)	(96)	(89)	(87)	(2)
Extensions and discoveries	174	174	80	80	122	122	
Improved recovery	15	15	32	32	35	35	
Purchase of minerals in place			2	2	31	31	
Sale of minerals in place	(2)	(2)			(1)	(1)	
Production for the year <sup>(3)</sup>	(193)	(193)	(202)	(202)	(211)	(211)	
At December 31, <sup>(4)</sup>	1,080	1,080	929	929	1,113	1,113	
Developed	722	722	663	663	815	815	
Undeveloped	358	358	266	266	298	298	
<b>Equity-accounted entities</b>							
At January 1,							
Developed							
Undeveloped							
Revisions of previous estimates <sup>(2)</sup>							
Extensions and discoveries							
Improved recovery							
Purchase of minerals in place							
Sale of minerals in place							
Production for the year <sup>(3)</sup>							

At December 31, <sup>(4)</sup>

Developed								
Undeveloped								
<b>Consolidated and Equity-accounted entities</b>								
At January 1,								
Developed	663	663	815	815	889	887	2	
Undeveloped	266	266	298	298	337	337		
<b>Total</b>	<b>929</b>	<b>929</b>	<b>1,113</b>	<b>1,113</b>	<b>1,226</b>	<b>1,224</b>	<b>2</b>	
At December 31,								
Developed	722	722	663	663	815	815		
Undeveloped	358	358	266	266	298	298		
<b>Total</b>	<b>1,080</b>	<b>1,080</b>	<b>929</b>	<b>929</b>	<b>1,113</b>	<b>1,113</b>		

\* Not material (less than 1)

- (1) Volumes of natural gas have been converted to barrels of oil equivalent at 5,615 cubic feet per barrel.
- (2) Revisions in estimates of reserves are performed at least once a year. Revision of crude oil, natural gas liquids and natural gas reserves are considered prospectively in the calculation of depreciation.
- (3) Barrel of oil equivalent production of consolidated entities for the years 2018, 2017 and 2016 includes an estimated approximately 24, 25 and 27 mmboe, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.
- (4) Proved oil equivalent reserves of consolidated entities as of December 31, 2018, 2017 and 2016 include an estimated approximately 143, 119 and 144 mmboe, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.

F-148

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

The paragraphs below explain in further detail the most significant changes in our proved reserves during 2018, 2017 and 2016.

**Changes in our estimated proved reserves during 2018**

*Extensions and Discoveries*

As a result of wells drilled in unproved reserves and resources areas approximately 25 mmboe of proved developed reserves (8 mmbbl of crude oil, 1 mmbbl of NGL and 92 bcf of natural gas), and 149 mmboe of proved undeveloped reserves (95 mmbbl of crude oil, 12 mmbbl of NGL and 238 bcf of natural gas) were added mainly due to new shale oil and gas projects from Loma La Lata Norte, Loma Campana, Bandurria Sur and La Amarga Chica fields.

Main proved undeveloped reserves additions are related to Unconventional and Tight Gas activities in the Neuquina basin, while proved developed reserves contributions come in most cases from the Neuquina, Noroeste and San Jorge basin projects.

*Improved Recovery*

A total of approximately 15 mmboe of proved reserves were added mainly due to new projects and positive production response. Main contributions come from Golfo San Jorge basin addition was 4.4 mmboe of proved developed and 8 mmboe of proved undeveloped secondary recovery reserves and 3 mmboe from Neuquina basin.

*Sales and Acquisitions*

As a net result of Sales and Acquisitions, 1.4 mmboe of proved developed reserves were reduced. These reserves decrease is related mainly to the change in participation for Cerro Bandera and Bandurria Sur fields and acquisition of participation in Llançanelo field.

*Revisions of Previous Estimates*

During 2018, the Company's proved reserves were revised upwards by 156 mmboe (126 mmbbl of crude oil and 178 bcf of natural gas and a decrease of 1 mmbbl of NGL).



The main revisions to proved reserves have been due to the following:

As a result of 2018 higher average oil and gas prices and lower operating costs, its impact on incomes, and on fields economic limit, 143 mmboe of Proved Developed Reserves were added. Changes occurred mainly in fields of Neuquina Basin (56 mmboe), Golfo San Jorge basin (40 mmboe) and Austral Basin (31 mmboe).

New economic scenario also improved scheduled projects economics, resulting in a 48 mmboe Proved Undeveloped Reserves incorporation mainly from oil fields of Golfo San Jorge Basin (33 mmboe) and Neuquina basin (15 mmboe).

Total liquids and gas production performance from existing wells was better than expected, resulting in an addition of approximately 33 mmboe to proved developed reserves, according to new reserves estimates, mainly in the Neuquina and Golfo San Jorge basins.

Change of development strategy in certain areas which resulted in a downwards revision of 43 mmboe from previous projects mainly from Neuquina, Austral, and Golfo San Jorge basins.

Some primary and improved recovery oil projects development schedules were modified or canceled, resulting in 5 mmboe proved undeveloped reserves reduction, mainly in Austral, Golfo San Jorge and Cuyana basins.

Changes in gas compression projects which resulted in a 5 mmboe reduction of proved undeveloped reserves, mainly from Neuquina basin

Net production results and forecasts from existing and new wells were lower than expected, resulting in a 13 mmboe reduction of proved reserves. Main differences were found in Neuquina basin.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

**Changes in our estimated proved reserves during 2017**

***Extensions and Discoveries***

As a result of wells drilled in unproved reserves and resources areas approximately 26 mmboe of proved developed reserves (7,4 mmbbl of crude oil, 1,9 mmbbl of NGL and 94 bcf of natural gas), and 54 mmboe of proved undeveloped reserves (11,7 mmbbl of crude oil, 3,4 mmbbl of NGL and 219 bcf of natural gas) were added.

Main proved undeveloped reserves additions are related to Unconventional and Tight Gas activities in the Neuquina basin, while proved developed reserves contributions come in most cases from the Neuquina and San Jorge basin projects.

***Improved Recovery***

A total of approximately 32 mmboe of proved reserves were added mainly due to new projects and positive production response. Main contributions come from Neuquina basin (5,4 mmboe of proved developed and 10 mmboe of proved undeveloped reserves) while Golfo San Jorge basin addition was 5,6 mmboe of proved developed and 9,6 mmboe of proved undeveloped secondary recovery reserves.

***Sales and Acquisitions***

As a net result of Sales and Acquisitions, 2.3 mmboe of proved developed reserves were added. These reserves increase is related to the change in participation for Aguada de la Arena field.

***Revisions of Previous Estimates***

During 2017, the Company's proved reserves were revised downwards by 96 mmboe (71 mmbbl of crude oil and 161 bcf of natural gas and an increase of 4 mmbbl of NGL).

The main revisions to proved reserves have been due to the following:

As a result of 2017 lower average oil and gas prices and higher operating costs, its impact on incomes, and on fields economic limit, 105 mmboe of Proved Developed Reserves were deducted. Changes occurred mainly in fields of Neuquina basin (-60 mmboe, Golfo San Jorge Basin (-25 mmboe) and Cuyana Basin (-14 mmboe).

New economic scenario also affected scheduled projects economics, resulting in a 20 mmboe Proved Undeveloped Reserves reduction mainly from oil fields of Neuquina basin (-15 mmboe) and Golfo San Jorge Basin (-3 mmboe).

Total liquids and gas production performance from existing wells was better than expected, resulting in an addition of 25 mmboe to proved developed reserves, according to new reserves estimates. Upward revisions of 48 mmboe are primarily due to better than expected well performance mainly in the Neuquina basin (31 mmboe) and Golfo San Jorge basin (14 mmboe). Downward revisions of approximately 23 mmboe are mainly related to performance updates in certain wells in the Neuquina basin.

A total volume of 5,6 mmboe of proved reserves was added due to feasibility studies performed to include new projects to field development plans, mainly in Golfo San Jorge basin (3,5 mmboe) and Neuquina basin (2,1 mmboe).

Net production results and forecasts from some new wells were lower than expected, resulting in a 7 mmboe reduction of proved reserves. Main differences were found in Neuquina and Golfo San Jorge basins.

As a better than expected WO jobs performance, 4.2 mmboe of Proved Reserves were added, mainly in Golfo San Jorge and Neuquina basins.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

**Changes in our estimated proved reserves during 2016**

***Extensions and Discoveries***

As a result of wells drilled in unproved reserves and resources areas, approximately 42 mmboe of proved developed reserves (15.5 mmbbl of crude oil, 3.8 mmbbl of NGL and 128.8 bcf of natural gas), and 79 mmboe of proved undeveloped reserves (29 mmbbl of crude oil, 7 mmbbl of NGL and 242 bcf of natural gas) were added.

The main proved undeveloped reserves additions are related to non-conventional and tight gas activities in the Neuquina basin, while proved developed reserves contributions are mainly from projects in the Neuquina and Golfo San Jorge basins.

***Improved Recovery***

A total of approximately 35 mmboe of proved reserves were added, mainly due to new projects and positive production response. The main contributions come from the Golfo San Jorge basin (8 mmboe of proved developed and 17 mmboe of proved undeveloped reserves), while 7 mmboe of proved developed reserves and 2 mmboe of proved undeveloped secondary recovery reserves were added in the Neuquina basin.

***Sales and Acquisitions***

As a net result of sales and acquisitions, 30.7 mmboe of proved reserves (19.5 mmboe of proved developed reserves and 11.2 mmboe of proved undeveloped reserves) were added. These reserves increases are related mainly to the acquisition of interests in the Río Neuquén and Aguada de la Arena fields.

***Revisions of Previous Estimates***

During 2016, the Company's proved reserves were revised downwards by 89 mmboe (75 mmbbl of crude oil and 110 bcf of natural gas and an increase of 5 mmbbl of NGL).

The main revisions to proved reserves were due to the following:

As a result of a lower average oil price in 2016, its impact on incomes, and on the economic limit of fields, 105 mmboe of proved developed reserves were deducted mainly from oil fields. Changes occurred mainly in the fields of the Golfo San Jorge basin (-40 mmboe), the Neuquina basin (-43 mmboe), the Austral basin (-14 mmboe) and the Cuyana basin (-8 mmboe).

New economic conditions also affected the economics of scheduled projects, resulting in a 45 mmboe reduction of proved undeveloped reserves, mainly from oil fields of the Golfo San Jorge basin (-16 mmboe), the Neuquina basin (-15 mmboe), the Austral basin (-12 mmboe) and the Cuyana basin (-2 mmboe).

Total liquids and gas production performance from existing wells was better than expected, resulting in an addition of 68 mmboe to proved developed reserves, according to new reserves estimates. Upward revisions of 80 mmboe are primarily due to better than expected well performance mainly in the Neuquina basin (27 mmboe) and the Golfo San Jorge basin (42 mmboe). Downward revisions of approximately 12 mmboe are mainly related to performance updates in certain wells in the Neuquina basin.

A total volume of 12 mmboe of proved reserves was added due to feasibility studies performed to include new field development projects, mainly in the Neuquina basin (10 mmboe) and the Golfo San Jorge basin (2 mmboe).

Net production and forecasts from some new wells were lower than expected, resulting in a 10 mmboe reduction of proved reserves. The main differences were found in the Neuquina, Golfo San Jorge and Austral basins.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

**Capitalized costs**

The following tables set forth capitalized costs, along with the related accumulated depreciation and allowances as of December 31, 2018, 2017 and 2016:

	<b>2018</b>			<b>2017</b>			<b>2016</b>		
	<b>Argentina</b>	<b>Other foreign</b>	<b>Worldwide</b>	<b>Argentina</b>	<b>Other foreign</b>	<b>Worldwide</b>	<b>Argentina</b>	<b>Other foreign</b>	<b>Worldwide</b>
<b>Consolidated capitalized costs</b>									
Proved oil and gas properties									
Mineral property, wells and related equipment	1,594,064		1,594,064	770,461		770,461	621,717		621,717
Support equipment and facilities	47,224		47,224	22,171		22,171	18,263		18,263
Drilling and work in progress	80,737		80,737	40,567		40,567	36,966		36,966
Unproved oil and gas properties	14,909	1,241	16,150	6,189	558	6,747	4,788	526	5,314
<b>Total capitalized costs</b>	<b>1,736,933</b>	<b>1,241</b>	<b>1,738,174</b>	<b>839,388</b>	<b>558</b>	<b>839,946</b>	<b>681,734</b>	<b>526</b>	<b>682,260</b>
Accumulated depreciation and valuation allowances	(1,283,840)	(489)	(1,284,328)	(600,086)		(600,086)	(473,814)		(473,814)
<b>Net capitalized costs</b>	<b>453,093</b>	<b>752</b>	<b>453,846</b>	<b>239,302</b>	<b>558</b>	<b>239,860</b>	<b>207,920</b>	<b>526</b>	<b>208,446</b>

There is no Group's share in equity method investees' capitalized costs during the years ended December 31, 2018, 2017 and 2016.

**Costs incurred**

The following tables set forth the costs incurred for oil and gas producing activities during the years ended December 31, 2018, 2017 and 2016:

Consolidated costs incurred	2018			2017			2016		
	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide
Acquisition of unproved properties	276		276						
Acquisition of proved properties	166		166	154		154	2,093		2,093
Exploration costs	7,283	381	7,664	3,302	149	3,451	2,922	517	3,439
Development costs	53,553		53,553	39,039		39,039	49,302	25	49,327
<b>Total costs incurred</b>	<b>61,278</b>	<b>381</b>	<b>61,659</b>	<b>42,495</b>	<b>149</b>	<b>42,644</b>	<b>54,317</b>	<b>542</b>	<b>54,859</b>

There is no Group's share in equity method investees' costs incurred during the years ended December 31, 2018, 2017 and 2016.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

**Results of operations from oil and gas producing activities**

The following tables include only the revenues and expenses directly associated with oil and gas producing activities. It does not include any allocation of the interest costs or corporate overhead and, therefore, is not necessarily indicative of the contribution to net earnings of the oil and gas operations.

Differences between these tables and the amounts shown in Note 5 Segment information , for the exploration and production business unit, relate to additional operations that do not arise from those properties held by the Group.

	2018			2017			2016		
	Argentina	Other	Worldwide	Argentina	Other	Worldwide	Argentina	Other	Worldwide
<b>Consolidated results of operations</b>									
Net sales to unaffiliated parties	3,085		3,085	521		521	18,489	98	18,587
Net intersegment sales	207,480		207,480	115,955		115,955	95,496		95,496
Total net revenues	210,565		210,565	116,476		116,476	113,985	98	114,083
Production costs	(114,381)		(114,381)	(69,944)		(69,944)	(65,823)	(39)	(65,862)
Exploration expenses	(5,185)	(224)	(5,409)	(2,279)	(168)	(2,447)	(3,140)	(17)	(3,157)
Depreciation and expense for valuation allowances	(72,044)		(72,044)	(45,277)		(45,277)	(38,036)	(90)	(38,126)
Impairment of Property, plan and equipment	3,265	(365)	2,900	5,032		5,032	(34,943)		(34,943)
Other	(2,839)	(168)	(3,007)	(2,706)		(2,706)	(836)		(836)
Pre-tax income (loss) from producing activities	19,381	(757)	18,624	1,302	(168)	1,134	(28,793)	(48)	(28,841)
Income tax expense / benefit	(5,814)	227	(5,587)	(456)	59	(397)	10,434	16	10,450
<b>Results of oil and gas producing activities</b>	13,567	(530)	13,037	846	(109)	737	(18,359)	(32)	(18,391)



There is no Group's share in equity method investees' results of operations during the years ended December 31, 2018, 2017 and 2016.

**Standardized measure of discounted future net cash flows**

The standardized measure is calculated as the excess of future cash inflows from proved reserves less future costs of producing and developing the reserves, future income taxes and a discount factor. Future cash inflows represent the revenues that would be received from production of year-end proved reserve quantities assuming the future production would be sold at the prices used for reserves estimates as of year-end (the average price). Accordingly, crude oil prices used to determine reserves were calculated each month, for crude oils of different quality produced by the Group.

F-153

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)  
(Cont.)**

For the year ended December 31, 2018, the Company considered the realized prices for crude oil in the domestic market taking into account the effect of export taxes as in effect as of each of the corresponding years (until 2020, in accordance with Decree No. 793/2018). For the years beyond the mentioned periods, the Company considered the unweighted average price of the first-day-of-the-month for each month within the twelve-month period ended December 31, 2018, which refers to the Brent prices adjusted by each different quality produced by the Company.

Additionally, since there are no benchmark market natural gas prices available in Argentina, the Company considered the realized prices in the domestic market according to the SEC and FASB Ss ASC 932 rules, but also taking into account the effect of certain market regulations set forth mainly during the second half of the year for certain natural gas segments.

Future production costs include the estimated expenditures related to production of the proved reserves, plus any production taxes without consideration of future inflation. Future development costs include the estimated costs of drilling development wells and installation of production facilities, plus the net costs associated with dismantling and abandonment of wells, assuming year-end costs continue without consideration of future inflation. Future income taxes were determined by applying statutory rates to future cash inflows less future production costs and less tax depreciation of the properties involved. The present value was determined by applying a discount rate of 10% per year to the annual future net cash flows.

The future cash inflows and outflows in foreign currency have been remeasured at the selling exchange rate of Argentine pesos 37.60 as of December 31, 2018.

The standardized measure does not purport to be an estimate of the fair market value of the Group s proved reserves. An estimate of fair value would also take into account, among other things, the expected recovery of reserves in excess of proved reserves, anticipated changes in future prices and costs and a discount factor representative of the time value of money and the risks inherent in producing oil and gas.

	<b>2018</b>	<b>2017</b>	<b>2016</b>
	<b>Other</b>	<b>Other</b>	<b>Other</b>
<b>Consolidated standardized measure of discounted</b>	<b>Argentina</b>	<b>Argentina</b>	<b>Argentina</b>
<b>free net cash flows</b>	<b>foreign Worldwide</b>	<b>foreign Worldwide</b>	<b>foreign Worldwide</b>

Future cash inflows <sup>(1)</sup>	1,786,896	1,786,896	564,396	564,396	669,791	669,791
Future production costs	(913,980)	(913,980)	(349,819)	(349,819)	(379,757)	(379,757)
Future development costs	(304,448)	(304,448)	(128,885)	(128,885)	(120,862)	(120,862)
Future income tax expenses	(121,388)	(121,388)	(2,324)	(2,324)	(29,956)	(29,956)
Annual discount for estimated timing of cash flows	(138,847)	(138,847)	(16,935)	(16,935)	(32,805)	(32,805)
<b>Standardized measure of discounted future cash flows</b>	<b>308,233</b>	<b>308,233</b>	<b>66,433</b>	<b>66,433</b>	<b>106,411</b>	<b>106,411</b>

(1) For prices used in future cash inflows see Oil and Gas Reserves. For the years ended December 31, 2017 and 2016, future cash inflows are stated net of the effect of withholding on exports until 2017 in accordance with Law No. 26,732

There is no Group's share in equity method investees' standardized measure of discounted future net cash flows during the years ended December 31, 2018, 2017 and 2016.

**Table of Contents**

English translation of the financial statements originally filed in Spanish with the Argentine Securities Commission ( CNV ).

In case of discrepancy, the financial statements filed with the CNV prevail over this translation

**YPF SOCIEDAD ANONIMA**  
**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2018, 2017 AND 2016**

**35. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)**  
**(Cont.)**

**Changes in the standardized measure of discounted future net cash flows**

The following table reflects the changes in standardized measure of discounted future net cash flows for the years ended December 31, 2018, 2017 and 2016:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Beginning of year	66,433	106,411	97,765
Sales and transfers, net of production costs	(62,115)	(53,759)	(52,025)
Net change in sales and transfer prices, net of future production costs	68,651	(74,046)	(37,336)
Changes in reserves and production rates (timing)	111,137	15,495	4,385
Net changes for extensions, discoveries and improved recovery	160,784	28,489	40,565
Net change due to purchases and sales of minerals in place	(730)		3,234
Changes in estimated future development and abandonment costs	(71,368)	(32,052)	(19,356)
Development costs incurred during the year that reduced future development costs	39,780	22,475	28,689
Accretion of discount	11,490	9,724	10,652
Net change in income taxes	(80,832)	25,920	8,522
Others	65,003	17,776	21,316
<b>End of year</b>	<b>308,233</b>	<b>66,433</b>	<b>106,411</b>

There is no Group's share in equity method investees' changes in the standardized measure of discounted future net cash flows during the years ended December 31, 2018, 2017 and 2016.

MIGUEL ANGEL GUTIERREZ  
President

F-155