2016
Management report and Annual consolidated financial statements

SUMMARY

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01 MANAGEMENT REPORT

1 SUMMARY OF THE GROUP'S RESULTS

After implementing its new organizational structure on January 1, 2016, ENGIE is rolling out its strategy to become the world energy transition leader.

Although the Group continues to face a complex macro-economic and market environment, notably characterized by significant commodity price volatility, its results for 2016 are strong and are already benefiting from the positive impact of the Lean 2018 performance program.

Revenues fell by 4.6% on a reported basis to €66.6 billion compared with 2015 (down by 4.0% on an organic basis), impacted by highly unfavorable exchange rate effects (€725 million negative impact) chiefly related to the pound sterling and Brazilian real, partially offset by the positive impact of changes in the scope of consolidation (€210 million positive impact). Besides these impacts, this decrease is mainly attributable to lower commodity prices which impacted the LNG and gas midstream activities, gas and electricity retail businesses, exploration-production, and power generation businesses, but only partially affected margins. The decrease was partially offset by the effect of slightly colder than average temperatures in France in 2016 compared with a warm 2015.

EBITDA(1) amounted to €10.7 billion, down 5.2% on a reported basis and 2.7% on an organic basis. The decrease on a reported basis is due to the impact of changes in the scope of consolidation (€151 million negative impact) mainly relating to the disposal of the merchant hydropower generation assets in the United States and to an unfavorable exchange rate effect chiefly related to the Norwegian krone, Brazilian real and pound sterling. In 2016, on an organic basis, EBITDA benefited from the restart of the Doel 3, Tihange 2 and Doel 1 nuclear power plants in Belgium in December 2015, the first effects of the Lean 2018 performance program, the favorable temperature effect in France, and the impact of commissioning of assets. These items only partially offset the continued decline in commodity prices.

Current operating income after share in net income of entities accounted for using the equity method decreased by 2.4% on a reported basis and increased by 1.6% on an organic basis to €6.2 billion. The organic decrease in EBITDA was offset by the positive effect of lower depreciation and amortization charges as a result of impairment losses recorded at end-2015 and the impact of reclassifying the portfolio of merchant power generation assets in the United States as assets held for sale in 2015.

Net income/(loss) Group share represented a net loss of €0.4 billion in 2016, up €4.2 billion on the previous year. It includes (i) lower net of tax impairment losses than in 2015, (ii) a positive change in the fair value of hedging contracts related to electricity and gas purchases and sales, (iii) gains on the partial disposal of Transmisora Eléctrica del Norte (TEN) in Chile, the disposal of the Paiton power plants in Indonesia and Meenakshi power plants in India, the disposal of available-for-sale securities (Transportadora de Gas del Perú (TgP) in Peru and Ores Assets in Belgium) and (iv) the impact of the reduction in the corporate income tax rate in France in 2020 introduced by the 2017 French Finance Law. These items were partially offset by the negative impact of a decrease in the discount rate applied to provisions for the back-end of the nuclear fuel cycle, and an increase in restructuring costs related mainly to the closure of plants in Australia, France, Belgium and the United Kingdom.

Net recurring income Group share amounted to €2.5 billion, a decrease of €0.1 billion compared with 2015, in line with the decline in current operating income after share in net income of entities accounted for using the equity method.

Cash flow from operations (CFFO) amounted to €9.7 billion, broadly stable compared to 2015 despite the decrease in cash generated from operations before income tax and working capital requirements.

Net debt stood at €24.8 billion, down €2.9 billion compared with net debt at December 31, 2015, mainly due to cash flow from operations (€9.7 billion) and the initial effects of the portfolio rotation program (€4.0 billion), and particularly (i) the disposal of the merchant hydropower generation assets portfolio in the United States, (ii) the disposal of thermal power generation assets in Indonesia and India, (iii) the disposal of wind farms operated by Maïa Eolis to Futures Energies

(1) Data at December 31, 2016 are presented according to the Group's new EBITDA definition. This now excludes the non-recurring portion of the net income of entities accounted for using the equity method, which amounted to €12 million in 2015.

Investissements Holding (FEIH), a 50/50 joint venture with Crédit Agricole Assurances, (iv) the disposal of available-for-sale securities (Ores Assets in Belgium and TgP in Peru) and (v) the partnership established as part of the TEN project, which led to the disposal of 50% of the holding in TEN in Chile. These items were partially offset by (i) gross investments in the period (€7.3 billion), (ii) and dividends paid to ENGIE SA shareholders (€2.4 billion) and to non-controlling interests (€0.5 billion).

2 OUTLOOK

Since 2016, the Group is committed to a 3 year transformation plan aiming at creating value and at improving the Group's risk profile. This plan which is very well advanced today, is based on **3 main programs**:

- the **portfolio rotation program** (€15 billion net debt impact targeted over 2016-2018). The Group has announced to date **€8.0 billion of disposals** (i.e. more than 50% of total program), of which **€7.2 billion already finalized today**;

- the **investment program** (€16 billion[(1)] growth capex over 2016-2018), of which €4.7 billion[(2)] are already invested at end December 2016;

- the **performance plan Lean 2018**. Thanks to significant progress made, the Group decides to raise **its objective 2018 by 20%**, i.e. **€1.2 billion of net gains** recorded at EBITDA level by 2018. At end December 2016, €530 million of net gains at EBITDA were achieved, which is higher than the annual 2016 target of €500 million.

For 2017[(3)], the Group anticipates **a net recurring income Group share between €2.4 and €2.6 billion, in strong organic growth compared to 2016**. This guidance is based on an estimated range for EBITDA of €10.7 to 11.3 billion**, also growing strongly organically**.

For the 2017-2018 period, the Group anticipates:

- a **net debt/EBITDA ratio** below or equal to 2.5x; and
- an «A» category credit rating.

For fiscal year **2016**, the Group confirms the payment of a €1 per share dividend, payable in cash.

For fiscal years **2017 and 2018**, the Group commits to pay a €0.70 per share dividend per year, payable in cash.

(1) To date, including the disposal of US thermal merchant assets in February 2017.

(2) Including capex on innovation and digital.

(3) These targets and indication assume average weather conditions in France, full pass through of supply costs in French regulated gas tariffs, and unchanged Group accounting principles for supply and logistic gas contracts, no significant regulatory and macro-economic changes, commodity price assumptions based on market conditions as of December 31, 2016 for the non-hedged part of the production, and average foreign exchange rates as follows for 2017: €/$: 1.07; €/BRL: 3.54. These financial objectives include the impact of the Belgian nuclear contribution on EBITDA but do not consider significant impacts on disposals not already announced.

3 CONSOLIDATED REVENUES AND EARNINGS

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	**66,639**	**69,883**	**-4.6%**	**-4.0%**
EBITDA	**10,689**	**11,274**	**-5.2%**	**-2.7%**
Net depreciation and amortization/Other	(4,517)	(4,947)		
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**6,172**	**6,326**	**-2.4%**	**+1.6%**

Consolidated **revenues** for the year ended December 31, 2016 amounted to €66.6 billion, down 4.6% compared with the previous year. On an organic basis (excluding the impact of changes in the scope of consolidation and exchange rates), revenues fell by 4.0%.

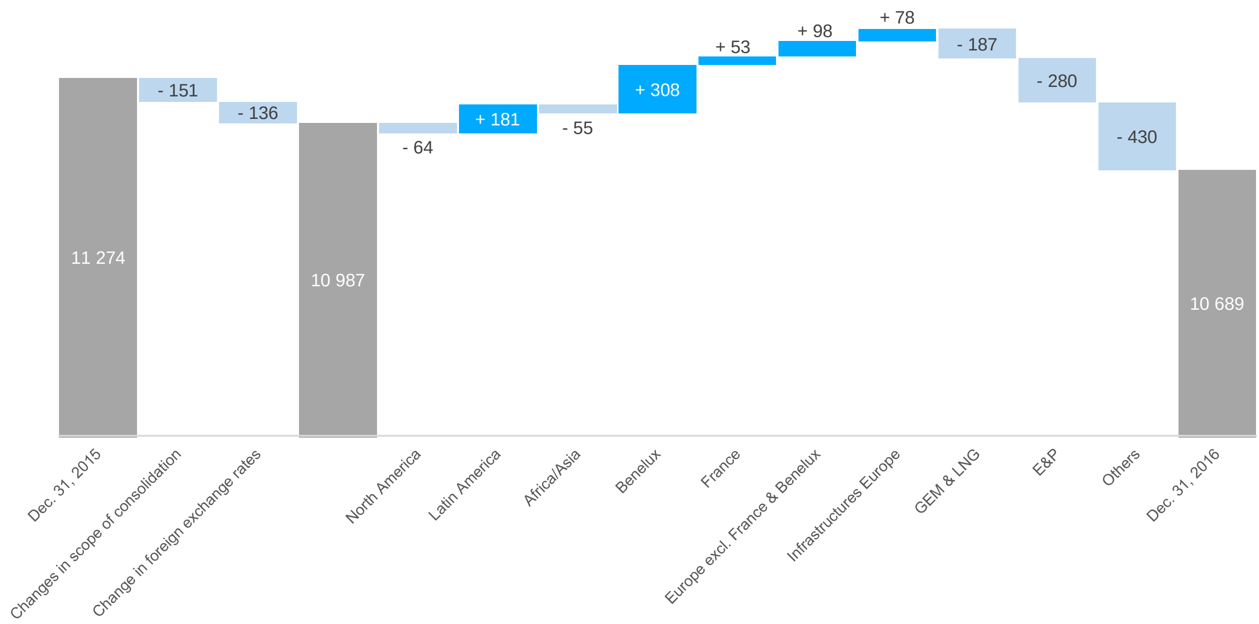
Changes in the scope of consolidation had a net positive €210 million impact resulting from (i) acquisitions made in 2015 and 2016 for €612 million, mainly OpTerra Energy Services in the United States (€241 million) and services companies operating in Australia and New Zealand (€137 million), (ii) disposals or deconsolidation of business activities in 2015 or 2016 for €402 million, including the disposal of the retail businesses in Hungary (€209 million negative impact) and merchant hydropower generation assets in the United States (€88 million negative impact). Exchange rates had a negative impact of €725 million on Group revenues, mainly reflecting the appreciation of the euro against the pound sterling, Brazilian real, Mexican peso and Norwegian krone.

Organic revenue performance was severely affected by lower commodity prices in the gas and LNG midstream, retail, exploration-production and power generation activities. Although these price effects had a significant impact on revenues, their impact on margins was more limited, particularly in the retail businesses. As a result, organic revenue for the Group's segments was up in Infrastructures Europe, Benelux, and Europe excluding France & Benelux, stable in France, Latin America and North America, down slightly in the Other segment, and down significantly in Africa/Asia, E&P and GEM & LNG.

EBITDA declined by 5.2% to €10.7 billion over the year. Excluding the impact of changes in the scope of consolidation and exchange rates, EBITDA decreased by 2.7%.

EBITDA TRENDS

In millions of euros



Changes in the scope of consolidation had a negative €151 million impact on EBITDA and chiefly resulted from the disposal of merchant hydropower generation assets in the United States, coupled with the impact of the disposal or recognition as assets held for sale of some entities accounted for using the equity method. Changes in exchange rates had a negative €136 million impact, mainly due to the appreciation of the euro against the Norwegian krone, Brazilian real and pound sterling.

On an organic basis, EBITDA was down 2.7%, or €298 million. It benefited from the positive impact of (i) the effects of the Lean 2018 performance program, (ii) the restart of the Doel 3, Tihange 2 and Doel 1 nuclear power plants in Belgium in December 2015, (iii) a positive temperature effect in France, (iv) the favorable impact of a provision reversal (in the Latin America segment), and (v) the commissioning of assets in the Latin America, Africa/Asia and E&P segments. However, these positive impacts only partially offset (i) negative price effects, mainly in the exploration-production, midstream gas and LNG, and power generation businesses, (ii) the impact of positive one-off items recognized in 2015, and (iii) unfavorable volume effects, particularly in the exploration-production and storage businesses in France.

Organic EBITDA performance varied significantly between segments:

- EBITDA for North America and Africa/Asia was down due to unfavorable price effects affecting margins of power generation assets (notably in North America, Thailand, Singapore and India), and the lower availability of coal assets in Australia. These impacts were partially offset by good cost control and the favorable impact of commissioning assets in South Africa;

- EBITDA for Latin America was up sharply on an organic basis, driven by the commissioning of the Mayakan gas pipeline extension in Mexico, the Quitaracsa and Nodo Energetico power generation assets in Peru and the full commissioning of the Jirau hydroelectric power plant in Brazil. Brazil also benefited from the favorable impact of a provision reversal;

- EBITDA for Benelux was up sharply, driven by the positive impact of the restart of the Doel 3, Tihange 2 and Doel 1 nuclear power plants at end-2015, which was partially offset by the deterioration in EBITDA from the services business, particularly in Oil & Gas;
- EBITDA for France improved due to a positive temperature effect on gas sales, a rise in electricity volumes sold, and a good performance in the network business. These increases were partially offset by the fall in electricity prices captured by the hydro generation business and difficulties in gas sales to business customers;
- growth in EBITDA in Europe excluding France and Benelux was driven by an improved performance from services (particularly in the United Kingdom) and from energy sales in Italy, partially offset by the adverse impact of new gas distribution tariffs in Romania;
- EBITDA for Infrastructures Europe increased due to the positive temperature effect and tariff increases in distribution and transportation;
- EBITDA for the GEM & LNG segment declined due to greater revisions to gas supply conditions in 2015 than in 2016 and the discontinuance of shipments from Yemen since April 2015;
- EBITDA for exploration-production activities was down due to the fall in the market prices of oil and gas, coupled with a decrease in hydrocarbon production due notably to the outages at Njord and Hyme since June 2016;
- EBITDA for the Other segment was down on an organic basis mainly due to the positive impact of one-off items recorded in 2015 and a contraction in engineering activities, which were only partially offset by a good operating performance from thermal power generation activities in Europe.

Current operating income after share in net income of entities accounted for using the equity method amounted to €6.2 billion, up 1.6% on an organic basis compared with 2015. Changes in this indicator for each segment reflect EBITDA trends, plus the positive impact of reduced depreciation and amortization charges as a result of the impairment losses recorded at end-2015 and the impact of reclassifying the portfolio of merchant power generation assets in the United States as assets held for sale.

4 REPORTABLE SEGMENT BUSINESS TRENDS

4.1 North America

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	3,814	3,673	+3.9%	-0.5%
EBITDA	475	633	-25.0%	-11.8%
Net depreciation and amortization/Other	(45)	(300)		
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	430	332	+29.4%	+61.3%

Revenues for the North America segment totaled €3,814 million, up 3.9% on a reported basis. Revenues were down 0.5% on an organic basis due to lower generation volumes and prices, partly mitigated by higher retail volumes. The change on a reported basis also factored in the scope impact of the acquisition of OpTerra Energy Services in February 2016 and the disposal of the merchant hydropower generation assets in June 2016.

Electricity sales decreased by 2.9 TWh to 65.8 TWh due to lower US generation volumes, primarily a consequence of weaker wholesale commodity prices, but were also impacted by the disposal mentioned above. US retail sales volumes increased, offsetting some of the reduction in generation volumes.

EBITDA totaled €475 million, down 25.0% on a reported basis but down only 11.8% organically. The organic decline resulted primarily from lower margins in the US generation business, partly mitigated by a stronger performance in the US retail business coupled with cost savings. The segment's reported results were negatively impacted by the disposal of the merchant hydropower generation assets and the reclassification of some entities accounted for using the equity method as assets held for sale.

Current operating income after share in net income of entities accounted for using the equity method amounted to €430 million, up 29.4% on a reported basis and up 61.3% on an organic basis, due to the positive impact on depreciation and amortization of both the accounting treatment of assets held for sale and the impairment losses recognized in 2015.

4.2 Latin America

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	4,075	4,197	-2.9%	+0.2%
EBITDA	1,696	1,563	+8.5%	+12.0%
Net depreciation and amortization/Other	(412)	(388)		
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	1,284	1,175	+9.3%	+13.2%

Revenues for the Latin America segment totaled €4,075 million, representing a 2.9% decrease on a reported basis, impacted by the depreciation of the Brazilian real and Mexican peso, and a 0.2% organic increase.

In Brazil, the impact of inflation on average prices under bilateral agreements failed to offset the impact of the very high spot prices which had boosted 2015 performance. Peru trended upwards thanks to the commissioning of the Quitaracsa hydroelectric power plant (October 2015) and the Nodo Energetico thermal power plant (October 2016). Mexico was positively impacted by the commissioning of the Mayakan gas pipeline extension (April 2015) and by distributed gas volumes and tariff increases. In Chile, the decrease in commodity prices affected selling prices.

Electricity sales decreased by 0.7 TWh to 59.3 TWh and gas sales increased by 3.9 TWh to 30.4 TWh.

EBITDA totaled €1,696 million, an increase of 8.5% on a reported basis and 12% on an organic basis, despite the negative impact of the depreciation of the Brazilian real and Mexican peso. The 12% organic growth was due to the positive impact of a provision reversal in Brazil, and by a stronger performance in Peru and Mexico, partially offset by weaker results in Chile.

Current operating income after share in net income of entities accounted for using the equity method amounted to €1,284 million, up 13.2% on an organic basis primarily due to the EBITDA improvement.

4.3 Africa/Asia

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	3,804	4,244	-10.4%	-12.1%
EBITDA	1,162	1,237	-6.0%	-4.5%
Net depreciation and amortization/Other	(239)	(265)		
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	923	972	-5.1%	-1.7%

Revenues for the Africa/Asia segment totaled €3,804 million, down 10.4% on a reported basis and 12.1% organically. In respect of changes in the scope of consolidation, the contribution of the Australian and New Zealand services activities acquired at end-2015 more than offset the negative foreign exchange impact, mainly due to the strengthening of the euro against the Thai baht and Turkish lira as well as the impact of the sale of the Meenakshi coal-fired power plant in India in September 2016. The organic decline resulted from a combination of lower generation volumes and reduced cost pass-through (gas and coal costs to electricity sale prices) in Thailand and Turkey.

Electricity sales decreased by 3.8 TWh to 51 TWh, with reduced volumes in Thailand and Australia.

EBITDA totaled €1,162 million, down 6.1% on a reported basis and 4.6% organically, mainly reflecting the reduced availability of the coal-fired assets in Australia and lower margins in Thailand, Singapore and India, partially offset by cost savings achieved under the Lean 2018 performance program and by the power generation assets commissioned in South Africa (Avon, West Coast and Dedisa).

Current operating income after share in net income of entities accounted for using the equity method amounted to €923 million, down 1.7% on an organic basis primarily for the same reasons as those given above for EBITDA. It was also favorably impacted by lower depreciation and amortization charges due to the impairment losses recognized at end-2015.

4.4 Benelux

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	9,044	8,732	+3.6%	+3.4%
EBITDA	755	445	+69.5%	+69.2%
Net depreciation and amortization/Other	(383)	(354)		
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	371	91	NA	NA

Revenues for the Benelux segment amounted to €9,044 million, up 3.6% on a reported basis and 3.4% on an organic basis compared to 2015. This rise reflects the restart of the Doel 1, Doel 3 and Tihange 2 nuclear power plants at the end of 2015. It was partly offset by a decrease in selling prices (no margin impact) on the gas retail business and by the fall in revenues from services businesses, notably in the Oil & Gas business.

Electricity sales in Belgium and Luxembourg were up 9.0 TWh, mainly due to increased availability of nuclear power plants. The retail market share in Belgium remained stable at 46%. Electricity sales in the Netherlands edged up 1.1 TWh.

Natural gas sales in Benelux totaled 49.2 TWh, an increase of 2.2 TWh compared to 2015. The retail market share in Belgium remained stable at 43%.

Despite the decline in the services businesses, **EBITDA** was up sharply by 69.5% to €755 million on a reported basis, driven by the restart of three nuclear power plants at the end of 2015 and by cost savings resulting from the Lean 2018 performance program.

Current operating income after share in net income of entities accounted for using the equity method increased in line with EBITDA.

4.5 France

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	**20,332**	**20,248**	**+0.4%**	**+0.2%**
EBITDA	**1,315**	**1,274**	**+3.2%**	**+4.3%**
Net depreciation and amortization/Other	(620)	(565)		
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**695**	**709**	**-1.9%**	**+2.8%**

Volumes sold

In TWh	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)
Gas sales	154.1	150.1	+2.7%
Electricity sales	56.9	50.9	+11.8%

France climatic adjustment

In TWh	Dec. 31, 2016	Dec. 31, 2015	Total change in TWh
Climate adjustment volumes (negative figure = warm climate, positive figure = cold climate)	2.2	(6.6)	+8.8

Revenues for the France segment amounted to €20,332 million, up slightly by 0.4% on a reported basis and by 0.2% organically. The increase was driven by growth in electricity sales to both BtoB and BtoC customers coupled with a positive temperature effect on gas sales, partially offset by a decrease in the number of customers and in selling prices.

Natural gas sales were up 4.0 TWh, comprising a positive 8.8 TWh temperature effect and a negative 4.8 TWh impact from the loss of customers due to competitive pressure. ENGIE holds around 74% of the BtoC market and around 25% of the BtoB market. Electricity sales were up 6.0 TWh compared to 2015 and continued to advance in terms of sales to end customers (up 2.1 TWh), sales to business customers (up 2.5 TWh) and production of renewable energy (up 1.4 TWh).

EBITDA amounted to €1,315 million, up 4.3% on an organic basis, led by a good performance from the heating networks business and BtoB services, a rise in electricity volumes sold to BtoB and BtoC customers and in power renewable generation, as well as good cost control. These impacts were partly offset by the fall in prices and volumes of gas sold to business customers.

Current operating income after share in net income of entities accounted for using the equity method amounted to €695 million, up 2.8% on an organic basis in line with organic EBITDA growth.

4.6 Europe excluding France and Benelux

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	8,118	8,491	-4.4%	+1.9%
EBITDA	612	559	+9.5%	+19.2%
Net depreciation and amortization/Other	(202)	(218)		
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	410	341	+20.2%	+36.4%

Revenues for the Europe excluding France and Benelux segment totaled €8,118 million, down 4.4% on a reported basis reflecting the foreign exchange impact (mainly due to the depreciation of the pound sterling) combined with the disposal of retail activities in Hungary in September 2015. Revenues were up 1.9% organically, mainly due to favorable weather conditions in Romania which more than offset the lower gas distribution tariffs in Romania, coupled with growth in revenues from the services business.

Electricity sales were up 1.1 TWh to 29.1 TWh. Gas sales fell by 6.3 TWh to 68.2 TWh, mainly due to the disposal of the retail activities in Hungary.

EBITDA totaled €612 million, representing an organic increase of 19.2%. This growth was driven mainly by the positive impacts of the Lean 2018 performance program, an increase in margins on services business in the United Kingdom, and improved performance in the energy retail business in Italy, partially offset by the fall in gas distribution tariffs in Romania.

Current operating income after share in net income of entities accounted for using the equity method rose 36.4% to €410 million on an organic basis in line with organic EBITDA growth.

4.7 Infrastructures Europe

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	3,267	3,027	+8.0%	+8.1%
Total revenues (incl. intra-group transactions)	6,762	6,585	+2.7%	
EBITDA	3,459	3,381	+2.3%	+2.3%
Net depreciation and amortization/Other	(1,390)	(1,327)		
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	2,068	2,054	+0.7%	+0.6%

Total **revenues** for the Infrastructures Europe segment, including intra-Group transactions, amounted to €6,762 million, up 2.7% on 2015, reflecting:

- the annual review in France of distribution infrastructure access tariffs (3.9% increase on July 1, 2015 and 2.8% increase on July 1, 2016) and of transport infrastructure access tariffs (2.5% increase on April 1, 2015 and 4.6% increase on April 1, 2016);
- a favorable temperature effect[(1)].

Despite:

- lower storage capacity sales in France;

(1) A 12.2 TWh decrease due to the mild conditions in 2015 and a 4 TWh increase due to the colder conditions in 2016, representing a €114 million increase in revenues calculated at €7/MWh.

- the decrease in gas purchases and sales to maintain technical performance of the storage facilities (low summer/winter spreads).

The contribution to Group revenues was €3,267 million, up 8.0% on 2015. The improved contribution essentially reflects the growth in distribution and transportation activities for third parties and the positive impact of tariff increases.

EBITDA amounted to €3,459 million, up 2.3% on the previous year due to growth in revenues.

Current operating income after share in net income of entities accounted for using the equity method came in at €2,068 million for the period, up 0.7% on 2015, with a rise in net depreciation and amortization charges resulting from new assets commissioned by GRTgaz and GRDF in 2015.

4.8 GEM & LNG

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	8,981	11,320	-20.7%	-20.5%
EBITDA	3	196	-98.3%	-98.3%
Net depreciation and amortization/Other	(77)	(86)		
CURRENT OPERATING INCOME/(LOSS) AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	(74)	110	NA	NA

Global Energy Management (GEM) and LNG's contribution to Group **revenues** in 2016 amounted to €8,981 million, down 20.7% compared to 2015. This decrease was mainly due the drop in commodity prices in Europe and Asia since 2015.

External LNG sales were stable at 81 TWh, representing 108 cargoes.

EBITDA was down on 2015 to €3 million, due mostly to the recognition of profits relating to the revised gas supply conditions introduced in 2015, which were higher than in 2016, and to the discontinuance of shipments from Yemen as from April 2015. The impacts were partially offset by LNG sale opportunities in Asia in the fourth quarter of 2016 and by the significant gains generated as a result of the Lean 2018 performance program.

The business incurred a **current operating loss after share in net income of entities accounted for using the equity method** of €74 million in 2016, representing a deterioration on both a reported and organic basis, in line with EBITDA.

4.9 E&P

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	1,799	2,242	-19.8%	-17.8%
EBITDA	1,198	1,514	-20.9%	-18.9%
Net depreciation and amortization/Other	(662)	(969)		
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	536	546	-1.8%	-0.2%

The contribution of E&P to Group **revenues** amounted to €1,799 million in 2016, down 19.8% on a reported basis and 17.8% on an organic basis, mainly due to the slump in oil and gas prices and a 2.8 Mbep decrease in total hydrocarbon production (56.3 Mbep in 2016 versus 59.1 Mbep in 2015), due to outages at Njord and Hyme in Norway in early June, partially offset by a good performance from other assets and the final impacts of the commissioning of Gudrun. Exchange rate differences account for the remainder of the reported decrease in revenues.

EBITDA amounted to €1,198 million, down 20.9% on a reported basis or 18.9% on an organic basis, in line with revenue trends. The decline in EBITDA was partially offset by a sharp decrease in extraction and exploration costs.

Current operating income after share in net income of entities accounted for using the equity method amounted to €536 million in 2016, down 1.8% on a reported basis and down 0.2% on an organic basis, as the decrease in EBITDA was largely offset by lower depreciation and amortization charges due to the impairment losses recorded at end-2015 and by lower charges in respect of pre-capitalized exploration costs.

4.10 Other

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)	% change (organic basis)
Revenues	**3,405**	**3,710**	**-8.2%**	**-6.7%**
EBITDA	**15**	**472**	**-96.9%**	**-92.4%**
Net depreciation and amortization/Other	(487)	(476)		
CURRENT OPERATING INCOME/(LOSS) AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**(472)**	**(4)**	**NA**	**NA**

The Other segment comprises the activities of the Generation Europe, Tractebel and GTT business units, as well as the Group's holding and corporate activities, which notably include the entities centralizing the Group's financing requirements, Solairedirect's business and the equity-accounted contribution of SUEZ.

Revenues amounted to €3,405 million, down 8.2% on a reported basis and down 6.7% organically. The negative foreign exchange impact relating to the pound sterling was partially offset by the positive contributions from newly-consolidated acquisitions, including Solairedirect. The organic decrease was mainly due to the closure of the coal-fired power plants at Rugeley (1 GW) in early June 2016 and Gelderland (0.6 GW) at end-2015 and the Twinerg gas-fired power plant (0.4 GW) in June 2016.

Electricity sales amounted to 21.6 TWh, representing a decrease of 0.5 TWh compared to 2015. The closures of Rugeley, Gelderland and Twinerg were offset by an increase in production mainly at the gas-fired power plants in the Netherlands.

EBITDA amounted to €15 million, down on both a reported and organic basis compared to 2015, due to the positive one-off items recorded in 2015 (including damages and late payment interest received in relation to two coal-fired power plant projects in Germany and the Netherlands) and a contraction in Tractebel's engineering business, notwithstanding an improved performance from thermal power generation activities due notably to the commissioning of Wilhelmshaven in October 2015.

Current operating loss after share in net income of entities accounted for using the equity method was €472 million for the period, representing a deterioration on both reported and organic basis, in line with EBITDA trends.

5 OTHER INCOME STATEMENT ITEMS

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	% change (reported basis)
Current operating income after share in net income of entities accounted for using the equity method	**6,172**	**6,326**	**-2.4%**
Mark to market on commodity contracts other than trading instruments	1,254	(261)	
Impairment losses	(4,192)	(8,748)	
Restructuring costs	(476)	(265)	
Changes in scope of consolidation	544	(46)	
Other non-recurring items	(850)	(248)	
Income/(loss) from operating activities	**2,452**	**(3,242)**	**NA**
Net financial income/(loss)	(1,380)	(1,547)	
Income tax expense	(909)	(324)	
NET INCOME/(LOSS)	**163**	**(5,113)**	**NA**
o/w net income/(loss) Group share	(415)	(4,617)	
o/w non-controlling interests	579	(496)	

Income from operating activities amounted to €2,452 million, up compared to 2015 due mainly to (i) lower impairment losses compared to the previous year, (ii) the positive impact of the change in fair value of commodity derivatives, and (iii) gains on disposals of assets and available-for-sale securities, partially offset by (iv) the fall in current operating income after share in net income of companies accounted for using the equity method, and (v) by the recognition of additional costs relating to the three-yearly revision of nuclear provisions in Belgium, to the dismantling and rehabilitation of the Hazelwood power plant and adjacent coal mine in Australia, and to restructuring plans initiated by the Group under its transformation program.

In 2016, the Group recognized impairment losses of €1,690 million against goodwill, €2,485 million against property, plant and equipment and intangible assets, and €147 million against financial assets and investments in entities accounted for using the equity method. These impairment losses related mainly to the Benelux, GEM & LNG, France and North America reportable segments. After taking into account the deferred tax effects and the share of impairment losses attributable to non-controlling interests, the impact of these impairment losses on net income Group share was a negative €3,866 million. These impairment losses are described in Note 8.2 “Impairment losses” to the consolidated financial statements.

In 2015, the Group recognized impairment losses of €2,628 million against goodwill, €5,731 million against property, plant and equipment and intangible assets, and €402 million against financial assets and investments in entities accounted for using the equity method. These impairment losses related mainly to the E&P, GEM & LNG, Africa/Asia, North America and France reportable segments.

Income from operating activities was also affected by:

- changes in the fair value of commodity derivatives relating to operating items, which had a positive impact of €1,254 million on income from operating activities (reflecting the impact of transactions not eligible for hedge accounting), compared with a negative impact of €261 million in 2015. The impact for the period results chiefly from positive overall price effects on these positions, combined with the net positive impact of unwinding positions with a negative market value at December 31, 2015;
- restructuring costs of €476 million (compared with €265 million the previous year) including notably (i) costs related to decisions to shut down production and close some entities, sites and power plants for €230 million and (ii) costs related to various staff reduction plans implemented as part of the Group’s transformation program, as well as measures to adapt to economic conditions for €154 million;
- changes in the scope of consolidation (gains and losses on disposals of consolidated entities or remeasurements of previously-held interests in accordance with IFRS 3), which had a positive impact of €544 million, including gains on the disposal of the Group’s entire 40.5% interest in the Paiton coal-fired power plants in Indonesia for €225 million, the disposal of a 50% interest in Transmisora Eléctrica del Norte (TEN) in Chile for €211 million, and the disposal of the 89.9% interest in the Meenakshi coal-fired power plants in India for €84 million (*see Note 4.1*);

- other non-recurring items representing a loss of €850 million, mainly including the €584 million net expense related to additions to provisions for the back-end of the nuclear fuel cycle under the three-yearly revision of nuclear provisions in Belgium (*see Note 18.2*), as well as a €124 million expense corresponding to the recognition of additional dismantling and rehabilitation costs for the Hazelwood power plant and adjacent coal mine in Australia following the shut-down and rehabilitation plan approved by the shareholders at the end of 2016.

The Group's net financial loss narrowed to €1,380 million in 2016 from €1,547 million in 2015, owing to the fall in the cost of gross debt and lower non-recurring expenses compared to 2015.

The income tax charge amounted to €909 million in 2016 (€324 million in 2015). It includes an income tax benefit of €824 million arising on non-recurring income statement items (versus €1,110 million in 2015), mainly related to the remeasurement of deferred taxes recognized by the French entities at the new rate of 28.92% provided for in the 2017 French Finance Law (€904 million), and to the impairment losses recognized against property, plant and equipment and intangible assets in 2016 (€326 million). Adjusted for these non-recurring items, the effective recurring tax rate was 41.9%, higher than the 2015 rate of 39.0% due mainly to the impacts of the reversal of tax litigation provisions in 2015.

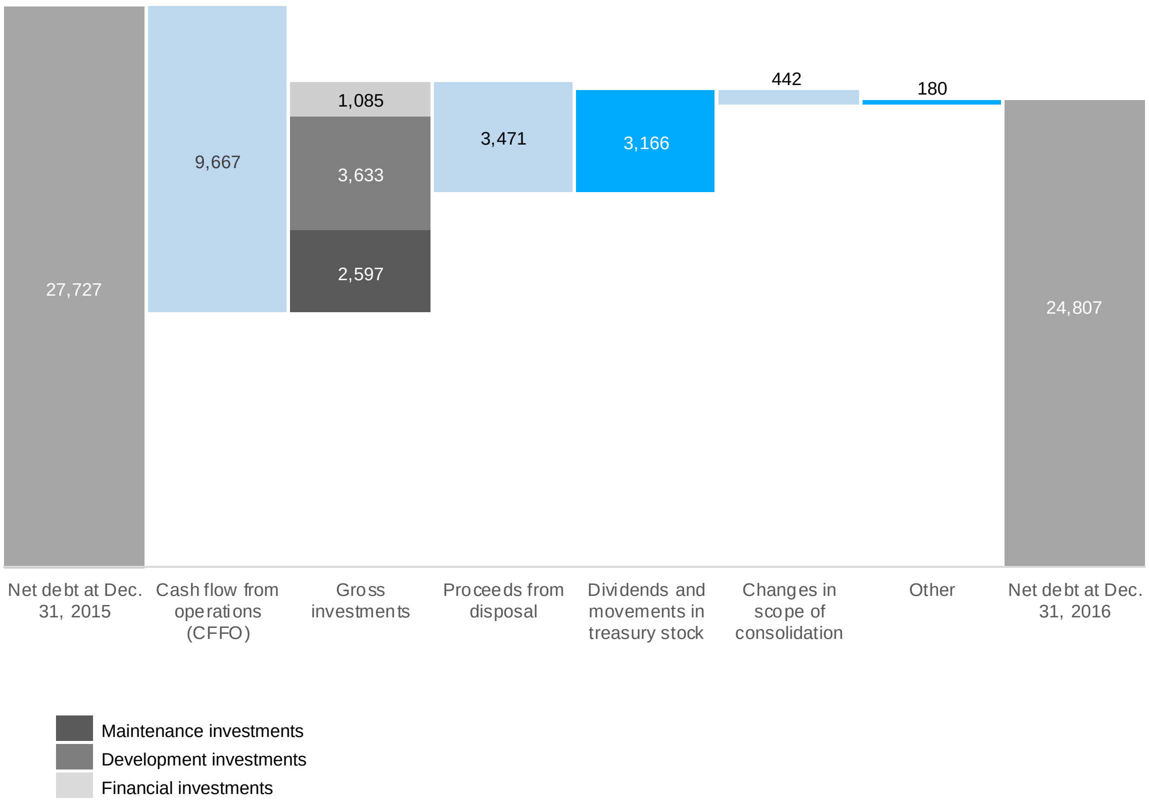
Net income attributable to non-controlling interests was up year-on-year at €579 million due mainly to the impact of the capital gain on the disposal of a 50% interest in Transmisora Eléctrica del Norte (TEN) which affected the net income of the Group's 53%-owned subsidiary ENGIE Energía Chile, as well as improved income from exploration-production activities and in Australia.

6 CHANGES IN NET DEBT

Net debt stood at €24.8 billion, down €2.9 billion compared with net debt at December 31, 2015, mainly due to cash flow from operations (€9.7 billion) and the initial effects of the portfolio rotation program (€4.0 billion), and particularly (i) the disposal of the merchant hydro generation assets portfolio in the United States, (ii) the disposal of thermal power generation assets in Indonesia and India, (iii) the disposal of wind farms operated by Maïa Eolis to Futures Energies Investissements Holding (FEIH), a 50/50 joint venture with Crédit Agricole Assurances, (iv) the disposal of available-for-sale securities (Ores Assets in Belgium and TgP in Peru) and (v) the partnership established as part of the TEN project, which led to the disposal of 50% of the holding in TEN in Chile. These items were partially offset by (i) gross investments in the period (€7.3 billion), (ii) and dividends paid to ENGIE SA shareholders (€2.4 billion) and to non-controlling interests (€0.5 billion).

Changes in net debt break down as follows:

In millions of euros



The net debt to EBITDA ratio came out at 2.32 at December 31, 2016.

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Net debt	24,807	27,727
EBITDA	10,689	11,274
NET DEBT/EBITDA RATIO	**2.32**	**2.46**

6.1 Cash flow from operations (CFFO)

Cash generated from operations before income tax and working capital requirements amounted to €10,263 million in 2016, down €679 million compared with 2015.
The fall was in line with the EBITDA performance.

The change in working capital requirements represents a positive impact of €1.4 billion related to the impact of changes in commodity prices compared to 2015.

6.2 Net investments

Gross investments during the period amounted to €7,315 million and included:

- financial investments for €1,085 million, relating primarily to the acquisition of OpTerra Energy Services and Green Charge Networks in the United States for €187 million and €51 million respectively, the acquisition of 51% of Maïa Eolis (wind farms in France) for €152 million, and a €248 million increase in Synatom investments;

- development investments totaling €3,633 million, including (i) €855 million invested in the Latin America segment to build power plants and develop wind farms in Peru, Chile and Brazil, (ii) €894 million invested in the E&P segment to develop gas fields primarily in Algeria, Indonesia, the United Kingdom and Norway, (iii) €594 million invested in the Infrastructures Europe segment and (iv) €429 million to develop Solairedirect's photovoltaic projects mainly in India and Chile;

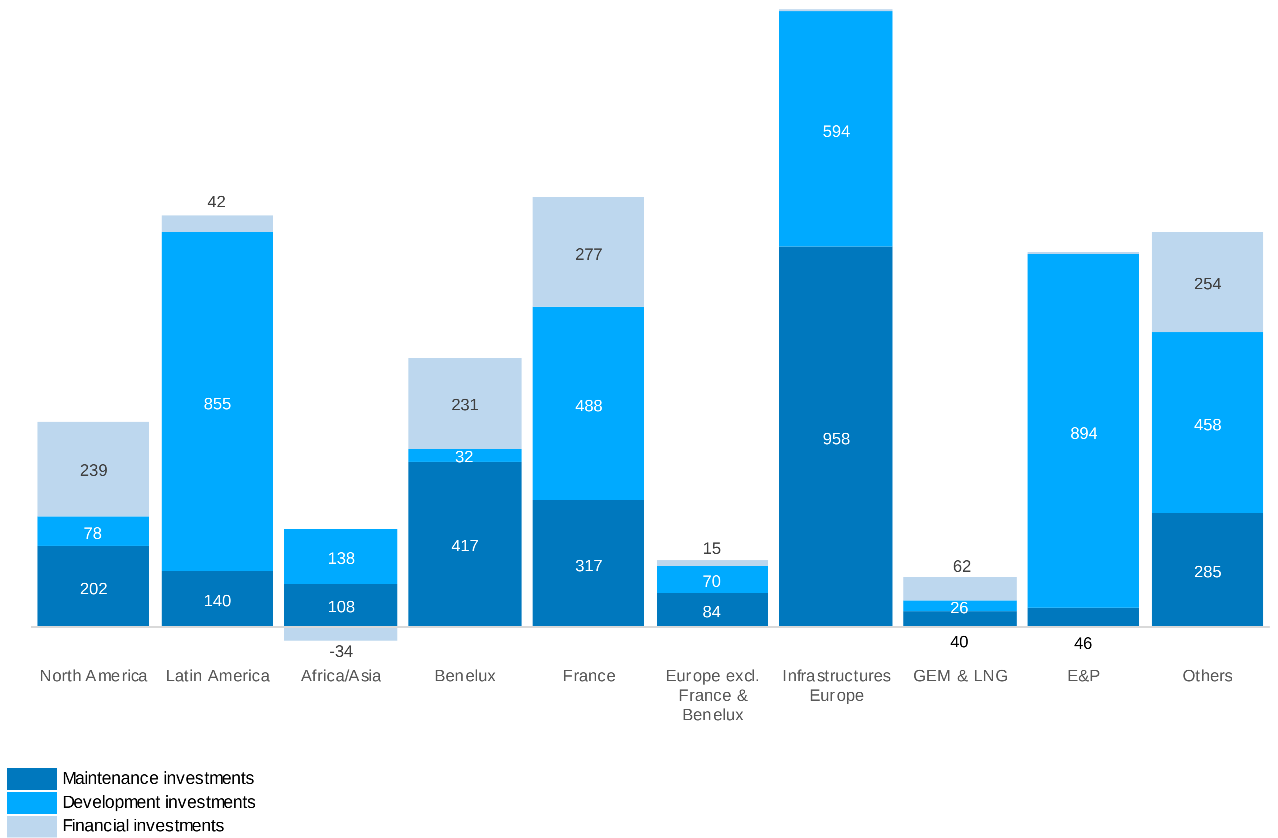
- maintenance investments for an amount of €2,597 million.

Disposals represented a cash amount of €3,471 million, mainly including the Group's disposal of its merchant hydropower generation assets in the United States for €868 million, its entire 40.5% interest in Paiton for €1,268 million, its entire 89.9% interest in Meenakshi for a negative €278 million, a 50% interest in Transmisora Eléctrica del Norte (TEN) for €272 million, and Ores Assets shares for €410 million.

Taking into account changes in the scope of consolidation for the period relating to acquisitions and disposals of subsidiaries (€442 million negative impact), the impact on net debt of investments net of proceeds from disposals amounted to €3,402 million.

Capital expenditure breaks down as follows by segment:

In millions of euros



6.3 Dividends and movements in treasury stock

Dividends and movements in treasury stock during the period amounted to €3,166 million and included:

- €2,397 million in dividends paid by ENGIE SA to its shareholders, which corresponds to the balance of the 2015 dividend (€0.50 per share) paid in May 2016, and an interim dividend in respect of 2016 (€0.50 per share) paid in October 2016;
- dividends paid by various subsidiaries to their non-controlling shareholders in an amount of €541 million, the payment of interest on hybrid debt for €146 million, withholding tax and movements in treasury stock.

6.4 Net debt at December 31, 2016

Excluding amortized cost but including the impact of foreign currency derivatives, at December 31, 2016 a total of 77% of net debt was denominated in euros, 13% in US dollars and 3% in pounds sterling.

Including the impact of financial instruments, 83% of net debt is at fixed rates.

The average maturity of the Group's net debt is 9.4 years.

At December 31, 2016, the Group had total undrawn confirmed credit lines of €13.6 billion.

7 OTHER ITEMS IN THE STATEMENT OF FINANCIAL POSITION

In millions of euros	Dec. 31, 2016	Dec. 31, 2015	Net change
Non-current assets	**98,905**	**101,204**	**(2,299)**
of which goodwill	17,372	19,024	(1,652)
of which property, plant and equipment and intangible assets, net	64,378	64,001	378
of which investments in entities accounted for using the equity method	6,624	6,977	(353)
Current assets	**59,595**	**59,454**	**141**
Total equity	**45,447**	**48,750**	**(3,303)**
Provisions	22,208	18,835	3,372
Borrowings	36,950	39,155	(2,206)
Other liabilities	53,895	53,917	(22)

The carrying amount of **property, plant and equipment and intangible assets** was €64.4 billion, up €0.4 billion on December 31, 2015. The increase was primarily the result of capital expenditure during the year (€6.1 billion positive impact), other changes (€1.0 billion positive impact, relating mainly to an increase in dismantling assets recorded against the increase in provisions for dismantling nuclear facilities in Belgium), translation adjustments (€0.6 billion positive impact), partially offset by depreciation and amortization charges (€4.4 billion negative impact) and impairment losses (€2.5 billion negative impact).

Goodwill decreased by €1.7 billion to €17.4 billion, mainly due to the recognition of impairment losses.

Total equity amounted to €45.5 billion, a decrease of €3.3 billion compared to December 31, 2015. This decrease results essentially from the payment of cash dividends (€2.9 billion negative impact) and other comprehensive income (€0.5 billion negative impact, chiefly relating to actuarial differences and net investment and cash flow hedges net of tax, partially offset by translation adjustments).

Provisions amounted to €22.2 billion, an increase of €3.4 billion compared to December 31, 2015. This increase stems mainly from the impact of the revision to provisions for dismantling nuclear facilities (€1.1 billion positive impact), actuarial losses on provisions for post-employment benefits (€0.7 billion positive impact) owing to the fall in discount rates in the period, and the impact of unwinding the discount on the provisions (€0.6 billion positive impact).

8 PARENT COMPANY'S FINANCIAL STATEMENTS

The figures provided below relate to the financial statements of ENGIE SA, prepared in accordance with French GAAP and applicable regulations.

Revenues for ENGIE SA in 2016 totaled €17,939 million, down 10% on 2015 due mainly to the impact of lower gas sales, partly offset by an upturn in electricity activity.

The Company posted a net operating loss of €1,252 million versus a net operating loss of €744 million in 2015, chiefly reflecting the decrease in the energy margin and the increase in other external expenses excluding infrastructure costs.

The Company reported net financial income of €1,294 million compared with €1,089 million in 2015. This mainly includes dividends received from subsidiaries for €2,043 million versus €2,055 million in 2015, and the cost of debt which decreased slightly to €744 million, chiefly consisting of the interest expense on bond issues.

Net non-recurring expenses amounted to €266 million, chiefly due to the combined effect of litigation provisions (expense of €190 million), impairment losses on a contractual intangible asset as well as miscellaneous expenses relating to restructuring transactions. The additional non-recurring expense was mainly related to net impairment losses on securities (€54 million) and special depreciation allowances (€39 million).

The income tax benefit amounted to €672 million compared to a benefit of €540 million in 2015. These two amounts included a tax consolidation benefit of €405 million and €350 million in 2016 and 2015, respectively.

Net income for the year came out at €448 million.

Shareholders' equity amounted to €37,976 million at end-2016, versus €39,903 million at December 31, 2015, mainly reflecting the cash dividend payout. Distributable profit and capacity amounted to respectively €1,941 million and €34,741 million.

At December 31, 2016, net debt stood at €30,709 million, and cash and cash equivalents totaled €5,075 million (of which €3,077 million relating to affiliates current accounts).

Information relating to supplier payment deadlines

The law in favor of the modernization of the economy ("LME" law No. 2008-776 of August 4, 2008) and its implementing decree (No. 2008-1492 of December 30, 2008), provide that companies whose annual financial statements are certified by a Statutory Auditor must publish information regarding supplier payment deadlines. The purpose of publishing this information is to demonstrate that there are no significant delays in the payment of suppliers.

The breakdown by maturity of outstanding amounts payable by ENGIE SA to its suppliers over the last two reporting periods is as follow:

	Dec. 31, 2016			Dec. 31, 2015		
In millions of euros	**External**	**Group**	**Total**	**External**	**Group**	**Total**
Past due	93	149	242	20	112	132
30 days	260	347	607	254	30	284
45 days	65	4	69	141	253	394
More than 45 days	17	-	17	54	-	54
TOTAL	**435**	**500**	**935**	**469**	**395**	**864**

02 CONSOLIDATED FINANCIAL STATEMENTS

INCOME STATEMENT

In millions of euros	Notes	Dec. 31, 2016	Dec. 31, 2015
Revenues	7.1	66,639	69,883
Purchases		(36,688)	(39,308)
Personnel costs	7.2	(10,231)	(10,168)
Depreciation, amortization and provisions	7.3	(4,869)	(5,007)
Other operating expenses		(10,841)	(11,163)
Other operating income		1,399	1,617
CURRENT OPERATING INCOME	**7**	**5,408**	**5,854**
Share in net income of entities accounted for using the equity method	3	764	473
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD		**6,172**	**6,326**
Mark-to-market on commodity contracts other than trading instruments	8.1	1,254	(261)
Impairment losses	8.2	(4,192)	(8,748)
Restructuring costs	8.3	(476)	(265)
Changes in scope of consolidation	8.4	544	(46)
Other non-recurring items	8.5	(850)	(248)
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**8**	**2,452**	**(3,242)**
Financial expenses		(2,245)	(2,413)
Financial income		865	866
NET FINANCIAL INCOME/(LOSS)	**9**	**(1,380)**	**(1,547)**
Income tax expense	10	(909)	(324)
NET INCOME/(LOSS)		**163**	**(5,113)**
Net income/(loss) Group share		(415)	(4,617)
Non-controlling interests		579	(496)
BASIC EARNINGS/(LOSS) PER SHARE *(EUROS)*	**11**	**(0.23)**	**(1.99)**
DILUTED EARNINGS/(LOSS) PER SHARE *(EUROS)*	**11**	**(0.23)**	**(1.99)**

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

STATEMENT OF COMPREHENSIVE INCOME

In millions of euros	Notes	Dec. 31, 2016	Dec. 31, 2016 Owners of the parent	Dec. 31, 2016 Non-controlling interests	Dec. 31, 2015	Dec. 31, 2015 Owners of the parent	Dec. 31, 2015 Non-controlling interests
NET INCOME/(LOSS)		163	(415)	579	(5,113)	(4,617)	(496)
Available-for-sale securities	15	146	144	2	(19)	(19)	-
Net investment hedges		(86)	(86)	-	(364)	(364)	-
Cash flow hedges (excl. commodity instruments)	16	(250)	(260)	10	277	263	13
Commodity cash flow hedges	16	(641)	(401)	(240)	101	(1)	103
Deferred tax on items above	10	386	286	100	(65)	(18)	(47)
Share of entities accounted for using the equity method in recyclable items, net of tax		108	108	-	(162)	(162)	-
Translation adjustments		474	306	168	903	799	105
TOTAL RECYCLABLE ITEMS		**137**	**97**	**40**	**671**	**498**	**173**
Actuarial gains and losses	19	(670)	(628)	(42)	446	433	13
Deferred tax on actuarial gains and losses	10	47	49	(2)	(139)	(135)	(4)
Share of entities accounted for using the equity method in non-recyclable items from actuarial gains and losses, net of tax		(50)	(50)	-	(34)	(34)	-
TOTAL NON-RECYCLABLE ITEMS		**(672)**	**(628)**	**(44)**	**274**	**264**	**9**
TOTAL COMPREHENSIVE INCOME/(LOSS)		(371)	(946)	575	(4,168)	(3,855)	(313)

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

STATEMENT OF FINANCIAL POSITION

ASSETS

In millions of euros	Notes	Dec. 31, 2016	Dec. 31, 2015
Non-current assets			
Intangible assets, net	13	6,639	7,013
Goodwill	12	17,372	19,024
Property, plant and equipment, net	14	57,739	56,988
Available-for-sale securities	15	2,997	3,016
Loans and receivables at amortized cost	15	2,250	2,377
Derivative instruments	15	3,603	4,026
Investments in entities accounted for using the equity method	3	6,624	6,977
Other assets	26	431	503
Deferred tax assets	10	1,250	1,280
TOTAL NON-CURRENT ASSETS		**98,905**	**101,204**
Current assets			
Loans and receivables at amortized cost	15	595	731
Derivative instruments	15	9,047	10,857
Trade and other receivables, net	15	20,835	19,349
Inventories	26	3,656	4,207
Other assets	26	10,692	9,348
Financial assets at fair value through income	15	1,439	1,172
Cash and cash equivalents	15	9,825	9,183
Assets classified as held for sale	4	3,506	4,607
TOTAL CURRENT ASSETS		**59,595**	**59,454**
TOTAL ASSETS		**158,499**	**160,658**

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

LIABILITIES

In millions of euros	Notes	Dec. 31, 2016	Dec. 31, 2015
Shareholders' equity		39,578	43,078
Non-controlling interests	2	5,870	5,672
TOTAL EQUITY	17	**45,447**	**48,750**
Non-current liabilities			
Provisions	18	19,461	16,804
Long-term borrowings	15	24,411	28,123
Derivative instruments	15	3,410	4,216
Other financial liabilities	15	200	237
Other liabilities	26	1,203	1,108
Deferred tax liabilities	10	6,775	8,131
TOTAL NON-CURRENT LIABILITIES		**55,461**	**58,619**
Current liabilities			
Provisions	18	2,747	2,032
Short-term borrowings	15	12,539	11,032
Derivative instruments	15	9,228	8,642
Trade and other payables	15	17,075	17,101
Other liabilities	26	15,702	13,782
Liabilities directly associated with assets classified as held for sale	4	300	699
TOTAL CURRENT LIABILITIES		**57,591**	**53,288**
TOTAL EQUITY AND LIABILITIES		**158,499**	**160,658**

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

STATEMENT OF CHANGES IN EQUITY

In millions of euros	Number of shares	Share capital	Additional paid-in capital	Consolidated reserves	Deeply-subordinated perpetual notes	Changes in fair value and other	Translation adjustments	Treasury stock	Shareholders' equity	Non-controlling interests	Total
EQUITY AT DECEMBER 31, 2014	**2,435,285,011**	**2,435**	**32,506**	**12,436**	**3,564**	**(627)**	**191**	**(957)**	**49,548**	**6,433**	**55,981**
Net income/(loss)				(4,617)					(4,617)	(496)	(5,113)
Other comprehensive income/(loss)				264		(301)	799		762	183	945
TOTAL COMPREHENSIVE INCOME/(LOSS)				**(4,353)**	**-**	**(301)**	**799**	**-**	**(3,855)**	**(313)**	**(4,168)**
Employee share issues and share-based payment				46					46	-	46
Dividends paid in cash				(2,392)					(2,392)	(482)	(2,875)
Purchase/disposal of treasury stock				(134)				135	1	-	1
Coupons of deeply-subordinated perpetual notes					(145)				(145)	-	(145)
Transactions between owners				(60)					(60)	21	(39)
Transactions between owners within entities accounted for using the equity method				(73)					(73)	-	(73)
Share capital increases/decreases subscribed by non-controlling interests									-	22	22
Other changes				8					8	(8)	-
EQUITY AT DECEMBER 31, 2015	**2,435,285,011**	**2,435**	**32,506**	**5,479**	**3,419**	**(928)**	**990**	**(822)**	**43,078**	**5,672**	**48,750**

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

In millions of euros	Number of shares	Share capital	Additional paid-in capital	Consolidated reserves	Deeply-subordinated perpetual notes	Changes in fair value and other	Translation adjustments	Treasury stock	Shareholders' equity	Non-controlling interests	Total
EQUITY AT DECEMBER 31, 2015	**2,435,285,011**	**2,435**	**32,506**	**5,479**	**3,419**	**(928)**	**990**	**(822)**	**43,078**	**5,672**	**48,750**
Net income/(loss)				(415)					(415)	579	163
Other comprehensive income/(loss)				(628)		(209)	306		(531)	(3)	(535)
TOTAL COMPREHENSIVE INCOME/(LOSS)				**(1,044)**	**-**	**(209)**	**306**	**-**	**(946)**	**575**	**(371)**
Employee share issues and share-based payment				37					37	-	37
Dividends paid in cash *(see Note 17.2.3)*				(2,397)					(2,397)	(507)	(2,903)
Purchase/disposal of treasury stock *(see Note 17.1.2)*				(72)				61	(11)	-	(11)
Coupons of deeply-subordinated perpetual notes *(see Note 17.2.1)*					(146)				(146)	-	(146)
Transactions between owners				(37)					(37)	20	(17)
Transactions between owners within entities accounted for using the equity method				6					6	-	6
Share capital increases/decreases subscribed by non-controlling interests									-	81	81
Other changes				(7)					(7)	27	20
EQUITY AT DECEMBER 31, 2016	**2,435,285,011**	**2,435**	**32,506**	**1,967**	**3,273**	**(1,137)**	**1,296**	**(761)**	**39,578**	**5,870**	**45,447**

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

STATEMENT OF CASH FLOWS

In millions of euros	Notes	Dec. 31, 2016	Dec. 31, 2015
NET INCOME/(LOSS)		**163**	**(5,113)**
- Share in net income of entities accounted for using the equity method		(764)	(473)
+ Dividends received from entities accounted for using the equity method		469	503
- Net depreciation, amortization, impairment and provisions		9,995	13,890
- Impact of changes in scope of consolidation and other non-recurring items		(676)	(47)
- Mark-to-market on commodity contracts other than trading instruments		(1,254)	261
- Other items with no cash impact		41	50
- Income tax expense		909	324
- Net financial income/(loss)		1,380	1,547
Cash generated from operations before income tax and working capital requirements		**10,263**	**10,942**
+ Tax paid		(1,459)	(1,722)
Change in working capital requirements	**26.1**	**1,369**	**1,163**
CASH FLOW FROM OPERATING ACTIVITIES		**10,174**	**10,383**
Acquisitions of property, plant and equipment and intangible assets	5.5	(6,230)	(6,459)
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	5.5	(411)	(259)
Acquisitions of investments in entities accounted for using the equity method and joint operations	5.5	(208)	(241)
Acquisitions of available-for-sale securities	5.5	(391)	(252)
Disposals of property, plant and equipment, and intangible assets		202	507
Loss of controlling interests in entities, net of cash and cash equivalents sold		983	(48)
Disposals of investments in entities accounted for using the equity method and joint operations		1,457	1
Disposals of available-for-sale securities		768	41
Interest received on non-current financial assets		-	133
Dividends received on non-current financial assets		145	103
Change in loans and receivables originated by the Group and other	5.5	30	245
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES		**(3,655)**	**(6,230)**
Dividends paid(1)		(3,155)	(3,107)
Repayment of borrowings and debt		(4,760)	(4,846)
Change in financial assets at fair value through income		(257)	296
Interest paid		(799)	(918)
Interest received on cash and cash equivalents		137	126
Cash flow on derivatives qualifying as net investment hedges and compensation payments on derivatives and on early buyback of borrowings		(236)	(660)
Increase in borrowings		2,994	5,834
Increase/decrease in capital		78	21
Purchase and/or sale of treasury stock		(11)	1
Changes in ownership interests in controlled entities	5.5	(26)	(42)
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES		**(6,034)**	**(3,295)**
Effects of changes in exchange rates and other		157	(221)
TOTAL CASH FLOW FOR THE PERIOD		**642**	**637**
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD		**9,183**	**8,546**
CASH AND CASH EQUIVALENTS AT END OF PERIOD		**9,825**	**9,183**

(1) The line "Dividends paid" includes the coupons paid to the owners of the deeply subordinated perpetual notes for an amount of €146 million at December 31, 2016 and €145 million at December 31, 2015.

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

03 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

ENGIE SA, the parent company of the Group, is a French s*ociété anonyme* with a Board of Directors that is subject to the provisions of Book II of the French Commercial Code (*Code de Commerce*), as well as to all other provisions of French law applicable to French commercial companies. It was incorporated on November 20, 2004 for a period of 99 years.

It is governed by current and future laws and by regulations applicable to *sociétés anonymes* and its bylaws.

The Group is headquartered at 1 place Samuel de Champlain, 92400 Courbevoie (France).

ENGIE shares are listed on the Paris, Brussels and Luxembourg stock exchanges.

On March 1, 2017, the Group's Board of Directors approved and authorized for issue the consolidated financial statements of the Group for the year ended December 31, 2016.

NOTE 1 ACCOUNTING STANDARDS AND METHODS

1.1 Accounting standards

Pursuant to European Regulation (EC) 809/2004 on prospectuses dated April 29, 2004, financial information concerning the assets, liabilities, financial position, and profit and loss of ENGIE has been provided for the last two reporting periods (ended December 31, 2015 and 2016). This information was prepared in accordance with European Regulation (EC) 1606/2002 "on the application of international accounting standards" dated July 19, 2002. The Group's consolidated financial statements for the year ended December 31, 2016 have been prepared in accordance with IFRS Standards as published by the International Accounting Standards Board and endorsed by the European Union(1).

The accounting standards applied in the consolidated financial statements for the year ended December 31, 2016 are consistent with the policies used to prepare the consolidated financial statements for the year ended December 31, 2015, except for those described in § 1.1.1 below.

1.1.1 IFRS Standards, amendments or IFRIC Interpretations applicable in 2016

- Amendments to IFRS 11 – *Joint Arrangements: Accounting for acquisitions of interests in Joint Operations*.
- Amendments to IAS 16 – *Property, Plant and Equipment* and IAS 38 – *Intangible Assets: Clarification of acceptable methods of depreciation and amortization*.
- Amendments to IAS 1 – *Presentation of Financial Statements*: *Disclosure initiative*.
- Amendments to IAS 19 – *Employee Benefits – Defined benefit plans: employee contributions.*
- Annual Improvements to IFRS Standards 2010-2012 Cycle.
- Annual Improvements to IFRS Standards 2012-2014 Cycle.

These amendments have no significant impact on the Group's consolidated financial statements.

1.1.2 IFRS Standards, amendments or IFRIC Interpretations effective in 2017 and that the Group has elected not to early adopt

- Amendments to IAS 7 – *Statement of Cash Flows*: *Disclosure initiative*(2).
- Amendments to IAS 12 – *Income Taxes*: *Recognition of deferred tax assets for unrealized losses*(2).

(1) Available on the European Commission's website: http://ec.europa.eu/internal_market/accounting/ias/index_en.htm.
(2) These standards and amendments have not yet been adopted by the European Union.

1.1.3 IFRS Standards, amendments or IFRIC Interpretations effective after 2017

- IFRS 9 – *Financial Instruments.*

  A dedicated project has been launched within the Group in 2015, built around the three phases of the new standard.

  For Phase I 'classification and measurement', the main expected key impact is the reclassification of available-for-sale securities, currently measured at fair value through other comprehensive income. Under IFRS 9, most of them will be recognized either as equity instruments measured at fair value through other comprehensive income or through the income statement, or as debt instruments measured at fair value through other comprehensive income.

  For Phase II 'impairment', expected credit loss models have been set up according to the new standard. Impact analyses will continue in 2017.

  The Group is also concerned by Phase III 'hedge accounting' but does not expect a material impact to date.

  The Group has decided to apply this new standard as from the reporting period beginning January 1, 2018, and not to elect for its early application.

- IFRS 15 – *Revenue from Contracts with Customers*.

  A project has been deployed within the Group in order to identify the issues likely to have an impact on how revenue is recognized by the various activities of the Group.

  The work carried out so far has highlighted two issues likely to have an impact on consolidated revenue.

  In certain countries where the Group acts as energy provider without distributing it, the analysis under IFRS 15 may lead to recognizing only energy sales as revenue. This will lead to a decrease in revenue, without any impact on the energy margin.

  Commodities sales/purchases transactions which are within the scope of IFRS 9 – *Financial Instruments*, are not within the scope of IFRS 15. The related sales should thus be presented on a line separate from the one showing the IFRS 15 revenue.

  The Group has decided to apply this new standard as from the reporting period beginning January 1, 2018, and not to elect for its early application.

- IFRS 16 – *Leases*(1).

  An in-house project has been launched as from the issuance of IFRS 16. Under the new standard, all lease commitments will be recognized on the face of the statement of financial position, without distinguishing between operating leases, currently shown in off-balance sheet commitments (*see Note 22*) and finance leases.

  Determining the impacts of the transition will continue in 2017, notably by identifying lease contracts within the Group and analyzing them in accordance with the new standard (identifying a lease, assessing the term of the lease, determining the discount rates, etc.).

- Amendments to IFRS 2 – *Share based Payment: Classification and measurement of share-based payment transactions*(1).
- IFRIC 22 – *Foreign Currency Transactions and Advance Consideration*(1).
- Annual Improvements to IFRS Standards 2014-2016 Cycle(2).

(1) These standards and amendments have not yet been adopted by the European Union.
(2) The improvements of this cycle are applicable as from 2018, apart from IFRS 12 which is applicable as from 2017.

The impact resulting from the application of these IFRS Standards, amendments and IFRIC Interpretation is currently being assessed.

1.1.4 Reminder of IFRS 1 transition options

The Group used some of the options available under IFRS 1 for its transition to the IFRS Standards in 2005. The options that continue to have an effect on the consolidated financial statements are:

- translation adjustments: the Group elected to reclassify cumulative translation adjustments within consolidated equity at January 1, 2004;
- business combinations: the Group elected not to restate business combinations that took place prior to January 1, 2004 in accordance with IFRS 3.

1.2 Measurement and presentation basis

The consolidated financial statements have been prepared using the historical cost convention, except for financial instruments that are accounted for according to the financial instrument categories defined by IAS 39.

Assets or groups of assets held for sale

In accordance with IFRS 5 - *Non-Current Assets Held for Sale and Discontinued Operations*, assets or groups of assets held for sale are presented separately on the face of the statement of financial position, at the lower of their carrying amount and fair value less costs to sell.

Assets are classified as “held for sale” when they are available for immediate sale in their present condition, their sale is highly probable within twelve months from the date of classification, management is committed to a plan to sell the asset and an active program to locate a buyer and complete the plan has been initiated. To assess whether a sale is highly probable, the Group takes into consideration among other items, indications of interest and offers received from potential buyers and specific risks to the execution of certain transactions.

1.3 Use of estimates and judgment

Developments in the economic and financial environment prompted the Group to step up its risk oversight procedures and include an assessment of these risks in measuring financial instruments and performing impairment tests. The Group’s estimates used in business plans and determination of discount rates used in impairment tests and for calculating provisions take into account the environment and the important market volatility.

1.3.1 Estimates

The preparation of consolidated financial statements requires the use of estimates and assumptions to determine the value of assets and liabilities and contingent assets and liabilities at the reporting date, as well as income and expenses reported during the period.

Due to uncertainties inherent in the estimation process, the Group regularly revises its estimates in light of currently available information. Final outcomes could differ from those estimates.

The key estimates used in preparing the Group’s consolidated financial statements relate mainly to:

- measurement of the fair value of assets acquired and liabilities assumed in a business combination *(see Note 4)*;
- measurement of the recoverable amount of goodwill, other intangible assets and property, plant and equipment *(see § 1.4.4 and 1.4.5)*;
- measurement of provisions, particularly for back-end of nuclear fuel cycle, dismantling obligations, disputes, pensions and other employee benefits *(see § 1.4.15)*;
- financial instruments *(see § 1.4.11)*;

- measurement of revenue not yet metered, so called un-metered revenue *(see § 1.3.1.6)*;
- measurement of recognized tax loss carry-forwards *(see Note 10.3)*.

1.3.1.1 Measurement of the fair value of assets acquired and liabilities assumed in a business combination

The key assumptions and estimates used to determine the fair value of assets acquired and liabilities assumed include the market outlook for the measurement of future cash flows and the applicable discount rates.

These assumptions reflect management's best estimates.

1.3.1.2 Recoverable amount of goodwill, other intangible assets and property, plant and equipment

The recoverable amount of goodwill, other intangible assets and property, plant and equipment is based on estimates and assumptions, regarding in particular the expected market outlook and changes in of the regulatory framework, which are used for the measurement of cash flows, whose sensitivity varies depending on the activity, and the determination of the discount rate. Any changes in these assumptions could have a material impact on the measurement of the recoverable amount and could result in adjustments to the impairment losses to be recognized.

The key assumptions used in the impairment tests on the main goodwill CGUs are as follows:

- Benelux CGU

  The cash flow projections for the Benelux CGU are based on a large number of key assumptions, such as the long-term prices for fuel and CO_2, expected trends in gas and electricity demand and in electricity prices, the market outlook, and changes in the regulatory environment (especially concerning nuclear capacities in Belgium and the extension of drawing rights agreements for French nuclear plants). The key assumptions also include the discount rate used to calculate the value in use of this goodwill CGU.

- GRDF CGU

  The cash flow projections are drawn up based on the tariff for public natural gas distribution networks (known as "ATRD 5"), which entered into effect for a period of four years on July 1, 2016, and on the overall level of investments agreed by the French Energy Regulation Commission (*Commission de Régulation de l'Énergie* – CRE) as part of its decision on the ATRD 5 tariff. The terminal value calculated at the end of the medium-term business plan corresponds to the expected Regulated Asset Base (RAB) with no premium at the end of 2022. The RAB is the value assigned by the regulator to the assets operated by the distributor.

- France BtoC CGU

  The main assumptions and key estimates primarily include the discount rates, expected trends in gas and electricity demand in France, changes in the Group's market share and sales margin forecasts.

- France Renewable Energy CGU

  The main key assumptions, notably include the prospects of renewing the hydropower concession agreements in France, expected trends in electricity sales prices and discount rates.

- Generation Europe CGU

  The main assumptions and key estimates used are based on expected trends in electricity demand and price forecasts for CO_2, fuel and electricity, as well as on discount rate levels.

- Storengy CGU

  The key assumptions used for the test are based on (i) forecast capacity sales in France and Germany, which depend on changes in market conditions, and particularly on seasonal natural gas spreads and on (ii) expected changes in regulations concerning underground natural gas storage activities in France.

1.3.1.3 Estimates of provisions

Parameters having a significant influence on the amount of provisions, and particularly, but not solely, those relating to the back-end of nuclear fuel cycle and to the dismantling of nuclear facilities, as well as those relating to the dismantling of gas infrastructures in France, include:

- cost forecasts (notably the retained scenario for the reprocessing and storage of radioactive nuclear fuel consumed) *(see Note 18.2)*;
- the timing of expenditure (notably, for nuclear power generation activities, the timetable for reprocessing radioactive nuclear fuel consumed and for dismantling facilities as well as the timetable for the end of gas operations regarding the gas infrastructure businesses in France) *(see Notes 18.2 and 18.3)*;
- and the discount rate applied to cash flows.

These parameters are based on information and estimates deemed to be relevant by the Group at the current time.

The modification of certain parameters could involve a significant adjustment of these provisions.

1.3.1.4 Pensions

Pension commitments are measured on the basis of actuarial assumptions. The Group considers that the assumptions used to measure its obligations are relevant and documented. However, any change in these assumptions could have a significant impact on the resulting calculations.

1.3.1.5 Financial instruments

To determine the fair value of financial instruments that are not listed on an active market, the Group uses valuation techniques that are based on certain assumptions. Any change in these assumptions could have a significant impact on the resulting calculations.

1.3.1.6 Revenue

Revenue generated from types of customers whose energy consumption is metered during the accounting period, particularly customers supplied with low-voltage electricity or low-pressure gas, is estimated at the reporting date based on historical data, consumption statistics and estimated selling prices. For sales on networks used by a large number of grid operators, the Group is allocated a certain volume of energy transiting through the networks by the grid managers. The final allocations are sometimes only known several months down the line, which means that revenue figures are only an estimate.

However, the Group has developed measuring and modeling tools allowing it to estimate revenue with a satisfactory degree of accuracy and subsequently ensure that risks of error associated with estimating quantities sold and the related revenue can be considered as not significant. In France, un-metered revenue ("gas in the meter") is calculated using a direct method taking into account estimated customers' consumption since the last metering not yet billed. These estimates are in line with the volume of energy allocated by the grid managers over the same period. The average price is used to measure the "gas in the meter". The average price used takes account of the category of customer and the age of the delivered unbilled “gas in the meter”. The portion of unbilled revenue at year-end varies according to the assumptions about volume and average price.

1.3.1.7 Measurement of recognized tax loss carry-forwards

Deferred tax assets are recognized on tax loss carry-forwards when it is probable that taxable profit will be available against which the tax loss carry-forwards can be utilized. The probability that taxable profit will be available against which the unused tax losses can be utilized, is based on taxable temporary differences relating to the same taxation authority and the same taxable entity and estimates of future taxable profits. These estimates and utilizations of tax loss carry-forwards were prepared on the basis of profit and loss forecasts as included in the medium-term business plan and, if necessary, on the basis of additional forecasts.

1.3.2 Judgment

As well as relying on estimates, Group management also makes judgments to define the appropriate accounting policies to apply to certain activities and transactions, particularly when the effective IFRS Standards and IFRIC Interpretations do not specifically deal with the related accounting issues.

In particular, the Group exercised its judgment in determining the nature of control, the classification of arrangements which contain a lease, the recognition of acquisitions of non-controlling interests prior to January 1, 2010 and the identification of “own use” contracts, as defined by IAS 39, within non-financial purchase and sale contracts (electricity, gas, etc.).

Entities for which judgment on the nature of control has been exercised are listed in Notes 2 "Main subsidiaries at December 31, 2016" and 3 "Investments in entities accounted for using the equity method".

In accordance with IAS 1, the Group’s current and non-current assets and liabilities are shown separately on the consolidated statement of financial position. For most of the Group’s activities, the breakdown into current and non-current items is based on when assets are expected to be realized, or liabilities extinguished. Assets expected to be realized or liabilities extinguished within 12 months of the reporting date are classified as current, while all other items are classified as non-current.

1.4 Accounting methods

1.4.1 Scope and methods of consolidation

Controlled entities (subsidiaries)

Controlled entities (subsidiaries) are fully consolidated in accordance with IFRS 10 – *Consolidated Financial Statements*. An investor (the Group) controls an entity and therefore must consolidate it as a subsidiary, if it has all the following:

- the ability to direct the relevant activities of the entity;
- rights to variable returns from its involvement with the entity;
- the ability to use its power over the entity to affect the amount of the investor’s return.

Investments in Associates and Joint Ventures

The Group accounts for its investments in associates (entities over which the Group has significant influence) and joint ventures, using the equity method. Under IFRS 11 – *Joint Arrangements*, a joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

Investments in Joint Operations

Under IFRS 11 – *Joint Arrangements*, a joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities, relating to the arrangement.

In accordance with this standard, the Group accounts for the assets, liabilities, revenue and expenses relating to its interest in a joint operation in accordance with the IFRS Standards applicable to these assets, liabilities, revenue and expenses.

Production sharing contracts, in particular in oil and gas exploration-production activities, are considered to be outside the scope of IFRS 11. Contractors account for their rights to a portion of production and reserves, based on the contractual clauses.

1.4.2 Foreign currency translation methods

1.4.2.1 Presentation currency of the consolidated financial statements

The Group's consolidated financial statements are presented in euros (€).

1.4.2.2 Functional currency

Functional currency is the currency of the primary economic environment in which an entity operates, which in most cases corresponds to local currency. However, certain entities may have a functional currency different from local currency when that other currency is used for an entity's main transactions and better reflects its economic environment.

1.4.2.3 Foreign currency transactions

Foreign currency transactions are recorded in the functional currency at the exchange rate prevailing on the date of the transaction. At each reporting date:

- monetary assets and liabilities denominated in foreign currencies are translated at year-end exchange rates. The related translation gains and losses are recorded in the consolidated statement of income for the year to which they relate;
- non-monetary assets and liabilities denominated in foreign currencies are recognized at the historical cost applicable at the date of the transaction.

1.4.2.4 Translation of the financial statements of subsidiaries with a functional currency other than the euro (the presentation currency)

The statements of financial position of these subsidiaries are translated into euros at the official year-end exchange rates. Income statement and cash flow statement items are translated using the average exchange rate for the year. Any differences arising from the translation of the financial statements of these subsidiaries are recorded under "Translation adjustments" as other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of foreign entities are classified as assets and liabilities of those foreign entities and are therefore denominated in the functional currencies of the entities and translated at the year-end exchange rate.

1.4.3 Business combinations

Business combinations carried out prior to January 1, 2010 have been accounted for in accordance with IFRS 3 prior to the revision. In accordance with IFRS 3 revised, these business combinations have not been restated.

Since January 1, 2010, the Group applies the purchase method as defined in IFRS 3 revised, which consists in recognizing the identifiable assets acquired and liabilities assumed at their fair values at the acquisition date, as well as any non-controlling interests in the acquiree. Non-controlling interests are measured either at fair value or at the entity's proportionate interest in the net identifiable assets of the acquiree. The Group determines on a case-by-case basis which measurement option to be used to recognize non-controlling interests.

1.4.4 Intangible assets

Intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses.

1.4.4.1 Goodwill

Recognition of goodwill

Due to the application of IFRS 3 revised at January 1, 2010, the Group is required to separately identify business combinations carried out before or after this date.

Business combinations carried out prior to January 1, 2010

Goodwill represents the excess of the cost of a business combination (acquisition price of shares plus any costs directly attributable to the business combination) over the Group's interest in the fair value of the acquiree's identifiable assets, liabilities and contingent liabilities recognized at the acquisition date (except if the business combination is achieved in stages).

For a business combination achieved in stages – i.e. where the Group acquires a subsidiary through successive share purchases – the amount of goodwill is determined for each exchange transaction separately based on the fair values of the acquiree's identifiable assets, liabilities and contingent liabilities at the date of each exchange transaction.

Business combinations carried out after January 1, 2010

Goodwill is measured as the excess of the aggregate of:
(i) the consideration transferred;
(ii) the amount of any non-controlling interests in the acquiree; and
(iii) in a business combination achieved in stages, the acquisition-date fair value of the previously held equity interest in the acquiree;
over the net of the acquisition-date fair values of the identifiable assets acquired and liabilities assumed.

The amount of goodwill recognized at the acquisition date cannot be adjusted after the end of the measurement period.

Goodwill relating to interests in associates is recorded under "Investments in entities accounted for using the equity method".

Measurement of goodwill

Goodwill is not amortized but tested for impairment each year, or more frequently where an indication of impairment is identified. Impairment tests are carried out at the level of cash-generating units (CGUs) or groups of CGUs which constitute groups of assets generating cash inflows that are largely independent of the cash inflows from other CGUs.

The methods used to carry out these impairment tests are described in § 1.4.8 "Impairment of property, plant and equipment and intangible assets".

Impairment losses in relation to goodwill cannot be reversed and are shown under "Impairment losses" in the consolidated income statement.

1.4.4.2 Other intangible assets

Development costs

Research costs are expensed as incurred.

Development costs are capitalized when the asset recognition criteria set out in IAS 38 are met. Capitalized development costs are amortized over the useful life of the intangible asset recognized.

Other internally-generated or acquired intangible assets

Other intangible assets include mainly:

- amounts paid or payable as consideration for rights relating to concession contracts or public service contracts;
- customer portfolios acquired on business combinations;
- capacity rights, in particular regarding power stations; the Group helped finance the construction of certain nuclear power stations operated by third parties and in consideration received the right to purchase a share of the production over the life of the assets. Said capacity rights are amortized over the useful life of the related assets, not exceeding 40 years;
- concession assets.

Intangible assets are amortized on the basis of the expected pattern of consumption of the estimated future economic benefits embodied in the asset. Amortization is calculated mainly on a straight-line basis over the following useful lives:

	Useful life	
Main depreciation periods (years)	**Minimum**	**Maximum**
Concession rights	10	30
Customer portfolio	10	40
Other intangible assets	1	40

Some intangible assets with an indefinite useful life are not amortized but an impairment test has to be performed annually.

1.4.5 Property, plant and equipment

1.4.5.1 Initial recognition and subsequent measurement

Items of property, plant and equipment are recognized at historical cost less any accumulated depreciation and any accumulated impairment losses.

The carrying amount of these items is not revalued as the Group has elected not to apply the allowed alternative method, which consists of regularly revaluing one or more categories of property, plant and equipment.

Investment subsidies are deducted from the gross value of the assets concerned.

In accordance with IAS 16, the initial cost of the item of property, plant and equipment includes an initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, when the entity has a present, legal or constructive obligation to dismantle the item or restore the site. A corresponding provision for this obligation is recorded for the amount of the asset component.

Property, plant and equipment acquired under finance leases is carried in the consolidated statement of financial position at the lower of market value and the present value of the related minimum lease payments. The corresponding liability is recognized under borrowings. These assets are depreciated using the same methods and useful lives as set out below.

Borrowing costs that are directly attributable to the construction of the qualifying asset are capitalized as part of the cost of that asset.

Cushion gas

“Cushion” gas injected into underground storage facilities is essential for ensuring that reservoirs can be operated effectively, and is therefore inseparable from these reservoirs. Unlike “working” gas which is included in inventories, cushion gas is reported in property, plant and equipment (*see § 1.4.10 “Inventories”*).

1.4.5.2 Depreciation

In accordance with the components approach, each significant component of an item of property, plant and equipment with a different useful life from that of the main asset to which it relates is depreciated separately over its own useful life.

Property, plant and equipment is depreciated mainly using the straight-line method over the following useful lives:

	Useful life	
Main depreciation periods (years)	**Minimum**	**Maximum**
Plant and equipment		
• Storage - Production - Transport - Distribution	5	60(*)
• Installation - Maintenance	3	10
• Hydraulic plant and equipment	20	65
Other property, plant and equipment	2	33

(*) Excluding cushion gas.

The range of useful lives is due to the diversity of the assets in each category. The minimum periods relate to smaller equipment and furniture, while the maximum periods concern network infrastructures and storage facilities. In accordance with the law of January 31, 2003 adopted by the Belgian Chamber of Representatives with respect to the gradual phase-out of nuclear energy for the industrial production of electricity, the useful lives of nuclear power stations were reviewed and adjusted prospectively to 40 years as from 2003, except Tihange 1,Doel 1 and Doel 2 the operating life of which has been extended by 10 years by the law of December 18, 2013.

Fixtures and fittings relating to the hydro plant operated by the Group are depreciated over the shorter of the contract term and useful life of the assets, taking into account the renewal of the concession period if such renewal is considered to be reasonably certain.

1.4.6 Assets relating to the exploration and production of mineral resources

The Group applies IFRS 6 – *Exploration for and Evaluation of Mineral Resources*.

Geological and geophysical studies are expensed in the year in which they are incurred.

Exploration costs (other than geological and geophysical studies) are temporarily capitalized in "pre-capitalized exploration costs" before the confirmation of the technical feasibility and commercial viability of extracting resources. These exploration drilling costs are temporarily capitalized when the following two conditions are met:

- sufficient reserves have been found to justify completion as a producing well assuming the required capital expenditure is made;
- the Group has made significant progress in determining that reserves exist and that the project is technically and economically viable. This progress is assessed based on criteria such as whether any additional exploratory work (drilling, seismic studies or other significant surveys) is underway or firmly planned for the near future. Progress is also assessed based on any expenses incurred in conducting development studies and on the fact that the Group may be required to wait for the relevant government or third party authorizations for the project, or for available transport capacity or treatment capacity at existing facilities.

In accordance with this method known as "successful efforts" method, when the exploratory phase has resulted in proven, commercially viable reserves, the related costs are reported in property, plant and equipment and depreciated over the period during which the reserves are extracted. Otherwise, the costs are expensed as incurred.

The depreciation of production assets, including site rehabilitation costs, starts when the oil or gas field is brought into production, and is based on the unit of production method (UOP). According to this method, the depletion rate is equal to the ratio of oil and gas production for the period to probable reserves.

1.4.7 Concession arrangements

SIC 29 – *Service Concession Arrangements: Disclosures*, prescribes the information that should be disclosed in the notes to the financial statements of a concession grantor and concession operator, while IFRIC 12 deals with the treatment to be applied by the concession operator in respect of certain concession arrangements.

For a concession arrangement to fall within the scope of IFRIC 12, usage of the infrastructure must be controlled by the concession grantor. This requirement is met when the following two conditions are met:

- the grantor controls or regulates what services the operator must provide with the infrastructure, to whom it must provide them, and at what price; and
- the grantor controls the infrastructure, i.e. retains the right to take back the infrastructure at the end of the concession.

Concessions outside the scope of IFRIC 12

Concession infrastructures that do not meet the requirements of IFRIC 12 are presented as property, plant and equipment.

This is the case of the distribution of gas in France. The related assets are recognized in accordance with IAS 16, since GRDF operates its network under long-term concession arrangements, most of which are mandatorily renewed upon expiration pursuant to French law No. 46-628 of April 8, 1946.

1.4.8 Impairment of property, plant and equipment and intangible assets

In accordance with IAS 36, impairment tests are carried out on items of property, plant and equipment and intangible assets where there is an indication that the assets may be impaired. Such indications may be based on events or changes in the market environment, or on internal sources of information. Intangible assets that are not amortized are tested for impairment annually.

Impairment indicators

Property, plant and equipment and intangible assets with finite useful lives are only tested for impairment when there is an indication that they may be impaired. This is generally the result of significant changes to the environment in which the assets are operated or when economic performance is less than expected.

The main impairment indicators used by the Group are described below:

- external sources of information:
  - significant changes in the economic, technological, regulatory, political or market environment in which the entity operates or to which an asset is dedicated,
  - fall in demand,
  - adverse changes in energy prices and US dollar exchange rates;
- internal sources of information:
  - evidence of obsolescence or physical damage not budgeted for in the depreciation/amortization schedule,
  - less-than-expected performance,
  - fall in resources for exploration-production activities.

Impairment

Items of property, plant and equipment and intangible assets are tested for impairment at the level of the individual asset or cash-generating unit (CGU) as appropriate, determined in accordance with IAS 36. If the recoverable amount of an asset is lower than its carrying amount, the carrying amount is written down to the recoverable amount by recording an impairment loss. Upon recognition of an impairment loss, the depreciable amount and possibly the useful life of the assets concerned is revised.

Impairment losses recorded in relation to property, plant and equipment or intangible assets may be subsequently reversed if the recoverable amount of the assets is once again higher than their carrying amount. The increased carrying amount of an item of property, plant or equipment attributable to a reversal of an impairment loss may not exceed the carrying amount that would have been determined (net of depreciation/amortization) had no impairment loss been recognized in prior periods.

Measurement of recoverable amount

In order to review the recoverable amount of property, plant and equipment and intangible assets, the assets are grouped, where appropriate, into CGUs and the carrying amount of each CGU is compared with its recoverable amount.

For operating entities which the Group intends to hold on a long-term and going concern basis, the recoverable amount of a CGU corresponds to the higher of its fair value less costs to sell and its value in use. Value in use is primarily determined based on the present value of future operating cash flows and a terminal value. Standard valuation techniques are used based on the following main economic data:

- discount rates based on the specific characteristics of the operating entities concerned;
- terminal values in line with the available market data specific to the operating segments concerned and growth rates associated with these terminal values, not to exceed the inflation rate.

Discount rates are determined on a post-tax basis and applied to post-tax cash flows. The recoverable amounts calculated on the basis of these discount rates are the same as the amounts obtained by applying the pre-tax discount rates to cash flows estimated on a pre-tax basis, as required by IAS 36.

For operating entities which the Group has decided to sell, the related recoverable amount of the assets concerned is based on market value less costs of disposal. Where negotiations are ongoing, this value is determined based on the best estimate of their outcome as of the reporting date.

In the event of a decline in value, the impairment loss is recorded in the consolidated income statement under “Impairment losses”.

1.4.9 Leases

The Group holds assets for its various activities under lease contracts.

These leases are analyzed based on the situations and indicators set out in IAS 17 in order to determine whether they constitute operating leases or finance leases.

A finance lease is defined as a lease which transfers substantially all the risks and rewards incidental to the ownership of the related asset to the lessee. All leases which do not comply with the definition of a finance lease are classified as operating leases.

The following main factors are considered by the Group to assess if a lease transfers substantially all the risks and rewards incidental to ownership: whether (i) the lessor transfers ownership of the asset to the lessee by the end of the lease term; (ii) the lessee has an option to purchase the asset and if so, the conditions applicable to exercising that option; (iii) lease term is for the major part of the economic life of the asset; (iv) the asset is of a highly specialized nature; and (v) the present value of minimum lease payments amounts to at least substantially all of the fair value of the leased asset.

1.4.9.1 Accounting for finance leases

On initial recognition, assets held under finance leases are recorded as property, plant and equipment and the related liability is recognized under borrowings. At inception of the lease, finance leases are recorded at amounts equal to the fair value of the leased asset or, if lower, the present value of the minimum lease payments.

1.4.9.2 Accounting for operating leases

Payments made under operating leases are recognized as an expense on a straight-line basis over the lease term.

1.4.9.3 Accounting for arrangements that contain a lease

IFRIC 4 deals with the identification of services and take-or-pay sales or purchasing contracts that do not take the legal form of a lease but convey rights to customers/suppliers to use an asset or a group of assets in return for a payment or a series of fixed payments. Contracts meeting these criteria should be identified as either operating leases or finance leases. In the latter case, a finance receivable should be recognized to reflect the financing deemed to be granted by the Group where it is considered as acting as lessor and its customers as lessees.

The Group is concerned by this interpretation mainly with respect to:

- some energy purchase and sale contracts, particularly where the contract conveys to the purchaser of the energy an exclusive right to use a production asset;
- certain contracts with industrial customers relating to assets held by the Group.

1.4.10 Inventories

Inventories are measured at the lower of cost and net realizable value. Net realizable value corresponds to the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

The cost of inventories is determined based on the first-in, first-out method or the weighted average cost formula.

Nuclear fuel purchased is consumed in the process of producing electricity over a number of years. The consumption of this nuclear fuel inventory is recorded based on estimates of the quantity of electricity produced per unit of fuel.

Gas inventories

Gas injected into underground storage facilities includes working gas which can be withdrawn without adversely affecting the operation of the reservoir and cushion gas which is inseparable from the reservoirs and essential for their operation (*see § 1.4.5.1*).

Working gas is classified in inventory and measured at weighted average purchase cost upon entering the transportation network regardless of its source, including any regasification costs.

Group inventory outflows are valued using the weighted average unit cost method.

An impairment loss is recognized when the net realizable value of inventories is lower than their weighted average cost.

Greenhouse gas emissions rights

European Directive 2003/87/EC establishes a greenhouse gas (GHG) emissions allowance trading scheme within the European Union. Under the Directive, each year the sites concerned have to surrender a number of allowances equal to the total emissions from the installations during the previous calendar year. As there are no specific rules under IFRS Standards dealing with the accounting treatment of GHG emissions allowances, the Group decided to apply the following principles:

- emission rights are classified as inventories, as they are consumed in the production process;
- emission rights purchased on the market are recognized at acquisition cost;
- emission rights granted free of charge are recorded in the statement of financial position at a value of nil.

The Group records a liability at year-end in the event that it does not have enough emission rights to cover its GHG emissions during the period. This liability is measured at the market value of the allowances required to meet its obligations at year-end or based on the contract price concluded to hedge this lack of emission rights.

Energy savings certificates (ESC)

In the absence of current IFRS Standards or IFRIC Interpretations on accounting for energy savings certificates (ESC), the following principles are applied:

- in the event that the number of ESCs held exceeds the obligation at the reporting date, this is accounted for as inventory; otherwise, a liability is recorded;
- ESC inventories are valued at weighted average cost (acquisition cost for those ESCs acquired or cost incurred for those ESCs generated internally).

1.4.11 Financial instruments

Financial instruments are recognized and measured in accordance with IAS 32 and IAS 39.

1.4.11.1 Financial assets

Financial assets comprise available-for-sale securities, loans and receivables carried at amortized cost including trade and other receivables and financial assets measured at fair value through income, including derivative financial instruments. Financial assets are broken down into current and non-current assets in the consolidated statement of financial position.

Available-for-sale securities

"Available-for-sale securities" include the Group's investments in non-consolidated companies and equity or debt instruments that do not satisfy the criteria for classification in another category (see below). Cost is determined using the weighted average cost formula.

These items are measured at fair value on initial recognition, which generally corresponds to the acquisition cost plus transaction costs.

At each reporting date, available-for-sale securities are measured at fair value. For listed securities, fair value is determined based on the quoted market price at the reporting date. For unlisted securities, fair value is measured using valuation models based primarily on recent market transactions, discounted dividends and future cash flows or net asset value. Changes in fair value are recorded directly in other comprehensive income, except when the decline in the value of the investment below its historical acquisition cost is judged significant or prolonged enough to require an impairment loss to be recognized. In this case, the loss is recognized in income under "Impairment losses". Only impairment losses recognized on debt instruments (debt securities/bonds) may be reversed through income.

Loans and receivables carried at amortized cost

This item primarily includes loans granted to affiliated companies, loans and advances to associates or non-consolidated companies, guarantee deposits, trade and other receivables.

On initial recognition, these loans and receivables are recorded at fair value plus transaction costs. At each statement of financial position date, they are measured at amortized cost using the effective interest rate method.

Leasing guarantee deposits are recognized at their nominal value.

On initial recognition, trade and other receivables are recorded at fair value, which generally corresponds to their nominal value. Impairment losses are recorded based on the estimated risk of non-recovery. This item also includes amounts due from customers under construction contracts.

Financial assets at fair value through income

These financial assets meet the qualification or designation criteria set out in IAS 39.

This item mainly includes trading securities and short-term investments which do not meet the criteria for classification as cash or cash equivalents (*see § 1.4.12*). The financial assets are measured at fair value at the statement of financial position date and changes in fair value are recorded in the consolidated income statement.

1.4.11.2 Financial liabilities

Financial liabilities include borrowings, trade and other payables, derivative financial instruments and other financial liabilities.

Financial liabilities are broken down into current and non-current liabilities in the consolidated statement of financial position. Current financial liabilities primarily comprise:

- financial liabilities with a settlement or maturity date within 12 months of the reporting date;
- financial liabilities in respect of which the Group does not have an unconditional right to defer settlement for at least 12 months after the reporting date;
- financial liabilities held primarily for trading purposes;
- derivative financial instruments qualifying as fair value hedges where the underlying is classified as a current item;
- all commodity trading derivatives not qualifying as hedges.

Measurement of borrowings and other financial liabilities

Borrowings and other financial liabilities are measured at amortized cost using the effective interest rate method.

On initial recognition, any issue or redemption premiums and discounts and issuing costs are added to/deducted from the nominal value of the borrowings concerned. These items are taken into account when calculating the effective interest rate and are therefore recorded in the consolidated income statement over the life of the borrowings using the amortized cost method.

As regards structured debt instruments that do not have an equity component, the Group may be required to separate an "embedded" derivative instrument from its host contract (*see § 1.4.11.3*). The conditions under which these instruments must be separated are detailed below. When an embedded derivative is separated from its host contract, the initial carrying amount of the structured instrument is broken down into an embedded derivative component, corresponding to the fair value of the embedded derivative, and a financial liability component, corresponding to the difference between the amount of the issue and the fair value of the embedded derivative. The separation of components upon initial recognition does not give rise to any gains or losses.

The debt is subsequently recorded at amortized cost using the effective interest method while the derivative is measured at fair value, with changes in fair value taken to income.

Put options on non-controlling interests

Other financial liabilities primarily include put options granted by the Group in respect of non-controlling interests.

Put options on non-controlling interests granted prior to January 1, 2010

As no specific guidance is provided by IFRS Standards and based on recommendations issued by the AMF for the 2009 reporting period, the Group decided to continue accounting for instruments recognized prior to January 1, 2010 using its previous accounting policies:

- when the put option with a variable price is initially granted, the present value of the exercise price is recognized as a financial liability, with a corresponding reduction in non-controlling interests. When the value of the put option is greater than the carrying amount of the non-controlling interests, the difference is recognized as goodwill;

- at each reporting date, the amount of the financial liability is revised and any changes in the amount are recorded with a corresponding adjustment to goodwill;
- payments of dividends to non-controlling interests result in an increase in goodwill;
- in the consolidated income statement, non-controlling interests are allocated their share in income. In the consolidated statement of financial position, the share in income allocated to non-controlling interests reduces the carrying amount of goodwill. No finance costs are recognized in respect of changes in the fair value of liabilities recognized against goodwill.

1.4.11.3 Derivatives and hedge accounting

The Group uses financial instruments to manage and reduce its exposure to market risks arising from fluctuations in interest rates, foreign currency exchange rates and commodity prices, mainly for gas and electricity. The use of derivative instruments is governed by a Group policy for managing interest rate, currency and commodity risks.

Definition and scope of derivative financial instruments

Derivative financial instruments are contracts (i) whose value changes in response to the change in one or more observable variables, (ii) that do not require any material initial net investment, and (iii) that are settled at a future date.

Derivative instruments therefore include swaps, options, futures and swaptions, as well as forward commitments to purchase or sell listed and unlisted securities, and firm commitments or options to purchase or sell non-financial assets that involve physical delivery of the underlying.

For purchases and sales of electricity and natural gas, the Group systematically analyzes whether the contract was entered into in the “normal” course of operations and therefore falls outside the scope of IAS 39. This analysis consists firstly of demonstrating that the contract is entered into and held for the purpose of making or taking physical delivery of the commodity in accordance with the Group’s expected purchase, sale or usage requirements.

The second step is to demonstrate that the Group has no practice of settling similar contracts on a net basis and that these contracts are not equivalent to written options. In particular, in the case of electricity and gas sales allowing the buyer a certain degree of flexibility concerning the volumes delivered, the Group distinguishes between contracts that are equivalent to capacity sales considered as transactions falling within the scope of ordinary operations and those that are equivalent to written financial options, which are accounted for as derivative financial instruments.

Only contracts that meet all of the above conditions are considered as falling outside the scope of IAS 39. Adequate specific documentation is compiled to support this analysis.

Embedded derivatives

An embedded derivative is a component of a hybrid (combined) instrument that also includes a non-derivative host contract – with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative.

The main Group contracts that may contain embedded derivatives are contracts with clauses or options potentially affecting the contract price, volume or maturity. This is the case primarily with contracts for the purchase or sale of non-financial assets, whose price is revised based on an index, the exchange rate of a foreign currency or the price of an asset other than the contract’s underlying.

Embedded derivatives are separated from the host contract and accounted for as derivatives when:

- the host contract is not a financial instrument measured at fair value through income;
- if separated from the host contract, the embedded derivative still fulfills the criteria for classification as a derivative instrument (existence of an underlying, no material initial net investment, settlement at a future date); and
- its characteristics are not closely related to those of the host contract. The analysis of whether or not the characteristics of the derivative are “closely related” to the host contract is made when the contract is signed.

Embedded derivatives that are separated from the host contract are recognized in the consolidated statement of financial position at fair value, with changes in fair value recognized in income (except when the embedded derivative is part of a designated hedging relationship).

Hedging instruments: recognition and presentation

Derivative instruments qualifying as hedging instruments are recognized in the consolidated statement of financial position and measured at fair value. However, their accounting treatment varies according to whether they are classified as (i) a fair value hedge of an asset or liability; (ii) a cash flow hedge or (iii) a hedge of a net investment in a foreign operation.

Fair value hedges

A fair value hedge is defined as a hedge of the exposure to changes in fair value of a recognized asset or liability such as a fixed-rate loan or borrowing, or of assets, liabilities or an unrecognized firm commitment denominated in a foreign currency.

The gain or loss from remeasuring the hedging instrument at fair value is recognized in income. The gain or loss on the hedged item attributable to the hedged risk adjusts the carrying amount of the hedged item and is also recognized in income even if the hedged item is in a category in respect of which changes in fair value are recognized through other comprehensive income. These two adjustments are presented net in the consolidated income statement, with the net effect corresponding to the ineffective portion of the hedge.

Cash flow hedges

A cash flow hedge is a hedge of the exposure to variability in cash flows that could affect the Group's income. The hedged cash flows may be attributable to a particular risk associated with a recognized financial or non-financial asset or a highly probable forecast transaction.

The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognized directly in other comprehensive income, net of tax, while the ineffective portion is recognized in income. The gains or losses accumulated in equity are reclassified to the consolidated income statement under the same caption as the loss or gain on the hedged item – i.e. current operating income for operating cash flows and financial income or expenses for other cash flows – in the same periods in which the hedged cash flows affect income.

If the hedging relationship is discontinued, in particular because the hedge is no longer considered effective, the cumulative gain or loss on the hedging instrument remains recognized in equity until the forecast transaction occurs. However, if a forecast transaction is no longer expected to occur, the cumulative gain or loss on the hedging instrument is immediately recognized in income.

Hedge of a net investment in a foreign operation

In the same way as for a cash flow hedge, the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge of the currency risk is recognized directly in other comprehensive income, net of tax, while the ineffective portion is recognized in income. The gains or losses accumulated in other comprehensive income are transferred to the consolidated income statement when the investment is liquidated or sold.

Hedging instruments: identification and documentation of hedging relationships

The hedging instruments and hedged items are designated at the inception of the hedging relationship. The hedging relationship is formally documented in each case, specifying the hedging strategy, the hedged risk and the method used to assess hedge effectiveness. Only derivative contracts entered into with external counterparties are considered as being eligible for hedge accounting.

Hedge effectiveness is assessed and documented at the inception of the hedging relationship and on an ongoing basis throughout the periods for which the hedge was designated. Hedges are considered to be effective when changes in fair value or cash flows between the hedging instrument and the hedged item are offset within a range of 80%-125%.

Hedge effectiveness is demonstrated both prospectively and retrospectively using various methods, based mainly on a comparison between changes in fair value or cash flows between the hedging instrument and the hedged item. Methods based on an analysis of statistical correlations between historical price data are also used.

Derivative instruments not qualifying for hedge accounting: recognition and presentation

These items mainly concern derivative financial instruments used in economic hedges that have not been – or are no longer – documented as hedging relationships for accounting purposes.

When a derivative financial instrument does not qualify or no longer qualifies for hedge accounting, changes in fair value are recognized directly in income, under "Mark-to-market" or "Mark-to-market on commodity contracts other than trading instruments" below current operating income for derivative instruments with non-financial assets as the underlying, and in financial income or expenses for currency, interest rate and equity derivatives.

Derivative instruments not qualifying for hedge accounting used by the Group in connection with proprietary commodity trading activities and other derivatives expiring in less than 12 months are recognized in the consolidated statement of financial position in current assets and liabilities, while derivatives expiring after this period are classified as non-current items.

Fair value measurement

The fair value of instruments listed on an active market is determined by reference to the market price. In this case, these instruments are presented in level 1 of the fair value hierarchy.

The fair value of unlisted financial instruments for which there is no active market and for which observable market data exist is determined based on valuation techniques such as option pricing models or the discounted cash flow method.

Models used to evaluate these instruments take into account assumptions based on market inputs:

- the fair value of interest rate swaps is calculated based on the present value of future cash flows;
- the fair value of forward foreign exchange contracts and currency swaps is calculated by reference to current prices for contracts with similar maturities by discounting the future cash flow spread (difference between the forward exchange rate under the contract and the forward exchange rate recalculated in line with the new market conditions applicable to the nominal amount);
- the fair value of currency and interest rate options is calculated using option pricing models;
- commodity derivatives contracts are valued by reference to listed market prices based on the present value of future cash flows (commodity swaps or commodity forwards) and option pricing models (options), for which market price volatility may be a factor. Contracts with maturities exceeding the depth of transactions for which prices are observable, or which are particularly complex, may be valued based on internal assumptions;
- exceptionally, for complex contracts negotiated with independent financial institutions, the Group uses the values established by its counterparties.

These instruments are presented in level 2 of the fair value hierarchy except when the evaluation is based mainly on data that are not observable; in which case they are presented in level 3 of the fair value hierarchy. Most often, this is the case for derivatives with a maturity that falls outside the observability period for market data relating to the underlying or when some parameters such as the volatility of the underlying are not observable.

Except in case of enforceable master netting arrangements or similar agreements, counterparty risk is included in the fair value of financial derivative instrument assets and liabilities. It is calculated according to the "expected loss" method and takes into account the exposure at default, the probability of default and the loss given default. The probability of default is determined on the basis of credit ratings assigned to each counterparty ("historical probability of default" approach).

1.4.12 Cash and cash equivalents

These items include cash equivalents as well as short-term investments that are considered to be readily convertible into a known amount of cash and where the risk of a change in their value is deemed to be negligible based on the criteria set out in IAS 7.

Bank overdrafts are not included in the calculation of cash and cash equivalents and are recorded under "Short-term borrowings".

1.4.13 Treasury shares

Treasury shares are recognized at cost and deducted from equity. Gains and losses on disposals of treasury shares are recorded directly in equity and do not therefore impact income for the period.

1.4.14 Share-based payment

Under IFRS 2, share-based payments made in consideration for services provided are recognized as personnel costs. These services are measured at the fair value of the instruments awarded.

Equity-settled instruments: bonus share plans and performance shares granted to employees

The fair value of bonus share plans is estimated by reference to the share price at the grant date, taking into account the fact that no dividend is payable over the vesting period, and based on the estimated turnover rate for the employees concerned and the probability that the Group will meet its performance targets. The fair value measurement also takes into account the non-transferability period associated with these instruments. The cost of shares granted to employees is expensed over the vesting period of the rights and offset against equity.

A Monte Carlo pricing model is used for performance shares granted on a discretionary basis and subject to external performance criteria.

1.4.15 Provisions

1.4.15.1 Provisions for post-employment benefit obligations and other long-term employee benefits

Depending on the laws and practices in force in the countries where the Group operates, Group companies have obligations in terms of pensions, early retirement payments, retirement bonuses and other benefit plans. Such obligations generally apply to all of the employees within the companies concerned.

The Group's obligations in relation to pensions and other employee benefits are recognized and measured in compliance with IAS 19. Accordingly:

- the cost of defined contribution plans is expensed based on the amount of contributions payable in the period;
- the Group's obligations concerning pensions and other employee benefits payable under defined benefit plans are assessed on an actuarial basis using the projected unit credit method. These calculations are based on assumptions relating to mortality, staff turnover and estimated future salary increases, as well as the economic conditions specific to each country or subsidiary of the Group. Discount rates are determined by reference to the yield, at the measurement date, on high-quality corporate bonds in the related geographical area (or on government bonds in countries where no representative market for such corporate bonds exists).

Provisions are recorded when commitments under these plans exceed the fair value of plan assets. Where the value of plan assets (capped where appropriate) is greater than the related commitments, the surplus is recorded as an asset under "Other assets" (current or non-current).

As regards post-employment benefit obligations, actuarial gains and losses are recognized in other comprehensive income. Where appropriate, adjustments resulting from applying the asset ceiling to net assets relating to overfunded plans are treated in a similar way. However, actuarial gains and losses on other long-term benefits such as long-service awards, are recognized immediately in income.

Net interest on the net defined benefit liability (asset) is presented in net financial expense (income).

1.4.15.2 Other provisions

The Group records a provision where it has a present obligation (legal or constructive), the settlement of which is expected to result in an outflow of resources embodying economic benefits with no corresponding consideration in return.

A provision for restructuring costs is recorded when the general criteria for setting up a provision are met, i.e. when the Group has a detailed formal plan relating to the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement that plan or announcing its main features to those affected by it.

Provisions with a maturity of over 12 months are discounted when the effect of discounting is material. The Group's main long-term provisions are provisions for the back-end of the nuclear fuel cycle, provisions for dismantling facilities and provisions for site restoration costs. The discount rates used reflect current market assessments of the time value of money and the risks specific to the liability concerned. Expenses corresponding to the reversal of discounting adjustments to long-term provisions are recorded under other financial income and expenses.

A provision is recognized when the Group has a present legal or constructive obligation to dismantle facilities or to restore a site. An asset is recorded simultaneously by including this dismantling obligation in the carrying amount of the facilities concerned. Adjustments to the provision due to subsequent changes in the expected outflow of resources, the dismantling date or the discount rate are deducted from or added to the cost of the corresponding asset in a symmetrical manner. The impacts of unwinding the discount are recognized in expenses for the period.

1.4.16 Revenue

Group revenue (as defined by IAS 18) is mainly generated from the following:

- energy sales;
- rendering of services;
- construction and lease contracts.

Revenue on sales of goods is recognized on delivery, i.e. when the significant risks and rewards of ownership are transferred to the buyer. For services and construction contracts, revenue is recognized using the percentage-of-completion method. In both cases, revenue is recognized solely when the transaction price is fixed or can be reliably determined and the recovery of the amounts due is probable.

Revenue is measured at the fair value of the consideration received or receivable. Where deferred payment has a material impact on the measurement of the fair value of this consideration, this is taken into account by discounting future receipts.

1.4.16.1 Energy sales

This revenue primarily includes sales of electricity and gas, transport and distribution fees relating to services such as electricity and gas distribution network maintenance and heating network sales.

Part of the price received by the Group under certain long-term energy sales contracts may be fixed rather than being based on volumes. In rare cases, the fixed amount can change over the term of the contract. In accordance with IAS 18, revenue from such components is recognized on a straight-line basis because, in substance, the fair value of the services rendered does not vary from one period to the next.

In accordance with IAS 1 and IAS 18, both proprietary energy trading transactions and energy trading carried out on behalf of customers are recorded within "Revenues" after netting off sales and purchases.

In addition, revenue from hedging contracts aimed at optimizing production assets and from fuel purchase and energy sale contracts is recognized based on the net amount.

1.4.16.2 Rendering of services

This revenue relates mainly to installation, maintenance and energy services, and is recognized in accordance with IAS 18, which requires services to be accounted for on a percentage-of-completion basis.

1.4.16.3 Construction and lease contracts

Revenue from construction contracts is determined using the percentage-of-completion method and more generally in accordance with the provisions of IAS 11. Depending on the contract concerned, the stage of completion may be determined either based on the proportion that costs incurred to date bear to the estimated total costs of the transaction, or on the physical progress of the contract based on factors such as contractually defined milestones.

Revenue also includes revenue from financial concession assets (IFRIC 12) and finance lease receivables (IFRIC 4).

1.4.17 Current operating income

Current operating income is an indicator used by the Group to present "a level of operational performance that can be used as part of an approach to forecast recurring performance" (this complies with ANC Recommendation 2013-03 on the format of financial statements of entities applying IFRS Standards). Current operating income is a sub-total which helps to better understand the Group's performance because it excludes elements which are inherently difficult to predict due to their unusual, irregular or non-recurring nature. For the Group, such elements relate to mark-to-market on commodity contracts other than trading instruments, impairment losses, restructuring costs, changes in the scope of consolidation and other non-recurring items, and are defined as follows:

- "Mark-to-market on commodity contracts other than trading instruments" corresponds to changes in the fair value (marked-to-market) of financial instruments relating to commodities, gas and electricity, which do not qualify as either trading or hedging instruments. These contracts are used in economic hedges of operating transactions in the energy sector. Since changes in the fair value of these instruments which must be recognized through income under IAS 39 can be material and difficult to predict, they are presented on a separate line of the consolidated income statement;

- "Impairment losses" include impairment losses on goodwill, other intangible assets and property, plant and equipment, investments in entities accounted for using the equity method and available-for-sale securities;

- "Restructuring costs" concern costs corresponding to a restructuring program planned and controlled by management that materially changes either the scope of a business undertaken by the entity, or the manner in which that business is conducted, based on the criteria set out in IAS 37;

- "Changes in the scope of consolidation". This line includes:
  - direct costs related to acquisitions of controlling interests,
  - in the event of a business combination achieved in stages, impacts of the remeasurement of the previously held equity interest at acquisition-date fair value,
  - subsequent changes in the fair value of contingent consideration,
  - gains or losses from disposals of investments which result in a change in consolidation method, as well as any impact of the remeasurement of retained interests;

- “Other non-recurring items” notably include capital gains and losses on disposals of non-current assets and available-for-sale securities.

1.4.18 Consolidated statement of cash flows

The consolidated statement of cash flows is prepared using the indirect method starting from net income.

“Interest received on non-current financial assets” is classified within investing activities because it represents a return on investments. “Interest received on cash and cash equivalents” is shown as a component of financing activities because the interest can be used to reduce borrowing costs. This classification is consistent with the Group’s internal organization, where debt and cash are managed centrally by the treasury department.

As impairment losses on current assets are considered to be definitive losses, changes in current assets are presented net of impairment.

Cash flows relating to the payment of income tax are presented on a separate line.

1.4.19 Income tax expense

The Group computes taxes in accordance with prevailing tax legislation in the countries where income is taxable.

In accordance with IAS 12, deferred taxes are recognized according to the liability method on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and their tax bases, using tax rates that have been enacted or substantively enacted by the reporting date. However, under the provisions of IAS 12, no deferred tax is recognized for temporary differences arising from goodwill for which impairment losses are not deductible for tax purposes, or from the initial recognition of an asset or liability in a transaction which (i) is not a business combination and (ii) at the time of the transaction, affects neither accounting income nor taxable income. In addition, deferred tax assets are only recognized to the extent that it is probable that taxable income will be available against which the deductible temporary differences can be utilized.

Temporary differences arising on restatements of finance leases result in the recognition of deferred taxes.

A deferred tax liability is recognized for all taxable temporary differences associated with investments in subsidiaries, associates, joint ventures and branches, except if the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Net balances of deferred taxes are calculated based on the tax position of each company or on the total income of companies included within the relevant consolidated tax group, and are presented in assets or liabilities for their net amount per tax entity.

Deferred taxes are reviewed at each reporting date to take into account factors including the impact of changes in tax laws and the prospects of recovering deferred tax assets arising from deductible temporary differences.

Deferred tax assets and liabilities are not discounted.

Tax effects relating to coupon payments on deeply-subordinated perpetual notes are recognized in profit or loss.

1.4.20 Earnings per share

Basic earnings per share are calculated by dividing net income Group share for the year by the weighted average number of ordinary shares outstanding during the year. The average number of ordinary shares outstanding during the year is the number of ordinary shares outstanding at the beginning of the year, adjusted by the number of ordinary shares bought back or issued during the year.

The weighted average number of shares and basic earnings per share are adjusted to take into account the impact of the conversion or exercise of any dilutive potential ordinary shares (options, warrants and convertible bonds, etc.).

NOTE 2 MAIN SUBSIDIARIES AT DECEMBER 31, 2016

2.1 List of main subsidiaries at December 31, 2016

The list of main subsidiaries presented below was determined, as regards operating entities, based on their contribution to Group revenues, EBITDA and net debt. The main equity-accounted investments (associates and joint ventures) are presented in Note 3 “Investments in entities accounted for using the equity method”.

“FC” indicates the full consolidation method.

Some entities such as ENGIE SA, ENGIE Energie Services SA or Electrabel SA comprise both operating activities and headquarters functions which report to management teams of different reportable segments. In the following tables, these operating activities and headquarters functions are shown within their respective reportable segments under their initial company name followed by a (*) sign.

North America

			% interest		Consolidation method	
Company name	**Activity**	**Country**	**Dec. 31, 2016**	**Dec. 31, 2015**	**Dec. 31, 2016**	**Dec. 31, 2015**
GDF SUEZ Energy Generation North America Group[1]	Electricity generation	United States	100.0	100.0	FC	FC
ENGIE Holding Inc.	Holding - parent company	United States	100.0		FC	
Distrigas of Massachussetts	LNG terminals	United States	100.0	100.0	FC	FC
ENGIE Resources Inc.	Energy sales	United States	100.0	100.0	FC	FC
Ecova	Energy services	United States	100.0	100.0	FC	FC

(1) Assets classified as “Assets held for sale” at December 31, 2016.

Latin America

			% interest		Consolidation method	
Company name	**Activity**	**Country**	**Dec. 31, 2016**	**Dec. 31, 2015**	**Dec. 31, 2016**	**Dec. 31, 2015**
ENGIE Energía Chile Group	Electricity distribution and generation	Chile	52.8	52.8	FC	FC
ENGIE Energía Perú	Electricity distribution and generation	Peru	61.8	61.8	FC	FC
ENGIE Brasil Energia Group	Electricity distribution and generation	Brazil	68.7	68.7	FC	FC

Africa/Asia

			% interest		Consolidation method	
Company name	**Activity**	**Country**	**Dec. 31, 2016**	**Dec. 31, 2015**	**Dec. 31, 2016**	**Dec. 31, 2015**
GLOW Group	Electricity distribution and generation	Thailand	69.1	69.1	FC	FC
Hazelwood Power Partnership	Electricity generation	Australia	72.0	72.0	FC	FC
Loy Yang B Group	Electricity generation	Australia	70.0	70.0	FC	FC
Simply Energy	Energy sales	Australia	72.0	72.0	FC	FC
Baymina Enerji A.S.	Electricity generation	Turkey	95.0	95.0	FC	FC

Benelux

Company name	Activity	Country	% interest Dec. 31, 2016	% interest Dec. 31, 2015	Consolidation method Dec. 31, 2016	Consolidation method Dec. 31, 2015
Electrabel SA (*)	Electricity generation/ Energy sales	Belgium	100.0	100.0	FC	FC
Synatom	Managing provisions relating to power plants and nuclear fuel	Belgium	100.0	100.0	FC	FC
Cofely Fabricom SA	Systems, facilities and maintenance services	Belgium	100.0	100.0	FC	FC
ENGIE Energie Nederland N.V. (*)	Energy sales	Netherlands	100.0	100.0	FC	FC
ENGIE Services Nederland N.V.	Energy services	Netherlands	100.0	100.0	FC	FC

France

Company name	Activity	Country	% interest Dec. 31, 2016	% interest Dec. 31, 2015	Consolidation method Dec. 31, 2016	Consolidation method Dec. 31, 2015
ENGIE SA (*)	Energy sales	France	100.0	100.0	FC	FC
ENGIE Energie Services SA (*)	Energy services/ Networks	France	100.0	100.0	FC	FC
Axima Concept	Systems, facilities and maintenance services	France	100.0	100.0	FC	FC
Endel Group	Systems, facilities and maintenance services	France	100.0	100.0	FC	FC
INEO Group	Systems, facilities and maintenance services	France	100.0	100.0	FC	FC
Compagnie Nationale du Rhône	Electricity distribution and generation	France	49.9	49.9	FC	FC
CPCU	Urban heating networks	France	64.4	64.4	FC	FC

Europe excluding France & Benelux

Company name	Activity	Country	% interest Dec. 31, 2016	% interest Dec. 31, 2015	Consolidation method Dec. 31, 2016	Consolidation method Dec. 31, 2015
ENGIE Energielösungen GmbH	Energy services	Germany	100.0	100.0	FC	FC
ENGIE Italia S.p.A (*)	Energy sales	Italy	100.0	100.0	FC	FC
COFELY Italia S.p.A	Energy services	Italy	100.0	100.0	FC	FC
ENGIE Romania	Natural gas distribution/ Energy sales	Romania	51.0	51.0	FC	FC
ENGIE UK Retail	Energy sales	United Kingdom	100.0	100.0	FC	FC
First Hydro Holdings Company	Electricity generation	United Kingdom	75.0	75.0	FC	FC
ENGIE Services Holding UK Ltd	Energy services	United Kingdom	100.0	100.0	FC	FC
ENGIE Services Limited	Energy services	United Kingdom	100.0	100.0	FC	FC

Infrastructures Europe

Company name	Activity	Country	% interest		Consolidation method	
			Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015
Elengy	LNG terminals	France	100.0	100.0	FC	FC
Fosmax LNG	LNG terminals	France	72.5	72.5	FC	FC
GRDF	Natural gas distribution	France	100.0	100.0	FC	FC
GRTgaz Group	Natural gas transportation	France	74.7	74.7	FC	FC
Storengy Deutschland GmbH	Underground natural gas storage	Germany	100.0	100.0	FC	FC
Storengy SA	Underground natural gas storage	France	100.0	100.0	FC	FC

GEM & LNG

Company name	Activity	Country	% interest		Consolidation method	
			Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015
Electrabel SA (*)	Energy management trading	France/ Belgium	100.0	100.0	FC	FC
ENGIE Global Markets	Energy management trading	France/ Belgium/ Singapore	100.0	100.0	FC	FC
ENGIE Energy Management (*)	Energy management trading	France/ Belgium/ Italy	100.0	100.0	FC	FC
ENGIE Gas & LNG LLC	Natural gas/ LNG	United States	100.0	100.0	FC	FC
ENGIE SA (*)	Energy management trading/ Energy sales/ LNG	France	100.0	100.0	FC	FC

E&P

Company name	Activity	Country	% interest		Consolidation method	
			Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015
ENGIE E&P International Group	Exploration-production	France and other countries	70.0	70.0	FC	FC
ENGIE E&P International	*Holding - parent company*	*France*	*70.0*	*70.0*	*FC*	*FC*
ENGIE E&P Nederland B.V.	*Exploration-production*	*Netherlands*	*70.0*	*70.0*	*FC*	*FC*
ENGIE E&P Deutschland GmbH	*Exploration-production*	*Germany*	*70.0*	*70.0*	*FC*	*FC*
ENGIE E&P Norge AS	*Exploration-production*	*Norway*	*70.0*	*70.0*	*FC*	*FC*
ENGIE E&P UK Ltd.	*Exploration-production*	*United Kingdom*	*70.0*	*70.0*	*FC*	*FC*

Others

			% interest		Consolidation method	
Company name	**Activity**	**Country**	**Dec. 31, 2016**	**Dec. 31, 2015**	**Dec. 31, 2016**	**Dec. 31, 2015**
ENGIE SA (*)	Holding - parent company	France	100.0	100.0	FC	FC
Electrabel SA (*)	Holding/ Electricity generation	Belgium	100.0	100.0	FC	FC
ENGIE Energie Services SA (*)	Holding	France	100.0	100.0	FC	FC
International Power Limited	Holding	United Kingdom	100.0	100.0	FC	FC
ENGIE CC	Financial subsidiaries/ Central functions	Belgium	100.0	100.0	FC	FC
ENGIE FINANCE SA	Financial subsidiaries	France	100.0	100.0	FC	FC
Solairedirect	Electricity generation	France	100.0	96.6	FC	FC
ENGIE Energie Nederland N.V. (*)	Electricity generation	Netherlands	100.0	100.0	FC	FC
ENGIE Cartagena	Electricity generation	Spain	100.0	100.0	FC	FC
ENGIE Deutschland AG (*)	Electricity generation	Germany	100.0	100.0	FC	FC
ENGIE Kraftwerk Wilhelmshaven GmbH & Co. KG	Electricity generation	Germany	57.0	57.0	FC	FC
ENGIE Energia Polska SA (*)(1)	Electricity generation	Poland	100.0	100.0	FC	FC
ENGIE Thermique France	Electricity generation	France	100.0	100.0	FC	FC
Rugeley Power Limited	Electricity generation	United Kingdom	75.0	75.0	FC	FC
Saltend	Electricity generation	United Kingdom	75.0	75.0	FC	FC
Gaztransport & Technigaz (GTT)	Engineering	France	40.4	40.4	FC	FC
Tractebel Engineering	Engineering	Belgium	100.0	100.0	FC	FC

(1) Assets classified as “Assets held for sale” at December 31, 2016.

2.2 Significant judgments exercised when assessing control

The Group primarily considers the following information and criteria when determining whether it has control over an entity:

- governance arrangements: voting rights and whether the Group is represented in the governing bodies, majority, veto rights;
- whether substantive or protective rights are granted to shareholders, particularly in relation to the entity’s relevant activities;
- the consequences of a “deadlock” clause;
- whether the Group is exposed, or has rights, to variable returns from its involvement with the entity.

The Group exercised its judgment regarding the entities and sub-groups described below.

Entities in which the Group has the majority of the voting rights

This category mainly comprises the ENGIE E&P International (70%) and GRTgaz (74.7%) sub-groups.

ENGIE E&P International (E&P): 70%

On October 31, 2011, ENGIE and China Investment Corporation (CIC) signed a partnership agreement for the acquisition by CIC of a 30% stake in the Group’s exploration-production activities (ENGIE E&P International). The shareholder agreement provides that certain investment decisions relating to major development projects require an unanimous decision from the two shareholders, after a consultation period.

ENGIE considered that it continued to control ENGIE E&P International, as the rights granted to CIC represent minority protective rights, regarding in particular the risks to which all shareholders are exposed when undertaking exploration-production activities.

GRTgaz (Infrastructures Europe): 74.7%

In addition to the analysis of the shareholder agreement with *Société d'Infrastructures Gazières*, a subsidiary of *Caisse des Dépôts et Consignations* (CDC), which owns 24.9% of the share capital of GRTgaz, the Group also assessed the rights granted to the French Energy Regulatory Commission (*Commission de Régulation de l'Énergie* – CRE). As a regulated activity, GRTgaz has a dominant position on the gas transportation market in France. Accordingly, since the transposition of the Third European Directive of July 13, 2009 into French law (Energy Code of May 9, 2011), GRTgaz has been subject to independence rules as concerns its directors and senior management team. The French Energy Code confers certain powers on the CRE in the context of its duties to control the proper functioning of the gas markets in France, including verifying the independence of the members of the Board of Directors and senior management and assessing its choice of investments. The Group considers that it exercises control over GRTgaz in view of its current ability to appoint the majority of the members of the Board of Directors and take decisions about the relevant activities, especially in terms of the level of investment and planned financing.

Entities in which the Group does not have the majority of the voting rights

In the entities in which the Group does not have a majority of the voting rights, judgment is exercised with regard to the following items, in order to assess whether there is a situation of *de facto* control:

- dispersion of shareholding structure: number of voting rights held by the Group relative to the number of rights held respectively by the other vote holders and their dispersion;
- voting patterns at shareholders' meetings: the percentages of voting rights exercised by the Group at shareholders' meetings in recent years;
- governance arrangements: representation in the governing body with strategic and operational decision-making power over the relevant activities, as well as the rules for appointing key management personnel;
- contractual relationships and material transactions.

The main fully consolidated entities in which the Group does not have the majority of the voting rights are Compagnie Nationale du Rhône (49.98%) and Gaztransport & Technigaz (40.4%).

Compagnie Nationale du Rhône ("CNR" – France): 49.98%

The Group holds 49.98% of the share capital of CNR, with CDC holding 33.2%, and the balance (16.82%) being dispersed among around 200 local authorities. In view of the current provisions of the French "Murcef" law, under which a majority of CNR's share capital must remain under public ownership, the Group is unable to hold more than 50% of the share capital of CNR. However, the Group considers that it exercises *de facto* control as it holds the majority of the voting rights exercised at shareholders' meetings due to the widely dispersed shareholding structure and the absence of evidence of the minority shareholders acting in concert.

Gaztransport & Technigaz ("GTT" – Others): 40.4%

Since GTT's initial public offering in February 2014, ENGIE has been the largest shareholder in that company with a 40.4% stake, the free float representing around 49% of the share capital. The Group holds the majority of the voting rights exercised at shareholders' meetings in view of the widely dispersed shareholding structure and the absence of evidence of minority shareholders acting in concert. ENGIE also holds the majority of the seats on the Board of Directors. The Group considers that it exercises *de facto* control over GTT, based on an IFRS 10 criteria analysis.

2.3 Subsidiaries with material non-controlling interests

The following table shows the non-controlling interests in Group entities that are deemed to be material, the respective contributions to equity and net income at December 31, 2016 and December 31, 2015, as well as the dividends paid to non-controlling interests of these significant subsidiaries:

Corporate name	Activity	Percentage interest of non-controlling interests		Net income/(loss) of non-controlling interests		Equity of non-controlling interests		Dividends paid to non-controlling interests	
In millions of euros		Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015
GRTgaz Group (Infrastructures Europe, France)	Regulated gas transportation activities in France	25.3	25.3	137	86	987	945	86	91
ENGIE Energía Chile Group (Latin America, Chile)(1)	Electricity distribution and generation - thermal power plants	47.2	47.2	112	45	941	838	47	26
ENGIE Brasil Energia Group (Latin America, Brazil)(1)	Electricity distribution and generation	31.3	31.3	131	130	621	507	105	68
GLOW Group (Africa/Asia, Thailand)(1)	Electricity distribution and generation - hydroelectric, wind and thermal power plants	30.9	30.9	94	107	599	566	84	71
ENGIE Romania Group (Europe excluding France & Benelux, Romania)	Distribution of natural gas/Energy sales	49.0	49.0	39	44	470	433	-	22
Gaztransport & Technigaz (Other, France)(1)	Naval engineering, cryogenic membrane containment systems for LNG transportation	59.6	59.6	27	23	355	386	59	54
ENGIE Energía Perú (Latin America, Peru)(1)	Electricity distribution and generation - thermal and hydroelectric power plants	38.2	38.2	45	65	351	312	19	17
ENGIE E&P International Group (E&P, France and other countries)	Portfolio of exploration-production assets and oil and gas field operation assets	30.0	30.0	(47)	(641)	320	363	-	22
Other subsidiaries with non-controlling interests				40	(355)	1,226	1,322	106	111
TOTAL				**579**	**(496)**	**5,870**	**5,672**	**507**	**482**

(1) The ENGIE Energía Chile, ENGIE Energia Brasil and GLOW groups, as well as Gaztransport & Technigaz and ENGIE Energía Perú are listed on the stock markets in their respective countries.

2.3.1 Condensed financial information on subsidiaries with material non-controlling interests

The condensed financial information concerning these subsidiaries presented in the table below is based on a 100% interest and is shown before intragroup eliminations.

In millions of euros	GRTgaz Group		ENGIE Energía Chile Group		ENGIE Brasil Energia Group		GLOW Group	
	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015
Income statement								
Revenues	1,993	1,956	876	1,033	1,670	1,750	1,343	1,679
Net income/(loss)	544	342	223	86	417	415	241	271
Net income/(loss) Group share	406	255	111	41	286	285	147	164
Other comprehensive income/(loss) – Owners of the parent	(26)	1	41	78	192	(249)	35	44
TOTAL COMPREHENSIVE INCOME/(LOSS) – OWNERS OF THE PARENT	**381**	**257**	**152**	**119**	**478**	**36**	**183**	**208**
Statement of financial position								
Current assets	586	641	601	504	957	1,103	588	626
Non-current assets	9,114	8,966	2,601	2,435	3,162	2,449	2,558	2,695
Current liabilities	(699)	(691)	(280)	(248)	(489)	(730)	(383)	(419)
Non-current liabilities	(5,094)	(5,177)	(997)	(994)	(1,772)	(1,312)	(1,300)	(1,416)
TOTAL EQUITY	**3,908**	**3,739**	**1,926**	**1,697**	**1,858**	**1,511**	**1,463**	**1,486**
TOTAL NON-CONTROLLING INTERESTS	**987**	**945**	**941**	**838**	**621**	**507**	**599**	**566**
Statement of cash flows								
Cash flow from operating activities	1,069	925	266	313	658	723	432	522
Cash flow from (used in) investing activities	(619)	(559)	(55)	(351)	(355)	(232)	(17)	(50)
Cash flow from (used in) financing activities	(450)	(210)	(109)	(66)	(437)	(277)	(456)	(374)
TOTAL CASH FLOW FOR THE PERIOD[(1)]	**-**	**156**	**102**	**(105)**	**(134)**	**214**	**(41)**	**99**

(1) Excluding effects of changes in exchange rates and other.

In millions of euros	ENGIE Romania Group		Gaztransport & Technigaz		ENGIE Energía Perú		ENGIE E&P International Group	
	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015
Income statement								
Revenues	989	975	236	226	665	639	1,909	2,406
Net income/(loss)	80	90	(115)	(14)	119	169	(158)	(2,136)
Net income/(loss) Group share	41	46	(143)	(37)	73	105	(111)	(1,495)
Other comprehensive income/(loss) – Owners of the parent	(2)	(4)	1	-	20	48	(191)	200
TOTAL COMPREHENSIVE INCOME/(LOSS) – OWNERS OF THE PARENT	**39**	**42**	**(141)**	**(37)**	**94**	**153**	**(302)**	**(1,296)**
Statement of financial position								
Current assets	564	391	201	219	258	203	1,668	2,057
Non-current assets	752	757	582	668	1,902	1,713	4,887	4,639
Current liabilities	(321)	(172)	(101)	(138)	(351)	(348)	(1,571)	(1,281)
Non-current liabilities	(49)	(104)	(87)	(101)	(894)	(754)	(4,077)	(4,367)
TOTAL EQUITY	**946**	**872**	**595**	**648**	**916**	**814**	**907**	**1,049**
TOTAL NON-CONTROLLING INTERESTS	**470**	**433**	**355**	**386**	**351**	**312**	**320**	**363**
Statement of cash flows								
Cash flow from operating activities	188	96	95	123	206	272	111	965
Cash flow from (used in) investing activities	(42)	(68)	(3)	(7)	(192)	(337)	(899)	(745)
Cash flow from (used in) financing activities	(29)	(48)	(102)	(101)	(36)	86	708	(4)
TOTAL CASH FLOW FOR THE PERIOD[(1)]	**117**	**(21)**	**(11)**	**15**	**(22)**	**21**	**(80)**	**216**

(1) Excluding effects of changes in exchange rates and other.

2.3.2 Other information on material non-controlling interests

During the first-half of 2016, ENGIE E&P International shareholders subscribed to a €290 million capital increase according to their respective ownership percentage interest (€203 million for ENGIE and €87 million for China Investment Corporation (CIC)).

NOTE 3 INVESTMENTS IN ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD

The respective contributions of associates and joint ventures in the statement of financial position, the income statement and the statement of comprehensive income at December 31, 2016 and December 31, 2015, are as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Statement of financial position		
Investments in associates	4,736	5,157
Investments in joint ventures	1,888	1,820
INVESTMENTS IN ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**6,624**	**6,977**
Income statement		
Share in net income/(loss) of associates	671	338
Share in net income/(loss) of joint ventures	92	135
SHARE IN NET INCOME/(LOSS) OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**764**	**473**
Statement of comprehensive income		
Share of associates in "Other comprehensive income/(loss)"	47	(195)
Share of joint ventures in "Other comprehensive income/(loss)"	12	-
SHARE OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD IN "OTHER COMPREHENSIVE INCOME/(LOSS)"	**59**	**(195)**

Significant judgments

The Group primarily considers the following information and criteria in determining whether it has joint control or significant influence over an entity:

- governance arrangements: whether the Group is represented in the governing bodies, majority rules, veto rights;
- whether substantive or protective rights are granted to shareholders, particularly in relation to the entity's relevant activities.
  This can be difficult to determine in the case of "project management" or "one-asset" entities, as certain decisions concerning the relevant activities are made upon the creation of the joint arrangement and remain valid throughout the project. Accordingly, the decision-making analysis concerns the relevant residual activities of the entity (those that significantly affect the returns of the entity);
- the consequences of a "deadlock" clause;
- whether the Group is exposed, or has rights, to variable returns from its involvement with the entity.
  This can also involve analyzing the Group's contractual relations with the entity, in particular the conditions in which contracts are entered into, contract terms and the management of any conflicts of interest that may arise when the entity's governing body casts votes.

The Group exercised its judgment regarding the following entities and sub-groups:

Project management entities in the Middle East

The significant judgments made in determining the consolidation method to be applied to these project management entities concerned the risks and rewards relating to contracts between ENGIE and the entity concerned, as well as an analysis of the residual relevant activities over which the entity retains control after its creation. The Group considers that it has significant influence or joint control over these entities, since the decisions taken throughout the term of the project about the relevant activities such as refinancing, or the renewal or amendment of significant contracts (sales, purchases, operating and maintenance services), require, depending on the case, the unanimous consent of two or more parties sharing control.

SUEZ Group (32.6%)

With effect from July 22, 2013, the date on which the SUEZ shareholders' agreement expired, ENGIE no longer controls SUEZ but exercises significant influence over the company. In particular, this is because: (i) the Group does not have a majority of members on SUEZ's Board of Directors, (ii) at Shareholders' Meetings, although SUEZ's shareholder base is fragmented and ENGIE holds a large interest, past voting shows that ENGIE alone did not have the majority at Ordinary and Extraordinary Shareholders' Meetings between 2010 and 2016 and (iii) the operational transition agreements (essentially relating to a framework agreement governing purchases and IT) were entered into on an arm's length basis.

Associates in which the Group holds an interest of less than 20%

Cameron Holding LNG LLC (16.6%)

ENGIE entered into a partnership agreement with Sempra (50.2%), Mitsubishi (16.6%) and Mitsui (16.6%) to develop the Cameron LNG project in the United States. Pursuant to these agreements, ENGIE has held a 16.6% stake in the project management entity Cameron Holding LNG LLC since October 1, 2014 and will have a long-term liquefaction capacity of 4 million tons per year (mtpa). Construction work has begun on the project and the facility should be operational for commercial purposes as from 2018.

The agreement grants all shareholders the right to participate in all decisions about the relevant activities, on the basis of qualified majorities. Accordingly, ENGIE has significant influence over this entity, which it has accounted for as an associate.

Joint ventures in which the Group holds an interest of more than 50%

Tihama (60%)

ENGIE holds a 60% stake in the Tihama cogeneration plant in Saudi Arabia and its partner Saudi Oger holds 40%. The Group considers that it has joint control over Tihama since the decisions about its relevant activities, including for example preparation of the budget and amendments to major contracts, require the unanimous consent of the parties sharing control.

Joint control – difference between joint ventures and joint operations

Classifying a joint arrangement requires the Group to use its judgment to determine whether the entity in question is a joint venture or a joint operation. IFRS 11 requires an analysis of "other facts and circumstances" when determining the classification of jointly controlled entities.

The IFRS Interpretations Committee (IFRS IC) (November 2014) decided that for an entity to be classified as a joint operation, other facts and circumstances must give rise to direct enforceable rights to the assets, and obligations for the liabilities, of the joint arrangement.

In view of this position and its application to our analyses, the Group has no material joint operations at December 31, 2016.

3.1 Investments in associates

3.1.1 Contribution of material associates and of associates that are not material to the Group taken individually

The table hereafter shows the contribution of each material associate along with the aggregate contribution of associates deemed not material taken individually, in the consolidated statement of financial position, income statement, statement of comprehensive income, and the "Dividends received from companies accounted for using the equity method" line of the statement of cash flows.

The Group used qualitative and quantitative criteria to determine material associates. These criteria include the contribution to the consolidated line items “Share in net income/(loss) of associates” and “Investments in associates”, the total assets of associates in Group share, and associates carrying major projects in the study or construction phase for which the related investment commitments are material.

Corporate name	Activity	Capacity	Percentage interest of investments in associates		Carrying amount of investments in associates		Share in net income/(loss) of associates		Other comprehensive income/(loss) of associates		Dividends received from associates	
In millions of euros			Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015
SUEZ Group (Other)	Water and waste processing		32.57	33.55	1,906	1,940	139	134	(40)	(123)	119	118
Paiton (Africa/Asia, Indonesia)(1)	Coal-fired power plant	2,035 MW	-	40.51	-	851	141	85	21	-	67	44
Energia Sustentável Do Brasil (Latin America, Brazil)	Hydro power plant	3,750 MW	40.00	40.00	774	446	197	(76)	-	-	-	-
Project management entities in the Middle East (Africa/Asia, Saudi Arabia, Bahrain, Qatar, United Arab Emirates, Oman, Kuwait)(2)	Gas-fired power plants and seawater desalination facilities				651	547	129	146	52	(41)	99	110
Senoko (Africa/Asia, Singapore)	Gas-fired power plants	3,201 MW	30.00	30.00	355	331	(10)	8	31	9	-	-
GASAG (Europe excluding France & Benelux, Germany)(3)	Gas and heat networks		31.58	31.58	231	293	5	11	15	(4)	11	10
Cameron LNG (GEM & LNG, United States)	Gas liquefaction terminal		16.60	16.60	193	162	(6)	(4)	2	(21)	-	-
Canadian renewable energy activities (North America, Canada)	Wind farm	679 MW	40.00	40.00	161	159	13	12	(14)	(3)	21	25
Other investments in associates that are not material taken individually					466	427	63	22	(19)	(13)	38	42
INVESTMENTS IN ASSOCIATES					**4,736**	**5,157**	**671**	**338**	**47**	**(195)**	**355**	**350**

(1) The total 40.51% interest in Paiton was sold on December 22, 2016 (see Note 4 “Main changes in Group structure”).

(2) Investments in associates operating gas-fired power plants and seawater desalination facilities in the Arabian Peninsula have been grouped together under “Project management entities in the Middle East”. This includes around 40 associates operating thermal power plants with a total installed capacity of 23,563 MW (at 100%) and a further 2,481 MW (at 100%) in capacity under construction. These associates have fairly similar business models and joint arrangements: the project management entities selected as a result of a competitive bidding process develop, build and operate power generation plants and seawater desalination facilities. The entire output of these facilities is sold to government-owned companies under power and water purchase agreements, over periods generally spanning from 20 to 30 years.

In accordance with their contractual arrangements, the corresponding plants are recognized as property, plant and equipment or as financial receivables whenever substantially all of the risks and rewards associated with the assets are transferred to the buyer of the output. This treatment complies with IFRIC 4 and IAS 17. The shareholding structure of these entities systematically includes a government-owned company based in the same country as the project management entity. The Group’s percent interest and percent voting rights in each of these entities varies between 20% and 50%.

(3) Share in net income/(loss) of associates excluding the €70 million of impairment losses accounted for at December 31, 2016 by the Group on the net value of its investment in GASAG.

The share in net income/(loss) of associates includes net non-recurring income for a total amount of €27 million in 2016 (compared to net non-recurring income of €3 million in 2015), mainly including changes in the fair value of derivative instruments and disposal gains and losses, net of taxes *(see Note 5.2 “Net recurring income Group share”)*.

3.1.2 Financial information regarding material associates

The tables below provide condensed financial information for the Group's main associates. The amounts shown have been determined in accordance with IFRS, before the elimination of intragroup items and after (i) adjustments made in line with Group accounting policies and (ii) fair value measurements of the assets and liabilities of the associate performed at the date of acquisition at the level of ENGIE, as required by IAS 28. All amounts are presented based on a 100% interest with the exception of "Total equity attributable to ENGIE".

In millions of euros	Revenues	Net income/ (loss)	Other compre-hensive income/ (loss)	Total compre-hensive income/ (loss)	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Total equity	% interest of Group	Total equity attributable to ENGIE
AT DECEMBER 31, 2016											
SUEZ Group[1]	15,322	420	(333)	87	9,086	20,198	10,037	11,881	7,366	32.57	1,906
Paiton	695	349	52	400	-	-	-	-	-	40.51	-
Project management entities in the Middle East	4,004	557	227	784	2,360	24,294	5,302	18,617	2,735	-	651
Energia Sustentável Do Brasil	578	493	-	493	308	6,108	919	3,563	1,934	40.00	774
Senoko	1,125	(34)	102	68	308	2,763	141	1,744	1,185	30.00	355
GASAG[2]	1,164	14	48	63	810	1,730	1,592	217	732	31.58	231
Cameron LNG	60	(36)	13	(23)	50	5,167	256	3,801	1,161	16.60	193
Canadian renewable energy activities	172	41	(36)	6	76	1,247	66	857	401	40.00	161
AT DECEMBER 31, 2015											
SUEZ Group[1]	15,135	408	58	465	8,039	19,593	9,271	11,555	6,805	33.55	1,940
Paiton	783	210	2	212	486	3,582	381	1,587	2,101	40.51	851
Project management entities in the Middle East	3,857	605	(239)	366	2,337	23,479	3,702	19,864	2,250	-	547
Energia Sustentável Do Brasil	570	(191)	-	(191)	285	4,910	1,380	2,699	1,116	40.00	446
Senoko	1,500	25	29	55	327	2,883	260	1,848	1,103	30.00	331
GASAG	1,054	36	(12)	24	851	1,956	1,674	206	928	31.58	293
Cameron LNG	60	(27)	(125)	(152)	50	3,287	232	2,129	977	16.60	162
Canadian renewable energy activities	174	40	(36)	4	68	1,231	69	832	397	40.00	159

(1) The data indicated in the table for SUEZ correspond to financial information published by SUEZ. Total SUEZ equity attributable to the Group amounts to €5,496 million based on the published financial statements of SUEZ and €5,852 million based on the financial statements of ENGIE. The €356 million difference in these amounts chiefly reflects the fair value measurement of the assets and liabilities of SUEZ at the date the Group changed its consolidation method (July 22, 2013).

(2) Share in net income/(loss) of associates excluding the €70 million of impairment losses accounted for at December 31, 2016 by the Group on the net value of its investment in GASAG.

SUEZ is the only material listed associate. Based on the closing share price at December 31, 2016, the market value of this interest was €2,576 million.

3.1.3 Transactions between the Group and its associates

The data below set out the impact of transactions with associates on the Group's 2016 consolidated financial statements.

In millions of euros	Purchases of goods and services	Sales of goods and services	Net financial income (excluding dividends)	Trade and other receivables	Loans and receivables at amortized cost	Trade and other payables	Borrowings and debt
Project management entities in the Middle East	-	313	-	8	384	-	-
Paiton	-	-	30	-	-	-	-
Contassur[1]	-	-	-	115	-	-	-
Energia Sustentável Do Brasil	159	-	-	-	62	-	-
Other	20	6	-	9	49	-	-
AT DECEMBER 31, 2016	**179**	**319**	**30**	**132**	**495**	**-**	**-**

(1) Contassur is a life insurance company accounted for using the equity method. Contassur offers insurance contracts, chiefly with pension funds that cover post-employment benefit obligations for Group employees and also employees of other companies mainly engaged in regulated activities in the electricity and gas sector in Belgium. Insurance contracts entered into by Contassur represent reimbursement rights recorded within “Other assets” in the statement of financial position. These reimbursement rights totaled €115 million at December 31, 2016 (€167 million at December 31, 2015).

3.2 Investments in joint ventures

3.2.1 Contribution of material joint ventures and of joint ventures that are not material to the Group taken individually

The table below shows the contribution of each material joint venture along with the aggregate contribution of joint ventures deemed not material taken individually, to the consolidated statement of financial position, income statement, statement of comprehensive income, and the "Dividends received from entities accounted for using the equity method" line of the statement of cash flows.

The Group used qualitative and quantitative criteria to determine material joint ventures. These criteria include the contribution to the lines “Share in net income/(loss) of joint ventures” and “Investments in joint ventures”, the Group’s share in total assets of joint ventures, and joint ventures conducting major projects in the study or construction phase for which the related investment commitments are material.

Corporate name	Activity	Capacity	Percentage interest of investments in joint ventures		Carrying amount of investments in joint ventures		Share in net income/(loss) of joint ventures		Other comprehensive income/(loss) of joint ventures		Dividends received from joint ventures	
In millions of euros			Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015
EcoÉlectrica (North America, Puerto Rico)	Combined-cycle gas-fired power plant and LNG terminal	507 MW	50.00	50.00	504	487	38	31	-	-	37	47
Portfolio of power generation assets in Portugal (Europe excluding France & Benelux, Portugal)	Electricity generation	2,895 MW	50.00	50.00	420	388	62	37	1	2	30	-
WSW Energie und Wasser AG (Europe excluding France & Benelux, Germany)(1)	Electricity distribution and generation		33.10	33.10	185	194	12	1	-	-	3	6
Tihama Power Generation Co (Africa/Asia, Saudi Arabia)	Electricity generation	1,599 MW	60.00	60.00	136	104	21	30	6	4	-	11
Megal GmbH (Infrastuctures Europe, Germany)	Gas transmission network		49.00	49.00	105	112	5	4	-	-	17	23
Maïa Eolis (France Renewable Energies, France)(2)	Wind farm		-	49.00	-	96	1	(1)	1	-	-	-
Transmisora Eléctrica del Norte (Latin America, Chile)	Electricity transmission line		50.00	-	79	-	(1)	-	-	-	(5)	-
NELP (North America, United States)(3)	Gas-fired power plants	615 MW	50.00	50.00	-	-	-	34	-	-	-	43
Other investments in joint ventures that are not material taken individually					459	439	(46)	(3)	4	(6)	32	23
INVESTMENTS IN JOINT VENTURES					**1,888**	**1,820**	**92**	**135**	**12**	**-**	**114**	**153**

(1) *The share in net income in WSW Energie und Wasser AG does not include the €21 million of impairment losses accounted for by the Group at December 31, 2016 on the net value of its investment in the joint venture.*

(2) *Since Maïa Eolis is accounted for under the full consolidation method from May 25, 2016 to December 15, 2016, the amounts presented under this line correspond to the contribution from January 1, 2016 to May 24, 2016 (see Note 4 "Main changes in Group structure").*

(3) *The 50% interest in NELP is included in the portfolio of power generation assets in the United States classified as "Assets held for sale". Since December 31, 2015, the interest in NELP is recorded under "Assets classified as held for sale". The carrying amount of the Group's interest in NELP amounted to €158 million at December 31, 2016.*

The share in net income/(loss) of joint ventures includes non-recurring expenses of €8 million in 2016 (non-recurring expenses of €15 million in 2015), resulting chiefly from changes in the fair value of derivatives, impairment losses and disposal gains and losses, net of tax *(see Note 5.2 "Net recurring income Group share")*.

3.2.2 Financial information regarding material joint ventures

The amounts shown have been determined in accordance with IFRS before the elimination of intragroup items and after (i) adjustments made in line with Group accounting policies and (ii) fair value measurements of the assets and liabilities of the joint venture performed at the date of acquisition at the level of ENGIE, as required by IAS 28. All amounts are presented based on a 100% interest with the exception of "Total equity attributable to ENGIE" in the statement of financial position.

Information on the income statement and statement of comprehensive income

In millions of euros	Revenues	Depreciation and amortization on intangible assets and property, plant and equipment	Net financial income/(loss)[1]	Income taxe expense	Net income/(loss)	Other comprehensive income/(loss)	Total comprehensive income/(loss)
AT DECEMBER 31, 2016							
EcoÉlectrica	309	(66)	(5)	(3)	76	-	76
Portfolio of power generation assets in Portugal	680	(79)	(36)	(38)	179	(2)	177
WSW Energie und Wasser AG[2]	1,179	(16)	(4)	(19)	37	-	37
Megal GmbH	115	(55)	(4)	(1)	11	-	11
Tihama Power Generation Co	126	(6)	(29)	(3)	35	11	46
Maïa Eolis[3]	23	(11)	(1)	(2)	1	3	4
Transmisora Eléctrica del Norte	-	-	(2)	1	(2)	(10)	(12)
NELP	101	(20)	1	-	43	-	43
AT DECEMBER 31, 2015							
EcoÉlectrica	320	(72)	(5)	(3)	62	-	61
Portfolio of power generation assets in Portugal	764	(100)	(50)	(46)	110	9	120
WSW Energie und Wasser AG	1,091	(13)	(7)	(12)	5	1	7
Megal GmbH	114	(52)	(5)	2	9	-	9
Tihama Power Generation Co	101	(6)	(22)	(5)	50	7	57
Maïa Eolis	42	(26)	(2)	1	(1)	1	(1)
NELP	140	(25)	-	-	68	-	68

(1) Interest income is not material.

(2) The share in net income in WSW Energie und Wasser AG does not include the €21 million impairments losses accounted for by the Group at December 31, 2016 on the net value of its investment in the joint venture.

(3) Since Maïa Eolis is accounted for under the full consolidation method from May 25, 2016 to December 15, 2016, the amounts presented under this line correspond to the contribution from January 1, 2016 to May 24, 2016 (see Note 4 "Main changes in Group structure").

Information on the statement of financial position

In millions of euros	Cash and cash equivalents	Other current assets	Non-current assets	Short-term borrowings	Other current liabilities	Long-term borrowings	Other non-current liabilities	Total equity	% interest of Group	Total equity attributable to ENGIE
AT DECEMBER 31, 2016										
EcoÉlectrica	74	131	959	1	16	108	29	1,009	50.00	504
Portfolio of power generation assets in Portugal[1]	275	729	1,699	382	162	1,113	130	917	50.00	420
WSW Energie und Wasser AG[2]	37	171	754	33	174	126	95	534	33.10	185
Megal GmbH	24	8	726	3	69	389	84	214	49.00	105
Tihama Power Generation Co	64	108	660	55	27	508	16	227	60.00	136
Transmisora Eléctrica del Norte	29	3	733	1	119	487	-	158	50.00	79
NELP	17	57	284	-	14	-	34	311	50.00	155
AT DECEMBER 31, 2015										
EcoÉlectrica	33	137	998	57	31	75	30	975	50.00	487
Portfolio of power generation assets in Portugal	402	258	2,401	519	220	1,203	146	972	50.00	388
WSW Energie und Wasser AG	21	158	805	60	147	124	93	561	33.10	194
Megal GmbH	17	1	711	84	48	279	90	228	49.00	112
Tihama Power Generation Co	37	90	702	70	26	543	17	173	60.00	104
Maïa Eolis	56	27	314	21	20	120	40	196	49.00	96
NELP	4	75	296	-	13	-	58	305	50.00	153

(1) Equity Group share amounts to €840 million for the Portuguese sub-group. The share of this €840 million attributable to ENGIE is therefore €420 million.

(2) Equity Group share amounts to €523 million for the WSW Energie und Wasser AG sub-group. The share of this €523 million attributable to ENGIE is therefore €173 million. This amount is increased by an additional share of €12 million in respect of a non-controlling interest held directly by ENGIE in a subsidiary of this sub-group (and is therefore not included in the €523 million in equity attributable to the owners of the parent).

3.2.3 Transactions between the Group and its joint ventures

The data below set out the impact of transactions with joint ventures on the Group's 2016 consolidated financial statements.

In millions of euros	Purchases of goods and services	Sales of goods and services	Net financial income (excluding dividends)	Trade and other receivables	Loans and receivables at amortized cost	Trade and other payables	Borrowings and debt
EcoÉlectrica	-	113	-	-	-	-	-
WSW Energie und Wasser AG	15	61	-	3	-	-	-
Megal GmbH	65	-	-	-	-	5	-
Futures Energies Investissements Holding	-	-	-	-	148	-	-
Other	28	-	-	1	118	5	-
AT DECEMBRE 31, 2016	**108**	**174**	**-**	**4**	**266**	**10**	**-**

3.3 Other information on investments accounted for using the equity method

3.3.1 Unrecognized share of losses of associates and joint ventures

Cumulative unrecognized losses of associates (corresponding to the cumulative amount of losses exceeding the carrying amount of investments in the associates concerned) including other comprehensive income/(loss), amounted to €289 million in 2016 (€326 million in 2015). Unrecognized losses relating to fiscal year 2016 amounted to €33 million.

These unrecognized losses mainly correspond to (i) the negative fair value of derivative instruments designated as interest rate hedges ("Other comprehensive income/(loss)") contracted by associates in the Middle East in connection with the financing of construction projects for power generation and seawater desalination plants and (ii) cumulative losses arising on Tirreno Power joint venture.

3.3.2 Commitments and guarantees given by the Group in respect of entities accounted for using the equity method

At December 31, 2016, the main commitments and guarantees given by the Group in respect of entities accounted for using the equity method concern the following three companies and groups of companies:

- Cameron LNG for an aggregate amount of USD 1,664 million (€1,579 million).

  Commitments and guarantees given by the Group in respect of this associate correspond to:
  - a capital contribution commitment for USD 339 million (€322 million),
  - a performance bond for USD 1,230 million (€1,167 million), designed to guarantee the lenders against any risk of non-payment in the event that the project cannot be completed or enter into operation. At December 31, 2016, debt drawdowns made by Cameron LNG, in respect of the share guaranteed by the Group, amounted to USD 664 million (€631 million) including accrued interest,
  - miscellaneous guarantees for a total amount of USD 95 million (€90 million). At December 31, 2016, the Group's net exposure in respect of these guarantees amounted to USD 41 million (€37 million);

- Energia Sustentável do Brasil ("Jirau") for an aggregate amount of BRL 4,484 million (€1,305 million).

  At December 31, 2016, the amount of loans granted by Banco Nacional de Desenvolvimento Econômico e Social, the Brazilian Development Bank, to Energia Sustentável do Brasil amounted to BRL 11,209 million (€3,263 million). Each partner stands as guarantor for this debt to the extent of its ownership interest in the consortium;

- the project management entities in the Middle East and Africa, for an aggregate amount of €1,825 million.

  Commitments and guarantees given by the Group in respect of these project management entities chiefly correspond to:

  - an equity contribution commitment (capital/subordinated debt) for €674 million. These commitments only concern entities acting as holding companies for projects in the construction phase,
  - letters of credit to guarantee debt service reserve accounts for an aggregate amount of €218 million. The project financing set up in certain entities can require those entities to maintain a certain level of cash within the company (usually enough to service its debt for six months). This is particularly the case when the financing is without recourse. This level of cash may be replaced by letters of credit,
  - collateral given to lenders in the form of pledged shares in the project management entities, for an aggregate amount of €483 million,
  - performance bonds and other guarantees for an amount of €450 million.

NOTE 4 MAIN CHANGES IN GROUP STRUCTURE

4.1 Disposals carried out in 2016

As part of its transformation plan, on February 25, 2016, the Group presented a €15 billion asset disposal program in order to reduce its exposure to high CO_2 emitting activities and merchant activities over the 2016-2018 period.

The table below shows the cumulative impact of the main disposals and sales agreements on the Group's net debt at December 31, 2016:

In millions of euros	Disposal price	Reduction in net debt at Dec. 31, 2016
Transactions finalized in 2016 relating to "Assets held for sale" at December 31, 2015	**868**	**(861)**
Disposal of a portion of the portfolio of merchant power generation assets - United States		
- Disposal of the merchant hydropower generation assets	868	(861)
Transactions carried out in 2016	**1,916**	**(2,661)**
Disposal of Paiton coal-fired power plants - Indonesia	1,167	(1,359)
Disposal of Meenakshi coal-fired power plants - India	(242)	(142)
Disposal of a 50% interest in Transmisora Eléctrica del Norte (TEN) - Chile	195	(267)
Disposal of a portfolio of Maïa Eolis' wind farm assets to Futures Energies Investissements Holding (FEIH) - France	102	(199)
Disposals of "available-for-sale securities"		
- Stake in the Walloon distribution network operator	410	(410)
- Stake in Transportadora de Gas del Perú (TgP)	154	(154)
- Stake in Société d'Enrichissement du Tricastin Holding (SETH)	130	(130)
Reclassification in "Assets held for sale" of Polaniec power plant - Poland		-
Other disposals that are not material taken individually		**(471)**
TOTAL		**(3,992)**

The €3,992 million reduction in net debt at December 31, 2016 is in addition to the €193 million decrease in net debt recognized at December 31, 2015 following the reclassification of the portfolio of merchant power generation assets in the United States in "Assets held for sale".

4.1.1 Disposal of a portion of the portfolio of merchant power generation assets in the United States

At December 31, 2015, the Group considered that the sale of its portfolio of merchant power generation assets in the United States was highly probable in view of the progress made in the divestiture process and, as a result, classified the portfolio in "Assets held for sale" (see Note 4.1 "Assets held for sale" to the 2015 consolidated financial statements). An impairment loss of €1,111 million was recorded at December 31, 2015 in respect of this group of assets held for sale.

At December 31, 2016, the Group finalized the sale of the hydropower generation assets. The remaining assets in the portfolio that were unsold at December 31, 2016, i.e., the thermal merchant power plants, were still classified in "Assets held for sale". On February 7, 2017, the Group finalized the sale of the remaining thermal assets in the United States to Dynegy, for a sale price of USD 3,294 million (see Note 28 "Subsequent Events").

In 2016, the Group recorded additional impairment losses of €238 million corresponding to the difference between the sale prices and carrying amounts of these merchant power plants.

4.1.1.1 Disposal of the merchant hydropower generation assets

On June 1, 2016, the Group finalized the sale of its merchant hydropower generation assets in the United States to PSP Investments (Public Sector Pension Investment Board) for a total amount of USD 968 million (€868 million). These assets represent a total installed capacity of 1.4 GW and are located in Massachusetts and Connecticut.

This transaction resulted in an €861 million reduction in the Group's net debt at December 31, 2016 (i.e., €868 million in consideration received, less transaction fees of €7 million).

4.1.1.2 Thermal merchant power plant portfolio

On February 24, 2016, the Group entered into a sales agreement with a consortium made up of Dynegy and ECP for the sale of the thermal merchant power plant portfolio, representing a total installed capacity of 8.7 GW (at 100%) and operating in Ercot, PJM and New England, for an enterprise value of USD 3.3 billion.

This disposal was finalized on February 7, 2017, subsequent to the closing of the accounts at December 31, 2016. Consequently, the assets and liabilities comprising the thermal merchant power plant portfolio remained classified as "held for sale" at December 31, 2016.

4.1.2 Paiton coal-fired power plants (Indonesia)

On February 24, 2016, the Group entered into an agreement with a group led by Nebras Power for the sale of its entire 40.5% stake in Paiton, which was accounted for using the equity method in the Group's consolidated financial statements. Its power station includes two coal-fired power plants currently in operation with a total capacity of 2 GW.

On December 22, 2016, the Group finalized the sale of its stake in Paiton to the group formed by Nebras Power and Mitsui. The Group received a total payment of USD 1,473 million (€1,376 million) at the date of sale, including USD 262 million (€244 million) corresponding to the repayment of shareholder loans. At December 31, 2016, this transaction resulted in a reduction in net debt of €1,359 million and the recognition of a disposal gain of €225 million, including €157 million recycled from "Other comprehensive income" to the income statement.

4.1.3 Meenakshi coal-fired power plants (India)

The Group also entered into an agreement on February 24, 2016 with the Indian group India Power Corporation Limited (IPCL) for the sale of its entire 89.9% stake in the fully-consolidated entity Meenakshi. The Meenakshi power station includes a plant currently in operation with a capacity of 0.3 GW, and a plant under construction with a planned capacity of 0.7 GW.

On September 30, 2016, the Group finalized the sale to IPCL for negative consideration of €242 million.

Overall, this transaction resulted in a reduction in consolidated net debt of €142 million, corresponding to the derecognition of Meenakshi's net debt totaling €420 million less amounts paid to IPCL and related sales costs of €242 million and €35 million, respectively.

The disposal gain amounted to €84 million, including €48 million in respect of translation adjustments recycled from "Other comprehensive income" to the income statement. In 2015, the Group had recognized a €713 million impairment loss in relation to its Meenakshi assets (see Note 7.2.3 "Energy International's assets" to the 2015 consolidated financial statements).

4.1.4 Disposal of a 50% interest in Transmisora Eléctrica del Norte (TEN) (Chile)

On January 27, 2016, the Group finalized the sale to Red Eléctrica Internacional (via its subsidiary ENGIE Energía Chile, in which the Group holds a 53% interest) of a 50% interest in Transmisora Eléctrica del Norte (TEN), a company responsible for building an electrical transmission line to interconnect Chile’s two main electricity networks (SING and SIC).

The Group received a payment of USD 304 million (€272 million), of which USD 218 million (€195 million) corresponded to the sale price for 50% of the TEN shares, and USD 86 million (€77 million) corresponded to the repayment by Red Eléctrica Internacional of 50% of the shareholder's loan granted to TEN.

The Group lost control of this subsidiary as a result of the transaction, and its remaining 50% interest in TEN is now accounted for as a joint venture. The total gain generated on the disposal, including the capital gain on the 50% interest disposal and the revaluation gain on the remaining interest, amounted to USD 234 million (€211 million) in 2016.

4.1.5 Disposals of available-for-sale securities

4.1.5.1 Stake in the Walloon distribution network operator

On December 22, 2016, the Group, via its subsidiary Electrabel, sold its entire residual 25% interest in the capital of Ores Assets, the electricity and gas distribution network operator in Wallonia, to the Belgian public sector for €410 million. The capital gain generated on the disposal of these available-for-sale securities, which amounted to €86 million, was presented under “Other non-recurring items” within “Income from operating activities”. The €410 million payment received on December 22, 2016 is presented under “Disposals of available-for-sale securities” in the statement of cash flows.

This transaction marks the end of Electrabel’s withdrawal from the management of distribution networks in Belgium. The conclusion of the process in Wallonia is fully in line with previous transactions carried out by the Group in other regions: in Flanders where the Group sold its entire residual interest in the distribution network operators in 2014, and in Brussels, where the Group sold its interest in Sibelga in 2012.

4.1.5.2 Stake in Transportadora de Gas del Perú (TgP)

On December 15, 2016, the Group finalized the sale of its 8.07% stake in Transportadora de Gas del Perú (TgP), a natural gas transportation network operator in Peru. It was jointly acquired by the Canadian Pension Plan Investment Board (CPPIB) and the Spanish group Enagas. The Group received consideration of USD 175 million (€154 million) corresponding to the sale price of its shares in TgP.

The disposal gain amounted to €137 million, including €144 million in respect of fair-value adjustments recognized in "Other comprehensive income" and recycled to the income statement.

4.1.5.3 Stake in Société d’Enrichissement du Tricastin Holding (SETH)

On November 25, 2016, the Group finalized the sale to Areva of its 5% stake in Société d’Enrichissement du Tricastin Holding (SETH), an Areva subsidiary that operates the Georges Besse II (GB II) uranium-enrichment plant in Tricastin. The Group received consideration of €130 million corresponding to the sale price of its shares in SETH. The disposal gain is not material.

4.2 Assets held for sale

Total “Assets classified as held for sale” and total “Liabilities directly associated with assets classified as held for sale” amounted to €3,506 million and €300 million, respectively, at December 31, 2016.

The main categories of assets and liabilities reclassified on these two lines of the statement of financial position are detailed below:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Property, plant and equipment and intangible assets, net	3,153	4,139
Other assets	353	468
TOTAL ASSETS CLASSIFIED AS HELD FOR SALE	**3,506**	**4,607**
Borrowings and debt	-	244
Other liabilities	300	455
TOTAL LIABILITIES DIRECTLY ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE	**300**	**699**

At December 31, 2016, "Assets held for sale" included, in addition to the thermal merchant power plant portfolio in the United States *(see Note 4.1.1)*, the Polaniec power plant in Poland.

Polaniec power plant (Poland)

On December 23, 2016, the Group announced that it had signed an agreement with Enea, a state-owned Polish utility company, for the acquisition of 100% of its shares in ENGIE Energia Polska, the owner of the Polaniec power plant in Poland. The plant consists of seven coal units and one biomass unit with a total installed capacity of 1.9 GW.

At December 31, 2016, the Group considered that the sale of these assets was highly probable in view of progress made in the divestiture process and, as a result, classified the power plant in “Assets held for sale”.

As the carrying amount of these assets held for sale was €375 million greater than the expected sale price, the Group recognized an impairment loss for the full amount of the difference, of which €139 million against the entire goodwill allocated to the group of assets held for sale, and €237 million against property, plant and equipment of the same group.

The classification in "Assets held for sale" had no impact on consolidated net debt at December 31, 2016.

The Group expects to finalize this transaction during the first half of 2017.

4.3 Acquisition of OpTerra Energy Services (United States)

On February 25, 2016, the Group (via its subsidiary Cofely USA) completed the acquisition of 100% of US company OpTerra Energy Services, a specialist in energy services. OpTerra Energy Services helps its customers to manage their energy consumption by offering technological solutions ranging from energy efficiency to renewable energy sources. The acquisition was carried out based on a transaction price of USD 209 million (€187 million).

The accounting for this business combination was complete at December 31, 2016. Goodwill of €158 million was recorded in respect of this acquisition at December 31, 2016.

4.4 Transactions in the wind-farm sector in France

In 2016, the Group took control of Maïa Eolis. It subsequently sold the portfolio of Maïa Eolis' wind farm assets in operation to Futures Energies Investissements Holding (FEIH), its 50/50 joint venture with Crédit Agricole Assurances.

4.4.1 Acquisition of a controlling interest in Maïa Eolis

On May 25, 2016, the Group finalized its acquisition from Maïa Group of 51% of Maïa Eolis, a company specialized in the development, construction, operation and maintenance of wind farms in France. The scope of the transaction included a portfolio of wind farm assets representing 246 MW of installed production capacity, in addition to assets under construction or which had obtained planning permission representing a further 250 MW production capacity.

This transaction, which represents an investment of €152 million, enabled the Group to increase its stake in Maïa Eolis from 49% to 100%, thereby taking control of a company that had been hitherto accounted for as a joint venture using the equity method. Consequently, Maïa Eolis has been fully consolidated in ENGIE's consolidated financial statements since May 25, 2016.

The change in consolidation method for the 49% stake previously held in Maïa Eolis gave rise to a revaluation loss of €22 million.

4.4.2 Disposal of a portfolio of Maïa Eolis' wind farm assets to FEIH

On December 15, 2016, the Group sold the portfolio of Maïa Eolis' wind farm assets in operation to FEIH, its 50/50 joint venture with Crédit Agricole Assurances accounted for using the equity method in the Group's consolidated financial statements. The sold portfolio represents 267 MW of installed production capacity and increases FEIH's installed capacity of onshore wind farms from 543 MW to 810 MW.

The Group received a payment of €158 million at the date of sale, of which €102 million corresponded to the sale price of the wind farm asset portfolio to FEIH and €56 million to the repayment of a shareholder's loan.

This transaction resulted in a reduction in net debt of €199 million, corresponding to the derecognition of the net debt attached to the sold portfolio in an amount of €120 million, plus €158 million in consideration received and less the shareholder's loan of €79 million granted by the Group to FEIH (the shareholders of the joint venture are responsible for financing the transaction).

This transaction had no impact on the Group’s consolidated income statement for the year ended December 31, 2016.

4.5 Other transactions in 2016

Various other acquisitions, equity investments and disposals took place in 2016, notably in the United States, where the Group acquired Green Charge Networks (GCN), an energy storage company, and a customer portfolio from Guttman Energy, and also in Germany, where the Group took control of Energieversorgung Gera GmbH. Their individual and cumulative impacts on the Group’s consolidated financial statements are not significant.

4.6 Follow-up of the main changes in Group structure in 2015

4.6.1 Acquisition of Solairedirect

On September 3, 2015, the Group finalized its acquisition of a 96.55% stake in Solairedirect, which develops, builds and operates photovoltaic facilities under service contracts. Solairedirect operates production facilities generating some 490 MW, of which 60 MW is generated at directly-operated sites and 430 MW under operations and maintenance contracts.

The Group invested a total of €321 million in the following transactions carried out on September 3, 2015:

- the acquisition of 94.16% of Solairedirect's shares as well as all the share subscription warrants held by the company's executive management for a total of €176 million;
- a simultaneous subscription to a reserved share capital increase for €130 million, increasing the Group's interest in Solairedirect to 96.55%;
- the transaction also includes price adjustment clauses subject to the achievement of operating targets during the two years following the acquisition. At the acquisition date, the fair value of these clauses, estimated at €15 million, was included in Solairedirect's purchase price.

Solairedirect has been fully consolidated since its acquisition date of September 3, 2015.

In the second half of 2016, the Group finalized the recognition of the assets acquired and liabilities assumed at their fair value at the acquisition date. On completion, goodwill on the acquisition amounted to €89 million.

4.6.2 Change in the consolidation method applied to Solféa

On December 21, 2015, the Group and BNP Paribas approved an addendum to the shareholders' agreement for Solféa, in which they respectively hold a 55% and 45% stake, resulting in the Group's loss of control. As of this date, the Group's interest in Solféa is accounted for using the equity method.

NOTE 5 FINANCIAL INDICATORS USED IN FINANCIAL COMMUNICATION

The purpose of this note is to present the main non-GAAP financial indicators used by the Group as well as their reconciliation with the aggregates of the IFRS consolidated financial statements.

5.1 EBITDA[(1)]

The reconciliation between EBITDA and current operating income after share in net income of entities accounted for using the equity method is as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**6,172**	**6,326**
Net depreciation and amortization/Other	4,477	4,885
Share-based payments (IFRS 2)	60	50
Non-recurring share in net income of entities accounted for using the equity method	(19)	12
EBITDA	**10,689**	**11,274**

(1) Data at December 31, 2016 are presented according to the Group's new EBITDA definition. This now excludes the non-recurring portion of the net income of entities accounted for using the equity method. Comparative data for 2015 have been restated in order to reflect this new definition. EBITDA as published in the financial statements for 2015 amounted to €11,262 million.

5.2 Net recurring income Group share

Net recurring income Group share is a financial indicator used by the Group in its financial reporting to present net income Group share adjusted for unusual or non-recurring items.

This financial indicator therefore excludes:

- all items presented between the lines "Current operating income after share in net income of entities accounted for using the equity method" and "Income/(loss) from operating activities", i.e. "Mark-to-market on commodity contracts other than trading instruments", "Impairment losses", "Restructuring costs", "Changes in scope of consolidation" and "Other non-recurring items". These items are defined in Note 1.4.17 "Current operating income";
- the following components of net financial income/(loss): the impact of debt restructuring, compensation payments on the early unwinding of derivative instruments net of the reversal of the fair value of these derivatives that were settled early, changes in the fair value of derivative instruments which do not qualify as hedges under IAS 39 – *Financial Instruments: Recognition and Measurement,* as well as the ineffective portion of derivative instruments that qualify as hedges;
- the income tax impact of the items described above, determined using the statutory income tax rate applicable to the relevant tax entity;
- the deferred tax income of €338 million recorded in 2015 in respect of the recognition of deferred tax assets in Luxembourg *(see Note 10.1.2);*
- the deferred tax income of €904 million recorded in 2016 in respect of the impact of tax rate change on the deferred balance in France as of January 1, 2020 as approved by the 2017 French Finance Law *(see Note 10.1.2);*
- net non-recurring items included in "Share in net income of entities accounted for using the equity method". The excluded items correspond to the non-recurring items as defined above.

The reconciliation of net income/(loss) with net recurring income Group share is as follows:

In millions of euros	Notes	Dec. 31, 2016	Dec. 31, 2015
NET INCOME/(LOSS) GROUP SHARE		**(415)**	**(4,617)**
Non-controlling interests		579	(496)
NET INCOME/(LOSS)		**163**	**(5,113)**
Reconciliation items between CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD and INCOME/(LOSS) FROM OPERATING ACTIVITIES		**3,720**	**9,568**
Mark-to-market on commodity contracts other than trading instruments	*8.1*	*(1,254)*	*261*
Impairment losses	*8.2*	*4,192*	*8,748*
Restructuring costs	*8.3*	*476*	*265*
Changes in scope of consolidation	*8.4*	*(544)*	*46*
Other non-recurring items	*8.5*	*850*	*248*
Other adjusted items		**(736)**	**(1,204)**
Ineffective portion of derivatives qualified as fair value hedges	*9.1*	*5*	*8*
Gains/(losses) on debt restructuring and early unwinding of derivative financial instruments	*9.2*	*-*	*122*
Change in fair value of derivatives not qualified as hedges	*9.3*	*102*	*102*
Deferred income tax for French tax entities (2017 French Finance Law)		*(904)*	*-*
Deferred income tax in Luxembourg		*-*	*(338)*
Taxes on non-recurring items		*80*	*(1,110)*
Non-recurring income included in share in net income of entities accounted for using the equity method	*3*	*(19)*	*12*
NET RECURRING INCOME		**3,147**	**3,251**
Net recurring income attributable to non-controlling interests		670	663
NET RECURRING INCOME GROUP SHARE		**2,477**	**2,588**

5.3 Industrial capital employed

The reconciliation of industrial capital employed with items in the statement of financial position is as follows:

	In millions of euros	Dec. 31, 2016	Dec. 31, 2015
(+)	Property, plant and equipment and intangible assets, net	64,378	64,001
(+)	Goodwill	17,372	19,024
(-)	*Goodwill arising on the Gaz de France - SUEZ merger*[1]	*(6,616)*	*(6,647)*
(-)	*Goodwill arising on the International Power combination*[1]	*(1,833)*	*(2,036)*
(+)	IFRIC 4 and IFRIC 12 receivables	1,008	1,042
(+)	Investments in entities accounted for using the equity method	6,624	6,977
(-)	*Goodwill arising on the International Power combination*[1]	*(173)*	*(168)*
(+)	Trade and other receivables, net	20,835	19,349
(-)	*Margin calls*[1, 2]	*(1,691)*	*(1,054)*
(+)	Inventories	3,656	4,207
(+)	Other current and non-current assets	11,123	9,851
(+)	Deferred tax	(5,525)	(6,851)
(+)	*Cancellation of deferred tax on other recyclable items*[1]	*(477)*	*(100)*
(-)	Provisions	(22,208)	(18,835)
(+)	*Actuarial gains and losses in shareholders' equity (net of deferred tax)*[1]	*2,566*	*1,894*
(-)	Trade and other payables	(17,075)	(17,101)
(+)	*Margin calls*[1, 2]	*771*	*1,476*
(-)	Other liabilities	(17,106)	(15,128)
INDUSTRIAL CAPITAL EMPLOYED		**55,629**	**59,899**

(1) For the purpose of calculating industrial capital employed, the amounts recorded in respect of these items have been adjusted from those appearing in the statement of financial position.

(2) Margin calls included in "Trade and other receivables, net" and "Trade and other payables" correspond to advances received or paid as part of collateralization agreements set up by the Group to reduce its exposure to counterparty risk on commodity transactions.

5.4 Cash flow from operations (CFFO)

The reconciliation of cash flow from operations (CFFO) with items in the statement of cash flows is as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Cash generated from operations before income tax and working capital requirements	10,263	10,942
Tax paid	(1,459)	(1,722)
Change in working capital requirements	1,369	1,163
Interests received on non-current financial assets	-	133
Dividends received on non-current financial assets	145	103
Interest paid	(799)	(918)
Interest received on cash and cash equivalents	137	126
Change in financial assets at fair value through income	(257)	296
(+) Change in financial assets at fair value through income recorded in the statement of financial position	*267*	*(286)*
CASH FLOW FROM OPERATIONS (CFFO)	**9,667**	**9,836**

5.5 Capital expenditures (CAPEX)

The reconciliation of capital expenditures (CAPEX) with items in the statement of cash flows is as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Acquisitions of property, plant and equipment and intangible assets	6,230	6,459
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	411	259
(+) Cash and cash equivalents acquired	*80*	*246*
Acquisitions of investments in entities accounted for using the equity method and joint operations	208	241
Acquisitions of available-for-sale securities	391	252
Change in loans and receivables originated by the Group and other	(30)	(245)
(+) Other	-	*(1)*
Change in ownership interests in controlled entities	26	42
(+) Payments received in respect of the disposal of non-controlling interests	-	*(12)*
TOTAL CAPITAL EXPENDITURE (CAPEX)	**7,315**	**7,240**

NOTE 6 SEGMENT INFORMATION

6.1 Operating segments and reportable segments

6.1.1 ENGIE's new organizational structure and determination of operating segments

Since January 1, 2016, the Group is organized into 24 Business Units (BUs) primarily based on a region-centered approach within a single country or group of countries.

24 Business Units

11 geographic BUs (excluding France)

North America
Latin America
Brazil
Africa
Asia-Pacific
Middle East, Southern and Central Asia and Turkey
China
Benelux
United Kingdom
North, South and Eastern Europe
Generation Europe

8 BUs in France

France BtoB
France BtoC
France Networks
France Renewable Energy
GRDF
GRTgaz
Elengy
Storengy

5 Global businesses BUs

Exploration & Production
Global LNG
Global Energy Management
Tractebel
GTT

Each Business Unit corresponds to an "operating segment" whose operational and financial performance are regularly reviewed by the Group's Executive Committee, which is the Group's “chief operating decision maker” within the meaning of IFRS 8.

The Executive Committee monitors the performance of each Business Unit in terms of:

- revenues;
- EBITDA;
- current operating income after share in net income of entities accounted for using the equity method;
- industrial capital employed.

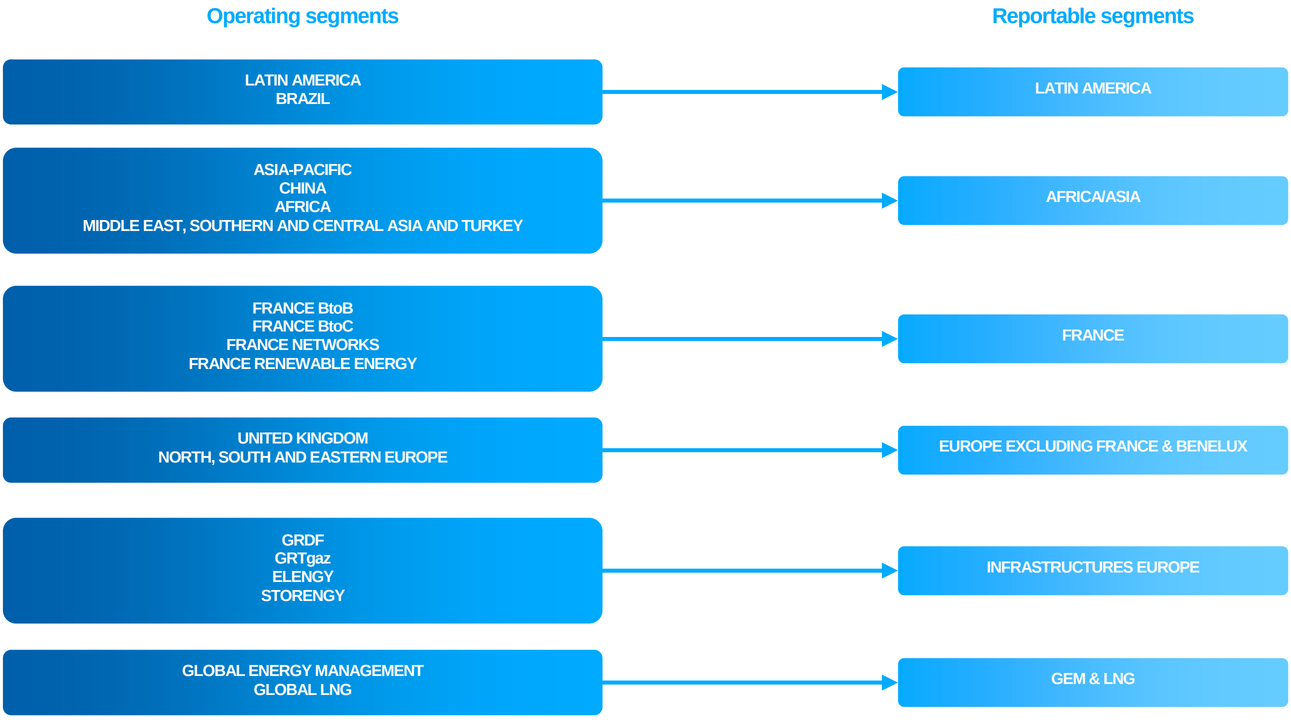
Net financial income and income taxes are monitored at the Group level.

Until December 31, 2015, the Group was organized into the following five operating segments: Energy International, Energy Europe, Global Gas & LNG, Infrastructures and Energy Services.

6.1.2 Definition of reportable segments

In accordance with IFRS 8, ENGIE has grouped its operating segments into ten reportable segments to present the Group's segment information:

- three reportable segments corresponding to operating segments: North America, Benelux and Exploration & Production (E&P);
- six reportable segments corresponding to groups of operating segments, broken down as follows:



- a tenth reportable segment called "Other" that comprises operating segments that cannot be grouped together (Tractebel, GTT, Generation Europe, Solairedirect) due to the specificity of their businesses and markets or due to their particular risk profile, as well as the Group's holding and corporate activities.

In order to determine how to group together the operating segments, as set out above, the Group exercised its judgment to decide whether two or more operating segments could be grouped together in the same reportable segment. The following key factors were examined to assess the similarity of the operating segments' economic characteristics:

- regulatory environment;
- economic environment in which the concerned activities operate (market maturity, growth prospects, political risks, etc.);
- risk profiles of the activities;
- how the activities fit into the Group's strategy and new business model.

The Group decided to organize the operating segments within the six reportable segments set out in the diagram above, for the following reasons:

- the Latin America and Brazil operating segments were grouped together within the Latin America reportable segment as these segments share relatively similar growth prospects and a substantial proportion of their revenue is generated by electricity sales under long-term agreements;

- the Asia-Pacific, China, Africa and Middle East, Southern and Central Asia and Turkey operating segments were grouped together within the Africa/Asia reportable segment as all these regions have high power generation requirements and consequently represent significant growth prospects for the Group in the energy and energy services businesses. A substantial proportion of their revenue is also generated by electricity sales under long-term agreements;
- the France BtoB, France BtoC, France Networks and France Renewable Energy operating segments group all the French downstream energy businesses (energy services and gas and electricity sales and distribution to BtoB, BtoT and BtoC customers) and the increasingly decentralized renewable energy production. These are complementary businesses that are supported by a well-developed local network and primarily aim to develop a combined offering for local customers: energy services, decentralized production resources and combined gas and electricity supply contracts;
- the United Kingdom and North, South and Eastern Europe operating segments were grouped together within the Europe excluding France & Benelux reportable segment as both BUs have a similar business mix (energy services, production and sales of renewable energy), operate in mature energy markets and are undergoing a transformation as part of the energy transition;
- the GRDF, GRTgaz, Storengy and Elengy operating segments, which comprise the gas infrastructure businesses in Europe (distribution, transport, storage and LNG terminals), were grouped together within the Infrastructures Europe reportable segment as they are all regulated (or pending regulation) businesses with similar risk profiles and margins;
- the Global Energy Management and Global LNG operating segments were grouped together within the GEM & LNG reportable segment as they are both responsible for managing and optimizing the Group's gas supply contracts.

6.1.3 Description of reportable segments

- **North America**: includes power generation, energy services and natural gas and electricity sales activities in the United States, Canada and Puerto Rico.
- **Latin America**: groups together the activities of (i) the Brazil BU and (ii) the Latin America BU (Argentina, Chile, Mexico and Peru). The subsidiaries concerned are involved in the centralized power generation and gas chain businesses, and energy services.
- **Africa/Asia**: groups together the activities of the following BUs: (i) Asia-Pacific (Australia, New Zealand, Thailand, Singapore, Indonesia and Laos), (ii) China, (iii) Africa (Morocco, South Africa) and (iv) the Middle East, South and Central Asia and Turkey (including India and Pakistan). In all of these regions, the Group is active in electricity generation and sales, gas distribution and sales, energy services and seawater desalination in the Arabian peninsula.
- **Benelux**: includes the Group's activities in Belgium, the Netherlands and Luxembourg: (i) power generation using its nuclear power plants and renewable power generation facilities, (ii) natural gas and electricity sales and (iii) energy services.
- **France**: groups together the activities of the following BUs: (i) France BtoB: energy sales and services for buildings and industry, cities and regions and major infrastructures, (ii) France BtoC: sales of energy and related services to individual and professional customers, (iii) France Renewable Energy: development, construction, financing, operation and maintenance of all renewable power generation assets in France (excluding Solairedirect) and (iv) France Networks, which designs, finances, builds and operates decentralized energy production and distribution facilities (heating and cooling networks).
- **Europe excluding France & Benelux**: groups together the activities of the following BUs: (i) United Kingdom (management of renewable power generation assets and the portfolio of distribution assets, supply of energy services and solutions, etc.) and (ii) North, South and Eastern Europe (sales of natural gas and electricity and related energy services and solutions, operation of renewable power generation assets, management of distribution networks).
- **Infrastructures Europe**: groups together the GRDF, GRTgaz, Elengy and Storengy BUs, which operate natural gas transportation, storage and distribution networks and facilities, and LNG terminals, mainly in France and Germany. They also sell access rights to these infrastructures to third parties.
- **GEM & LNG**: includes the activities of the Global Energy Management (GEM) and Global LNG BUs. The aim of the GEM BU is to manage and optimize the Group's portfolios of physical and contractual assets (excluding gas

infrastructures), particularly on the European market, on behalf of the BUs that hold power generation assets. It is also responsible for sales of energy to major pan-European and national industrial clients, and leverages its expertise in the energy-related financial markets to provide solutions to third parties. The Global LNG BU manages a long-term supply contract portfolio and interests in LNG infrastructures and operates an LNG fleet.

- **E&P**: groups together the Group's activities relating to the exploration, development and operation of oil and gas fields.
- **Other**: includes the activities of the following BUs: (i) Generation Europe, comprising the Group's thermal power generation activities in Europe, (ii) Tractebel (engineering companies specializing in energy, hydraulics and infrastructures), (iii) GTT (specialized in the design of cryogenic membrane confinement systems for sea transportation and storage of LNG, both on land and at sea), as well as the Group's holding and corporate activities which include the entities centralizing the Group's financing requirements, Solairedirect's activities and the contribution of the associate SUEZ.

The main commercial relationships between the reportable segments are as follows:

- relationships between the "Infrastructures Europe" reportable segment and the users of these infrastructures, i.e. the "GEM & LNG" and "France" reportable segments: services relating to the use of the Group's gas infrastructures in France are billed based on regulated fees applicable to all network users, except for storage infrastructure. The prices for reservation and use of storage facilities are established by storage operators based on a "negotiated access" system;
- relationships between the "GEM & LNG" reportable segment and the "France", "Benelux" and "Europe excluding France & Benelux" reportable segments: the "GEM & LNG" reportable segment manages the Group's natural gas supply contracts and sells gas at market prices to commercial companies within the "France", "Benelux" and "Europe excluding France & Benelux" reportable segments. As regards electricity, GEM manages and optimizes the power stations and sales portfolios on behalf of entities that hold power generation assets and deducts a percentage of the energy margin in return for providing these services. The revenue and margins related to power generation activities (minus the percentage deducted by GEM) are reported by the segments that hold power generation assets ("France", "Benelux", "Europe excluding France & Benelux" and "Generation Europe" within the "Other" reportable segment);
- relationships between the "Generation Europe" segment, which is part of the "Other" reportable segment, and the commercial entities in the "France", "Benelux" and "Europe excluding France & Benelux" reportable segments: a portion of the power generated by the thermal assets within the "Generation Europe" BU is sold to commercial entities from these segments at market prices.

Due to the variety of its businesses and their geographical location, the Group serves a very diverse range of situations and customer types (industry, local authorities and individual customers). Accordingly, no external customer represents individually 10% or more of the Group's consolidated revenues.

6.2 Key indicators by reportable segment

The recognition and measurement methods used for internal reporting purposes reviewed by the Executive Committee are the same as those used to prepare the consolidated financial statements. EBITDA, industrial capital employed and capital expenditure (CAPEX) are reconciled with the consolidated financial statements in Note 5 “Financial indicators used in financial communication”.

Comparative segment information for 2015 has been restated in order to present this information in accordance with the new segment structure introduced by the Group on January 1, 2016.

REVENUES

	Dec. 31, 2016			Dec. 31, 2015		
In millions of euros	External revenues	Intra-Group Revenues	Total	External revenues	Intra-Group Revenues	Total
North America	3,814	39	3,853	3,673	-	3,673
Latin America	4,075	1	4,076	4,197	-	4,197
Africa/Asia	3,804	4	3,808	4,244	-	4,244
Benelux	9,044	1,230	10,274	8,732	1,082	9,813
France	20,332	383	20,714	20,248	381	20,629
Europe excluding France & Benelux	8,118	112	8,230	8,491	346	8,837
Infrastructures Europe	3,267	3,495	6,762	3,027	3,558	6,585
GEM & LNG	8,981	6,979	15,959	11,320	8,162	19,482
E&P	1,799	110	1,909	2,242	164	2,406
Others	3,405	1,308	4,712	3,710	1,918	5,628
Elimination of internal transactions	-	(13,659)	(13,659)	-	(15,610)	(15,610)
TOTAL REVENUES	**66,639**	**-**	**66,639**	**69,883**	**-**	**69,883**

EBITDA[1]

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
North America	475	633
Latin America	1,696	1,563
Africa/Asia	1,162	1,237
Benelux	755	445
France	1,315	1,274
Europe excluding France & Benelux	612	559
Infrastructures Europe	3,459	3,381
GEM & LNG	3	196
E&P	1,198	1,514
Others	15	472
TOTAL EBITDA	**10,689**	**11,274**

(1) Data at December 31, 2016 are presented according to the Group's new EBITDA definition. This now excludes the non-recurring portion of the net income of entities accounted for using the equity method. Comparative data for 2015 have been restated in order to reflect this new definition. EBITDA as published in the financial statements for 2015 amounted to €11,262 million.

DEPRECIATION AND AMORTIZATION

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
North America[1]	(48)	(294)
Latin America	(410)	(387)
Africa/Asia	(235)	(263)
Benelux	(381)	(353)
France	(612)	(562)
Europe excluding France & Benelux	(203)	(205)
Infrastructures Europe	(1,390)	(1,325)
GEM & LNG	(74)	(85)
E&P	(569)	(823)
Others	(462)	(442)
TOTAL DEPRECIATION AND AMORTIZATION	**(4,385)**	**(4,740)**

(1) The decrease in depreciation and amortization for North America is mainly due to the classification in "Assets held for sale" of the portfolio of merchant power generation assets in the United States at December 31, 2015.

SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
North America	63	92
Latin America	197	(81)
Africa/Asia	312	286
Benelux	2	-
France	(22)	(6)
Europe excluding France & Benelux	60	63
Infrastructures Europe	11	9
GEM & LNG	1	4
E&P	12	14
Others	127	91
Of which share in net income of SUEZ	*139*	*134*
TOTAL SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**764**	**473**

Associates and joint ventures account for €671 million and €92 million respectively of share in net income of entities accounted for using the equity method at December 31, 2016, compared to €338 million and €135 million at December 31, 2015.

CURRENT OPERATING INCOME/(LOSS) AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
North America	430	332
Latin America	1,284	1,175
Africa/Asia	923	972
Benelux	371	91
France	695	709
Europe excluding France & Benelux	410	341
Infrastructures Europe	2,068	2,054
GEM & LNG	(74)	110
E&P	536	546
Others	(472)	(4)
TOTAL CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**6,172**	**6,326**

INDUSTRIAL CAPITAL EMPLOYED

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
North America	1,520	1,247
Latin America	8,793	7,754
Africa/Asia	5,520	6,472
Benelux	(2,552)	(466)
France	5,304	5,989
Europe excluding France & Benelux	4,720	5,221
Infrastructures Europe	19,693	18,975
GEM & LNG	1,330	2,576
E&P	2,855	2,571
Others	8,445	9,561
Of which SUEZ equity value	*1,977*	*1,974*
TOTAL INDUSTRIAL CAPITAL EMPLOYED	**55,629**	**59,899**

To ensure the comparability of financial information, the figures presented by segment at December 31, 2015 have been restated and include goodwill reallocations to the new goodwill CGUs (*see Note 12.2 "Goodwill CGUs"*) as they were recorded at January 1, 2016 following the reorganization of the Group.

CAPITAL EXPENDITURE (CAPEX)

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
North America	519	283
Latin America	1,037	1,140
Africa/Asia	212	257
Benelux	680	600
France	1,083	886
Europe excluding France & Benelux	169	290
Infrastructures Europe	1,552	1,551
GEM & LNG	127	57
E&P	940	1,027
Others	997	1,150
TOTAL CAPITAL EXPENDITURE (CAPEX)	**7,315**	**7,240**

6.3 Key indicators by geographic area

The amounts set out below are analyzed by:

- destination of products and services sold for revenues;
- geographic location of consolidated companies for industrial capital employed.

	Revenues		Industrial capital employed	
In millions of euros	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015
France	24,946	25,066	29,721	30,320
Belgium	9,359	9,067	(1,326)	1,321
Other EU countries	16,256	18,507	8,827	10,753
Other European countries	1,664	2,103	686	735
North America	4,691	4,592	1,906	1,589
Asia, Middle East & Oceania	5,531	6,165	6,347	7,126
South America	3,857	4,076	8,598	7,478
Africa	334	306	870	577
TOTAL	**66,639**	**69,883**	**55,629**	**59,899**

NOTE 7 CURRENT OPERATING INCOME

7.1 Revenues

Group revenues break down as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Energy sales	45,789	49,455
Rendering of services	20,349	19,712
Lease and construction contracts	501	716
REVENUES	**66,639**	**69,883**

"Lease and construction contracts" mainly include operating lease revenues for €412 million (€632 million in 2015).

7.2 Personnel costs

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Short-term benefits	(9,697)	(9,669)
Share-based payments *(see Note 23)*	(60)	(50)
Costs related to defined benefit plans *(see Note 19.3.4)*	(337)	(314)
Costs related to defined contribution plans *(see Note 19.4)*	(137)	(134)
PERSONNEL COSTS	**(10,231)**	**(10,168)**

7.3 Depreciation, amortization and provisions

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Depreciation and amortization *(see Notes 13 and 14)*	(4,385)	(4,740)
Net change in write-downs of inventories, trade receivables and other assets	(178)	(208)
Net change in provisions *(see Note 18)*	(306)	(59)
DEPRECIATION, AMORTIZATION AND PROVISIONS	**(4,869)**	**(5,007)**

At December 31, 2016, depreciation and amortization mainly break down as €770 million for intangible assets and €3,627 million for property, plant and equipment. A breakdown by type of asset is provided in Note 13 "Intangible assets" and Note 14 "Property, plant and equipment", respectively.

NOTE 8 INCOME/(LOSS) FROM OPERATING ACTIVITIES

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**6,172**	**6,326**
Mark-to-market on commodity contracts other than trading instruments	1,254	(261)
Impairment losses	(4,192)	(8,748)
Restructuring costs	(476)	(265)
Changes in scope of consolidation	544	(46)
Other non-recurring items	(850)	(248)
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**2,452**	**(3,242)**

8.1 Mark-to-market on commodity contracts other than trading instruments

In 2016, this item represents net income of €1,254 million, compared with a net expense of €261 million in 2015. It mainly reflects the changes in the fair value of (i) electricity and natural gas sale and purchase contracts falling within the scope of IAS 39 and (ii) financial instruments used as economic hedges but not eligible for hedge accounting.

This income is mainly due to (i) a positive price effect related to changes in the forward prices of the underlying commodities, as well as (ii) the positive impact of the settlement of positions over the period with a negative fair value at December 31, 2015.

8.2 Impairment losses

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Impairment losses:		
Goodwill	(1,690)	(2,628)
Property, plant and equipment and other intangible assets	(2,485)	(5,731)
Investments in entities accounted for using the equity method and related provisions	(98)	(188)
Financial assets and other	(49)	(214)
TOTAL IMPAIRMENT LOSSES	**(4,321)**	**(8,761)**
Reversal of impairment losses:		
Property, plant and equipment and other intangible assets	127	7
Financial assets	2	6
TOTAL REVERSALS OF IMPAIRMENT LOSSES	**130**	**13**
TOTAL	**(4,192)**	**(8,748)**

Net impairment losses recognized at December 31, 2016 amounted to €4,192 million, primarily relating to the following CGUs: Benelux (€1,437 million), Generation Europe (€660 million), France Renewable Energy (€421 million), North America (€357 million) and Global Energy Management (€352 million). After taking into account the deferred tax effects and the share of impairment losses attributable to non-controlling interests, the impact of these impairment losses on net income Group share for 2016 amounts to €3,812 million.

Impairment losses recognized against goodwill, property, plant and equipment, intangible assets and investments in entities accounted for using the equity method at December 31, 2016 can be analyzed as follows:

In millions of euros	Location	Impairment losses on goodwill	Impairment losses on property, plant and equipment and intangible assets	Impairment losses on entities accounted for using the equity method and related provisions	Total impairment losses	Valuation method	Discount rate
Benelux goodwill CGU		**(1,362)**	**(68)**	**-**	**(1,430)**		
Drilling rig	Netherlands		(46)			Fair value	
Other			(22)				
Generation Europe goodwill CGU		**(139)**	**(520)**	**-**	**(659)**		
Thermal power plants			(520)				
	Poland	*(139)*	*(237)*			*Fair value less costs to sell*	
	Netherlands		*(168)*			*Value-in-use - DCF*	*7.4%*
	Germany		*(59)*			*Value-in-use - DCF*	*7.3%*
	France/ Italy/ United Kingdom		*(56)*			*Value-in-use - DCF*	*6.5% - 7.5%*
France Renewable Energy goodwill CGU		**-**	**(419)**	**-**	**(419)**		
Hydropower generation asset			(414)			Value-in-use - DCF	7.8%
Other			(5)	-			
North, South and Eastern Europe goodwill CGU		**-**	**(148)**	**(91)**	**(239)**		
Power generation assets	Poland		(119)			Value-in-use - DCF	9.5%
Interests in groups present across the gas chain	Germany			(91)			
Other			(29)				
North America goodwill CGU		**-**	**(357)**	**-**	**(357)**		
Portfolio of merchant power generation assets	United States		(238)			Fair value less costs to sell	
LNG terminal	United States		(53)			Value-in-use - DCF	6.7%
Power generation assets	United States/ Canada		(66)			Value-in-use - DCF	3.9% - 7.5%
Latin America goodwill CGU		**-**	**(109)**	**-**	**(109)**		
Hydropower generation asset	Chile		(72)			Value-in-use - DCF	8.0%
Other			(37)				
Exploration & Production (E&P) goodwill CGU		**-**	**(189)**	**-**	**(189)**		
Exploration-production assets	North Sea/ Egypt/ Indonesia		(154)			Value-in-use - DCF	6.6% - 13.9%
Exploration-production licenses	Algeria		(35)			Fair value	
GTT goodwill CGU		**(161)**			**(161)**		
Goodwill	France	(161)				Fair value	
Global LNG goodwill CGU		**(24)**	**(153)**	**-**	**(177)**		
LNG carriers			(141)			Fair value	
Other			(12)				
Global Energy Management (GEM) CGU		**-**	**(350)**	**-**	**(350)**		
Drawing rights on power generation assets	Italy		(225)			Value-in-use - DCF	7.5%
Portfolio of long-term supply contracts			(83)			Value-in-use - DCF	5.7% - 9.6%
Other			(42)				
Other impairment losses		**(4)**	**(172)**	**(7)**	**(183)**		
TOTAL AT DECEMBER 31, 2016		**(1,690)**	**(2,485)**	**(98)**	**(4,273)**		

8.2.1 Economic conditions in the power generation industry in Europe

The merchant power generation business in Europe is faced with challenging market conditions, with electricity prices falling over the short term and persistently poor economic conditions over the medium- to long-term.

Against this backdrop, and given the latest available forecasts, the Group has significantly downgraded its reference scenario for medium- to long-term electricity prices in Europe, as well as the margins captured by thermal power plants. The change is due mainly to an upward revision of the share of renewable energy capacity in the European energy mix, coupled with a downward revision of fuel price forecasts.

In view of the updated price scenario and the resulting deterioration in financial projections, the Group recognized impairment losses against the Benelux CGU *(see Note 8.2.3)*, the France Renewable Energy and Generation Europe CGUs *(see Note 8.2.5).*

8.2.2 Information on cash flow projections used in impairment tests

In most cases, the recoverable value of CGUs is determined by reference to a value in use that is calculated based on cash flow projections drawn from the 2017 budget and from the 2018-2019 medium-term business plan, as approved by the Executive Committee and the Board of Directors, and on extrapolated cash flows beyond that time frame.

Cash flow projections are determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates) and price forecasts resulting from the Group's reference scenario for 2016-2040. The forecasts that feature in the reference scenario were approved by the Executive Committee in December 2016. The forecasts and projections included in the reference scenario were determined on the basis of the following inputs:

- forward market prices over the liquidity period for fuel (coal, oil and gas), CO_2 and electricity on each market;
- beyond this period, medium- and long-term energy prices were determined by the Group based on macroeconomic assumptions and fundamental supply and demand equilibrium models, the results of which are regularly compared against forecasts prepared by external energy sector specialists. Long-term projections for CO_2 prices are those presented in the "Canfin, Grandjean et Mestrallet" report published in July 2016. More specifically, medium- and long-term electricity prices were determined by the Group using electricity demand forecasting models, medium- and long-term forecasts of fuel and CO_2 prices, and expected trends in installed capacity and in the technology mix of the production assets within each power generation system.

8.2.3 Impairment on Benelux CGU goodwill

The total amount of goodwill allocated to this CGU prior to the 2016 impairment test was €5,601 million. The Benelux CGU includes the Group's activities in Belgium, the Netherlands and Luxembourg: (i) power generation activities using its nuclear power plants and wind farms, (ii) natural gas and electricity sales activities, and (iii) energy services activities, as well as drawing rights on the Chooz B and Tricastin power plants.

Key assumptions used for the impairment test

The 2016 value in use of the activities included in this CGU was calculated using the cash flow projections drawn up on the basis of the 2017 budget and the 2018-2019 medium-term business plan, as approved by the Executive Committee and the Board of Directors. Cash flow projections for the period beyond the medium-term business plan were determined as described below:

Activities	Assumptions applied beyond the term of the business plan
Nuclear power generation in Belgium	For Doel 1, Doel 2 and Tihange 1, cash flow projection over a useful life of 50 years. For the second generation reactors (Doel 3, Doel 4, Tihange 2 and Tihange 3), cash flow projection over 40 years, then extension of the operating life of half of this power plant portfolio for a period of 20 years.
Drawing rights on Chooz B and Tricastin power plants	Cash flow projection over the remaining term of existing contracts plus assumption that drawing rights will be extended for a further ten years.
Marketing and sales activities	Cash flow projections to 2022 then application of an exit value based on normative cash flow using a long-term growth rate of 1.9%.

The discount rates applied to these cash flows ranged from 5.5% to 9.1%, depending on the risk profiles of each business activity.

Key assumptions used for impairment tests for the Benelux goodwill CGU included expected changes in the regulatory environment, changes in the price of electricity, changes in demand for gas and electricity, and discount rates.

The most important assumptions concerning the Belgian regulatory environment relate to the operating life of existing nuclear reactors and the level of royalties and nuclear contributions paid to the Belgian State.

In order to ensure the security of supply in Belgium, the operating life of the Tihange 1, Doel 1 and Doel 2 reactors was extended for a period of 10 years until 2025. The law of January 31, 2003 on the gradual phase-out of nuclear power was amended accordingly in January 2014 (Tihange 1) and July 2015 (Doel 1 and 2). In addition, the agreement entered into with the Belgian government in November 2015 came into effect on December 29, 2016. This agreement provides for annual royalties totaling €20 million for the extension of the Doel 1 and Doel 2 reactors, as well as new conditions for determining the nuclear contribution applicable to second-generation reactors (Doel 3 and 4 and Tihange 2 and 3) through their 40th year of operation.

The impairment test carried out in 2016 therefore took into account the impacts of this law, i.e., the 10-year extension of the two reactors, capital expenditure required for the extension, the payment of annual royalties totaling €20 million in respect of said extension, as well as the new conditions for determining the Belgian nuclear contribution, as defined in the December 29, 2016 law.

As regards second-generation reactors, in December 2013 the previous government confirmed the principle of a gradual phase-out of nuclear power, with the shutdown of Doel 3 in 2022, Tihange 2 in 2023, and Tihange 3 and Doel 4 in 2025, after 40 years of operation. The principle and schedule were reaffirmed in the law of June 18, 2015.

However, in view of (i) the extension of the operating life of Tihange 1, Doel 1 and Doel 2 beyond 40 years, (ii) the importance of nuclear power generation in the Belgian energy mix, (iii) the lack of a sufficiently detailed and attractive industrial plan enticing energy utilities to invest in replacement thermal capacity, and (iv) CO_2 emissions reduction targets, the Group considers that nuclear power will still be needed to guarantee the energy equilibrium in Belgium after 2025. Accordingly, in calculating value in use, the Group assumes a 20-year extension of the operating life of half of its second-generation reactors, while taking into account a mechanism of nuclear contributions to be paid to the Belgian government.

In France, the Group included an assumption that its drawing rights on the Tricastin and Chooz B nuclear plants expiring in 2021 and 2037, respectively, would be extended by 10 years. Although no such decision has been taken by the government and the nuclear safety authority, the Group considers that extending the reactors' operating life is the most credible and likely scenario at this point in time. This is also consistent with the expected French energy mix featured in the Group's reference scenario.

Results of the impairment test

Given the downward revision of the cash flow projections due to the economic conditions described in Note 8.2.1, and the negative effects of the test on the margin due to the upward revision of provisions for dismantling the Belgian nuclear power plants *(see Note 18.2)*, the recoverable amount of the Benelux CGU was €1,362 million lower than its carrying amount at December 31, 2016. The Group therefore recognized an impairment loss of €1,362 million, entirely against goodwill. After the impairment loss, the carrying amount of the residual goodwill was €4,239 million.

Sensitivity analyses

A decrease of €10/MWh in electricity prices for nuclear power generation would lead to an additional impairment loss of €1,890 million. Conversely, if prices increased by €10/MWh, the recoverable amount would be higher than the carrying amount.

An increase of 50 basis points in the discount rates used would lead to an additional impairment loss of €400 million while a decrease of 50 basis points would reduce impairment by €440 million.

Various transformational scenarios were considered concerning nuclear power generation in Belgium:

- the disappearance of the entire nuclear component from the portfolio in 2025 after 50 years of operation in the case of Tihange 1, Doel 1 and Doel 2, and 40 years of operation for the second-generation reactors would have a strongly adverse impact on the results of the test, with the recoverable amount falling significantly below the carrying amount. In this scenario, the impairment risk would represent around €2,800 million;
- if the life of half of the second-generation reactors were to be extended by 10 years and the entire nuclear component subsequently disappear, the recoverable amount would fall below the carrying amount and the impairment risk would represent €1,300 million.

8.2.4 Impairment on GTT CGU goodwill

GTT is a listed subsidiary specialized in the design of cryogenic membrane containment systems for sea transportation and storage of LNG, both onshore and offshore.

At June 30, 2016, the Group recognized an impairment loss of €161 million against the goodwill allocated to the GTT CGU following the fall in GTT's share price, based on the market price at June 30, 2016. At December 31, 2016, the change in share price did not lead to any additional impairment.

A 10% fall in the share price relative to the December 31, 2016 price would not lead to any additional goodwill impairment.

8.2.5 Impairment losses on property, plant and equipment and intangible assets

Net impairment losses recognized at December 31, 2016 amounted to €2,485 million, primarily relating to:

- **SHEM's hydropower generation assets (France Renewable Energy CGU)**

  Given the fall in forward electricity prices and electricity price forecasts in France, the Group recognized an impairment loss of €416 million against SHEM's hydropower generation assets.

  A decrease of €10/MWh in electricity prices would lead to an additional impairment loss of €100 million against these assets. Conversely, an increase of €10/MWh would reduce impairment by €100 million.

  A 50 basis point increase in the discount rate used would lead to an additional impairment loss totaling €27 million, while a 50 basis point decrease would reduce impairment by €35 million.

  The conditions for determining value in use and, in particular, the key assumptions underlying the test are described in Note 12.3.4.

- **Generation Europe CGU assets**

  At December 31, 2016, the Group classified the Polaniec power plant in Poland as "Assets held for sale" (*see Note 4.2*). As the carrying amount was €375 million greater than the expected sale price, the Group recognized an impairment loss of €375 million at December 31, 2016, of which €139 million against the entire goodwill allocated to the assets held for sale, and €237 million against property, plant and equipment and intangible assets.

  The Group also recognized a €283 million impairment loss against its thermal power plants in Europe, broken down as follows:

  – €166 million for a gas-fired power plant in the Netherlands, due to the downward revision of forecast captured margins over the long term,
  – €36 million for coal-fired power plants in Germany, mainly due to the decision to mothball a power plant,
  – €19 million for a coal-fired power plant in the United Kingdom following the Group's decision in the first half of 2016 to close this plant earlier than scheduled.

- **Exploration & Production CGU assets**

  At December 31, 2016, impairment losses against the E&P CGU's production assets and exploration licenses amounted to €189 million. Most of these impairment losses were recognized at June 30, 2016 and were due mainly to the downward revision of natural gas and Brent crude oil price forecasts over the assets' expected operating lives.

  The value in use of these assets was calculated using the cash flow forecasts for the assets' operating life drawn up by management.

- **Global Energy Management (GEM) CGU assets**

  At December 31, 2016, the Group recognized impairment losses of €225 million against drawing rights on power facilities in Italy, corresponding to the entire carrying amount of the asset.

  The Group also recognized impairment losses of €83 million against a portfolio of long-term natural gas supply contracts that had been recognized as intangible assets following the merger with Gaz de France in 2008, corresponding to the entire carrying amount of these contracts which was zero at December 31, 2016.

- **Other impairment losses**

  Other impairment losses recognized by the Group mainly concern:

  – the portfolio of merchant power generation assets in the United States, classified as "Assets held for sale" since December 31, 2015 (€238 million), as the fair value less costs to sell was lower than the carrying amount of the groups of assets held for sale,
  – LNG carriers (€141 million), due to the difficult conditions in the LNG market,
  – wind farm assets in Poland (€119 million) following a fall in the prices of electricity and green certificates,
  – a hydropower generation plant in Chile (€72 million),
  – a drilling rig in the Benelux region (€46 million) following the expiration of the operating agreement, in a challenging market environment for exploration-production activities.

8.2.6 Impairment losses recognized in 2015

Impairment losses recognized against goodwill, property, plant and equipment and intangible assets at December 31, 2015 amounted to €8,547 million and can be analyzed as follows:

In millions of euros	Location	Impairment losses on goodwill	Impairment losses on property, plant and equipment and intangible assets	Impairment losses on entities accounted for using the equity method and related provisions	Total impairment losses	Valuation method	Discount rate
Global Gas & LNG goodwill CGU		**(1,619)**	**(2,541)**	**-**	**(4,160)**	**Value-in-use - DCF**	**6.5% - 13.5%**
Exploration-production assets			(2,454)		-	Value-in-use - DCF Multiple of reserves	
Exploration-production licenses	Qatar		(87)		-	Fair value	
Energy - North America goodwill CGU		**(927)**	**(405)**	**-**	**(1,331)**		
Portfolio of merchant power generation assets	United States	(911)	(200)		-	Fair value less costs to sell	
Regasification terminal	United States		(195)		-	Value-in-use - DCF	6.95%
Other		(16)	(9)		-		
Energy - Latin America goodwill CGU		**-**	**(54)**	**(188)**	**(242)**		
Share in a regasification terminal	Uruguay			(188)	-	Fair value	
Other property, plant and equipment and intangible assets			(54)		-		
Energy - Asia-Pacific goodwill CGU		**-**	**(1,009)**	**-**	**(1,009)**		
Power plant			(1,009)		-	Value-in-use - DCF	7.8%
Energy - South Asia, Middle-East and Africa goodwill CGU		**(83)**	**(630)**	**-**	**(713)**		
Thermal power plant	India	(83)	(630)		-		11.85%
Energy - United Kingdom - Turkey goodwill CGU		-	**(151)**	-	**(151)**		
Thermal power plant	United Kingdom		(151)		-	Value-in-use - DCF	6.4%
Energy - Central Western Europe goodwill CGU		-	**(550)**	-	**(550)**		
GDF Gaz de France brand	France		(455)		-	Value-in-use - DCF	8.6%
Customer relations intangible asset	France		(95)		-	Value-in-use - DCF	8.6%
Other impairment losses in Europe		-	**(194)**	-	**(194)**		
Thermal power plant			(194)		-	Value-in-use - DCF	7.7% - 8.6%
Other impairment losses		**-**	**(197)**	**-**	**(197)**		
TOTAL AT DECEMBER 31, 2015		**(2,628)**	**(5,731)**	**(188)**	**(8,547)**		

Including writedowns of financial assets, total impairment losses (net of reversals) for 2015 amounted to €8,748 million. After taking into account the deferred tax effects and the share of impairment losses attributable to non-controlling interests, the impact of these impairment losses on 2015 net income Group share amounted to €6,761 million.

The annual impairment tests took account of the particularly challenging environment for the oil and gas production business, which was affected by the slump in natural gas and oil prices. In light of these market conditions as well as the analysis of market fundamentals, the Group significantly lowered its reference scenario for long- and medium-term commodity price projections.

The LNG business was also badly affected by the sudden downturn in LNG market conditions, caused by a slowdown in demand for LNG in Asia and an influx of supply on the market due to the commissioning of new liquefaction capacities in Australia and the United States during the 2015-2017 period.

8.3 Restructuring costs

Restructuring costs totaled €476 million in 2016, mainly including:

- costs related to decisions to shut down production and close some entities, premises and power plants (€230 million);
- costs related to various staff reduction plans implemented as part of the Group's transformation program, as well as measures to adapt to economic conditions (€154 million); and
- various other restructuring costs (€90 million), including external costs related to the Group's *corporate* brand change.

In 2015, restructuring costs totaled €265 million, including €47 million of external costs related to the *corporate* brand change, as well as costs incurred to adapt to economic conditions (€54 million for France, €61 million for Benelux and €57 million for Europe excluding France & Benelux).

8.4 Changes in scope of consolidation

In 2016, this item amounted to a positive €544 million, and mainly comprised:

- a €225 million gain on the disposal of the Group's 40.5% interest in Paiton, in Indonesia including €157 million in respect of items of other comprehensive income recycled to the income statement (*see Note 4.1.2*);
- a €211 million gain on the disposal of a 50% interest in subsidiary Transmisora Eléctrica del Norte (TEN) in Chile (*see Note 4.1.4*);
- an €84 million gain on the disposal of the Group's 89.9% interest in Meenakshi in India, including €48 million in respect of translation adjustments recognized in "Other comprehensive income" and recycled to the income statement (*see Note 4.1.3*).

In 2015, this item amounted to a negative €46 million, and mainly comprised the €47 million loss on the sale of GDF Suez Energia Magiarország Zrt.'s activities in Hungary, of which €40 million in respect of translation adjustments recognized in "Other comprehensive income" and recycled to the income statement.

8.5 Other non-recurring items

In 2016, this item mainly comprised a net expense of €584 million related to additions to provisions for nuclear waste processing and storage under the triennial revision of nuclear provisions in Belgium *(see Note 18.2)*, as well as a €124 million expense corresponding to the recognition of additional dismantling and rehabilitation costs for the Hazelwood power plant in Australia following the shut-down plan approved in November 2016 by the shareholders.

In 2015, this item included an expense of €340 million, corresponding to the recognition of additional costs for the dismantling and rehabilitation of the Hazelwood power plant in Australia, which was partly offset by the €42 million gain on the disposal of Portgas available-for-sale securities, of which €17 million in respect of changes in fair value recognized in "Other comprehensive income" and recycled to the income statement.

NOTE 9 NET FINANCIAL INCOME/(LOSS)

	Dec. 31, 2016			Dec. 31, 2015		
In millions of euros	Expense	Income	Total	Expense	Income	Total
Cost of net debt	(915)	152	(763)	(981)	143	(839)
Income from debt restructuring transactions and from early unwinding of derivative financial instruments	(66)	66	-	(276)	154	(122)
Other financial income and expenses	(1,263)	647	(617)	(1,156)	570	(586)
NET FINANCIAL INCOME/(LOSS)	**(2,245)**	**865**	**(1,380)**	**(2,413)**	**866**	**(1,547)**

9.1 Cost of net debt

The main items of the cost of net debt break down as follows:

In millions of euros	Expense	Income	Total Dec. 31, 2016	Dec. 31, 2015
Interest expense on gross debt and hedges	(1,038)	-	(1,038)	(1,151)
Foreign exchange gains/losses on borrowings and hedges	-	5	5	8
Ineffective portion of derivatives qualified as fair value hedges	(5)	-	(5)	(8)
Gains and losses on cash and cash equivalents and financial assets at fair value through income	-	147	147	135
Capitalized borrowing costs	128	-	128	178
COST OF NET DEBT	**(915)**	**152**	**(763)**	**(839)**

The decrease in the cost of net debt is mainly due to a slight reduction in the volume of average debt since the end of 2015, to the positive impacts of debt financing transactions realized by the Group and to active interest-rate management *(see Note 15.3.2 “Financial instruments – Main events of the period”)*

9.2 Income from debt restructuring transactions and from early unwinding of derivative financial instruments

The main effects of debt restructuring break down as follows:

In millions of euros	Expense	Income	Total Dec. 31, 2016	Dec. 31, 2015
Impact of early unwinding of derivative financial instruments on income statement	**(66)**	**66**	**-**	**(3)**
of which cash payments made on the unwinding of swaps	*(66)*	*-*	*(66)*	*(157)*
of which reversal of the negative fair value of these derivatives that were settled early	*-*	*66*	*66*	*154*
Impact of debt restructuring transactions on the income statement	**-**	**-**	**-**	**(119)**
of which early refinancing transactions expenses	*-*	*-*	*-*	*(119)*
GAINS AND LOSSES ON DEBT RESTRUCTURING TRANSACTIONS AND ON THE EARLY UNWINDING OF DERIVATIVE FINANCIAL INSTRUMENTS	**(66)**	**66**	**-**	**(122)**

9.3 Other financial income and expenses

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Other financial expenses		
Change in fair value of derivatives not qualified as hedges	(102)	(102)
Gains and losses on the dequalification and inefficiency of economic hedges on other financial items	(5)	(2)
Unwinding of discounting adjustments to other long-term provisions	(577)	(555)
Net interest expense on post-employment benefits and other long-term benefits	(141)	(127)
Interest on trade and other payables	(59)	(46)
Other financial expenses	(380)	(323)
TOTAL	**(1,263)**	**(1,156)**
Other financial income		
Income from available-for-sale securities	114	101
Gains and losses on the dequalification and inefficiency of economic hedges on other financial items	3	-
Interest income on trade and other receivables	30	26
Interest income on loans and receivables at amortized cost	78	79
Other financial income	422	364
TOTAL	**647**	**570**
OTHER FINANCIAL INCOME AND EXPENSES, NET	**(617)**	**(586)**

NOTE 10 INCOME TAX EXPENSE

10.1 Actual income tax expense recognized in the income statement

10.1.1 Breakdown of actual income tax expense recognized in the income statement

The income tax expense recognized in the income statement for 2016 amounts to €909 million (€324 million in 2015), breaking down as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Current income taxes	(1,861)	(1,348)
Deferred taxes	952	1,024
TOTAL INCOME TAX EXPENSE RECOGNIZED IN INCOME	**(909)**	**(324)**

10.1.2 Reconciliation of theoretical income tax expense with actual income tax expense

A reconciliation of theoretical income tax expense with the Group's actual income tax expense is presented below:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Net income/(loss)	**163**	**(5,113)**
Share in net income of entities accounted for using the equity method	764	473
Income tax expenses	(909)	(324)
Income/(loss) before income tax expense and share in net income of associates (A)	**308**	**(5,261)**
Of which French companies	*786*	*(1,439)*
Of which companies outside France	*(477)*	*(3,822)*
Statutory income tax rate of the parent company (B)	34.4%	38.0%
THEORETICAL INCOME TAX EXPENSE (C) = (A) X (B)	**(106)**	**1,999**
Reconciling items between theoretical and actual income tax expense		
Difference between statutory tax rate applicable to the parent and statutory tax rate in force in jurisdictions in France and abroad	(61)	(195)
Permanent differences [a]	(903)	(1,295)
Income taxed at a reduced rate or tax-exempt [b]	258	136
Additional tax expense [c]	(508)	(411)
Effect of unrecognized deferred tax assets on tax loss carry-forwards and other tax-deductible temporary differences [d]	(1,119)	(1,651)
Recognition or utilization of tax income on previously unrecognized tax loss carry-forwards and other tax-deductible temporary differences [e]	174	431
Impact of changes in tax rates [f]	839	(73)
Tax credits and other tax reductions [g]	356	739
Other	160	(5)
ACTUAL INCOME TAX EXPENSE	**(909)**	**(324)**

(a) Includes mainly the disallowable impairment losses on goodwill, non-deductible expenses recorded by the project companies in the exploration-production business, disallowable operating expenses, and effects relating to the cap on allowable interest on borrowings in France.

(b) Reflects notably capital gains on disposals of securities exempt from tax or taxed at a reduced rate in some tax jurisdictions, the impact of the specific tax regimes used by some entities, the disallowable impairment losses and capital losses on securities, and the impact of the untaxed income from remeasuring previously-held (or retained) equity interests in connection with acquisitions and changes in consolidation methods.

(c) Includes mainly tax on dividends resulting from the parent company tax regime and the withholding tax on dividends and interest levied in several tax jurisdictions, the 3% tax on the dividends paid in cash by the French companies, the flat-rate contribution on nuclear activities payable by nuclear-sourced electricity utilities in Belgium (€117 million in 2016 and €166 million in 2015), allocations to provisions for income tax, and regional corporate taxes.

(d) Includes (i) the cancellation of the net deferred tax asset position for some tax entities in the absence of sufficient profit being forecast and (ii) the impact of the disallowable impairment losses on the assets.

(e) Includes the impact of the recognition of net deferred tax asset positions for some tax entities, mainly in Luxembourg for an amount of €338 million in 2015, arising from a new law entering into force.

(f) In 2016, includes mainly the impact of tax rate change on the deferred tax balances in France (see below).

(g) Includes notably the reversals of provisions for tax litigation (mainly in 2015), the impact of deductible notional interest in Belgium, and tax credits in Norway, the United Kingdom, the Netherlands and France.

Since 2011, the 34.43% income tax rate payable by tax entities in France had been increased by an exceptional contribution, leading finally to a 38% tax rate in 2015. This exceptional contribution has been eliminated in the 2016 French Finance Law.

The 2017 French Finance Law approved on December 20, 2016 plans a tax rate decrease to 28.92% as of 2020 for any French tax entity. This rate results from the decrease in the common income tax rate from 33.33% to 28.00%, plus the 3.3% social contribution. The deferred tax recorded by French entities which are expected to be released after 2020 have been re-measured at this new rate in the December 31, 2016 accounts. It results in a positive impact of €904 million on the non-recurring income and a negative impact of €187 million on the deferred tax recognized in the statement of comprehensive income.

10.1.3 Analysis of the deferred tax income/(expense) recognized in the income statement, by type of temporary difference

	Impact in the income statement	
In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Deferred tax assets:		
Tax loss carry-forwards and tax credits	(371)	176
Pension obligations	(108)	4
Non-deductible provisions	6	157
Difference between the carrying amount of PP&E and intangible assets and their tax bases	132	103
Measurement of financial instruments at fair value (IAS 32/39)	245	267
Other	10	(138)
TOTAL	**(86)**	**569**
Deferred tax liabilities:		
Difference between the carrying amount of PP&E and intangible assets and their tax bases	1,344	1,035
Measurement of financial instruments at fair value (IAS 32/39)	(473)	(524)
Other	167	(56)
TOTAL	**1,038**	**455**
DEFERRED TAX INCOME/(EXPENSE)	**952**	**1,024**

The deferred tax income recorded in 2016 comes notably from the future tax rate decrease approved in France. The deferred tax income recorded in 2015 resulted mainly from the tax impacts of some impairment losses on property, plant and equipment.

10.2 Deferred tax income/(expense) recognized in "Other comprehensive income"

Net deferred tax income/(expense) recognized in "Other comprehensive income" is broken down by component as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Available-for-sale financial assets	(12)	(7)
Actuarial gains and losses	47	(139)
Net investment hedges	13	70
Cash flow hedges on other items	382	(142)
Cash flow hedges on net debt	4	14
TOTAL EXCLUDING SHARE OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**434**	**(204)**
Share of entities accounted for using the equity method	10	(18)
TOTAL	**444**	**(222)**

10.3 Deferred taxes presented in the statement of financial position

10.3.1 Change in deferred taxes

Changes in deferred taxes recognized in the statement of financial position, after netting deferred tax assets and liabilities by tax entity, break down as follows:

In millions of euros	Assets	Liabilities	Net position
At December 31, 2015	**1,280**	**(8,131)**	**(6,851)**
Impact on net income of the year	(86)	1,038	952
Impact on other comprehensive income items	20	414	434
Impact of change in scope of consolidation	8	124	132
Impact of translation adjustments	(21)	(36)	(57)
Transfers to assets and liabilities classified as held for sale	84	(218)	(135)
Impact of netting by tax entity	(35)	33	(2)
AT DECEMBER 31, 2016	**1,250**	**(6,775)**	**(5,525)**

10.3.2 Analysis of the net deferred tax position recognized in the statement of financial position (before netting deferred tax assets and liabilities by tax entity), by type of temporary difference

	Statement of financial position at	
In millions of euros	**Dec. 31, 2016**	**Dec. 31, 2015**
Deferred tax assets:		
Tax loss carry-forwards and tax credits	2,178	2,532
Pension obligations	1,451	1,438
Non-deductible provisions	631	642
Difference between the carrying amount of PP&E and intangible assets and their tax bases	1,258	1,115
Measurement of financial instruments at fair value (IAS 32/39)	3,285	1,795
Other	585	564
TOTAL	**9,388**	**8,086**
Deferred tax liabilities:		
Difference between the carrying amount of PP&E and intangible assets and their tax bases	(10,886)	(12,181)
Measurement of financial instruments at fair value (IAS 32/39)	(3,214)	(1,827)
Other	(813)	(929)
TOTAL	**(14,913)**	**(14,937)**
NET DEFERRED TAX ASSETS/(LIABILITIES)	**(5,525)**	**(6,851)**

The deferred tax assets recognized in respect of tax loss carry-forwards are justified by the existence of adequate taxable timing differences and/or by expectations that these loss carry-forwards will be used over a six-year tax projection period, as approved by management, except when the specific context justifies otherwise.

10.4 Unrecognized deferred taxes

At December 31, 2016, the tax effect of tax losses and tax credits eligible for carry-forward but not utilized and not recognized in the statement of financial position amounted to €3,716 million (€3,308 million at December 31, 2015). Most of these unrecognized tax losses relate to companies based in countries which allow losses to be carried forward indefinitely (mainly Belgium, Luxembourg, France, Australia and the United Kingdom) or up to nine years in the Netherlands. These tax loss carry-forwards did not give rise to the recognition of deferred tax due to the absence of sufficient profit forecasts in the medium term.

The tax effect of other tax-deductible temporary differences not recorded in the statement of financial position was €1,698 million at end-December 2016 versus €1,472 million at end-December 2015.

NOTE 11 EARNINGS PER SHARE

	Dec. 31, 2016	Dec. 31, 2015
Numerator *(in millions of euros)*		
Net income/(loss) Group share	**(415)**	**(4,617)**
Interest from deeply-subordinated perpetual notes	(146)	(145)
Net income used to calculate earnings per share	**(562)**	**(4,762)**
Impact of dilutive instruments	-	-
Diluted net income/(loss) Group share	**(562)**	**(4,762)**
Denominator *(in millions of shares)*		
Average number of outstanding shares	**2,396**	**2,392**
Impact of dilutive instruments:		
Bonus share plans reserved for employees	9	11
Diluted average number of outstanding shares	**2,405**	**2,403**
Earnings per share *(in euros)*		
Basic earnings/(loss) per share	**(0.23)**	**(1.99)**
Diluted earnings/(loss) per share	**(0.23)**	**(1.99)**

In compliance with IAS 33 – *Earnings per Share,* earnings per share and diluted earnings per share are based on net income/(loss) Group share after deduction of payments to bearers of deeply-subordinated perpetual notes *(see Note 17.2.1).*

The Group's dilutive instruments included in the calculation of diluted earnings per share include the bonus shares and performance shares granted in the form of ENGIE securities.

Due to their accretive effect, all stock option plans were excluded from the 2015 and 2016 diluted earnings per share calculation. Instruments that were accretive at December 31, 2016 may become dilutive in subsequent periods due to changes in the average annual share price. These plans are described in Note 23 "Share-based payments".

NOTE 12 GOODWILL

12.1 Movements in the carrying amount of goodwill

In millions of euros	Net amount
At December 31, 2014	**21,222**
Impairment losses	(2,628)
Changes in scope of consolidation and Other	201
Translation adjustments	230
At December 31, 2015	**19,024**
Impairment losses	(1,690)
Changes in scope of consolidation and Other	39
Translation adjustments	(1)
AT DECEMBER 31, 2016	**17,372**

The impact of changes in the scope of consolidation at December 31, 2016 relates primarily to the recognition of goodwill arising on the acquisition of OpTerra Energy Services (€158 million) and Green Charge Networks (€47 million), and the acquisition of a controlling interest in Maïa Eolis (€40 million), coupled with the derecognition of €199 million of goodwill relating to businesses disposed of during the year.

As a result of the annual impairment tests performed on the goodwill CGUs, the Group recognized impairment losses against goodwill totaling €1,690 million, including €1,362 million against the Benelux CGU, €161 million against the GTT CGU, €139 million against the group of assets held for sale comprising the Polaniec power plant and €24 million against the Global LNG CGU. The impairment tests performed on the CGUs in 2016 are described in Note 8.2 "Impairment losses".

The decrease in this caption in 2015 related chiefly to the recognition of impairment losses against goodwill totaling €2,628 million, including €1,619 million against the former Global Gas & LNG CGU, €911 million against the group of assets held for sale in the United States and €83 million against the former South Asia, Middle East & Africa CGU.

12.2 Goodwill CGUs

Due to its new operational structure, which took effect on January 1, 2016 *(see Note 6 "Segment information")*, the Group has re defined its goodwill CGUs and started reallocating goodwill to the new goodwill CGUs from the former ones.

The Group now has 26 goodwill CGUs corresponding to the 24 Business Units described in Note 6, with the exception of the Asia Pacific BU, which is split into two goodwill CGUs (Australia and Asia-Pacific excluding Australia), plus the Solairedirect goodwill CGU.

The table below shows material goodwill CGUs for which the amount of goodwill is greater than 5% of the total value of the Group's goodwill at December 31, 2016, as well as CGUs with goodwill exceeding €500 million.

In millions of euros	**Operating segment**	**Dec. 31, 2016**
MATERIAL CGUs		
Benelux	Benelux	4,239
GRDF	Infrastructures Europe	4,009
France BtoC	France	1,010
France Renewable Energy	France	871
OTHER SIGNIFICANT CGUs		
North America	North America	797
Generation Europe	Other	682
United Kingdom	Europe excl. France and Benelux	651
GRTgaz	Infrastructures Europe	614
Northern, South and Central Europe	Europe excl. France and Benelux	612
Storengy	Infrastructures Europe	543
France BtoB	France	503
OTHER CGUs (*GOODWILL INDIVIDUALLY LESS THAN €500 MILLION*)		2,842
TOTAL		**17,372**

12.3 Impairment testing of goodwill CGUs

All goodwill Cash Generating Units (goodwill CGUs) are tested for impairment based on data as of end-June, completed by a review of events arisen in the second half of the year. In most cases, the recoverable value of the goodwill CGUs is determined by reference to a value in use that is calculated based on cash flow projections drawn from the 2017 budget and from the 2018-2019 medium-term business plan, as approved by the Executive Committee and the Board of Directors, and on extrapolated cash flows beyond that time frame.

Cash flow projections are drawn up in accordance with the conditions described in Note 8.2 "Impairment losses".

The discount rates used correspond to the weighted average cost of capital, which is adjusted in order to reflect the business, market, country and currency risk relating to each goodwill CGU reviewed. The discount rates used are consistent with available external information sources. The post-tax rates used in 2016 to measure the value in use of the goodwill CGUs for discounting future cash flows ranged between 4.7% and 15.1%, compared with a range of between 4.7% and 14.5% in 2015. The discount rates used for the main goodwill CGUs are shown in Notes 12.3.1 “Material CGUs” and 12.3.2 “Other significant CGUs” below.

12.3.1 Material CGUs

This section presents the method for determining value in use, the key assumptions underlying the valuation, and the sensitivity analyses for the impairment tests on CGUs where the amount of goodwill represents more than 5% of the Group's total goodwill at December 31, 2016.

The impairment test related to the goodwill allocated to the Benelux CGU is described in Note 8.2 "Impairment losses".

12.3.2 GRDF CGU

The total amount of goodwill allocated to the GRDF CGU was €4,009 million at December 31, 2016. The GRDF CGU groups together the Group's regulated natural gas distribution activities in France.

The value in use of the GRDF CGU was calculated using the cash flow projections drawn up on the basis of the 2017 budget, the 2018-2019 medium-term business plan approved by the Executive Committee and the Board of Directors, and cash flow projections for the 2020-2022 period. The terminal value corresponds to the expected Regulated Asset Base (RAB) with no premium at the end of 2022. The RAB is the value assigned by the French Energy Regulation Commission (CRE) to the assets operated by the distributor. It is the sum of the future pre-tax cash flows, discounted at a rate that equals the pre-tax rate of return guaranteed by the regulator.

The cash flow projections are drawn up based on the tariff for public natural gas distribution networks, known as the "ATRD 5 tariff", which entered into effect for a period of four years on July 1, 2016, and on the overall level of investments agreed by the CRE as part of its decision on the ATRD 5 tariff.

Given the regulated nature of the businesses grouped within the GRDF CGU, a reasonable change in any of the valuation inputs would not result in the recoverable value falling below the carrying amount.

12.3.3 France BtoC CGU

The goodwill allocated to the France BtoC CGU amounted to €1,010 million at December 31, 2016. The France BtoC CGU groups together sales of energy and related services to individual and professional customers in France.

Value in use was calculated using the cash flow projections drawn up on the basis of the 2017 budget and the 2018-2019 medium-term business plan, as approved by the Executive Committee and the Board of Directors. A terminal value was calculated by extrapolating the cash flows beyond that period using a long-term growth rate of 1.9%.

The main assumptions and key estimates relate primarily to discount rates, expected trends in gas and electricity demand in France, changes in the Group's market share and sales margin forecasts.

The discount rates applied are between 7.5% and 8.3%.

An increase of 50 basis points in the discount rates used would have a negative 9% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive 11% impact on the calculation.

A decrease of 5% in the margin on gas and electricity sales activities would have a negative 9% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of 5% in the margin on gas and electricity sales activities would have a positive 9% impact on the calculation.

12.3.4 France Renewable Energy CGU

The goodwill allocated to the France Renewable Energy CGU amounted to €871 million at December 31, 2016. The France Renewable Energy CGU groups together the development, construction, financing, operation and maintenance of all of the renewable power generation assets in France (hydraulic, wind and photovoltaic, with the exception of the photovoltaic parks developed and operated by Solairedirect).

Value in use was calculated using the cash flow projections drawn up on the basis of the 2017 budget and the 2018-2019 medium-term business plan, as approved by the Executive Committee and the Board of Directors. For the hydraulics business, a terminal value was calculated by extrapolating the cash flows beyond that period based on the reference scenario adopted by the Group.

The main assumptions and key estimates relate primarily to discount rates, assumptions on the renewal of the hydropower concession agreements and changes in the sales prices of electricity beyond the liquidity period.

The discount rates applied are between 5.2% and 8.5%, depending on whether they relate to regulated assets or merchant activities.

Value in use of the Compagnie Nationale du Rhône and SHEM were calculated based on assumptions including the renewal or a process tender for the concession agreements, as well as on the conditions of a potential renewal.

The cash flows for the periods covered by the renewal of the concession agreements are based on a number of assumptions relating to the economic and regulatory conditions for operating these assets (royalty rates, required level of investment, etc.) during this period.

Results of the impairment test

An impairment loss of €416 million was recognized against SHEM's hydropower generation assets *(see Note 8.2.5).*

Sensitivity analyses

A decrease of €10/MWh in electricity prices for hydropower generation would have a negative 52% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of €10/MWh in electricity prices would have a positive 52% impact on the calculation.

An increase of 50 basis points in the discount rates used would have a negative 34% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable value would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive 43% impact on the calculation.

If the Compagnie Nationale du Rhône hydropower concession agreements are not renewed beyond 2023, this would have a strong adverse impact on the results of the test, with the recoverable amount falling significantly below the carrying amount. In this scenario, the impairment risk would represent around €550 million.

12.3.5 Other significant CGUs

The table below sets out the assumptions used to determine the recoverable amount of the other main CGUs.

CGU	Reportable segment	Measurement	Discount rate
Generation Europe	Other	DCF + DDM	6.5% - 10.1%
North America	North America	DCF + DDM	3.8% - 12.7%
United Kingdom	Europe excl. France & Benelux	DCF + DDM	6.3% - 9.1%
North, South and Eastern Europe	Europe excl. France & Benelux	DCF + DDM	5.6% - 12.4%
Storengy	Infrastructures Europe	DCF	4.7% - 9.3%
France BtoB	France	DCF	7.8% - 8.5%

DDM refers to the discounted dividend model.

12.3.5.1 Generation Europe CGU

The goodwill allocated to the Generation Europe CGU amounted to €682 million at December 31, 2016. The Generation Europe CGU groups together the thermal power generation activities in Europe.

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2017 budget and the 2018-2019 medium-term business plan approved by the Executive Committee and the Board of Directors. Beyond this three-year period, cash flows were projected over the useful lives of the assets based on the reference scenario adopted by the Group.

The discount rates applied to these cash flow projections ranged between 6.5% and 10.1%.

The main assumptions and key estimates relate primarily to discount rates, estimated demand for electricity and changes in the price of CO_2, fuel and electricity beyond the liquidity period.

Results of the impairment test

Impairment losses of €659 million were recognized at December 31, 2016, including €520 million against thermal power plants and €139 million corresponding to the share of the CGU's goodwill allocated to the group of assets held for sale in Poland *(see Note 8.2.5)*.

Sensitivity analyses

An increase of 50 basis points in the discount rates used would have a negative 61% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive 65% impact on the calculation.

In the event of a 10% decrease in the margin captured by the thermal power plants, the recoverable amount would fall below the carrying amount and result in an impairment loss of around €100 million.

12.3.5.2 Storengy CGU

The goodwill allocated to the Storengy CGU amounted to €543 million at December 31, 2016. The Storage CGU groups together the entities that own, operate, market and sell underground natural gas storage capacities in France, Germany, and the United Kingdom.

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2017 budget and the 2018-2019 medium-term business plan approved by the Executive Committee and the Board of Directors. Cash flow projections beyond this three-year period were based on the reference scenario adopted by the Group.

Cash flows for storage activities in France and Germany were projected up to 2025, which is when the Group estimates that seasonal spreads will have reached their long-term price equilibrium. A terminal value was calculated for 2026 by applying to the normative cash flows for 2025 a growth rate corresponding to the long-term inflation rate expected in the Eurozone.

The discount rates applied to these cash flow projections were 5.7% for France, 7.9% for the United Kingdom and between 4.7% and 9.3% for the German storage activities.

The key assumptions underlying the test related to (i) forecast capacity sales in France and Germany, which depend on changes in market conditions, and particularly on seasonal natural gas spreads, and (ii) changes in the regulatory environment for the underground natural gas storage activities in France.

A change in seasonal spreads would affect the level of revenues as a result of the impact of the spreads on both (i) the sales price of certain capacity sales agreements which are closely correlated to spreads, and (ii) overall sales volumes.

A 5% decrease in storage revenues in France and Germany over the 2017-2025 period and the normative cash flow used to calculate the terminal value would lead to an impairment loss of approximately €300 million.

Should the seasonal spread remain at its expected 2021 level throughout the remainder of the cash flow projection period, the impairment risk would be approximately €250 million.

12.4 Goodwill segment information

The carrying amount of goodwill can be analyzed as follows by operating segment:

In millions of euros	Dec. 31, 2016
North America	797
Latin America	810
Africa-Asia	978
Benelux	4,239
France	2,799
Europe excl. France & Benelux	1,263
Infrastructures Europe	5,338
GEM & LNG	-
E&P	32
Other	1,116
TOTAL	**17,372**

NOTE 13 INTANGIBLE ASSETS

13.1 Movements in intangible assets

In millions of euros	Intangible rights arising on concession contracts	Capacity entitlements	Other	Total
GROSS AMOUNT				
At December 31, 2014	**2,825**	**2,493**	**10,523**	**15,841**
Acquisitions	241	-	644	886
Disposals	(4)	-	(246)	(251)
Translation adjustments	(2)	-	163	162
Changes in scope of consolidation	27	-	(175)	(149)
Transfers to "Assets classified as held for sale"	-	-	(16)	(16)
Other	21	52	19	92
At December 31, 2015	**3,108**	**2,545**	**10,912**	**16,565**
Acquisitions	169	-	584	753
Disposals	(54)	(13)	(51)	(119)
Translation adjustments	(43)	-	27	(16)
Changes in scope of consolidation	5	-	106	112
Transfers to "Assets classified as held for sale"	-	-	(4)	(4)
Other	19	33	38	91
AT DECEMBER 31, 2016	**3,205**	**2,565**	**11,613**	**17,383**
ACCUMULATED AMORTIZATION AND IMPAIRMENT				
At December 31, 2014	**(1,062)**	**(1,646)**	**(5,564)**	**(8,272)**
Amortization	(101)	(71)	(565)	(737)
Impairment	(7)	-	(940)	(947)
Disposals	4	-	207	211
Translation adjustments	1	-	(74)	(73)
Changes in scope of consolidation	(2)	-	211	209
Transfers to "Assets classified as held for sale"	-	-	3	3
Other	(3)	-	56	53
At December 31, 2015	**(1,171)**	**(1,716)**	**(6,666)**	**(9,553)**
Amortization	(108)	(61)	(601)	(770)
Impairment	(6)	(225)	(176)	(407)
Disposals	29	13	34	76
Translation adjustments	3	-	4	7
Changes in scope of consolidation	-	-	(10)	(10)
Transfers to "Assets classified as held for sale"	-	-	3	3
Other	(7)	-	(84)	(92)
AT DECEMBER 31, 2016	**(1,259)**	**(1,988)**	**(7,497)**	**(10,744)**
CARRYING AMOUNT				
At December 31, 2015	**1,938**	**828**	**4,247**	**7,013**
AT DECEMBER 31, 2016	**1,946**	**576**	**4,116**	**6,639**

In 2016, impairment losses on intangible assets amounted to €407 million. They related mainly to drawing rights on power generation assets in Italy (€225 million) and a portfolio of natural gas long-term supply contracts (€125 million) (*see Note 8.2 "Impairment losses"*).

In 2015, impairment losses on intangible assets (€947 million) related primarily to the corporate brand GDF Gaz de France (€455 million) and to the France customer relations portfolio (€95 million) as well as exploration licenses in Australia (€257 million) and in Qatar (€87 million).

13.1.1 Intangible rights arising on concession contracts

This item primarily includes the right to bill users of public services recognized in accordance with the intangible asset model as set out in IFRIC 12. Acquisitions mainly relate to the France Networks businesses.

13.1.2 Capacity entitlements

The Group has acquired capacity entitlements from power stations operated by third parties. These power station capacity rights were acquired in connection with transactions or within the scope of the Group's involvement in financing the construction of certain power stations. In consideration, the Group received the right to purchase a share of the production over the useful life of the underlying assets. These rights are amortized over the useful life of the underlying assets, not to exceed 40 years. The Group currently holds entitlements in the Chooz B and Tricastin power plants in France and in the virtual power plant (VPP) in Italy.

13.1.3 Other

At December 31, 2016, this caption notably relates to software, licenses and intangible assets acquired as a result of business combinations.

The exploration and production licenses presented under "Other" in the table above are detailed in Note 20 "Exploration-production activities".

13.2 Information regarding research and development costs

Research and development activities primarily relate to various studies regarding technological innovation, improvements in plant efficiency, safety, environmental protection, service quality, and the use of energy resources.

Research and development costs, excluding technical assistance costs, totaled €191 million in 2016, of which €23 million in expenses related to in-house projects in the development phase that meet the criteria for recognition as an intangible asset as defined in IAS 38.

NOTE 14 PROPERTY, PLANT AND EQUIPMENT

14.1 Movements in property, plant and equipment

In millions of euros	Land	Buildings	Plant and equipment	Vehicles	Dismantling costs	Assets in progress	Other	Total
GROSS AMOUNT								
At December 31, 2014	**944**	**4,460**	**92,831**	**390**	**2,141**	**7,626**	**1,053**	**109,446**
Acquisitions	4	31	541	70	-	4,874	68	5,589
Disposals	(147)	(117)	(320)	(17)	(2)	(199)	(61)	(862)
Translation adjustments	(5)	76	409	6	5	202	2	695
Changes in scope of consolidation	(3)	-	(28)	6	(4)	(19)	(3)	(51)
Transfers to "Assets classified as held for sale"	(82)	1	(5,588)	(20)	(18)	(138)	(5)	(5,850)
Other	44	542	5,356	1	196	(5,917)	60	282
At December 31, 2015	**755**	**4,993**	**93,201**	**437**	**2,318**	**6,428**	**1,115**	**109,248**
Acquisitions	7	26	893	46	-	4,299	65	5,336
Disposals	(8)	(46)	(743)	(41)	(97)	(20)	(48)	(1,003)
Translation adjustments	16	(46)	717	3	(11)	10	(2)	688
Changes in scope of consolidation	(6)	22	38	3	-	(718)	9	(653)
Transfers to "Assets classified as held for sale"	(3)	(7)	(1,208)	-	(23)	(47)	(2)	(1,291)
Other	(5)	746	2,615	2	842	(3,489)	37	749
AT DECEMBER 31, 2016	**756**	**5,687**	**95,514**	**451**	**3,029**	**6,462**	**1,174**	**113,073**
ACCUMULATED DEPRECIATION AND IMPAIRMENT								
At December 31, 2014	**(147)**	**(2,151)**	**(39,627)**	**(258)**	**(1,039)**	**(1,422)**	**(770)**	**(45,414)**
Depreciation	(17)	(136)	(3,528)	(47)	(190)	-	(93)	(4,011)
Impairment	(14)	(12)	(3,066)	-	(35)	(1,653)	(3)	(4,784)
Disposals	52	64	240	14	2	1	53	427
Translation adjustments	7	(10)	(126)	(3)	2	(36)	(1)	(166)
Changes in scope of consolidation	3	3	(2)	(4)	2	-	-	3
Transfers to "Assets classified as held for sale"	-	-	1,709	8	-	1	-	1,719
Other	2	10	(977)	(23)	-	977	(22)	(33)
At December 31, 2015	**(113)**	**(2,231)**	**(45,377)**	**(314)**	**(1,259)**	**(2,132)**	**(834)**	**(52,259)**
Depreciation	(8)	(265)	(3,148)	(43)	(74)	-	(89)	(3,627)
Impairment	(14)	(438)	(1,126)	(11)	31	(151)	(2)	(1,711)
Disposals	1	27	555	36	97	1	44	761
Translation adjustments	(7)	5	(198)	(3)	11	93	3	(95)
Changes in scope of consolidation	-	(12)	(29)	(2)	-	444	(5)	396
Transfers to "Assets classified as held for sale"	-	5	977	-	12	-	2	996
Other	(5)	(15)	(186)	(1)	(142)	550	4	205
AT DECEMBER 31, 2016	**(145)**	**(2,925)**	**(48,531)**	**(337)**	**(1,324)**	**(1,195)**	**(878)**	**(55,334)**
CARRYING AMOUNT								
At December 31, 2015	**642**	**2,762**	**47,824**	**123**	**1,059**	**4,296**	**281**	**56,988**
AT DECEMBER 31, 2016	**612**	**2,762**	**46,983**	**114**	**1,706**	**5,268**	**296**	**57,739**

In 2016, the net increase in “Property, plant and equipment” takes into account:

- maintenance and development investments for a total amount of €5,336 million mainly relating to the construction of new plants and the development of wind farms in Latin America and France, the extension of the transportation and distribution networks in the Infrastructures Europe segment and developments in the exploration-production business;
- a €981 million increase in dismantling assets recorded against provisions for dismantling nuclear facilities in Belgium (*see Note 18.2*);
- positive net translation adjustments of €593 million, mainly resulting from the Brazilian real (positive impact of €557 million), the US dollar (positive impact of €267 million), the Norwegian krone (positive impact of €87 million), and the pound sterling (negative impact of €349 million);

- depreciation for a total amount of €3,627 million;
- impairment losses amounting to €1,711 million, mainly related to thermal power generation assets in Europe (€520 million), hydro generation assets in France (€414 million), LNG tankers (€142 million), and exploration-production assets;
- the classification of the Polaniec power plant in Poland as “Assets held for sale” (negative impact of €295 million); the carrying amount of the corresponding property, plant and equipment having been transferred to the “Assets classified as held for sale” position in the statement of financial position;
- changes in scope of consolidation for a negative €257 million, mainly resulting from the disposal of a 50% interest in Transmisora Eléctrica del Norte SA (TEN) in Chile (negative impact of €202 million) and the sale of the Meenakshi coal-fired plants in India (negative impact of €131 million), partly offset by the acquisition of a controlling interest in Energieversorgung Gera GmbH in Germany (positive impact of €100 million).

In 2015, the net decrease in “Property, plant and equipment” mainly resulted from:

- impairment losses on property, plant and equipment, mainly related to exploration-production assets (€2,197 million), power generation assets in Africa/Asia (€1,639 million) and in Europe excluding France & Benelux (€345 million), as well as a regasification terminal in North America (€195 million);
- net disposals of property, plant and equipment of €435 million comprising in particular the disposal of interests in exploration-production licenses in Indonesia for €197 million as well as the disposal of real estate for €148 million;
- positive net translation adjustments of €529 million, mainly relating to the US dollar (positive impact of €1,158 million), the pound sterling (positive impact of €145 million), the Brazilian real (negative impact of €706 million), and the Norwegian krone (negative impact of €98 million);
- the transfer of the carrying amount of property, plant and equipment of the portfolio of merchant power generation assets in the United States to "Assets classified as held for sale".

Assets relating to exploration-production included in the table above are detailed by nature in Note 20 "Exploration-production activities". Fields under development are shown under "Assets in progress", while fields in production are included in "Plant and equipment".

14.2 Pledged and mortgaged assets

Items of property, plant and equipment pledged by the Group to guarantee borrowings and debt amounted to €3,727 million at December 31, 2016 versus €5,267 million at December 31, 2015. The change mainly relates to the disposal of the merchant hydro generation assets in the United States.

14.3 Contractual commitments to purchase property, plant and equipment

In the ordinary course of their operations, some Group companies have entered into commitments to purchase, and the related third parties to deliver, property, plant and equipment. These commitments relate mainly to orders for equipment, and material related to the construction of energy production units and to service agreements.

Investment commitments made by the Group to purchase property, plant and equipment totaled €3,079 million at December 31, 2016 versus €3,181 million at December 31, 2015.

14.4 Other information

Borrowing costs for 2016 included in the cost of property, plant and equipment amounted to €128 million at December 31, 2016 versus €178 million at December 31, 2015.

NOTE 15 FINANCIAL INSTRUMENTS

15.1 Financial assets

The following table presents the Group's different categories of financial assets, broken down into current and non-current items:

	Dec. 31, 2016			Dec. 31, 2015		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Available-for-sale securities	2,997	-	2,997	3,016	-	3,016
Loans and receivables at amortized cost	2,250	21,430	23,680	2,377	20,080	22,457
Loans and receivables at amortized cost (excluding trade and other receivables)	*2,250*	*595*	*2,845*	*2,377*	*731*	*3,108*
Trade and other receivables	*-*	*20,835*	*20,835*	*-*	*19,349*	*19,349*
Other financial assets at fair value	3,603	10,486	14,089	4,026	12,029	16,055
Derivative instruments	*3,603*	*9,047*	*12,650*	*4,026*	*10,857*	*14,883*
Financial assets at fair value through income	*-*	*1,439*	*1,439*	*-*	*1,172*	*1,172*
Cash and cash equivalents	-	9,825	9,825	-	9,183	9,183
TOTAL	**8,850**	**41,741**	**50,591**	**9,419**	**41,292**	**50,711**

15.1.1 Available-for-sale securities

In millions of euros	
At December 31, 2014	**2,893**
Acquisitions	272
Disposals - carrying amount excluding changes in fair value recorded in "Other comprehensive income"	(23)
Disposals - "Other comprehensive income" derecognized	(17)
Other changes in fair value recorded in equity	(2)
Changes in fair value recorded in income	(147)
Changes in scope of consolidation, foreign currency translation and other changes	39
At December 31, 2015	**3,016**
Acquisitions	407
Disposals - carrying amount excluding changes in fair value recorded in "Other comprehensive income"	(500)
Disposals - "Other comprehensive income" derecognized	(152)
Other changes in fair value recorded in equity	298
Changes in fair value recorded in income	(21)
Changes in scope of consolidation, foreign currency translation and other changes	(49)
AT DECEMBER 31, 2016	**2,997**

The Group's available-for-sale securities amounted to €2,997 million at December 31, 2016 breaking down as €1,977 million of listed securities and €1,020 million of unlisted securities (respectively, €1,593 million and €1,423 million at December 31, 2015).

The main changes over the period correspond to the acquisition by Synatom of money market funds and bonds as part of its investing objectives designed to cover nuclear provisions *(see Note 15.1.5)* and to the sales of interests previously held by the Group in the Walloon distribution network operator, in Transportadora de Gas del Perú, and in Société d'Enrichissement du Tricastin Holding (*see Note 4.1.5*).

In 2015, the main change over the period corresponded to the acquisition by Synatom of money market funds and bonds as part of its investing objectives designed to cover nuclear provisions *(see Note 15.1.5)*.

15.1.1.1 Gains and losses on available-for-sale securities recognized in equity or income

The table below shows gains and losses on available-for-sale securities recognized in equity or income:

In millions of euros	Dividends	Post-acquisition measurement: Change in fair value	Post-acquisition measurement: Foreign currency translation	Post-acquisition measurement: Impairment	Reclassified to income	Net gain/(loss) on disposals
Equity[(1)]	-	298	1	-	(152)	-
Income	114	-	-	(21)	152	90
TOTAL AT DECEMBER 31, 2016	**114**	**298**	**1**	**(21)**	**-**	**90**
Equity[(1)]	-	(2)	16	-	(17)	-
Income	101	-	-	(147)	17	64
TOTAL AT DECEMBER 31, 2015	**101**	**(2)**	**16**	**(147)**	**-**	**64**

(1) Excluding tax impact.

In 2016, the disposal gain recorded in "Other items of comprehensive income" and reclassified to income mainly comprised the sale of the Group's interest in Transportadora de Gas del Perú for €152 million (see *Note 4.1.5.2*).

15.1.1.2 Analysis of available-for-sale securities in connection with impairment tests

The Group reviewed the value of its available-for-sale securities on a case-by-case basis in order to determine whether any impairment losses should be recognized in light of the current market environment.

Among factors taken into account, an impairment indicator for listed securities is when the value of any such security falls below 50% of its historical cost or remains below its historical cost for more than 12 months.

The Group recognized impairment losses for an amount of €21 million at December 31, 2016.

Based on its analyses, the Group has not identified any evidence of material unrealized capital losses at December 31, 2016 on other securities.

15.1.2 Loans and receivables at amortized cost

In millions of euros	Dec. 31, 2016 Non-current	Dec. 31, 2016 Current	Dec. 31, 2016 Total	Dec. 31, 2015 Non-current	Dec. 31, 2015 Current	Dec. 31, 2015 Total
Loans and receivables at amortized cost (excluding trade and other receivables)	2,250	595	2,845	2,377	731	3,108
Loans granted to affiliated companies	*718*	*441*	*1,159*	*735*	*467*	*1,202*
Other receivables at amortized cost	*655*	*22*	*678*	*707*	*157*	*864*
Amounts receivable under concession contracts	*14*	*6*	*20*	*14*	*6*	*20*
Amounts receivable under finance leases	*862*	*125*	*987*	*921*	*101*	*1,021*
Trade and other receivables	-	20,835	20,835	-	19,349	19,349
TOTAL	**2,250**	**21,430**	**23,680**	**2,377**	**20,080**	**22,457**

The table below shows impairment losses on loans and receivables at amortized cost:

In millions of euros	Dec. 31, 2016 Gross	Dec. 31, 2016 Allowances and impairment	Dec. 31, 2016 Net	Dec. 31, 2015 Gross	Dec. 31, 2015 Allowances and impairment	Dec. 31, 2015 Net
Loans and receivables at amortized cost (excluding trade and other receivables)	3,092	(248)	2,845	3,369	(261)	3,108
Trade and other receivables	21,897	(1,062)	20,835	20,412	(1,063)	19,349
TOTAL	**24,989**	**(1,310)**	**23,680**	**23,781**	**(1,324)**	**22,457**

Information on the age of receivables past due but not impaired and on counterparty risk associated with loans and receivables at amortized cost (including trade and other receivables) are provided in Note 16.2 "Counterparty risk".

Net gains and losses recognized in the consolidated income statement with regard to loans and receivables at amortized cost (including trade and other receivables) break down as follows:

		Post-acquisition measurement	
In millions of euros	Interest income	Foreign currency translation	Impairment
At December 31, 2016	115	32	(111)
At December 31, 2015	110	(4)	(195)

Loans and receivables at amortized cost (excluding trade and other receivables)

At December 31, 2016, no material impairment losses had been recognized against loans and receivables at amortized cost (excluding trade and other receivables).

At December 31, 2015, the Group recognized an impairment loss against loans granted to a joint venture commissioned to build an offshore storage and regasification LNG terminal in Uruguay.

Trade and other receivables

On initial recognition, trade and other receivables are recorded at fair value, which generally corresponds to their nominal value. Impairment losses are recorded based on the estimated risk of non-recovery. The carrying amount of trade and other receivables in the consolidated statement of financial position represents a reasonable estimate of the fair value.

Impairment losses recognized against trade and other receivables are stable, at €1,062 million at December 31, 2016 (€1,063 million at December 31, 2015).

15.1.3 Other financial assets at fair value through income

	Dec. 31, 2016			Dec. 31, 2015		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Derivative instruments	**3,603**	**9,047**	**12,650**	**4,026**	**10,857**	**14,883**
Derivatives hedging borrowings	*888*	*250*	*1,138*	*1,174*	*240*	*1,413*
Derivatives hedging commodities	*1,875*	*8,712*	*10,587*	*1,962*	*10,510*	*12,472*
Derivatives hedging other items(1)	*840*	*85*	*925*	*890*	*107*	*998*
Financial assets at fair value through income (excluding margin calls)	**-**	**816**	**816**	**-**	**797**	**797**
Financial assets qualifying as at fair value through income	*-*	*816*	*816*	*-*	*779*	*779*
Financial assets designated as at fair value through income	*-*	*-*	*-*	*-*	*17*	*17*
Margin calls on derivatives hedging borrowings - assets	**-**	**622**	**622**	**-**	**375**	**375**
TOTAL	**3,603**	**10,486**	**14,089**	**4,026**	**12,029**	**16,055**

(1) Derivatives hedging other items mainly include the interest rate component of interest rate derivatives (not qualifying as hedges or qualifying as cash flow hedges) that are excluded from net debt, as well as net investment hedge derivatives.

Financial assets qualifying as at fair value through income (excluding margin calls) are mainly money market funds held for trading purposes and held to be sold in the near term. They are included in the calculation of the Group's net debt *(see Note 15.3 "Net debt")*.

Gains on financial assets qualifying as at fair value through income held for trading purposes totaled €8 million in 2016 versus €9 million in 2015.

Gains and losses on financial assets designated as at fair value through income in 2016 and 2015 were not material.

15.1.4 Cash and cash equivalents

Cash and cash equivalents totaled €9,825 million at December 31, 2016 (€9,183 million at December 31, 2015).

This amount also included €246 million in cash and cash equivalents subject to restrictions (€258 million at December 31, 2015). Cash and cash equivalents subject to restrictions include notably €192 million of cash equivalents set aside to cover the repayment of borrowings and debt as part of project financing arrangements in certain subsidiaries.

Gains recognized in respect of "Cash and cash equivalents" amounted to €131 million at December 31, 2016 compared to €121 million at December 31, 2015.

15.1.5 Financial assets set aside to cover the future costs of dismantling nuclear facilities and managing radioactive fissile material

As indicated in Note 18.2 "Nuclear dismantling liabilities", the Belgian law of April 11, 2003, amended by the law of April 25, 2007, granted the Group's wholly-owned subsidiary Synatom responsibility for managing and investing funds received from operators of nuclear power plants in Belgium and designed to cover the costs of dismantling nuclear power plants and managing radioactive fissile material.

Pursuant to the law, Synatom may lend up to 75% of these funds to operators of nuclear plants provided that they meet certain financial criteria – particularly in terms of credit quality. The funds that cannot be lent to operators are either lent to entities meeting the credit quality criteria set by the law or invested in financial assets such as bonds and money market funds.

Loans to entities outside the Group and other cash investments are shown in the table below:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Loans to third parties	**562**	**594**
Loan to Eso/Elia	454	454
Loan to Ores Assets	82	82
Loan to Sibelga	26	58
Other cash investments	**1,464**	**1,193**
Money market funds	1,464	1,193
TOTAL	**2,026**	**1,787**

Loans to entities outside the Group are shown in the statement of financial position as "Loans and receivables at amortized cost". Bonds and money market funds held by Synatom are shown as "Available-for-sale securities".

15.1.6 Transfer of financial assets

At December 31, 2016, the outstanding amount of transferred financial assets (as well as the risks to which the Group remains exposed following the transfer of those financial assets) as part of transactions leading to either (i) all or part of those assets being retained in the statement of financial position, or (ii) their full deconsolidation while retaining a continuing involvement in these financial assets, was not material in terms of the Group's indicators.

In 2016, the Group carried out disposals without recourse of financial assets as part of transactions leading to full derecognition, for an outstanding amount of €762 million at December 31, 2016.

15.1.7 Financial assets and equity instruments pledged as collateral for borrowings and debt

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Financial assets and equity instruments pledged as collateral	4,177	4,348

This item mainly includes the carrying amount of equity instruments pledged as collateral for borrowings and debt.

15.2 Financial liabilities

Financial liabilities are recognized either:

- as “Liabilities at amortized cost” for borrowings and debt, trade and other payables, and other financial liabilities;
- as “Financial liabilities at fair value through income” for derivative instruments or financial liabilities designated as derivatives.

The following table presents the Group’s different financial liabilities at December 31, 2016, broken down into current and non-current items:

	Dec. 31, 2016			Dec. 31, 2015		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Borrowings and debt	24,411	12,539	36,950	28,123	11,032	39,155
Derivative instruments	3,410	9,228	12,638	4,216	8,642	12,858
Trade and other payables	-	17,075	17,075	-	17,101	17,101
Other financial liabilities	200	-	200	237	-	237
TOTAL	28,021	38,842	66,864	32,577	36,775	69,352

15.2.1 Borrowings and debt

	Dec. 31, 2016			Dec. 31, 2015		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Bond issues	18,617	3,360	21,977	21,912	2,057	23,969
Bank borrowings	4,501	977	5,478	4,694	1,765	6,459
Negotiable commercial paper	-	6,330	6,330	-	5,378	5,378
Drawdowns on credit facilities	12	30	43	95	10	105
Liabilities under finance leases	520	150	670	517	95	611
Other borrowings	90	249	339	319	80	399
TOTAL BORROWINGS	**23,740**	**11,097**	**34,837**	**27,537**	**9,385**	**36,922**
Bank overdrafts and current accounts	-	608	608	-	603	603
OUTSTANDING BORROWINGS AND DEBT	**23,740**	**11,705**	**35,444**	**27,537**	**9,988**	**37,525**
Impact of measurement at amortized cost	235	72	306	276	107	383
Impact of fair value hedges	436	31	468	310	23	333
Margin calls on derivatives hedging borrowings - liabilities	-	731	731	-	914	914
BORROWINGS AND DEBT	24,411	12,539	36,950	28,123	11,032	39,155

The fair value of gross borrowings and debt amounted to €39,343 million at December 31, 2016, compared with a carrying amount of €36,950 million.

Financial income and expenses relating to borrowings and debt are detailed in Note 9 “Net financial income/(loss)”.

Borrowings and debt are analyzed in Note 15.3 “Net debt”.

15.2.2 Derivative instruments

Derivative instruments recorded in liabilities are measured at fair value and broken down as follows:

	Dec. 31, 2016			Dec. 31, 2015		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Derivatives hedging borrowings	251	67	318	278	100	377
Derivatives hedging commodities	1,461	9,038	10,499	2,528	8,493	11,022
Derivatives hedging other items(1)	1,698	123	1,821	1,410	49	1,459
TOTAL	3,410	9,228	12,638	4,216	8,642	12,858

(1) Derivatives hedging other items mainly include the interest rate component of interest rate derivatives (not qualifying as hedges or qualifying as cash flow hedges), that are excluded from net debt, as well as net investment hedge derivatives.

15.2.3 Trade and other payables

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Trade payables	16,327	16,280
Payable on fixed assets	748	821
TOTAL	**17,075**	**17,101**

The carrying amount of these financial liabilities represents a reasonable estimate of their fair value.

15.2.4 Other financial liabilities

At December 31, 2016, other financial liabilities amounted to €200 million (compared to €237 million at December 31, 2015), mainly corresponding to debt resulting from:

- purchase obligations (put options on non-controlling interests) granted by the Group notably for 41.01% of the shares of La Compagnie du Vent, which is fully consolidated.
  These commitments to purchase equity instruments have been recognized under financial liabilities (*see Note 1.4.11.2 "Financial liabilities"*);
- uncalled share capital of entities accounted for using the equity method, notably Cameron LNG.

15.3 Net debt

15.3.1 Net debt by type

	Dec. 31, 2016			Dec. 31, 2015		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Borrowings and debt outstanding	23,740	11,705	35,444	27,537	9,988	37,525
Impact of measurement at amortized cost	235	72	306	276	107	383
Impact of fair value hedge(1)	436	31	468	310	23	333
Margin calls on derivatives hedging borrowings - liabilities	-	731	731	-	914	914
BORROWINGS AND DEBT	**24,411**	**12,539**	**36,950**	**28,123**	**11,032**	**39,155**
Derivatives hedging borrowings - carried in liabilities(2)	251	67	318	278	100	377
GROSS DEBT	**24,662**	**12,606**	**37,268**	**28,401**	**11,132**	**39,533**
Assets related to financing	(58)	(1)	(58)	(37)	-	(37)
ASSETS RELATED TO FINANCING	**(58)**	**(1)**	**(58)**	**(37)**	**-**	**(37)**
Financial assets at fair value through income (excluding margin calls)	-	(816)	(816)	-	(797)	(797)
Margin calls on derivatives hedging borrowings - carried in assets	-	(622)	(622)	-	(375)	(375)
Cash and cash equivalents	-	(9,825)	(9,825)	-	(9,183)	(9,183)
Derivatives hedging borrowings - carried in assets(2)	(888)	(250)	(1,138)	(1,174)	(240)	(1,413)
NET CASH	**(888)**	**(11,514)**	**(12,402)**	**(1,174)**	**(10,595)**	**(11,768)**
NET DEBT	**23,716**	**1,091**	**24,807**	**27,190**	**537**	**27,727**
Borrowings and debt outstanding	23,740	11,705	35,444	27,537	9,988	37,525
Assets related to financing	(58)	(1)	(58)	(37)	-	(37)
Financial assets at fair value through income (excluding margin calls)	-	(816)	(816)	-	(797)	(797)
Cash and cash equivalents	-	(9,825)	(9,825)	-	(9,183)	(9,183)
NET DEBT EXCLUDING THE IMPACT OF DERIVATIVE INSTRUMENTS, CASH COLLATERAL AND AMORTIZED COST	**23,682**	**1,062**	**24,744**	**27,500**	**8**	**27,508**

(1) This item corresponds to the revaluation of the interest rate component of debt in a qualified fair value hedging relationship.

(2) This item represents the interest rate component of the fair value of derivatives hedging borrowings in a designated fair value hedging relationship. It also represents the exchange rate and outstanding accrued interest rate components of the fair value of all debt-related derivatives irrespective of whether or not they are qualified as hedges.

15.3.2 Main events of the period

15.3.2.1 Impact of changes in the scope of consolidation and in exchange rates on net debt

In 2016, changes in exchange rates resulted in a €74 million decrease in net debt (including a €240 million decrease in relation to the pound sterling, a €76 million increase in relation to the US dollar and a €53 million increase in relation to the Brazilian real).

Changes in the scope of consolidation (including the cash impact of acquisitions and disposals) led to a €3,600 million decrease in net debt, reflecting:

- several acquisitions carried out over the period (mainly OpTerra Energy Services, Maïa Eolis and Green Charge Networks), which increased net debt by €392 million (*see Notes 4.3 and 4.4.1*);
- disposals of assets over the period, which reduced net debt by €3,992 million, including the disposal of a 50% interest in Transmisora Eléctrica del Norte (TEN), merchant hydropower generation assets in the United States, the Meenakshi and Paiton coal-fired power plants, a portfolio of Maïa Eolis' wind farm assets to Futures Energies Investissements Holding, and non-consolidated investments in Société d'Enregistrement du Tricastin Holding, Transportadora de Gas del Perú and the Walloon distribution network operator (*see Note 4.1 "Disposals carried out in 2016"*).

15.3.2.2 Financing and refinancing transactions

The Group carried out the following main transactions in 2016:

- the issuance by Glow Energy Public Co. Ltd. on May 18, 2016, of THB 3 billion (€75 million) worth of bonds with a 2.81% coupon maturing in 2026;
- two bond issues by ENGIE Brasil Energia on July 15, 2016:
  - BRL 247 million (€68 million) worth of bonds maturing in 2023 with a variable, inflation-indexed coupon,
  - BRL 353 million (€98 million) worth of bonds maturing in 2026 with a variable, inflation-indexed coupon;
- the redemption of the following bonds, which matured in 2016:
  - €1,043 million worth of ENGIE SA bonds with a coupon of 5.625% which matured on January 18, 2016,
  - €1 billion worth of ENGIE SA bonds with a coupon of 1.5% which matured on February 1, 2016;
- refinancing transactions:
  - on June 26, 2016, the Group secured bank refinancing of AUD 175 million (€117 million) for Pelican Point and Canunda,
  - on June 30, 2016, the Group settled Hazelwood Power Partnership's bank loan of AUD 368 million (€242 million) upon maturity through internal refinancing.

15.4 Fair value of financial assets by level in the fair value hierarchy

15.4.1 Financial assets

The table below shows the allocation of financial instruments carried in assets to the different levels in the fair value hierarchy:

In millions of euros	Dec. 31, 2016				Dec. 31, 2015			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Available-for-sale securities	2,997	1,977	-	1,020	3,016	1,593	-	1,423
Derivative instruments	12,650	68	12,560	22	14,883	67	14,753	63
Derivatives hedging borrowings	*1,138*	-	*1,138*	-	*1,413*	-	*1,413*	-
Derivatives hedging commodities - relating to portfolio management activities	*2,504*	*68*	*2,414*	*22*	*3,485*	*67*	*3,354*	*63*
Derivatives hedging commodities - relating to trading activities	*8,083*	-	*8,083*	-	*8,987*	-	*8,987*	-
Derivatives hedging other items	*925*	-	*925*	-	*998*	-	*998*	-
Financial assets at fair value through income (excluding margin calls)	816	1	816	-	797	1	796	-
Financial assets qualifying as at fair value through income	*816*	*1*	*816*	-	*779*	*1*	*779*	-
Financial assets designated as at fair value through income	-	-	-	-	*17*	-	*17*	-
TOTAL	**16,464**	**2,046**	**13,376**	**1,042**	**18,696**	**1,661**	**15,549**	**1,486**

A definition of these three levels is presented in Note 1.4.11.3 “Derivatives and hedge accounting”.

Available-for-sale securities

Listed securities – measured at their market price at the reporting date – are included in level 1.

Unlisted securities – measured using valuation models based primarily on recent market transactions, the present value of future dividends/cash flows or net asset value – are included in level 3.

At December 31, 2016, changes in level 3 available-for-sale securities can be analyzed as follows:

In millions of euros	Available-for-sale securities
At December 31, 2015	**1,423**
Acquisitions	158
Disposals - carrying amount excluding changes in fair value recorded in "Other comprehensive income"	(500)
Disposals - "Other comprehensive income" derecognized	(152)
Other changes in fair value recorded in equity	160
Changes in fair value recorded in income	(18)
Changes in scope of consolidation, foreign currency translation and other changes	(51)
At December 31, 2016	**1,020**
Gains/(losses) recorded in income relating to instruments held at the end of the period	**88**

A 10% gain or loss in the market price of unlisted shares would generate a gain or loss (before tax) of around €102 million on the Group’s comprehensive income.

Loans and receivables at amortized cost (excluding trade and other receivables)

Loans and receivables at amortized cost (excluding trade and other receivables) in a designated fair value hedging relationship are presented in level 2 in the above table. Only the interest rate component of these items is remeasured, with fair value determined by reference to observable data.

Derivative instruments

Derivative instruments included in level 1 are mainly futures traded on organized markets with clearing houses. They are measured at fair value based on their quoted price.

The measurement at fair value of derivative instruments included in level 3 is based on non-observable inputs and internal assumptions, usually because the maturity of the instruments exceeds the observable period of the underlying forward price, or because certain inputs such as the volatility of the underlying were not observable at the measurement date.

The measurement at fair value of other derivative instruments is based on commonly-used models in the trading environment, and includes directly or indirectly observable inputs. These instruments are included in level 2 of the fair value hierarchy.

Financial assets qualifying or designated as at fair value through income

Financial assets qualifying as at fair value through income for which the Group has regular net asset value data are included in level 1. If net asset values are not available on a regular basis, these instruments are included in level 2.

Financial assets designated as at fair value through income are included in level 2.

15.4.2 Financial liabilities

The table below shows the allocation of financial instruments carried in liabilities to the different levels in the fair value hierarchy:

	Dec. 31, 2016				Dec. 31, 2015			
In millions of euros	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Borrowings used in designated fair value	4,691	-	4,691	-	7,294	-	7,294	-
Borrowings not used in designated fair value hedges	34,652	20,144	14,508	-	33,626	18,803	14,823	-
Derivative instruments	12,638	121	12,483	34	12,858	139	12,667	52
Derivatives hedging borrowings	*318*	*-*	*318*	*-*	*377*	*-*	*377*	*-*
Derivatives hedging commodities - relating to portfolio management activities	*2,411*	*119*	*2,258*	*34*	*3,897*	*135*	*3,714*	*48*
Derivatives hedging commodities - relating to trading activities	*8,088*	*3*	*8,085*	*-*	*7,125*	*4*	*7,117*	*4*
Derivatives hedging other items	*1,821*	*-*	*1,821*	*-*	*1,459*	*-*	*1,459*	*-*
TOTAL	**51,982**	**20,266**	**31,682**	**34**	**53,778**	**18,942**	**34,785**	**52**

Borrowings used in designated fair value hedges

This caption includes bonds in a designated fair value hedging relationship which are presented in level 2 in the above table. Only the interest rate component of the bonds is remeasured, with fair value determined by reference to observable inputs.

Borrowings not used in designated fair value hedges

Listed bond issues are included in level 1.

Other borrowings not used in a designated hedging relationship are presented in level 2 in the above table. The fair value of these borrowings is determined on the basis of future discounted cash flows and relies on directly or indirectly observable data.

Derivative instruments

The classification of derivative instruments in the fair value hierarchy is detailed in Note 15.4.1 "Financial assets".

15.5 Offsetting of financial derivative instrument assets and liabilities

The net amount of financial derivative instruments after taking into account enforceable master netting arrangements or similar agreements, whether or not they are set off in accordance with paragraph 42 of IAS 32, are presented in the table below:

At December 31, 2016

In millions of euros		Gross amount	NET AMOUNT RECOGNIZED IN THE STATEMENT OF FINANCIAL POSITION(1)	Other offsetting agreements(2)	TOTAL NET AMOUNT
Assets	Derivatives hedging commodities	10,948	**10,587**	(7,981)	**2,607**
	Derivatives hedging borrowings and other items	2,063	**2,063**	(596)	**1,467**
Liabilities	Derivatives hedging commodities	(10,860)	**(10,499)**	9,867	**(632)**
	Derivatives hedging borrowings and other items	(2,139)	**(2,139)**	390	**(1,750)**

(1) Net amount recognized in the statement of financial position after taking into account offsetting agreements that meet the criteria set out in Section 42 of IAS 32.

(2) Other offsetting agreements include collateral and other guarantee instruments, as well as offsetting agreements that do not meet the criteria set out in Section 42 of IAS 32.

At December 31, 2015

In millions of euros		Gross amount	NET AMOUNT RECOGNIZED IN THE STATEMENT OF FINANCIAL POSITION(1)	Other offsetting agreements(2)	TOTAL NET AMOUNT
Assets	Derivatives hedging commodities	12,836	**12,472**	(8,939)	**3,533**
	Derivatives hedging borrowings and other items	2,411	**2,411**	(717)	**1,694**
Liabilities	Derivatives hedging commodities	(11,386)	**(11,022)**	10,268	**(754)**
	Derivatives hedging borrowings and other items	(1,837)	**(1,837)**	127	**(1,710)**

(1) Net amount recognized in the statement of financial position after taking into account offsetting agreements that meet the criteria set out in Section 42 of IAS 32.

(2) Other offsetting agreements include collateral and other guarantee instruments, as well as offsetting agreements that do not meet the criteria set out in Section 42 of IAS 32.

NOTE 16 RISKS ARISING FROM FINANCIAL INSTRUMENTS

The Group mainly uses derivative instruments to manage its exposure to market risks. Financial risk management procedures are set out in chapter 2 “Risk factors” of the Registration Document.

16.1 Market risks

16.1.1 Commodity risk

Commodity risk arises primarily from the following activities:

- portfolio management; and
- trading.

The Group has identified two types of commodity risks: price risk resulting from fluctuations in market prices, and volume risk inherent to the business.

In the ordinary course of its operations, the Group is exposed to commodity risks on natural gas, electricity, coal, oil and oil products, other fuels, CO_2 and other “green” products. The Group is active on these energy markets either for supply purposes or to optimize and secure its energy production chain and its energy sales. The Group also uses derivatives to offer hedging instruments to its clients and to hedge its own positions.

16.1.1.1 Portfolio management activities

Portfolio management seeks to optimize the market value of assets (power plants, gas and coal supply contracts, energy sales and gas storage and transmission) over various time frames (short-, medium- and long-term). Market value is optimized by:

- guaranteeing supply and ensuring the balance between needs and physical resources;
- managing market risks (price, volume) to unlock optimum value from portfolios within a specific risk framework.

The risk framework aims to safeguard the Group’s financial resources over the budget period and smooth out medium-term earnings (over three or five years, depending on the maturity of each market). It encourages portfolio managers to take out economic hedges on their portfolio.

Sensitivities of the commodity-related financial derivatives portfolio used as part of the portfolio management activities as at December 31, 2016 are detailed in the table below. They are not representative of future changes in consolidated earnings and equity, insofar as they do not include the sensitivities relating to the purchase and sale contracts for the underlying commodities.

Sensitivity Analysis(1)

		Dec. 31, 2016		Dec. 31, 2015	
In millions of euros	Changes in price	Pre-tax impact on income	Pre-tax impact on equity	Pre-tax impact on income	Pre-tax impact on equity
Oil-based products	+USD 10/bbl	475	(49)	329	96
Natural gas	+€3/MWh	(23)	(97)	(70)	(98)
Electricity	+€5/MWh	84	(39)	17	(9)
Coal	+USD 10/ton	67	3	97	1
Greenhouse gas emission rights	+€2/ton	64	-	96	-
EUR/USD	+10%	(89)	(7)	(206)	(9)
EUR/GBP	+10%	(42)	8	(7)	1

(1) The sensitivities shown above apply solely to financial commodity derivatives used for hedging purposes as part of the portfolio management activities.

16.1.1.2 Trading activities

The Group's trading activities are primarily conducted within ENGIE Global Markets and ENGIE Energy Management. The purpose of these wholly-owned companies is to (i) assist Group entities in optimizing their asset portfolios; (ii) create and implement energy price risk management solutions for internal and external customers.

Revenues from trading activities totaled €427 million at December 31, 2016 (€389 million at December 31, 2015).

The use of Value at Risk (VaR) to quantify market risk arising from trading activities provides a transversal measure of risk taking all markets and products into account. VaR represents the maximum potential loss on a portfolio of assets over a specified holding period based on a given confidence interval. It is not an indication of expected results but is back-tested on a regular basis.

The Group uses a one-day holding period and a 99% confidence interval to calculate VaR, as well as stress tests, in accordance with banking regulatory requirements.

The VaR shown below corresponds to the global VaR of the Group's trading entities.

Value at Risk

In millions of euros	Dec. 31, 2016	2016 average[(1)]	2016 maximum[(2)]	2016 minimum[(2)]	2015 average[(1)]
Trading activities	2	10	20	2	7

(1) Average daily VaR.

(2) Maximum and minimum daily VaR observed in 2016.

16.1.2 Hedges of commodity risks

The Group enters into cash flow hedges as defined by IAS 39, using derivative instruments (firm or option contracts) contracted over-the-counter or on organized markets. These instruments may be settled net or involve physical delivery of the underlying.

The fair values of commodity derivatives at December 31, 2016 and December 31, 2015 are indicated in the table below:

	Dec. 31, 2016				Dec. 31, 2015			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Derivative instruments relating to portfolio management activities	1,875	629	(1,461)	(949)	1,962	1,522	(2,528)	(1,369)
Cash flow hedges	*87*	*101*	*(231)*	*(283)*	*242*	*496*	*(217)*	*(326)*
Other derivative instruments	*1,788*	*528*	*(1,230)*	*(666)*	*1,720*	*1,026*	*(2,312)*	*(1,042)*
Derivative instruments relating to trading activities	-	8,083	-	(8,088)	-	8,987	-	(7,125)
TOTAL	**1,875**	**8,712**	**(1,461)**	**(9,038)**	**1,962**	**10,510**	**(2,528)**	**(8,493)**

See also Notes 15.1.3 "Other financial assets at fair value through income" and 15.2.2 "Derivative instruments".

The fair values shown in the table above reflect the amounts for which assets could be exchanged, or liabilities settled, at the end of the reporting period. They are not representative of expected future cash flows insofar as positions (i) are sensitive to changes in prices; (ii) can be modified by subsequent transactions; and (iii) can be offset by future cash flows arising on the underlying transactions.

16.1.2.1 Cash flow hedges

The fair values of cash flow hedges by type of commodity are as follows:

	Dec. 31, 2016				Dec. 31, 2015			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Natural gas	36	25	(106)	(81)	128	326	(40)	(105)
Electricity	5	9	(42)	(37)	26	17	(20)	(34)
Coal	5	4	-	-	-	-	(1)	(7)
Oil	1	2	(62)	(152)	9	29	(129)	(148)
Other(1)	40	61	(21)	(14)	79	124	(26)	(32)
TOTAL	**87**	**101**	**(231)**	**(283)**	**242**	**496**	**(217)**	**(326)**

(1) Includes mainly foreign currency hedges on commodities.

Notional amounts and maturities of cash flow hedges are as follows:

Notional amounts (net)(1)

	Unit	Total at Dec. 31, 2016	2017	2018	2019	2020	2021	Beyond 5 years
Natural gas	*GWh*	(37,356)	(18,323)	(20,369)	1,166	169	1	-
Electricity	*GWh*	(7,411)	(1,607)	(2,749)	(2,623)	(314)	(118)	-
Coal	*Thousands of tons*	562	417	144	-	-	-	-
Oil-based products	*Thousands of barrels*	2,688	4,544	(1,856)	-	-	-	-
Greenhouse gas emission rights	*Thousands of tons*	2,506	534	922	900	150	-	-

(1) Long/(short) position.

At December 31, 2016, a loss of €372 million was recognized in equity in respect of cash flow hedges, versus a gain of €148 million at December 31, 2015. A gain of €167 million was reclassified from equity to income in 2016, compared to a gain of €143 million reclassified in 2015.

Gains and losses arising from the ineffective portion of hedges are taken to income. The impact recognized in income was nil in 2016, compared to a gain of €1 million in 2015.

16.1.2.2 Other commodity derivatives

Other commodity derivatives include embedded derivatives, commodity purchase and sale contracts which were not entered into within the ordinary course of business at the statement of financial position date, as well as derivative financial instruments not eligible for hedge accounting in accordance with IAS 39.

16.1.3 Currency risk

The Group is exposed to currency risk, defined as the impact on its statement of financial position and income statement of fluctuations in exchange rates affecting its operating and financing activities. Currency risk comprises (i) transaction risk arising in the ordinary course of business, (ii) specific transaction risk related to investments, mergers-acquisitions or disposal projects, (iii) translation risk related to assets outside the Eurozone, and (iv) the risk arising on the consolidation in euros of subsidiaries' financial statements with a functional currency other than the euro. The three main translation and consolidation risk exposures correspond, in order, to assets in American dollars, Brazilian real and pound sterling.

16.1.3.1 Analysis of financial instruments by currency

The following tables present a breakdown by currency of outstanding gross debt and net debt, before and after hedging:

Outstanding gross debt

	Dec. 31, 2016		Dec. 31, 2015	
	Before hedging	After hedging	Before hedging	After hedging
EUR	65%	77%	65%	69%
USD	16%	10%	15%	14%
GBP	7%	2%	8%	5%
Other currencies	12%	11%	12%	12%
TOTAL	100%	100%	100%	100%

Net debt

	Dec. 31, 2016		Dec. 31, 2015	
	Before hedging	After hedging	Before hedging	After hedging
EUR	59%	77%	61%	67%
USD	21%	13%	18%	17%
GBP	10%	3%	10%	7%
Other currencies	10%	7%	11%	9%
TOTAL	100%	100%	100%	100%

16.1.3.2 Currency risk sensitivity analysis

Sensitivity was analyzed based on the Group's net debt position (including the impact of interest rate and foreign currency derivatives) and financial instruments qualified as net investment hedges at the reporting date.

For currency risk, sensitivity corresponds to a 10% rise or fall in exchange rates of foreign currencies against the euro compared to closing rates.

Impact on income after currency hedges

Changes in exchange rates against the euro only affect income via gains and losses on assets and liabilities denominated in a currency other than the functional currency of companies carrying the assets and liabilities on their statements of financial position, and when the assets and liabilities in question do not qualify as net investment hedges. The impact of a uniform appreciation (or depreciation) of 10% in foreign currencies against the euro would ultimately be a gain (or loss) of €25 million.

Impact on equity

For financial instruments (debt and derivatives) designated as net investment hedges, a depreciation of 10% in foreign currencies against the euro would have a positive impact of €508 million on equity. An appreciation of 10% in foreign currencies against the euro would have a negative impact of €508 million on equity. These impacts are countered by the offsetting change in the net investment hedged.

16.1.4 Interest rate risk

The Group seeks to manage its borrowing costs by limiting the impact of interest rate fluctuations on its income statement. It does this by ensuring a balanced interest rate structure in the medium-term (five years). The Group's aim is therefore to use a mix of fixed rates, floating rates and capped floating rates for its net debt. The interest rate mix may shift within a range defined by the Group Management in line with market trends.

In order to manage the interest rate structure for its net debt, the Group uses hedging instruments, particularly interest rate swaps and options. At December 31, 2016, the Group had a portfolio of interest rate options (caps) protecting it from a rise in short-term interest rates for the euro.

Between 2013 and 2014, the Group contracted 2017, 2018 and 2019 forward interest rate pre-hedges with 10, 20 and 18 year maturities in order to protect the refinancing interest rate on a portion of its debt.

16.1.4.1 Analysis of financial instruments by type of interest rate

The following tables present a breakdown by type of interest rate of outstanding gross debt and net debt before and after hedging.

Outstanding gross debt

	Dec. 31, 2016		Dec. 31, 2015	
	Before hedging	After hedging	Before hedging	After hedging
Floating rate	36%	41%	34%	38%
Fixed rate	64%	59%	66%	62%
TOTAL	100%	100%	100%	100%

Net debt

	Dec. 31, 2016		Dec. 31, 2015	
	Before hedging	After hedging	Before hedging	After hedging
Floating rate	11%	17%	12%	17%
Fixed rate	89%	83%	88%	83%
TOTAL	100%	100%	100%	100%

16.1.4.2 Interest rate risk sensitivity analysis

Sensitivity was analyzed based on the Group's net debt position (including the impact of interest rate and foreign currency derivatives relating to net debt) at the reporting date.

For interest rate risk, sensitivity corresponds to a 100-basis-point rise or fall in the yield curve compared with year-end interest rates.

Impact on income after hedging

A uniform rise of 100 basis points in short-term interest rates (across all currencies) on the nominal amount of floating-rate net debt and the floating-rate leg of derivatives, would increase net interest expense by €42 million. A fall of 100 basis points in short-term interest rates would reduce net interest expense by €41 million.

In the income statement, a uniform rise of 100 basis points in interest rates (across all currencies) on derivative instruments not qualifying for hedge accounting would result in a gain of €24 million attributable to changes in the fair value of derivatives. However, a fall of 100 basis points in interest rates would generate a loss of €29 million. The asymmetrical impacts are notably attributable to the interest rate options portfolio.

Impact on equity

A uniform rise of 100 basis points in interest rates (across all currencies) would generate a gain of €574 million on equity, attributable to changes in the fair value of derivative instruments designated as cash flow hedges. However, a fall of 100 basis points in interest rates would have a negative impact of €710 million.

16.1.4.3 Currency and interest rate hedges

The fair values of derivatives (excluding commodity instruments) at December 31, 2016 and December 31, 2015 are indicated in the table below:

	Dec. 31, 2016				Dec. 31, 2015			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Derivatives hedging borrowings	888	250	(251)	(67)	1,174	240	(278)	(100)
Fair value hedges	*683*	*-*	*(19)*	*-*	*575*	*115*	*(34)*	*-*
Cash flow hedges	*68*	*166*	*(90)*	*(1)*	*509*	*-*	*(33)*	*(1)*
Derivative instruments not qualifying for hedge accounting	*137*	*84*	*(142)*	*(66)*	*90*	*125*	*(211)*	*(99)*
Derivatives hedging other items	840	85	(1,698)	(123)	890	107	(1,410)	(49)
Fair value hedges	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*
Cash flow hedges	*13*	*6*	*(976)*	*(55)*	*56*	*72*	*(742)*	*(9)*
Net investment hedges	*37*	*-*	*(118)*	*-*	*22*	*-*	*(87)*	*-*
Derivative instruments not qualifying for hedge accounting	*791*	*79*	*(604)*	*(68)*	*813*	*35*	*(580)*	*(41)*
TOTAL	**1,728**	**335**	**(1,949)**	**(190)**	**2,064**	**347**	**(1,688)**	**(149)**

See also Notes 15.1.3 “Other financial assets at fair value through income” and 15.2.2 “Derivative instruments”.

The fair values shown in the table above reflect the amounts for which assets could be exchanged, or liabilities settled, at the end of the reporting period. They are not representative of expected future cash flows insofar as positions (i) are sensitive to changes in prices or to changes in credit ratings, (ii) can be modified by subsequent transactions, and (iii) can be offset by future cash flows arising on the underlying transactions.

The table below shows the fair values and notional amounts of financial instruments designated as currency or interest rate hedges:

Currency derivatives

	Dec. 31, 2016		Dec. 31, 2015	
In millions of euros	Fair value	Nominal amount	Fair value	Nominal amount
Fair value hedges	-	-	115	124
Cash flow hedges	(146)	4,513	370	4,628
Net investment hedges	(81)	6,281	(65)	4,919
Derivative instruments not qualifying for hedge accounting	(102)	9,796	(234)	10,659
TOTAL	**(329)**	**20,591**	**185**	**20,329**

Interest rate derivatives

	Dec. 31, 2016		Dec. 31, 2015	
In millions of euros	Fair value	Nominal amount	Fair value	Nominal amount
Fair value hedges	664	10,163	541	9,413
Cash flow hedges	(724)	3,520	(518)	4,532
Derivative instruments not qualifying for hedge accounting	313	20,567	366	21,408
TOTAL	**253**	**34,250**	**389**	**35,353**

The fair values shown in the table above are positive for an asset and negative for a liability.

The Group qualifies foreign currency derivatives hedging firm foreign currency commitments and interest rate swaps transforming fixed-rate debt into floating-rate debt as fair value hedges.

Cash flow hedges are mainly used to hedge future foreign currency cash flows, floating-rate debt as well as future refinancing requirements.

Net investment hedging instruments are mainly cross currency swaps.

Derivative instruments not qualifying for hedge accounting correspond to instruments that do not meet the definition of hedges from an accounting perspective, even though they are used as economic hedges of borrowings and foreign currency commitments.

Fair value hedges

At December 31, 2016, the net impact of fair value hedges recognized in the income statement represented a loss of €8 million.

Cash flow hedges

Foreign currency and interest rate derivatives designated as cash flow hedges can be analyzed as follows by maturity:

At December 31, 2016

In millions of euros	Total	2017	2018	2019	2020	2021	Beyond 5 years
Fair value of derivatives by maturity date	(870)	84	(80)	(84)	(84)	(65)	(641)

At December 31, 2016, a loss of €261 million was recognized in equity.

The amount reclassified from equity to income in the period represented a gain of €13 million.

The ineffective portion of cash flow hedges recognized in income was not significant at December 31, 2016.

At December 31, 2015

In millions of euros	Total	2016	2017	2018	2019	2020	Beyond 5 years
Fair value of derivatives by maturity date	(149)	36	98	(20)	(43)	(49)	(170)

Net investment hedges

The ineffective portion of net investment hedges recognized in income represented a gain of €3 million at December 31, 2016.

16.2 Counterparty risk

The Group is exposed to counterparty risk from customers, suppliers, partners, intermediaries and banks on its operating and financing activities, when such parties are unable to honor their contractual obligations. Counterparty risk results from a combination of payment risk (failure to pay for services or deliveries carried out), delivery risk (failure to deliver services or products paid for) and the risk of replacing contracts in default (known as mark-to-market exposure, i.e. the cost of replacing the contract in conditions other than those initially agreed).

16.2.1 Operating activities

Counterparty risk arising on operating activities is managed via standard mechanisms such as third-party guarantees, netting agreements and margin calls, using dedicated hedging instruments or special prepayment and debt recovery procedures, particularly for retail customers.

Under the Group's policy, each business unit is responsible for managing counterparty risk, although the Group continues to manage the biggest counterparty exposures.

The credit rating of large- and mid-sized counterparties with which the Group has exposures above a certain threshold is measured based on a specific rating process, while a simplified credit scoring process is used for commercial customers with which the Group has fairly low exposures. These processes are based on formally documented, consistent methods across the Group. Consolidated exposures are monitored by counterparty and by segment (credit rating, sector, etc.) using standard indicators (payment risk, mark-to-market exposure).

The Group's Energy Market Risk Committee consolidates and monitors the Group's exposure to its main energy counterparties on a quarterly basis and ensures that the exposure limits set for these counterparties are respected.

Trade and other receivables

Past-due trade and other receivables are analyzed below:

	Past due assets not impaired at the reporting date				Impaired assets	Assets neither impaired nor past due	
In millions of euros	0-6 months	6-12 months	Beyond 1 year	Total	Total	Total	Total
At December 31, 2016	920	196	268	1,384	1,279	19,234	21,897
At December 31, 2015	877	225	315	1,418	1,218	17,776	20,412

The age of receivables that are past due but not impaired may vary significantly depending on the type of customer with which the Group does business (private corporations, individuals or public authorities). The Group decides whether or not to recognize impairment on a case-by-case basis according to the characteristics of the customer categories concerned. The Group does not consider that it is exposed to any material concentration of credit risk.

Commodity derivatives

In the case of commodity derivatives, counterparty risk arises from positive fair value. Counterparty risk is taken into account when calculating the fair value of these derivative instruments.

	Dec. 31, 2016		Dec. 31, 2015	
In millions of euros	Investment Grade(3)	Total	Investment Grade(3)	Total
Gross exposure(1)	9,626	10,588	11,191	12,472
Net exposure(2)	2,347	2,571	3,216	3,548
% of credit exposure to "Investment Grade" counterparties	91.3%		90.6%	

(1) Corresponds to the maximum exposure, i.e. the value of the derivatives shown under assets (positive fair value).

(2) After taking into account the liability positions with the same counterparties (negative fair value), collateral, netting agreements and other credit enhancement techniques.

(3) Investment Grade corresponds to transactions with counterparties that are rated at least BBB- by Standard & Poor's, Baa3 by Moody's, or equivalent by Dun & Bradstreet. "Investment Grade" is also determined based on an internal rating tool that is rolled out within the Group, and covers its main counterparties.

16.2.2 Financing activities

For its financing activities, the Group has put in place procedures for managing and monitoring risk based on (i) the accreditation of counterparties according to external credit ratings, objective market data (credit default swaps, market capitalization) and financial structure, and (ii) counterparty risk exposure limits.

To reduce its counterparty risk exposure, the Group drew increasingly on a structured legal framework based on master agreements (including netting clauses) and collateralization contracts (margin calls).

The oversight procedure for managing counterparty risk arising from financing activities is managed by a middle office that operates independently of the Group's Treasury department and reports to the Finance division.

16.2.2.1 Counterparty risk arising from loans and receivables at amortized cost (excluding trade and other receivables)

Loans and receivables at amortized cost (excluding trade and other receivables)

The balance of outstanding past due loans and receivables at amortized cost (excluding trade and other receivables) is analyzed below:

	Past due assets not impaired at the reporting date				Impaired assets	Assets neither impaired nor past due	
In millions of euros	0-6 months	6-12 months	Beyond 1 year	Total	Total	Total	Total
At December 31, 2016	-	-	2	2	238	2,832	3,071
At December 31, 2015	-	-	24	24	397	2,921	3,343

The balance of outstanding loans and receivables carried at amortized cost (excluding trade and other receivables) presented in the above table does not include the impact of impairment losses or changes in fair value and the application of amortized cost, which totaled a negative €227 million, at December 31, 2016 (compared to a negative €235 million at December 31, 2015). Changes in these items are presented in Note 15.1.2 "Loans and receivables at amortized cost".

16.2.2.2 Counterparty risk arising from investing activities and the use of derivative financial instruments

The Group is exposed to counterparty risk arising from investments of surplus cash and from the use of derivative financial instruments. In the case of financial instruments at fair value through income, counterparty risk arises on instruments with a positive fair value. Counterparty risk is taken into account when calculating the fair value of these derivative instruments.

At December 31, 2016, total outstandings exposed to credit risk amounted to €10,664 million.

	Dec. 31, 2016				Dec. 31, 2015			
In millions of euros	Total	Investment Grade(1)	Unrated(2)	Non Investment Grade(2)	Total	Investment Grade(1)	Unrated(2)	Non Investment Grade(2)
Exposure	10,664	89.0%	4.0%	7.0%	10,167	90.0%	3.0%	7.0%

(1) Counterparties that are rated at least BBB- by Standard & Poor's and Baa3 by Moody's.

(2) Most of these two exposures is carried by consolidated companies that include non-controlling interests, or by Group companies that operate in emerging countries, where cash cannot be pooled and is therefore invested locally.

At December 31, 2016, Crédit Agricole Corporate and Investment Bank is the main Group counterparty and represents 24% of cash surpluses. This relates mainly to a depositary risk.

16.3 Liquidity risk

In the context of its operating activities, the Group is exposed to a risk of having insufficient liquidity to meet its contractual obligations. As well as the risks inherent in managing working capital, margin calls are required in certain market activities.

The Group has set up a quarterly committee tasked with managing and monitoring liquidity risk throughout the Group, by maintaining a broad range of investments and sources of financing, preparing forecasts of cash investments and divestments, and performing stress tests on the margin calls put in place when commodity, interest rate and currency derivatives are negotiated.

The Group centralizes virtually all financing needs and cash flow surpluses of the companies it controls, as well as most of their medium- and long-term external financing requirements. Centralization is provided by financing vehicles (long-term and short-term) and by dedicated Group cash pooling vehicles based in France, Belgium and in Luxembourg.

Surpluses held by these structures are managed in accordance with a uniform policy. Unpooled cash surpluses are invested in instruments selected on a case-by-case basis in light of local financial market imperatives and the financial strength of the counterparties concerned.

The onslaught of successive financial crises since 2008 and the ensuing rise in counterparty risk prompted the Group to tighten its investment policy with the aim of keeping an extremely high level of liquidity and protecting invested capital (95% of cash pooled at December 31, 2016 was invested in overnight bank deposits and standard money market funds with daily liquidity). Performance and counterparty risks are monitored on a daily basis for both investment types, allowing the Group to take immediate action where required in response to market developments.

The Group's financing policy is based on:

- centralizing external financing;
- diversifying sources of financing between credit institutions and capital markets;
- achieving a balanced debt repayment profile.

The Group seeks to diversify its sources of financing by carrying out public or private bond issues within the scope of its Euro Medium Term Notes program. It also issues negotiable commercial paper in France and in the United States.

At December 31, 2016, bank loans accounted for 19% of gross debt (excluding overdrafts and the impact of derivatives and amortized cost), while the remaining debt was raised on capital markets (including €21,977 million in bonds, or 63% of gross debt).

Outstanding negotiable commercial paper issues represented 18% of gross debt, or €6,330 million at December 31, 2016. As negotiable commercial paper is relatively inexpensive and highly liquid, it is used by the Group in a cyclical or structural fashion to finance its short-term cash requirements. However, all outstanding negotiable commercial paper is backed by confirmed bank lines of credit so that the Group could continue to finance its activities if access to this financing source were to dry up.

Available cash, comprising cash and cash equivalents and financial assets measured at fair value through income (excluding margin calls), totaled €10,642 million at December 31, 2016, of which 79% was invested in the Eurozone.

The Group also has access to confirmed credit lines. These facilities are appropriate for the scale of its operations and for the timing of contractual debt repayments. Confirmed credit facilities had been granted for a total of €13,602 million at December 31, 2016, of which €13,559 million was available. 93% of available credit facilities are centralized. None of these centralized facilities contains a default clause linked to covenants or minimum credit ratings.

At December 31, 2016, all the entities of the Group whose debt is consolidated comply with the covenants and declarations included in their financial documentation.

16.3.1 Undiscounted contractual payments relating to financial activities

At December 31, 2016, undiscounted contractual payments on net debt (excluding the impact of derivatives, margin calls and amortized cost) break down as follows by maturity:

At December 31, 2016

In millions of euros	Total	2017	2018	2019	2020	2021	Beyond 5 years
Bond issues	21,977	3,360	1,696	924	2,492	2,169	11,336
Bank borrowings	5,478	977	723	459	805	283	2,230
Negotiable commercial paper	6,330	6,330	-	-	-	-	-
Drawdowns on credit facilities	43	30	2	2	4	-	3
Liabilities under finance leases	670	150	167	154	91	80	28
Other borrowings	339	249	13	35	10	10	22
Bank overdrafts and current accounts	608	608	-	-	-	-	-
OUTSTANDING BORROWINGS AND DEBT	**35,444**	**11,705**	**2,602**	**1,574**	**3,402**	**2,543**	**13,619**
Assets related to financing	(58)	(1)	(1)	(1)	(3)	(4)	(48)
Financial assets at fair value through income (excluding margin calls)	(816)	(816)	-	-	-	-	-
Cash and cash equivalents	(9,825)	(9,825)	-	-	-	-	-
NET DEBT EXCLUDING THE IMPACT OF DERIVATIVE INSTRUMENTS, MARGIN CALLS AND AMORTIZED COST	**24,744**	**1,062**	**2,601**	**1,573**	**3,399**	**2,539**	**13,571**

At December 31, 2015

In millions of euros	Total	2016	2017	2018	2019	2020	Beyond 5 years
OUTSTANDING BORROWINGS AND DEBT	**37,525**	**9,988**	**4,649**	**2,407**	**1,328**	**3,249**	**15,904**
Assets related to financing, financial assets at fair value through income (excluding margin calls) and cash and cash equivalents	(10,017)	(9,983)	-	-	-	(1)	(33)
NET DEBT EXCLUDING THE IMPACT OF DERIVATIVE INSTRUMENTS, MARGIN CALLS AND AMORTIZED COST	**27,508**	**5**	**4,649**	**2,407**	**1,328**	**3,248**	**15,872**

At December 31, 2016, undiscounted contractual interest payments on outstanding borrowings and debt break down as follows by maturity:

At December 31, 2016

In millions of euros	Total	2017	2018	2019	2020	2021	Beyond 5 years
Undiscounted contractual interest flows on outstanding borrowings and debt	9,688	982	846	773	694	599	5,793

At December 31, 2015

In millions of euros	Total	2016	2017	2018	2019	2020	Beyond 5 years
Undiscounted contractual interest flows on outstanding borrowings and debt	10,874	1,044	935	824	756	681	6,634

At December 31, 2016, undiscounted contractual payments on outstanding derivatives (excluding commodity instruments) recognized in assets and liabilities break down as follows by maturity (net amounts):

At December 31, 2016

In millions of euros	Total	2017	2018	2019	2020	2021	Beyond 5 years
Derivatives (excluding commodity instruments)	(843)	(223)	16	(32)	(83)	(85)	(436)

At December 31, 2015

In millions of euros	Total	2016	2017	2018	2019	2020	Beyond 5 years
Derivatives (excluding commodity instruments)	(1,645)	(416)	(191)	(18)	(38)	(78)	(904)

To better reflect the economic substance of these transactions, the cash flows linked to the derivatives recognized in assets and liabilities shown in the table above relate to net positions.

The maturities of the Group's undrawn credit facility programs are analyzed in the table below:

At December 31, 2016

In millions of euros	Total	2017	2018	2019	2020	2021	Beyond 5 years
Confirmed undrawn credit facility programs	13,559	1,517	483	538	376	10,525	120

Of these undrawn programs, an amount of €6,330 million is allocated to covering commercial paper issues.

At December 31, 2016, no single counterparty represented more than 6% of the Group's confirmed undrawn credit lines.

At December 31, 2015

In millions of euros	Total	2016	2017	2018	2019	2020	Beyond 5 years
Confirmed undrawn credit facility programs	13,998	972	1,317	429	205	10,972	102

16.3.2 Undiscounted contractual payments relating to operating activities

The table below provides an analysis of undiscounted fair values due and receivable in respect of commodity derivatives recorded in assets and liabilities at the statement of financial position date.

Liquidity risk

The Group provides an analysis of residual contractual maturities for commodity derivative instruments included in its portfolio management activities. Derivative instruments relating to trading activities are considered to be liquid in less than one year, and are presented under current items in the statement of financial position.

At December 31, 2016

In millions of euros	Total	2017	2018	2019	2020	2021	Beyond 5 years
Derivative instruments carried in liabilities							
relating to portfolio management activities	*(2,404)*	*(935)*	*(731)*	*(513)*	*(170)*	*(36)*	*(19)*
relating to trading activities	*(8,085)*	*(8,085)*	-	-	-	-	-
Derivative instruments carried in assets							
relating to portfolio management activities	*2,514*	*606*	*1,082*	*501*	*211*	*71*	*42*
relating to trading activities	*8,081*	*8,081*	-	-	-	-	-
TOTAL AT DECEMBER 31, 2016	**106**	**(332)**	**352**	**(12)**	**42**	**34**	**22**

At December 31, 2015

In millions of euros	Total	2016	2017	2018	2019	2020	Beyond 5 years
Derivative instruments carried in liabilities							
relating to portfolio management activities	*(3,923)*	*(1,381)*	*(1,524)*	*(722)*	*(206)*	*(67)*	*(24)*
relating to trading activities	*(7,125)*	*(7,125)*	-	-	-	-	-
Derivative instruments carried in assets							
relating to portfolio management activities	*3,491*	*1,527*	*1,493*	*376*	*60*	*16*	*19*
relating to trading activities	*8,988*	*8,988*	-	-	-	-	-
TOTAL AT DECEMBER 31, 2015	**1,431**	**2,010**	**(31)**	**(345)**	**(146)**	**(51)**	**(5)**

16.3.3 Commitments relating to commodity purchase and sale contracts entered into within the ordinary course of business

Some Group operating companies have entered into long-term contracts, some of which include “take-or-pay” clauses. These consist of firm commitments to purchase (sell) specified quantities of gas, electricity and steam and related services, in exchange for a firm commitment from the other party to deliver (purchase) said quantities and services. These contracts were documented as falling outside the scope of IAS 39. The table below shows the main future commitments arising from contracts entered into by the GEM & GNL, Latin America and North America reportable segments (expressed in TWh):

In TWh	Total at Dec. 31, 2016	2017	2018-2021	Beyond 5 years	Total at Dec. 31, 2015
Firm purchases	(6,214)	(746)	(2,496)	(2,972)	(6,950)
Firm sales	2,051	400	669	982	1,784

16.4 Equity risk

At December 31, 2016, available-for-sale securities held by the Group amounted to €2,997 million *(see Note 15.1.1 “Available-for-sale securities”)*.

A fall of 10% in the market price of listed shares would have a negative impact (before tax) of around €198 million on the Group’s comprehensive income.

The Group’s main unlisted security corresponds to its 9% interest in the Nordstream pipeline, which is measured by reference to the Discounted Dividend Method (DDM).

The Group’s portfolio of listed and unlisted securities is managed within the context of a specific investment procedure and its performance is reported on a regular basis to Executive Management.

NOTE 17 EQUITY

17.1 Share capital

	Number of shares			Value (in millions of euros)		
	Total	Treasury stock	Outstanding	Share capital	Additional paid-in capital	Treasury stock
AT DECEMBER 31, 2014	**2,435,285,011**	**(44,829,797)**	**,2,390,455,214**	**2,435**	**32,506**	**(957)**
Purchase/disposal of treasury stock	-	5,422,256	5,422,256	-	-	135
AT DECEMBER 31, 2015	**2,435,285,011**	**(39,407,541)**	**2,395,877,470**	**2,435**	**32,506**	**(822)**
Purchase/disposal of treasury stock	-	1,884,703	1,884,703	-	-	61
AT DECEMBER 31, 2016	**2,435,285,011**	**(37,522,838)**	**2,397,762,173**	**2,435**	**32,506**	**(761)**

Changes in the number of shares during 2016 reflect the delivery of treasury stock for 2 million shares as part of bonus share plans (against 5 million shares in 2015).

17.1.1 Potential share capital and instruments providing a right to subscribe for new ENGIE SA shares

At December 31, 2016 only one stock subscription option plan remains in force as described in Note 23.1 "Stock option plans".

Shares to be allocated under bonus share plans, performance share award plans as well as the stock purchase option plans, described in Note 23 "Share-based payments", will be covered by existing ENGIE SA shares.

17.1.2 Treasury stock

The Group has a stock repurchase program as a result of the authorization granted to the Board of Directors by the Ordinary and Extraordinary Shareholders' Meeting of May 3, 2016. This program provides for the repurchase of up to 10% of the shares comprising the share capital of ENGIE SA at the date of said Shareholders' Meeting. The aggregate amount of acquisitions net of expenses under the program may not exceed the sum of €9.7 billion, and the purchase price must be less than €40 per share excluding acquisition costs.

At December 31, 2016, the Group held 37.5 million treasury shares, allocated in full to cover the Group's share commitments to employees and corporate officers.

The liquidity agreement signed with an investment service provider assigns to the latter the role of operating on the market on a daily basis, to buy or sell ENGIE SA shares, in order to ensure liquidity and an active market for the shares on the Paris and Brussels stock exchanges. The resources allocated to the implementation of this agreement amounted to €150.0 million.

17.2 Other disclosures concerning additional paid-in capital, consolidated reserves and issuance of deeply-subordinated perpetual notes (Group share)

Total additional paid-in capital, consolidated reserves and issuance of deeply-subordinated perpetual notes (including net income for the fiscal year), amounted to €37,746 million at December 31, 2016, including €32,506 million of additional paid-in capital.

Consolidated reserves include the cumulated income of the Group, the legal and statutory reserves of the company ENGIE SA and the cumulative actuarial differences, net of tax.

Under French law, 5% of the net income of French companies must be allocated to the legal reserve until the latter reaches 10% of share capital. This reserve can only be distributed to shareholders in the event of liquidation. The ENGIE SA legal reserve amounts to €244 million.

The cumulative actuarial differences Group share represent losses of €3,235 million at December 31, 2016 (losses of €2,538 million at December 31, 2015); deferred taxes on these actuarial differences amount to €846 million at December 31, 2016 (€778 million at December 31, 2015).

17.2.1 Issuance of deeply-subordinated perpetual notes

ENGIE SA carried out two issues of deeply-subordinated perpetual notes, the first on July 3, 2013 and the second on May 22, 2014. These transactions were divided into several tranches, offering an average coupon of 3.4% (2014) and 4.4% (2013).

In accordance with the provisions of IAS 32 – *Financial Instruments – Presentation,* and given their characteristics, these instruments were accounted for in equity in the Group's consolidated financial statements for a total amount of €1,907 million in 2014 and €1,657 million in 2013.

The coupons ascribed to the owners of these notes, for which €146 million was paid in 2016, are accounted for as a deduction from equity in the Group’s consolidated financial statements; the relating tax saving is accounted for in the income statement.

17.2.2 Distributable capacity of ENGIE SA

ENGIE SA's distributable capacity totaled €34,741 million at December 31, 2016 (compared with €36,690 million at December 31, 2015), including €32,506 million of additional paid-in capital.

17.2.3 Dividend

The table below shows the dividends and interim dividends paid by ENGIE SA in respect of 2015 and 2016.

	Amount distributed *(in millions of euros)*	**Net dividend per share** *(in euros)*
In respect of 2015		
Interim dividend (paid on October 15, 2015)	1,196	0.50
Remaining dividend (paid on May 5, 2016)	1,198	0.50
In respect of 2016		-
Interim dividend (paid on October 14, 2016)	1,198	0.50

The additional 3% contribution, introduced by France’s 2012 Finance Law and payable in respect of the dividend and interim dividend distributed in May and October 2016, amounts to €74 million (€72 million for the payments carried out in 2015) and is accounted for in the income statement.

The Shareholders’ Meeting of May 3, 2016 approved the distribution of a total dividend of €1 per share in respect of 2015. As an interim dividend of €0.50 per share was paid on October 15, 2015, for an amount of €1,196 million, ENGIE SA settled the remaining dividend balance of €0.50 per share in cash on May 5, 2016, for an amount of €1,198 million. In addition, the Board of Directors' Meeting of July 28, 2016 approved the payment of an interim dividend of €0.50 per share payable on October 14, 2016 for a total amount of €1,198 million.

Proposed dividend in respect of 2016

Shareholders at the Shareholders' Meeting convened to approve the ENGIE Group financial statements for the year ended December 31, 2016, will be asked to approve a dividend of €1 per share, representing a total payout of €2,397 million based on the number of shares outstanding at December 31, 2016. This dividend will be increased by 10% for all shares held for at least two continuous years on December 31, 2016 and up to the 2016 dividend payment date. Based on the number of outstanding shares on December 31, 2016, this increase is valued at €16 million. An interim dividend of €0.50 per share was paid on October 14, 2016, representing a total amount of €1,198 million.

Subject to approval by the Shareholders' Meeting, this dividend, net of the interim dividend paid, will be detached on May 16, 2017 and paid on May 18, 2017. It is not recognized as a liability in the financial statements at December 31, 2016, since the financial statements at the end of 2016 are presented before the appropriation of earnings.

17.3 Total gains and losses recognized in equity (Group share)

All the items shown in the table below correspond to cumulative gains and losses (Group share) at December 31, 2016 and December 31, 2015, which are recyclable to income in subsequent periods.

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Available-for-sale securities	587	443
Net investment hedges	(647)	(561)
Cash flow hedges (excl. commodity instruments)	(900)	(641)
Commodity cash flow hedges	(208)	193
Deferred taxes on the items above	432	146
Share of entities accounted for using the equity method in recyclable items, net of tax	(401)	(509)
Translation adjustments	1,296	990
TOTAL RECYCLABLE ITEMS	**159**	**62**

17.4 Capital management

ENGIE SA looks to optimize its financial structure at all times by pursuing an optimal balance between its net debt and its EBITDA. The Group's key objective in managing its financial structure is to maximize value for shareholders, reduce the cost of capital, while at the same time ensuring that the Group has the financial flexibility required to continue its expansion. The Group manages its financial structure and makes any necessary adjustments in light of prevailing economic conditions. In this context, it may choose to adjust the amount of dividends paid to shareholders, reimburse a portion of capital, carry out share buybacks *(see Note 17.1.2 "Treasury stock")*, issue new shares, launch share-based payment plans, recalibrate its investment budget, or sell assets in order to scale back its net debt.

The Group's policy is to maintain an "A" rating by the rating agencies. To achieve this, it manages its financial structure in line with the indicators usually monitored by these agencies, namely the Group's operating profile, financial policy and a series of financial ratios. One of the most commonly used ratios is the ratio where the numerator includes operating cash flows less net financial expense and taxes paid, and the denominator includes adjusted net financial debt. Net debt is mainly adjusted for nuclear provisions, provisions for unfunded pension plans and operating lease commitments.

The Group's objectives, policies and processes for managing capital have remained unchanged over the past few years.

ENGIE SA is not obliged to comply with any minimum capital requirements except those provided for by law.

NOTE 18 PROVISIONS

In millions of euros	Dec. 31, 2015	Additions	Reversals (utilizations)	Reversals (surplus provisions)	Changes in scope of consolidation	Impact of unwinding discount adjustments	Translation adjustments	Other	Dec. 31, 2016
Post-employment and other long-term benefits	5,785	237	(368)	-	2	141	11	615	6,422
Back-end of the nuclear fuel cycle(1)	4,744	698	(39)	-	-	227	-	-	5,630
Dismantling of plant and equipment(2, 3)	4,476	267	(6)	-	(2)	215	12	710	5,671
Site rehabilitation	1,474	9	(35)	(58)	1	25	(8)	79	1,487
Litigations, claims, and tax risks	663	582	(157)	(44)	(113)	9	14	180	1,133
Other contingencies	1,694	788	(495)	(11)	109	6	(9)	(217)	1,865
TOTAL PROVISIONS	**18,836**	**2,580**	**(1,100)**	**(114)**	**(4)**	**623**	**20**	**1,367**	**22,208**

(1) *Additions of €698 million, of which a €584 million increase relating to the triennial revision of nuclear provisions in Belgium.*

(2) *Provisions for a total amount of €5,671 million at December 31, 2016, of which €4,997 million in provisions for dismantling nuclear facilities, versus €3,629 million at December 31, 2015.*

(3) *"Other" column of €710 million, of which a €981 million increase relating to the triennial revision of nuclear provisions in Belgium.*

The impact of unwinding discount adjustments in respect of post-employment and other long-term benefits relates to the interest expense on the benefit obligation, net of the interest income on plan assets.

The "Other" column mainly comprises actuarial gains and losses arising on post-employment benefit obligations in 2016 which are recorded in "Other comprehensive income" as well as provisions recorded against a dismantling or site rehabilitation asset.

Additions, reversals and the impact of unwinding discounting adjustments are presented as follows in the consolidated income statement:

In millions of euros	Dec. 31, 2016
Income/(loss) from operating activities	(1,352)
Other financial income and expenses	(623)
Income taxes	(14)
TOTAL	**(1,989)**

The different types of provisions and the calculation principles applied are described below.

18.1 Post-employment benefits and other long-term benefits

See Note 19 "Post-employment benefits and other long-term benefits".

18.2 Nuclear power generation activities

In the context of its nuclear power generation activities, the Group assumes obligations relating to the back-end of the nuclear fuel cycle and the dismantling of nuclear facilities.

18.2.1 Legal framework

The Belgian law of April 11, 2003 granted Group subsidiary Synatom responsibility for managing provisions set aside to cover the costs of dismantling nuclear power plants and managing radioactive fissile material from such plants. The tasks of the Commission for Nuclear Provisions set up pursuant to the above-mentioned law is to oversee the process of computing and managing these provisions. The Commission also issues opinions on the maximum percentage of funds that Synatom can lend to operators of nuclear plants and on the types of assets in which Synatom may invest its outstanding funds.

To enable the Commission for Nuclear Provisions to carry out its work in accordance with the above-mentioned law, Synatom is required to submit a report every three years describing the core inputs used to measure these provisions.

If any changes are observed from one triennial report to another that could materially impact the financial inputs used, i.e. the industrial scenario, estimated costs and timing, the Commission may revise its opinion.

Synatom submitted its triennial report to the Commission for Nuclear Provisions on September 12, 2016. The Commission issued its opinion on December 12, 2016 based on the opinion given by ONDRAF, the Belgian agency for radioactive waste and enriched fissile materials.

This comprehensive report covers:

- the industrial management scenarios prepared ahead of the shutdown and dismantling of nuclear power plants, as well as for the management of radioactive fissile material from such plants;
- a comprehensive estimate of the related costs and a timetable of planned expenditures;
- the calculation method used to establish provisions;
- an analysis of the discount rate to be used, determined in accordance with established financial analysis techniques.

Provisions at December 31, 2016 were calculated using industrial scenarios and calculation methods that have been reviewed and approved by the Commission.

The report presented and approved by the Commission resulted in:

- an increase of €584 million in the provision for the back-end of the nuclear fuel cycle, for which the main matching entry is recorded under other non-recurring items in "Income/(loss) from operating activities";
- an increase of €1,123 million in the provision for dismantling facilities, for which the matching entry is recorded as a production unit dismantling component carried in assets in an amount of €981 million, to be depreciated over the remaining useful life of the facilities concerned.

The Group lowered its discount rate to 3.5% from 4.8% previously further to the revised past and prospective analyses of the benchmark long-term rates, while the underlying inflation assumption remained the same, at 2.0%. The increase in provisions as presented above includes the estimated impact of the decrease in the discount rate, which added €1,043 million to the provision for the back-end of the nuclear fuel cycle and €731 million to the provision for the dismantling of nuclear facilities. The discount rate represents one of the assumptions which, when combined with other mutually dependent inputs, aim to factor in the contingencies and other risks inherent to the industrial processes of dismantling nuclear facilities and managing radioactive spent fuel.

On the whole, the industrial strategies presented in the 2016 report have not changed compared to those used previously.

For the back-end of the nuclear fuel cycle, the cost assessment for on-site storage, reprocessing and conditioning was revised based on the most recent cost estimates and studies available. The assessment also took into account the 10-year extension of the operating life of the Doel 1 and 2 reactors, which was authorized in 2015 and confirmed in December 2016 with the adoption of the law governing the nuclear contributions of second-generation reactors.

The estimated cost of dismantling the reactors was revised in 2016 to take into account changes in ONDRAF's waste disposal tariffs, the update of physical and radiological inventory databases, the 10-year extension of the operating life of the Doel 1 and 2 reactors and its impact on the timing of dismantling operations for the nuclear plant as a whole.

The provisions recognized by the Group were measured taking into account the prevailing contractual and legal framework, which sets the operating life of the Tihange 1 reactor and the Doel 1 and 2 reactors at 50 years, and the other reactors at 40 years.

The provisions set aside take into account all existing or planned environmental regulatory requirements on a European, national and regional level. If new legislation were to be introduced in the future, the cost estimates used as a basis for the calculations could vary. However, the Group is not aware of any planned legislation on this matter which could materially impact the amount of the provisions.

The estimated provision amounts include margins for contingencies and other risks that may arise in connection with dismantling and radioactive spent fuel management procedures. These margins are estimated by the Group for each cost category. The contingency margins relating to the disposal of waste are determined by ONDRAF and built into its tariffs.

The Group considers that the provisions approved by the Commission take into account all currently available information to manage the contingencies and other risks associated with the processes of dismantling nuclear facilities and managing radioactive spent fuel.

18.2.2 Provisions for nuclear fuel processing and storage

When spent nuclear fuel is removed from a reactor, it remains radioactive and requires processing. There are two different procedures for managing radioactive spent fuel: reprocessing or conditioning without reprocessing. The Belgian government has not yet decided which scenario will be made compulsory in Belgium.

The Commission for Nuclear Provisions has adopted a “mixed” scenario in which around one-quarter of total fuel is reprocessed, and the rest disposed of directly without reprocessing.

The provisions booked by the Group for nuclear fuel processing and storage cover all of the costs linked to this “mixed” scenario, including on-site storage, transportation, reprocessing by an accredited facility, conditioning, storage and removal. They are calculated based on the following principles and inputs:

- storage costs primarily comprise the costs of building and operating additional dry storage facilities, along with the costs of purchasing containers;
- part of the spent fuel is transferred for reprocessing. The resulting plutonium and uranium is sold to a third party;
- spent fuel that has not been reprocessed is to be conditioned, which requires conditioning facilities to be built according to ONDRAF’s approved criteria;
- the reprocessing residues and conditioned spent fuel are transferred to ONDRAF;
- the cost of burying fuel in deep geological repositories is estimated by ONDRAF;
- the long-term obligation is calculated using estimated internal costs and external costs assessed based on offers received from third parties or fee proposals from independent organizations;
- the discount rate used is 3.5% and was calculated based on an inflation rate of 2.0% (actual rate of 1.5%);
- allocations to the provision are computed based on the average unit cost of the quantities used up to the end of the operating life of the plant;
- an annual allocation is also recognized with respect to unwinding the discount on the provision.

The costs effectively incurred in the future may differ from the estimates in terms of their nature and timing of payment. The provisions may be subsequently adjusted in line with changes in the above-mentioned inputs and related cost estimates. However, these components are based on information and estimates which the Group deems reasonable to date and which have been approved by the Commission for Nuclear Provisions.

Belgium’s current legal framework does not prescribe methods for managing nuclear waste. The reprocessing of spent fuel was suspended following a resolution adopted by the House of Representatives in 1993. The scenario adopted is based on the assumption that the Belgian government will allow Synatom to reprocess uranium and that an agreement will be reached between Belgium and France designating Areva as responsible for these reprocessing operations. The Commission's 2016 opinion recommends that the necessary steps be officially initiated in the short term to ensure that this partial reprocessing scenario is implemented.

A scenario assuming the direct disposal of waste without reprocessing would lead to a decrease in the provision compared to the provision resulting from the “mixed” scenario currently used and approved by the Commission for Nuclear Provisions.

The Belgian government has not yet taken a decision as to whether the waste should be buried in a deep geological repository or stored over the long term. In accordance with the European Directive, in 2015 the government drew up its national program for the management of spent fuel and radioactive waste. The program remains subject to approval by a ministerial order. The scenario adopted by the Commission for Nuclear Provisions is based on the assumption that the waste will be buried in a deep geological repository at the Boom clay facility, as recommended in ONDRAF's waste management program. To date, there is no accredited site in Belgium where the waste may be buried. The Commission's 2016 opinion requires rapidly coming up with a scenario that provides for the creation of a storage facility concept that the authorities are likely to deem as fit for authorization.

The Group does not expect that demonstrating the feasibility of these facilities will challenge the industrial scenario that is being adopted since it has been reviewed and validated by both national and international experts who, to date, have not raised any objections as to the technical implementation of the proposed solution of burying waste in a deep geological repository.

18.2.3 Provisions for dismantling nuclear facilities

Nuclear power plants have to be dismantled at the end of their operating life. Provisions are set aside in the Group's accounts to cover all costs relating to (i) the shutdown phase, which involves removing radioactive fuel from the site and (ii) the dismantling phase, which consists of decommissioning and cleaning up the site.

The dismantling strategy has hardly changed since the 2013 report and is based on the facilities being dismantled (i) immediately after the reactor is shut down and (ii) "serial" rather than on a site-by-site basis, and (iii) completely, the land being subsequently returned to greenfield status.

Provisions for dismantling nuclear facilities are calculated based on the following principles and inputs:

- costs payable over the long term are calculated by reference to the estimated costs for each nuclear facility, based on a study conducted by independent experts under the assumption that the facilities will be dismantled "in series";
- an inflation rate of 2.0% is applied until the dismantling obligations expire in order to determine the value of the future obligation;
- a discount rate of 3.5% (including inflation of 2.0%) is applied to determine the present value (NPV) of the obligation. This rate is the same as that used to calculate the provision for processing spent nuclear fuel;
- the operating life is 50 years for Tihange 1 and Doel 1 and 2, and 40 years for the other facilities;
- the start of the technical shutdown procedures depends on the facility concerned and on the timing of operations for the nuclear reactor as a whole. The shutdown procedures are immediately followed by dismantling operations;
- the present value of the obligation when the facilities are commissioned represents the initial amount of the provision. The matching entry is an asset recognized for the same amount within the corresponding property, plant and equipment category. This asset is depreciated over the remaining operating life of the facilities;
- an annual allocation to the provision, reflecting the interest cost on the provision carried in the books at the end of the previous year, is calculated at the discount rate used to estimate the present value of the obligation.

The costs effectively incurred in the future may differ from the estimates in terms of their nature and timing of payment. The provisions may be subsequently adjusted in line with changes in the above-mentioned inputs. The assumptions used have a significant impact on the related implementation costs. However, these inputs and assumptions are based on information and estimates which the Group deems reasonable to date and which have been approved by the Commission for Nuclear Provisions.

The scenario adopted is based on a dismantling program and on timetables that have to be approved by the nuclear safety authorities.

Provisions are also recognized for the Group's share of the expected dismantling costs for the nuclear facilities in which it has drawing rights.

18.2.4 Sensitivity to discount rates

The remaining balance at end-2016 of provisions for the back-end of the nuclear fuel cycle came to €5.6 billion. The obligation, expressed in current euros and estimated at the share of spent fuel to date amounted to approximately €11.0 billion.

Provisions for dismantling nuclear facilities in Belgium came to €4.6 billion at end-2016. The obligation, expressed in current euros, totaled approximately €7.5 billion.

Based on currently applied inputs for estimating costs and the timing of payments, a change of 10 basis points in the discount rate used could lead to an adjustment of around €120 million in dismantling and nuclear fuel processing and storage provisions. A fall in discount rates would lead to an increase in outstanding provisions, while a rise in discount rates would reduce the provision amount.

Changes arising as a result of the review of the dismantling provision would not have an immediate impact on income, since the matching entry under certain conditions would consist in adjusting the corresponding assets accordingly.

Sensitivity to discount rates as presented above in accordance with the applicable standards, is an automatic calculation and should therefore be interpreted with appropriate caution in view of the variety of other inputs – some of which may be interdependent – included in the evaluation. The frequency with which these provisions are reviewed by the Commission for Nuclear Provisions in accordance with applicable regulations ensures that the overall obligation is measured accurately.

18.3 Dismantling of non-nuclear plant and equipment and site rehabilitation

18.3.1 Dismantling obligations arising on other non-nuclear plant and equipment

Certain plant and equipment, including conventional power stations, transmission and distribution pipelines, storage facilities and LNG terminals, have to be dismantled at the end of their operational lives. This obligation is the result of prevailing environmental regulations in the countries concerned, contractual agreements, or an implicit Group commitment.

Based on estimates of proven and probable gas reserves through 2260 using current production levels, dismantling provisions for gas infrastructures in France have a present value near zero.

18.3.2 Exploration-production activities

The Group also sets aside a provision for its obligations in terms of rehabilitating exploration-production facilities.

The provision reflects the present value of the estimated rehabilitation costs until the operating activities are completed. This provision is computed based on the Group's internal assumptions regarding estimated rehabilitation costs and the timing of the rehabilitation work. The timing of the rehabilitation work used as the basis for the provision may vary depending on the time when production is considered no longer economically viable. This consideration is itself closely related to fluctuations in future gas and oil prices.

The provision is recognized with a matching entry to property, plant and equipment.

18.3.3 Hazelwood Power Station & Mine (Australia)

In November 2016, the Group and its partner Mitsui announced their decision to close Hazelwood Power Station and the adjoining mine. The Group holds a 72% interest in the 1,600 MW power station, which is fully consolidated. The closure will take effect at the end of March 2017.

At end-2016, the provision covering the obligation to dismantle and rehabilitate the mine amounted to €532 million (including €312 million of mine rehabilitation and €220 million of power station dismantling costs).

Dismantling and site rehabilitation work include mine rehabilitation, with the purpose of ensuring long-term land and wall stability, the demolition and dismantling of all of the site's industrial facilities, the monitoring of environmental incidents and any related remediation plans, as well as long-term site monitoring.

Given the complex and specialized nature of the work that will be undertaken to rehabilitate the mine, Hazelwood has brought in geologists and environmental experts to assist in planning, calculating costs and implementing the rehabilitation plan. The rehabilitation plan has been approved by Hazelwood's shareholders and will be presented and discussed in 2017 with the Environment Protection Authority Victoria and the authorities of the State of Victoria.

The applicable laws and regulations are currently undergoing reform by the State of Victoria. The final regulations adopted could change the nature of the work to be carried out, the timing and, consequently, the provisions recorded to cover the related costs.

The average discount rates used to determine the amount of the provision were 5.52% and 5.11% for mine restoration work and power station dismantling work, respectively.

The amount of the provision recognized is based on the Group's best current estimate of the dismantling and rehabilitation costs that Hazelwood is expected to incur. However, the amount of this provision may be adjusted in the future to take into account any changes in the key inputs.

18.4 Contingencies and tax risks

This caption includes essentially provisions for commercial contingencies, and claims and tax disputes.

NOTE 19 POST-EMPLOYMENT BENEFITS AND OTHER LONG-TERM BENEFITS

19.1 Description of the main pension plans

The Group's main pension plans are described below.

19.1.1 Companies belonging to the Electricity and Gas Industries sector in France

Since January 1, 2005, the CNIEG (*Caisse Nationale des Industries Électriques et Gazières*) has operated the pension, disability, death, occupational accident and occupational illness benefit plans for electricity and gas industry (hereinafter "EGI") companies in France. The CNIEG is a social security legal entity under private law placed under the joint responsibility of the ministries in charge of social security and the budget.

Employees and retirees of EGI sector companies have been fully affiliated to the CNIEG since January 1, 2005. The main affiliated Group entities are ENGIE SA, GRDF, GRTgaz, ELENGY, STORENGY, ENGIE Thermique France, CPCU, CNR and SHEM.

Following the funding reform of the special EGI pension plan introduced by Law No. 2004-803 of August 9, 2004 and its implementing decrees, specific benefits (pension benefits on top of the standard benefits payable under ordinary law) already vested at December 31, 2004 ("past specific benefits") were allocated between the various EGI entities. Past specific benefits (benefits vested at December 31, 2004) relating to regulated transmission and distribution businesses ("regulated past specific benefits") are funded by the levy on gas and electricity transmission and distribution services (*Contribution Tarifaire d'Acheminement*) and therefore no longer represent an obligation for the ENGIE Group. Unregulated past specific benefits (benefits vested at December 31, 2004) are funded by EGI sector entities to the extent defined by decree no. 2005-322 of April 5, 2005.

The special EGI pension plan is a legal pension plan available to new entrants.

The specific benefits vested under the plan since January 1, 2005 are wholly financed by EGI sector companies in proportion to their respective weight in terms of payroll costs within the EGI sector.

As this plan represents a defined benefit plan, the Group has set aside a pension provision in respect of specific benefits payable to employees of unregulated activities and specific benefits vested by employees of regulated activities since January 1, 2005. This provision also covers the Group's early retirement obligations. The provision amount may be subject to fluctuations based on the weight of the Group's companies within the EGI sector.

Pension benefit obligations and other "mutualized" obligations are assessed by the CNIEG.

At December 31, 2016, the projected benefit obligation in respect of the special pension plan for EGI sector companies amounted to €3.4 billion (€3.2 billion at December 31, 2015). This increase is mainly due to the decrease in discount rates.

The duration of the pension benefit obligation of the EGI pension plan is 18 years.

19.1.2 Companies belonging to the electricity and gas sector in Belgium

In Belgium, the rights of employees in electricity and gas sector companies, principally Electrabel, Laborelec, ENGIE CC and some ENGIE Energy Management Trading employee categories, are governed by collective bargaining agreements.

These agreements, applicable to "wage-rated" employees recruited prior to June 1, 2002 and managerial staff recruited prior to May 1, 1999, specify the benefits entitling employees to a supplementary pension equivalent to 75% of their most recent annual income, for a full career and in addition to the statutory pension. These top-up pension payments provided under defined benefit plans are partly reversionary. In practice, the benefits are paid in the form of a lump sum for the majority of plan participants. Most of the obligations resulting from these pension plans are financed through pension funds set up for the electricity and gas sector and by certain insurance companies. Pre-funded pension plans are financed by employer and employee contributions. Employer contributions are calculated annually based on actuarial assessments.

The projected benefit obligation relating to these plans represented around 14% of total pension obligations and related liabilities at December 31, 2016. The average duration is 12 years.

"Wage-rated" employees recruited after June 1, 2002 and managerial staff (i) recruited after May 1, 1999 or (ii) or having opted for the transfer through defined contribution plans, are covered under defined contribution plans. However, for contributions paid from January 1, 2004, the law specifies a minimum average annual return (3.75% on wage contributions and 3.25% on employer contributions) when savings are liquidated.

The law on supplementary pensions, approved on December 18, 2015 and enforced on January 1, 2016 henceforth specifies a minimum rate of return, depending on the actual rate of return of Belgian government bonds, within a range of 1.75%-3 25% (the rates are not identical for employee and employer contributions). In 2016, the minimum rate of return stood at 1.75%.

The application of this new law resulted in an increase of the net defined obligation of €10 million at December 31, 2016.

An expense of €24 million was recognized in 2016 in respect of these defined contribution plans (€24 million at December 31, 2015).

19.1.3 Multi-employer plans

Employees of some Group companies are affiliated to multi-employer pension plans.

Under multi-employer plans, risks are pooled to the extent that the plan is funded by a single contribution rate determined for all affiliated companies and applicable to all employees.

Multi-employer plans are particularly common in the Netherlands, where employees are normally required to participate in a compulsory industry-wide plan. These plans cover a significant number of employers, thereby limiting the impact of potential default by an affiliated company. In the event of default, the vested rights are maintained in a special compartment and are not transferred to the other members. Refinancing plans may be set up to ensure the funds are balanced.

The ENGIE Group accounts for multi-employer plans as defined contribution plans.

An expense of €69 million was recognized in 2016 in respect of multi-employer pension plans (€71 million at December 31, 2015).

19.1.4 Other pension plans

Most other Group companies also grant their employees retirement benefits. In terms of financing, pension plans within the Group are almost equally split between defined benefit and defined contribution plans.

The Group's main pension plans outside France, Belgium and the Netherlands concern:

- United Kingdom: the large majority of defined benefit pension plans is now closed to new entrants and future benefits no longer vest under these plans. All entities run a defined contribution scheme. The pension obligations of International Power's subsidiaries in the United Kingdom are covered by the special Electricity Supply Pension Scheme (ESPS). The assets of this defined benefit scheme are invested in separate funds. Since June 1, 2008, the scheme has been closed and a defined contribution plan was set up for new entrants;
- Germany: the Group's German subsidiaries have closed their defined benefit plans to new entrants and now offer defined contribution plans;
- Brazil: ENGIE Brasil Energia operates its own pension scheme. This scheme has been split into two parts, one for the (closed) defined benefit plan, and the other for the defined contribution plan that has been available to new entrants since the beginning of 2005.

19.2 Description of other post-employment benefit obligations and other long-term benefits

19.2.1 Other benefits granted to current and former EGI sector employees

Other benefits granted to EGI sector employees are:

Post-employment benefits:

- reduced energy prices;
- end-of-career indemnities;
- bonus leave;
- death capital benefits.

Long-term benefits:

- allowances for occupational accidents and illnesses;
- temporary and permanent disability allowances;
- long-service awards.

The Group’s main obligations are described below.

19.2.1.1 Reduced energy prices

Under Article 28 of the national statute for electricity and gas industry personnel, all employees (current and former employees, provided they meet certain length-of-service conditions) are entitled to benefits in kind which take the form of reduced energy prices known as “employee rates”.

This benefit entitles employees to electricity and gas supplies at a reduced price. For retired employees, this provision represents a post-employment defined benefit. Retired employees are only entitled to the reduced rate if they have completed at least 15 years' service within EGI sector companies.

In accordance with the agreements signed with EDF in 1951, ENGIE provides gas to all current and former employees of ENGIE and EDF, while EDF supplies electricity to these same beneficiaries. ENGIE pays (or benefits from) the balancing contribution payable in respect of its employees as a result of energy exchanges between the two utilities.

The obligation to provide energy at a reduced price to current and former employees is measured as the difference between the energy sale price and the preferential rates granted.

The provision set aside in respect of reduced energy prices amounts to €3.0 billion at December 31, 2016. The duration of the obligation is 21 years.

19.2.1.2 End-of-career indemnities

Retiring employees (or their dependents in the event of death during active service) are entitled to end-of-career indemnities which increase in line with the length of service within the EGI sector.

19.2.1.3 Compensation for occupational accidents and illnesses

EGI sector employees are entitled to compensation for accidents at work and occupational illnesses. These benefits cover all employees or the dependents of employees who die as a result of occupational accidents or illnesses, or injuries suffered on the way to work.

The amount of the obligation corresponds to the likely present value of the benefits to be paid to current beneficiaries, taking into account any reversionary annuities.

19.2.2 Other benefits granted to employees of the gas and electricity sector in Belgium

Electricity and gas sector companies also grant other employee benefits such as the reimbursement of medical expenses, electricity and gas price reductions, as well as length-of-service awards and early retirement schemes. These benefits are not prefunded, with the exception of the special "*allocation transitoire*" termination indemnity, considered as an end-of-career indemnity.

19.2.3 Other collective agreements

Most other Group companies also grant their staff post-employment benefits (early retirement plans, medical coverage, benefits in kind, etc.) and other long-term benefits such as jubilee and length-of-service awards.

19.3 Defined benefit plans

19.3.1 Amounts presented in the statement of financial position and statement of comprehensive income

In accordance with IAS 19, the information presented in the statement of financial position relating to post-employment benefit obligations and other long-term benefits results from the difference between the gross projected benefit obligation and the fair value of plan assets. A provision is recognized if this difference is positive (net obligation), while a prepaid benefit cost is recorded in the statement of financial position when the difference is negative, provided that the conditions for recognizing the prepaid benefit cost are met.

Changes in provisions for post-employment benefits and other long-term benefits, plan assets and reimbursement rights recognized in the statement of financial position are as follows:

In millions of euros	**Provisions**	**Plan assets**	**Reimbursement rights**
At December 31, 2014	**(6,232)**	**41**	**176**
Exchange rate differences	13	-	-
Changes in scope of consolidation and other	45	(48)	-
Actuarial gains and losses	448	38	(11)
Periodic pension cost	(458)	15	3
Asset ceiling	(41)	-	-
Contributions/benefits paid	441	16	-
At December 31, 2015	**(5,785)**	**62**	**167**
Exchange rate differences	(51)	(1)	-
Changes in scope of consolidation and other	46	(12)	(43)
Actuarial gains and losses	(663)	(7)	2
Periodic pension cost	(430)	(49)	3
Asset ceiling	41	-	-
Contributions/benefits paid	420	76	1
AT DECEMBER 31, 2016	**(6,422)**	**68**	**130**

Plan assets and reimbursement rights are presented in the statement of financial position under “Other non-current assets” or “Other current assets”.

The cost recognized for the period in the income statement amounted to €478 million in 2016 (€442 million in 2015). The components of this defined benefit cost in the period are set out in Note 19.3.4 "Components of the net periodic pension cost".

The Eurozone represents 95% of the Group's net obligation at December 31, 2016 (compared to 94% at December 31, 2015).

Cumulative actuarial gains and losses recognized in equity amounted to €3,469 million at December 31, 2016, compared to €2,730 million at December 31, 2015.

Net actuarial differences arising in the period and presented on a separate line in the statement of comprehensive income represented a net actuarial loss totaling €670 million in 2016 and a net actuarial gain of €446 million in 2015.

19.3.2 Change in benefit obligations and plan assets

The table below shows the amount of the Group's projected benefit obligations and plan assets, changes in these items during the periods presented, and their reconciliation with the amounts reported in the statement of financial position:

		Dec. 31, 2016				Dec. 31, 2015			
In millions of euros		Pension benefit obligations(1)	Other post-employment benefit obligations(2)	Long-term benefit obligations(3)	Total	Pension benefit obligations(1)	Other post-employment benefit obligations(2)	Long-term benefit obligations(3)	Total
A - CHANGE IN PROJECTED BENEFIT OBLIGATION									
Projected benefit obligation at January 1		**(7,197)**	**(3,394)**	**(530)**	**(11,120)**	**(7,580)**	**(3,393)**	**(564)**	**(11,537)**
Service cost		(234)	(50)	(45)	(329)	(267)	(64)	(46)	(376)
Interest expense		(208)	(84)	(11)	(303)	(196)	(70)	(9)	(276)
Contributions paid		(14)	-	-	(14)	(13)	-	-	(13)
Amendments		8	-	-	8	8	16	-	24
Changes in scope of consolidation		(6)	(3)	-	(10)	2	(1)	-	1
Curtailments/settlements		1	-	-	1	19	-	-	19
Non-recurring items		-	-	-	-	(2)	(6)	-	(7)
Financial actuarial gains and losses		(825)	(261)	(15)	(1,102)	292	294	33	619
Demographic actuarial gains and losses		106	(51)	(2)	52	140	(280)	9	(131)
Benefits paid		434	113	46	594	373	109	48	530
Other (of which translation adjustments)		(8)	(1)	-	(8)	25	-	-	25
Projected benefit obligation at December 31	**A**	**(7,945)**	**(3,731)**	**(556)**	**(12,232)**	**(7,197)**	**(3,394)**	**(530)**	**(11,120)**
B - CHANGE IN FAIR VALUE OF PLAN ASSETS									
Fair value of plan assets at January 1		**5,445**	**1**	**-**	**5,446**	**5,349**	**3**	**-**	**5,351**
Interest income on plan assets		162	-	-	162	148	-	-	148
Financial actuarial gains and losses		361	-	-	361	40	-	-	40
Contributions received		267	-	-	267	271	17	-	288
Changes in scope of consolidation		1	-	-	1	(1)	-	-	(1)
Settlements		-	-	-	-	(15)	(1)	-	(17)
Benefits paid		(351)	-	-	(351)	(332)	(17)	-	(349)
Other (of which translation adjustments)		33	-	-	33	(14)	-	-	(14)
Fair value of plan assets at December 31	**B**	**5,919**	**1**	**-**	**5,920**	**5,445**	**1**	**-**	**5,446**
C - FUNDED STATUS	**A+B**	**(2,026)**	**(3,730)**	**(556)**	**(6,311)**	**(1,752)**	**(3,393)**	**(530)**	**(5,674)**
Asset ceiling		(42)	-	-	(42)	(48)	-	-	(48)
NET BENEFIT OBLIGATION		**(2,068)**	**(3,730)**	**(556)**	**(6,354)**	**(1,800)**	**(3,393)**	**(530)**	**(5,722)**
ACCRUED BENEFIT LIABILITY		(2,136)	(3,731)	(556)	(6,422)	(1,862)	(3,393)	(530)	(5,785)
PREPAID BENEFIT COST		68	-	-	68	62	-	-	62

(1) Pensions and retirement bonuses.

(2) Reduced energy prices, healthcare, gratuities and other post-employment benefits.

(3) Length-of-service awards and other long-term benefits.

19.3.3 Change in reimbursement rights

Changes in the fair value of reimbursement rights relating to plan assets managed by Contassur are as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Fair value at January 1	**167**	**176**
Interest income on plan assets	*3*	*3*
Financial actuarial gains and losses	*2*	*(11)*
Actual return	5	(9)
Curtailments/settlements	-	-
Employer contributions	15	16
Employee contributions	-	1
Benefits paid	(14)	(17)
Other	(43)	-
FAIR VALUE AT DECEMBER 31	**130**	**167**

19.3.4 Components of the net periodic pension cost

The net periodic cost recognized in respect of defined benefit obligations for the years ended December 31, 2016 and 2015 breaks down as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Current service cost	329	376
Net interest expense	141	128
Actuarial gains and losses(1)	17	(42)
Plan amendments	(8)	(24)
Gains or losses on pension plan curtailments, terminations and settlements	(1)	(2)
Non-recurring items	-	7
TOTAL	**478**	**442**
o/w recorded in current operating income after share in net income of entities accounted for using the equity method	*337*	*314*
o/w recorded in net financial income/(loss)	*141*	*128*

(1) On long-term benefit obligation.

19.3.5 Funding policy and strategy

When defined benefit plans are funded, the related plan assets are invested in pension funds and/or with insurance companies, depending on the investment practices specific to the country concerned. The investment strategies underlying these defined benefit plans are aimed at striking the right balance between return on investment and acceptable levels of risk.

The objectives of these strategies are twofold: to maintain sufficient liquidity to cover pension and other benefit payments; and as part of risk management, to achieve a long-term rate of return higher than the discount rate or, where appropriate, at least equal to future required returns.

When plan assets are invested in pension funds, investment decisions are the responsibility of the fund management concerned. For French companies, where plan assets are invested with an insurance company, the latter manages the investment portfolio for unit-linked policies or euro-denominated policies. These diversified funds are actively managed by reference to composite indexes and adapted to the RISK AND long-term profile of the liabilities.

The funding of these obligations at December 31 for each of the periods presented can be analyzed as follows:

In millions of euros	Projected benefit obligation	Fair value of plan assets	Asset ceiling	Total net obligation
Underfunded plans	(6,593)	5,078	(42)	(1,557)
Overfunded plans	(804)	842	-	38
Unfunded plans	(4,835)	-	-	(4,835)
AT DECEMBER 31, 2016	**(12,232)**	**5,920**	**(42)**	**(6,354)**
Underfunded plans	(5,777)	4,469	(48)	(1,356)
Overfunded plans	(923)	977	-	55
Unfunded plans	(4,421)	-	-	(4,421)
AT DECEMBER 31, 2015	**(11,120)**	**5,446**	**(48)**	**(5,722)**

The allocation of plan assets by principal asset category can be analyzed as follows:

In %	Dec. 31, 2016	Dec. 31, 2015
Equity investments	29	31
Sovereign bond investments	17	16
Corporate bond investments	31	34
Money market securities	10	8
Real estate	4	4
Other assets	9	7
TOTAL	**100**	**100**

All plan assets were quoted on an active market at December 31, 2016.

The actual return on assets of EGI sector companies stood at 3.8% in 2016.

The actual return on plan assets of Belgian entities amounted to approximately 3% in Group insurance and 5% in pension funds.

The allocation of plan assets categories by geographic area of investment can be analyzed as follows:

In %	Europe	North America	Latin America	Asia - Oceania	Rest of the World	Total
Equity investments	60	25	1	12	2	100
Sovereign bond investments	70	2	28	-	-	100
Corporate bond investments	79	14	2	4	1	100
Money market securities	70	1	4	24	-	100
Real estate	93	-	3	4	-	100
Other assets	61	8	19	6	6	100

19.3.6 Actuarial assumptions

Actuarial assumptions are determined individually by country and company in conjunction with independent actuaries. Weighted discount rates for the main actuarial assumptions are presented below:

		Pension benefit obligations		Other post-employment benefit obligations		Long-term benefit obligations		Total benefit obligations	
		2016	2015	2016	2015	2016	2015	2016	2015
Discount rate	Eurozone	1.7%	2.5%	2.0%	2.6%	1.5%	2.2%	1.8%	2.3%
	UK Zone	2.7%	3.9%	-	-	-	-	-	-
Inflation rate	Eurozone	1.8%	1.7%	1.8%	1.7%	1.8%	1.7%	1.8%	1.7%
	UK Zone	3.3%	3.1%	-	-	-	-	-	-

19.3.6.1 Discount and inflation rate

The discount rate applied is determined based on the yield, at the date of the calculation, on top-rated corporate bonds with maturities mirroring the term of the plan.

The rates were determined for each monetary area based on data for AA corporate bonds yields. For Eurozone, data (from Bloomberg) are extrapolated on the basis of government bond yields for long maturities.

According to the Group's estimates, a 100-basis-point increase or decrease in the discount rate would result in a change of approximately 15% in the projected benefit obligation.

The inflation rates were determined for each monetary area. A 100-basis-point increase or decrease in the inflation rate (with an unchanged discount rate) would result in a change of approximately 15% in the projected benefit obligation.

19.3.6.2 Other assumptions

The increase in the rate of medical costs (including inflation) was estimated at 2.7%.

A 100-basis-point change in the assumed increase in medical costs would have the following impacts:

In millions of euros	**100 basis point increase**	**100 basis point decrease**
Impact on expenses	1	(1)
Impact on pension obligations	9	(8)

19.3.7 Estimated employer contributions payable in 2017 under defined benefit plans

The Group expects to pay around €179 million in contributions into its defined benefit plans in 2017, including €88 million for EGI sector companies. Annual contributions in respect of EGI sector companies will be made by reference to rights vested in the year, taking into account the funding level for each entity in order to even out contributions over the medium term.

19.4 Defined contribution plans

In 2016, the Group recorded a €137 million expense in respect of amounts paid into Group defined contribution plans (€134 million in 2015). These contributions are recorded under "Personnel costs" in the consolidated income statement.

NOTE 20 EXPLORATION-PRODUCTION ACTIVITIES

20.1 Exploration-production assets

Exploration-production assets break down into the following three categories: exploration-production licenses, presented under “Intangible assets” in the statement of financial position, fields under development, shown under “Assets in development phase”, and fields in production, shown under “Assets in production phase”, which are included in “Property, plant and equipment” in the statement of financial position.

In millions of euros	Licenses	Assets in development phase	Assets in production phase	Total
A. GROSS AMOUNT				
At December 31, 2014	**1,106**	**1,406**	**8,555**	**11,067**
Change in scope of consolidation	(174)	-	(10)	(185)
Acquisitions	37	951	128	1,115
Disposals	(124)	(198)	-	(322)
Translation adjustments	105	105	(155)	54
Other	60	(106)	126	81
At December 31, 2015	**1,009**	**2,158**	**8,643**	**11,810**
Change in scope of consolidation	-	-	-	-
Acquisitions	1	998	97	1,095
Disposals	-	(11)	(203)	(215)
Translation adjustments	6	(48)	101	60
Other	24	(502)	569	91
AT DECEMBER 31, 2016	**1,040**	**2,593**	**9,208**	**12,841**
B. ACCUMULATED AMORTIZATION, DEPRECIATION AND IMPAIRMENT LOSSES				
At December 31, 2014	**(438)**	**(4)**	**(4,847)**	**(5,289)**
Change in scope of consolidation	174	-	10	185
Amortization, depreciation	-	-	(664)	(664)
Impairment losses	(349)	(1,146)	(1,041)	(2,536)
Disposals	88	-	-	88
Translation adjustments	(48)	(26)	77	3
Other	-	-	-	-
At December 31, 2015	**(573)**	**(1,176)**	**(6,464)**	**(8,213)**
Change in scope of consolidation	-	-	-	-
Amortization, depreciation	-	-	(534)	(534)
Impairment losses	(35)	(110)	(12)	(157)
Disposals	-	-	154	154
Translation adjustments	(1)	61	(31)	30
Other	(71)	419	(240)	108
AT DECEMBER 31, 2016	**(680)**	**(806)**	**(7,126)**	**(8,612)**
C. CARRYING AMOUNT				
At December 31, 2015	**437**	**982**	**2,179**	**3,597**
AT DECEMBER 31, 2016	**360**	**1,787**	**2,082**	**4,229**

Acquisitions in 2016 notably include developments carried out over the year on the Touat field in Algeria, the Jangkrik field in Indonesia and the Cygnus field in the United Kingdom. Disposals mainly include the disposal of a portfolio of production fields in Germany.

Acquisitions in 2015 notably include developments carried out over the year on the Cygnus field in the United Kingdom, the Jangkrik field in Indonesia and the Touat field in Algeria. Disposals mainly include the disposal of an 11.67% interest in the Jangkrik field in Indonesia.

Impairment losses recorded at December 31, 2016 and December 31, 2015 are described in Note 8.2 “Impairment losses”.

20.2 Capitalized exploration costs

The following table provides a breakdown of the net change in capitalized exploration costs:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
At January 1	**359**	**430**
Capitalized exploration costs for the year	65	129
Amounts recognized in expenses for the period	(92)	(145)
Other	(110)	(54)
AT DECEMBER 31	**222**	**359**

Capitalized exploration costs are reported in the statement of financial position within “Other assets”.

20.3 Investments during the period

Investments for the exploration-production business amounted to €940 million and €1,027 million, respectively, in 2016 and 2015. Investments are included in “Acquisitions of property, plant and equipment and intangible assets” in the statement of cash flows.

NOTE 21 FINANCE LEASES

21.1 Finance leases for which ENGIE acts as lessee

The carrying amounts of property, plant and equipment held under finance leases are broken down into different categories depending on the type of asset concerned.

The main finance lease agreements entered into by the Group primarily concern power plants in the Latin America segment (mostly ENGIE Energía Perú – Peru) and Cofely's cogeneration plants.

The undiscounted and present values of future minimum lease payments break down as follows:

	Dec. 31, 2016		Dec. 31, 2015	
In millions of euros	Undiscounted value	Present value	Undiscounted value	Present value
Year 1	158	153	102	99
Years 2 to 5 included	539	493	292	259
Beyond year 5	32	22	275	253
TOTAL	**728**	**668**	**669**	**611**

The following table provides a reconciliation of liabilities under finance leases as reported in the statement of financial position *(see Note 15.2.1 "Borrowings and debt")* with undiscounted future minimum lease payments by maturity:

In millions of euros	Total	Year 1	Years 2 to 5 inclusive	Beyond year 5
Liabilities under finance leases	670	150	492	28
Impact of discounting future repayments of principal and interest	58	8	47	4
UNDISCOUNTED FUTURE MINIMUM LEASE PAYMENTS	**728**	**158**	**539**	**32**

21.2 Finance leases for which ENGIE acts as lessor

These leases fall mainly within the scope of IFRIC 4 guidance on the interpretation of IAS 17. They concern (i) energy purchase and sale contracts where the contract conveys an exclusive right to use a production asset; and (ii) certain contracts with industrial customers relating to assets held by the Group.

The Group has recognized finance lease receivables, notably for cogeneration plants for Wapda and NTDC (Uch – Pakistan), Bowin (Glow – Thailand) and Lanxess (Electrabel – Belgium).

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Undiscounted future minimum lease payments	1,116	1,167
Unguaranteed residual value accruing to the lessor	46	42
TOTAL GROSS INVESTMENT IN THE LEASE	**1,163**	**1,209**
Unearned financial income	**166**	**172**
NET INVESTMENT IN THE LEASE (STATEMENT OF FINANCIAL POSITION)	**997**	**1,037**
o/w present value of future minimum lease payments	*962*	*1,007*
o/w present value of unguaranteed residual value	*35*	*30*

Amounts recognized in the statement of financial position in connection with finance leases are detailed in Note 15.1.2 "Loans and receivables at amortized cost".

Undiscounted future minimum lease payments receivable under finance leases can be analyzed as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Year 1	115	108
Years 2 to 5 inclusive	450	444
Beyond year 5	552	616
TOTAL	**1,116**	**1,167**

NOTE 22 OPERATING LEASES

22.1 Operating leases for which ENGIE acts as lessee

The Group has entered into operating leases mainly in connection with LNG tankers, and miscellaneous buildings and fittings.

Operating lease income and expenses for 2016 and 2015 can be analyzed as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Minimum lease payments	(864)	(886)
Contingent lease payments	(15)	(18)
Sub-letting income	-	76
Sub-letting expenses	(29)	(27)
Other operating lease expenses	(181)	(238)
TOTAL	**(1,089)**	**(1,093)**

The present values of future minimum lease payments under non-cancelable operating leases can be analyzed as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Year 1	611	620
Years 2 to 5 inclusive	1,694	1,398
Beyond year 5	1,339	1,281
TOTAL	**3,644**	**3,300**

22.2 Operating leases for which ENGIE acts as lessor

These leases fall mainly within the scope of IFRIC 4 guidance on the interpretation of IAS 17. They primarily concern power plants operated in the Africa/Asia segment.

Operating lease income for 2016 and 2015 can be analyzed as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Minimum lease payments	388	556
Contingent lease payments	24	76
TOTAL	**412**	**632**

Lease income is recognized in revenues.

The present values of future minimum lease payments receivable under non-cancelable operating leases can be analyzed as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Year 1	335	403
Years 2 to 5 inclusive	264	694
Beyond year 5	-	27
TOTAL	**598**	**1,125**

NOTE 23 SHARE-BASED PAYMENTS

Expenses recognized in respect of share-based payments break down as follows:

		Expense for the year	
In millions of euros	Note	Dec. 31, 2016	Dec. 31, 2015
Employee share issues[(1)]	23.2	2	15
Bonus/performance share plans	23.3	36	34
Other Group companies' plans		22	1
TOTAL		**60**	**50**

(1) Including Share Appreciation Rights set up within the scope of employee share issues in certain countries.

23.1 Stock option plans[(1)]

No new ENGIE stock option grants were approved by the Group's Board of Directors in either 2016 or 2015.

At December 31, 2016, the last stock option plan in force is a stock purchase plans that has already vested, with no further expenses recognized. The characteristics of this plan are as follows:

Plan	Date of authorizing General Share-holders' Meeting	Vesting date	Adjusted exercise price *(in euros)*	Number of benefi-ciaries per plan	Number of options granted to members of the Executive Committee	Outstanding options at Dec. 31, 2015	Options cancelled or expired	Outstanding options at Dec. 31, 2016	Expiration date	Residual life
11/12/2008	07/16/2008	11/12/2012	32.7	3 753	2 615 000	5 969 064	5 969 064	-	11/11/2016	-
11/10/2009 [(1)]	05/04/2009	11/10/2013	29.4	4 036	-	4 808 015	32 586	4 775 429	11/09/2017	0.9
TOTAL					**2 615 000**	**10 777 079**	**6 001 650**	**4 775 429**		

(1) Plans exercisable at December 31, 2016.

The stock subscription plan set up in 2008 expired in 2016, and 6 million options were cancelled.

23.2 Employee share issues

23.2.1 Link 2014

ENGIE did not issue any new shares to employees in 2016.

The only impact of employee share issues on 2016 income relate to cash-settled *Share Appreciation Rights*, resulting from the fair value of warrants hedging the liability towards employees issued as part of the LINK 2014 subscription plan. This charge amounted to €1 million in 2016.

(1) The terms and conditions of plans set up in the past are described in previous Registration Documents prepared by GDF SUEZ.

23.3 Bonus shares and performance shares

23.3.1 New awards in 2016

ENGIE Performance Share plan of December 16, 2016

On December 14, 2016, the Board of Directors approved the allocation of 5 million performance shares to members of the Group's executive and senior management, breaking down into three tranches:

- performance shares vesting on March 14, 2020, subject to a further one-year lock-up period;
- performance shares vesting on March 14, 2020, without a lock-up period; and
- performance shares vesting on March 14, 2021, without a lock-up period.

In addition to a condition requiring employees to be employed with the Group at the vesting date, each tranche is made up of instruments subject to three different conditions:

- a market performance condition relating to ENGIE's total shareholder return compared to that of a reference panel of six companies, as assessed between November 2016 and January 2020;
- two internal performance conditions relating to Group net recurring income Group share and ROCE in 2018 and 2019.

As part of this plan, performance shares without conditions were also awarded to the winners of the Innovation and Incubation programs (32,950 shares allocated).

23.3.2 Fair value of bonus share plans with or without performance conditions

The following assumptions were used to calculate the fair value of the new plans awarded by ENGIE in 2016:

Allocation date	Vesting date	End of the lock-up period	Price at the award date	Expected dividend	Financing cost for the employee	Non-transferability cost	Market-related performance condition	Fair value per unit
December 16, 2016	March 14, 2020	March 14, 2021	12.03	0.7	5.2%	0.42	yes	8.10
December 16, 2016	March 14, 2020	March 14, 2020	12.03	0.7	5.2%	-	yes	8.52
December 16, 2016	March 14, 2021	March 14, 2021	12.03	0.7	5.2%	-	yes	7.91
Weighted fair value of the December 16, 2016 plan								**8.44**

23.3.3 Review of internal performance conditions applicable to the plans

In addition to the condition of continuing employment within the Group, eligibility for certain bonus share and performance share plans is subject to an internal performance condition. When this condition is not fully met, the number of bonus shares granted to employees is reduced in accordance with the plans' regulations, leading to a decrease in the total expense recognized in relation to the plans in accordance with IFRS 2.

Performance conditions are reviewed at each reporting date. No volume reduction was recorded in 2016 due to a failure to meet performance criteria.

23.3.4 Free share plans with or without performance conditions in force at December 31, 2016, and impact on income

The expense recorded during the year on plans in effect was as follows:

	Expense for the year	
(In millions of euros)	**Dec. 31, 2016**	**Dec. 31, 2015**
Bonus share plans	5	17
Performance share plans	31	17
of which expense for the year	*31*	*28*
of which reversal for performance conditions not achieved	-	*(11)*
TOTAL	**36**	**34**

NOTE 24 RELATED PARTY TRANSACTIONS

This note describes material transactions between the Group and related parties.

Compensation payable to key management personnel is disclosed in Note 25 “Executive compensation”.

Transactions with joint ventures and associates are described in Note 3 "Investments in entities accounted for using the equity method".

Only material transactions are described below.

24.1 Relations with the French State and with entities owned or partly owned by the French State

24.1.1 Relations with the French State

Until January 10, 2017, the French State owned 32.76% of ENGIE and appointed five representatives to the Group’s 19-member Board of Directors. At this date, the French State sold 4.1% of ENGIE by way of a private placement to institutional investors. As a result, the French State now owns 28.65% of ENGIE and 31.98% of the Group’s voting rights.

The French State holds a golden share aimed at protecting France’s critical interests and ensuring the continuity and safeguarding of supplies in the energy sector. The golden share is granted to the French State indefinitely and entitles it to veto decisions taken by ENGIE if it considers they could harm France’s interests.

Public service engagements in the energy sector are defined by the law of January 3, 2003.

On November 6, 2015, the French State and ENGIE renewed the public service contract which sets out how such engagements are implemented, the Group's public service obligations and the conditions for rate regulation in France:

- as part of its public service obligations, the Group reaffirmed its commitments in terms of security of supply, quality of customer relations, solidarity and assistance to low-income customers, sustainable development and protection of the environment, as well as in terms of research;
- regarding the conditions for rate regulation in France, the contract confirms the overall regulatory framework for setting and changing natural gas tariffs in France, according to the Decree of December 18, 2009, which notably forecasts rate changes based on costs incurred, while also defining the transitional framework following the elimination of regulated natural gas tariffs for business customers.

Transmission rates on the GRTgaz transportation network and the gas distribution network in France, as well as rates for accessing the French LNG terminals, are all regulated.

24.1.2 Relations with EDF

Following the creation on July 1, 2004 of the French gas and electricity distribution network operator (EDF Gaz de France Distribution), Gaz de France SA and EDF entered into an agreement on April 18, 2005 setting out their relationship as regards the distribution business. The December 7, 2006 law on the energy sector reorganized the natural gas and electricity distribution networks. Enedis SA (previously ERDF SA), a subsidiary of EDF SA, and GRDF SA, a subsidiary of ENGIE SA, were created on January 1, 2007 and January 1, 2008, respectively, and act in accordance with the agreement previously signed by the two incumbent operators.

24.2 Relations with the CNIEG (Caisse Nationale des Industries Électriques et Gazières)

The Group’s relations with the CNIEG, which manages all old-age, death and disability benefits for active and retired employees of the Group who belong to the special EGI pension plan, employees of EDF and Non-Nationalized Companies (*Entreprises Non Nationalisées* – ENN), are described in Note 19 “Post-employment benefits and other long-term benefits”.

NOTE 25 EXECUTIVE COMPENSATION

Executive compensation presented below includes compensation of the members of the Group's Executive Committee and Board of Directors.

The Executive Committee had 12 members in 2016 compared to 21 in 2015.

Their compensation breaks down as follows:

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Short-term benefits	18	26
Post-employment benefits	6	5
Shared-based payments	5	1
Termination benefits	11	-
TOTAL	**40**	**33**

NOTE 26 WORKING CAPITAL REQUIREMENTS, OTHER ASSETS AND OTHER LIABILITIES

26.1 Composition of change in working capital requirements

In millions of euros	Change in working capital requirements at Dec. 31, 2016	Change in working capital requirements at Dec. 31, 2015
Inventories	510	903
Trade and other receivables, net	(740)	2,105
Trade and other payables, net	703	(1,981)
Tax and employee-related receivables/payables	219	169
Margin calls and derivative instruments hedging commodities relating to trading activities	671	498
Other	6	(530)
TOTAL	**1,369**	**1,163**

26.2 Inventories

In millions of euros	Dec. 31, 2016	Dec. 31, 2015
Inventories of natural gas, net	1,169	1,547
Inventories of uranium	581	585
CO_2 emission rights, green certificates and certificates of energy efficiency commitment, net	384	413
Inventories of commodities other than gas and other inventories, net	1,522	1,661
TOTAL	**3,656**	**4,207**

26.3 Other assets and other liabilities

Other current assets (€10,692 million) and other non-current assets (€431 million) mainly comprise tax receivables. Other non-current assets also include at December 31, 2016 a receivable towards EDF Belgium in respect of nuclear provisions amounting to €69 million (€61 million at December 31, 2015)

Other current liabilities (€15,702 million) and other non-current liabilities (€1,403 million) mainly include tax and and employee-related liabilities.

NOTE 27 LEGAL AND ANTI-TRUST PROCEEDINGS

The Group is party to a number of legal and anti-trust proceedings with third parties or with legal and/or administrative authorities (including tax authorities) in the normal course of its business.

Provisions recorded in respect of these proceedings totaled €1,133 million at December 31, 2016 (€663 million at December 31, 2015).

The main legal and arbitration proceedings presented hereafter are recognized as liabilities or give rise to contingent assets or liabilities.

In the normal course of its business, the Group is also involved in a number of disputes and investigations before state courts, arbitral tribunals or regulatory authorities. The disputes and investigations that could have a material impact on the Group are presented below.

27.1 North America

27.1.1 Investigation by the FERC (PJM Interconnection)

On December 8, 2015, the Division of Investigations of the Federal Energy Regulatory Commission (FERC) notified GDF SUEZ Energy Marketing NA Inc. (GSEMNA) and GDF SUEZ Energy North America, Inc. (GSENA) of their preliminary findings with regard to a possible breach of the FERC's rules concerning "lost opportunity cost credits" accrued by GSEMNA with PJM Interconnection between February 2011 and September 2013. On March 18, 2016, the Group responded formally to the FERC’s preliminary findings, explaining why the Group believed it had acted properly and lawfully. On December 2, 2016, the FERC publicly issued a notice of alleged violations. By decision dated February 1, 2017, the FERC approved the stipulation and consent agreement of November 29-30, 2016 whereby GSEMNA agreed to settle in an amount of USD 81.8 million, without admitting the alleged violations. This matter is now closed.

27.2 Latin America

27.2.1 Concessions in Buenos Aires and Santa Fe

In 2003, ENGIE and its joint shareholders, water distribution concession operators in Buenos Aires and Santa Fe, initiated two arbitration proceedings against the Argentinean State before the International Center for Settlement of Investment Disputes (ICSID). The purpose of these proceedings is to obtain compensation for the loss in value of investments made since the start of the concession, in accordance with the France-Argentine Bilateral Investment Protection Treaties.

On April 9, 2015, the ICSID ordered the Argentinean State to pay USD 405 million in respect of termination of the Buenos Aires water distribution and treatment concession contracts, and on December 4, 2015, to pay USD 211 million in respect of termination of the Santa Fe concession contracts. The Argentinean State is seeking annulment of these awards. As a reminder, prior to the stock market listing of SUEZ Environnement Company (now SUEZ), ENGIE and SUEZ (formerly SUEZ Environnement) entered into an agreement providing for the economic transfer to SUEZ of the rights and obligations relating to the ownership interest held by ENGIE in Aguas Argentinas and Aguas Provinciales de Santa Fe.

27.3 Benelux

27.3.1 Nuclear contributions

On November 30, 2015, the Belgian State, ENGIE and Electrabel entered into an agreement relating to the extension of the operating lives of the Doel 1 and Doel 2 reactors and the payment of nuclear contributions in respect of 2015 and 2016.

The agreement also covers the suspension and, in due course, termination of the various proceedings against past nuclear contributions. It came into effect after the enactment of the law of December 25, 2016 on nuclear contributions for the Doel 3 and 4 and Tihange 2 and 3 reactors.

27.3.2 Resumption and extension of operations at the nuclear reactors

Various associations have brought actions before the Constitutional Court, the Council of State and the ordinary courts against the laws and administrative decisions authorizing the extension of operations at the Doel 1 and 2 and Tihange 1 reactors. Some of these proceedings are still pending. In addition, some German local authorities and various organizations have challenged the authorization to restart operations at the Tihange 2 reactor. These actions are also pending.

27.3.3 Nuclear capacity swap with E.ON

On November 26, 2014, E.On, via its subsidiary PreussenElektra GmbH submitted a request for arbitration to the ICC International Court of Arbitration against Electrabel. E.On is seeking (i) the payment by Electrabel of a portion of the German nuclear contribution in the amount of approximately €100 million plus interest and (ii) the repayment of the Belgian nuclear contribution paid by E.On in the amount of approximately €199 million plus interest.

Electrabel disputes these claims and has filed counterclaims seeking: (i) the payment of the full amount invoiced by Electrabel for the Belgian nuclear contribution in the amount of approximately €120 million plus interest and (ii) the repayment of the German nuclear contribution paid by Electrabel in the amount of approximately €189 million plus interest. The case was heard in the week of December 12, 2016.

27.3.4 Tax on facilities

The Belgian Energy Authority has claimed tax on unused or under-used facilities from Electrabel for the period between 2006 and 2015. Electrabel initially challenged these taxes via an administrative claim, and then by bringing an action before the Brussels Court of First Instance and the Brussels Appeal Court. The Belgian State and Electrabel have now reached an agreement to end all the disputes between them in this matter. The agreement will end proceedings relating to taxes paid, given the substantially factual nature of the dispute between the parties, and it also provides for the repeal of or amendment to the law to prevent such disputes in the future. The law was enacted on December 25, 2016.

27.3.5 Claim by the Dutch tax authorities

Based on a disputable interpretation of a statutory modification that came into force in 2007, the Dutch tax authorities refuse the deductibility of a portion of the interest paid on financing contracted for the acquisition of investments made in the Netherlands since 2000. At the end of March 2016, the Dutch tax authorities rejected the claim lodged by ENGIE Energie Nederland Holding BV against the tax assessment for the 2007 fiscal year. On May 5, 2016, an appeal was filed against this decision. The total amount of tax and default interest assessed at December 31, 2011 amounted to €227 million. Following the Dutch Tax Authorities' rejection of the administrative claim against the 2007 tax assessment, action was brought before the Arnhem Court of First Instance in June 2016.

27.4 France

27.4.1 La Compagnie du Vent

Since 2011, ENGIE has been involved in a number of disputes with Jean-Michel Germa, founder of La Compagnie du Vent (LCV) and SOPER, minority shareholder of LCV, the main one being the action brought by SOPER on January 18, 2013 seeking payment by ENGIE of about €250 million in compensation for alleged breach of the agreement and the shareholders' agreement signed in 2007. This dispute is currently pending before the Créteil Commercial Court and the initial submissions were exchanged in July 2016. In principle, the case will be heard in May/June 2017.

27.4.2 Practices in the gas and electricity supply markets

On April 15, 2014, Direct Energie lodged a complaint with the competition authorities against ENGIE for alleged abuse of a dominant position on the gas and electricity supply markets, as well as a request for protective interim measures. The competition authority delivered its decision as regards the interim protective measures on September 9, 2014. ENGIE appealed the decision. However, the Appeal Court substantially upheld the competition authority's decision, which has now become final and binding. On the merits of the case, the competition authority notified its allegations on July 20, 2016, to which ENGIE replied on October 20, 2016. The proceedings are ongoing.

On March 27, 2015, the competition authorities informed ENGIE that a claim of alleged abuse of a dominant position by ENGIE on the gas and electricity supply markets had been referred to them by UFC Que Choisir, a French consumer group. The proceedings are ongoing.

On October 26, 2015, the competition authorities informed ENGIE that another claim of alleged abuse of a dominant position by ENGIE on the gas and electricity supply markets had been referred to them by Direct Energie, as well as a new request for protective interim measures. By decision of May 2, 2016, the competition authority ordered ENGIE, as a protective interim measure and pending a decision on the merits, to comply with certain protective interim measures. Direct Energie challenged this decision before the Paris Appeal Court, which, on July 28, 2016 dismissed Direct Energie's claim. Direct Energie has appealed the decision before the Court of Cassation. The investigation is still underway.

27.4.3 Withholding tax

In their tax deficiency notice dated December 22, 2008, the French tax authorities questioned the tax treatment of the non-recourse sale by SUEZ (now ENGIE) of a withholding tax (*précompte*) receivable in 2005 for an amount of €995 million. In May 2016, the French tax authorities issued an assessment notice for part of the resulting corporate income tax, in an amount of €89.6 million. ENGIE paid this sum and filed a claim in August 2016.

Regarding the dispute over the *précompte* itself, on February 1, 2016, the *Conseil d'État* dismissed the appeal before the Court of Cassation seeking the repayment of the *précompte* in respect of the 1999, 2000, and 2001 fiscal years. The Cergy Pontoise Administrative Court adopted an identical position to that of the Paris Court of Appeal for the amounts claimed by SUEZ (now ENGIE) in respect of the 2002/2003 and 2004 fiscal years. ENGIE SA has appealed this decision.

Furthermore, after ENGIE and several French groups lodged a complaint, on April 28, 2016, the European Commission issued a reasoned opinion to the French State as part of infringement proceedings, setting out its view that the *Conseil d'État* did not comply with European Union law when handing down decisions in disputes regarding the *précompte*, such as those involving ENGIE. On December 8, 2016, the European Commission decided to refer the matter to the Court of Justice of the European Union on the grounds of France's failure to comply.

27.4.4 Regulated natural gas tariffs

On June 24, 2013, ANODE, the French national energy retailers association (*Association nationale des opérateurs détaillants en énergie*) filed an appeal before the *Conseil d'État* seeking annulment of Decree No. 2013-400 of May 16, 2013 amending Decree No. 2009-1603 of December 18, 2009 relating to regulated natural gas tariffs.

ANODE contends in substance that the regulated natural gas tariff framework is inconsistent with the objectives of Directive 2009/73/EC concerning common rules for the internal market in natural gas, and Article 106.1 of the Treaty on the Functioning of the European Union. On December 15, 2014, the *Conseil d'État* ordered a stay of proceedings pending the Court of Justice of the European Union's preliminary ruling on these matters. The Court of Justice of the European Union delivered its ruling on September 7, 2016 and the *Conseil d'État* now has to rule on the merits.

27.5 Europe excluding France & Benelux

27.5.1 Spain – Punica

In the Punica case (investigation into the awarding of contracts), five Cofely España employees as well as the company itself were placed under investigation by the examining judge in charge of the case. The criminal investigation is in progress.

27.5.2 Hungary – CIRDI arbitration

On April 4, 2016, ENGIE, GDF International and ENGIE International Holdings filed a request for arbitration before the International Center for Settlement of Investment Disputes (ICSID). In essence, the Group accused the Hungarian State of not fulfilling its obligations under the Energy Charter Treaty by taking various fiscal and regulatory measures that breached the principle of fair and equitable treatment and the ban on forceful expropriation, and is requesting compensation for the damage it has suffered. This request for arbitration follows a referral submitted on February 25, 2015. Arbitration proceedings before the ICSID usually last between two and three years.

27.5.3 Italy – Maestrale

On December 5, 2012, International Power Consolidated Holdings Ltd (IPCHL) sold a number of its wind farm subsidiaries operating in Sardinia and Sicily to ERG Renew SpA (ERG). In the early 2000s and before they belonged to the Group, these subsidiaries benefited from subsidies granted under Italian law No. 488/1192. In 2007, the public prosecutor seized the wind farm assets on the suspicion that a fraud had been committed in relation to the granting of the subsidies. Following a request by IPCHL, the seizure was lifted in 2010 subject to the latter providing a guarantee of €31.6 million pending a decision on the merits.

On November 4, 2014, the Italian authorities formally revoked the subsidies in question and requested that ERG repay them immediately, in spite of the amount already provided by IPCHL as a guarantee.

On March 21, 2016, ERG filed a request for arbitration against IPCHL with the ICC International Court of Arbitration, seeking a guarantee from IPCHL on the amounts claimed by the Italian authorities. A settlement agreement was reached on December 19, 2016, thus ending the arbitration proceedings.

27.5.4 Italy - Vado Ligure

On March 11, 2014, the court of Savona seized and closed down the VL3 and VL4 coal-fired production units at the Vado Ligure thermal power plant belonging to Tirreno Power S.p.A. (TP), a company which is 50%-owned by the ENGIE Group. This decision was taken as part of a criminal investigation against the present and former executive managers of TP into environmental infringements and public health risks. The investigation was closed on July 20, 2016. The preliminary hearing to determine whether or not to refer the matter back to the Court of Savona to deal with the merits is not expected to begin before fall 2017.

27.6 Infrastructures Europe

27.6.1 Access to gas infrastructures

On May 22, 2008, the European Commission announced its decision to initiate formal proceedings against Gaz de France for a suspected breach of European Union rules pertaining to abuse of dominant position and restrictive business practices. The proceedings relate to a combination of long-term transport capacity reservation and a network of import agreements, as well as potential underinvestment in transport and import infrastructure capacity.

On October 21, 2009, the Group submitted proposed commitments aimed at facilitating access to and competition on the French natural gas market. On December 3, 2009, the Commission adopted a decision that rendered these commitments legally binding. This decision by the Commission put an end to the proceedings initiated in May 2008. The commitments (which are valid until 2024 and as far as 2029 in certain cases) are being fulfilled under the supervision of a trustee approved by the European Commission.

27.6.2 Commissioning

In the dispute between GRDF and various gas suppliers, in a decision dated June 2, 2016, the Paris Appeal Court (i) recalled that the risk of unpaid compensation for the "transmission" part of the agreement with the end customer should be borne by the grid manager and not the gas supplier; (ii) held that the compensation for customer management services provided by the supplier on behalf of the grid manager should be fair and commensurate with the grid manager's cost savings and (iii) ordered GRDF to bring its transmission agreements into compliance with these principles. GRDF appealed the decision handed down by the Court of Appeal before the Court of Cassation.

Regarding the customer management services carried out on behalf of the grid manager in the electricity sector (in this case ERDF, now ENEDIS), following proceedings brought by ENGIE, in a decision of July 13, 2016, the *Conseil d'État* also ruled that the same principle whereby the grid manager pays compensation to the supplier should apply. In the same decision, the *Conseil d'État* denied the Energy Regulatory Commission (*Commission de Régulation de l'Énergie* - CRE) the right to set a customer threshold beyond which the compensation would not be payable, which has hitherto prevented ENGIE from receiving any compensation.

On January 12, 2017, the CRE announced that a public consultation would be held in the first quarter of 2017 on the arrangements for paying compensation to natural gas and electricity suppliers for customer management services provided to the grid manager in respect of single contract customers. The CRE has also said that it plans to take a position on these matters in the second quarter of 2017.

27.6.3 Fos Cavaou

On January 17, 2012, Fosmax LNG, a subsidiary of Elengy, submitted a request for arbitration to the ICC International Court of Arbitration against the STS consortium.

The dispute involved the construction of an LNG terminal owned by Fosmax LNG, built by STS under a fixed lump-sum turnkey contract entered into on May 17, 2004, which included construction work and supplies.

On February 13, 2015, the arbitration court delivered its award and Fosmax LNG accordingly paid STS net compensation (including interest) of €70 million before tax on April 30, 2015. On February 18, 2015, Foxmax LNG brought an action before the *Conseil d'État* seeking annulment of this decision and then on August 18, 2015 brought an appeal before the Paris Appeal Court for annulment of the award and nullity of the enforcement order. The *Conseil d'État* referred the case to the *Tribunal des Conflits* on December 3, 2015, which settled the conflict of jurisdiction in its decision of April 11, 2016 in which it confirmed the jurisdiction of the *Conseil d'État*.

In a decision dated November 9, 2016, the *Conseil d'État* partially annulled the arbitral award of February 13, 2015, considering that Fosmax LNG was entitled to put the work out to public contract and referred the parties back to arbitration on this point. Fosmax LNG intends to send formal notice to STS requesting a refund of the sum of €36 million corresponding to the unduly paid portion of the award. If no refund is forthcoming, Fosmax LNG will initiate new arbitration proceedings.

27.7 Other

27.7.1 Luxembourg – State aid investigation

On September 19, 2016, the European Commission announced its decision to open an investigation into whether or not two private rulings granted by the Luxembourg State in 2008 and 2010 covering two similar transactions between several of the Group's Luxembourg subsidiaries constitute State aid. Both Luxembourg and ENGIE have challenged the decision to open an investigation, pending the Commission's final decision.

27.7.2 United Kingdom – State aid investigation regarding Gibraltar

On October 7, 2016, the European Commission announced its decision to open a state aid investigation against the United Kingdom with regard to Gibraltar's tax system. The decision covers Gibraltar's tax ruling practices and cited 165 tax rulings, which if obtained, could constitute State aid. One of the rulings was obtained by a subsidiary of International Power Ltd in 2011 as part of the dismantling of a facility in Gibraltar. ENGIE contested this decision on November 25, 2016, pending the Commission's final decision.

NOTE 28 SUBSEQUENT EVENTS

Memorandum of understanding concerning the acquisition of the entire share capital of Elengy by GRTgaz

On January 16, 2017, the Group, Société d'Infrastructures Gazières ("SIG", held by CNP Assurances and Caisse des Dépôts et Consignations) and GRTgaz signed a preliminary memorandum of understanding to pursue negotiations to allow GRTgaz (the French natural gas transmission operator, owned at 74.7% by ENGIE and 24.9% by SIG) to acquire the entire share capital of Elengy (a wholly-owned subsidiary of ENGIE operating LNG terminals in France).

As part of the transaction, which would have no impact on the current ownership structure of GRTgaz, SIG would subscribe to a capital increase by GRTgaz to the extent of its interest in the company (i.e., around €200 million), thereby reducing the Group's net debt by the same amount.

Disposal of the portfolio of thermal merchant power plants in the United States

On February 7, 2017, the Group closed the sale of its portfolio of thermal merchant power plants in the United States *(see Note 4.1.1).* The Group received consideration of USD 3,294 million (i.e., €3,085 million) at that date, corresponding to the sale price of the portfolio.

At the reporting date, the disposal gain is estimated at €557 million, of which €525 million corresponds to the reclassification from other comprehensive income to the income statement of translation adjustments and net investment hedges relating to the portfolio. The transaction also reduced the Group's net debt by an estimated €3,080 million.

NOTE 29 FEES PAID TO THE STATUTORY AUDITORS AND TO MEMBERS OF THEIR NETWORKS

Pursuant to Article 222-8 of the Regulation of the French Financial Markets Authority (AMF), the following table presents information on the fees paid by ENGIE SA, its fully consolidated subsidiaries and joint operations to each of the auditors in charge of auditing the annual and consolidated financial statements of ENGIE Group.

The Shareholders' Meeting of ENGIE SA of April 28, 2014 decided to renew the term of office of Deloitte and EY as Statutory Auditors for a six- year period covering the period 2014-2019.

	Dec. 31, 2016			
	EY		Deloitte	
In millions of euros	**Amount**	**%**	**Amount**	**%**
Audit				
Statutory audit, attest engagements and review of consolidated and parent company financial statements	**9.5**	**85.0%**	**12.7**	**77.7%**
• ENGIE SA	2.5	22.1%	2.3	14.4%
• Fully consolidated subsidiaries and joint operations	7.0	63.0%	10.4	63.4%
Non-audit services	**1.7**	**15.0%**	**3.6**	**22.3%**
• ENGIE SA	0.7	6.5%	0.5	3.2%
• Fully consolidated subsidiaries and joint operations	1.0	8.5%	3.1	19.1%
Of which services related to regulatory requirements	*0.1*	*0.9%*	*0.2*	*1.2%*
Of which other audit services	*0.8*	*7.4%*	*2.2*	*13.0%*
Of which tax	*0.7*	*6.1%*	*1.0*	*5.8%*
TOTAL	**11.2**	**100%**	**16.3**	**100%**

NOTE 30 INFORMATION REGARDING LUXEMBOURG AND DUTCH COMPANIES EXEMPTED FROM THE REQUIREMENTS TO PUBLISH ANNUAL FINANCIAL STATEMENTS

Some companies in the Benelux, GEM & LNG and Other segments do not publish annual financial statements pursuant to domestic provisions in Luxembourg law (Article 70 of the Law of December 19, 2002) and Dutch law (Article 403 of the Civil Code) relating to the exemption from the requirement to publish audited annual financial statements.

The companies exempted are: ENGIE Energie Nederland NV, ENGIE Energie Nederland Holding BV, ENGIE Nederland Retail BV, ENGIE United Consumers Energie BV, Epon Eemscentrale III BV, Epon Eemscentrale IV BV, Epon Eemscentrale V BV, Epon Eemscentrale VI BV, Epon Eemscentrale VII BV, Epon Eemscentrale VIII BV, Epon International BV, Epon Power Engineering BV, ENGIE Portfolio Management BV, IPM Energy Services BV, IPM Eagle Victoria BV, Electrabel Invest Luxembourg, ENGIE Corp Luxembourg SARL, ENGIE Treasury Management SARL and ENGIE Invest International SA.

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