

HALF-YEAR FINANCIAL REPORT

AT 30 JUNE 2017

At its meeting of 27 July 2017, EDF's Board of Directors approved this Half-year financial report and the condensed consolidated financial statements for the half-year ended on 30 June 2017 included in it.

This report contains information relating to the markets in which the EDF group is present. This information has been taken from surveys carried out by external sources. Considering the very rapid changes that characterise the energy sector in France and worldwide, it is possible that this information could turn out to be mistaken or outdated. Developments in the Group's activities could consequently differ from those described in this Half-year financial report and the declarations and information appearing in this report could prove to be erroneous.

The forward-looking statements contained in this Half-year financial report, notably in section 11 "Financial Outlook" of the Half-year management report, are based on assumptions and estimates that could evolve or be impacted by risks, uncertainties (relating particularly to the economic, financial, competitive, regulatory and weather environment) or other factors that may cause the future results, performances and achievements of the Group to differ significantly from the objectives expressed and suggested. These factors may include changes in the economic and commercial environment, regulations, and the factors discussed in section 2 of the EDF group's 2016 Reference Document ("Risk Factors").

Pursuant to European and French legislation, the entities responsible for the transmission and distribution of electricity within the EDF group may not communicate certain information gathered in the course of their activities to the other entities of the Group, including its Management. Similarly, certain data specific to generation and supply activities may not be communicated to the entities responsible for transmission and distribution. This Half-year financial report has been prepared by the EDF group in compliance with these rules.

CONTENTS OF THE HALF-YEAR FINANCIAL REPORT

1. CERTIFICATION BY THE PERSON RESPONSIBLE FOR THE HALF-YEAR FINANCIAL REPORT
2. HALF-YEAR MANAGEMENT REPORT AT 30 JUNE 2017
3. CONDENSED CONSOLIDATED HALF-YEAR FINANCIAL STATEMENTS AT 30 JUNE 2017
4. STATUTORY AUDITORS' REVIEW REPORT ON THE FIRST HALF-YEAR FINANCIAL INFORMATION FOR 2017 (1 JANUARY TO 30 JUNE 2017)

1. CERTIFICATION BY THE PERSON RESPONSIBLE FOR THE 2017 HALF-YEAR FINANCIAL REPORT

I certify that, to the best of my knowledge, the condensed consolidated financial statements at 30 June 2017 are prepared in accordance with the applicable accounting standards and give a true and fair view of the assets and liabilities, financial position and income of the company and of all the companies included in the scope of consolidation, and that the attached Half-year management report presents a true and fair view of the important events of the first six months of the financial year and their impact on the financial statements, the main related party transactions and a description of the main risks and uncertainties for the remaining six months of the financial year.

Paris, 27 July 2017

Jean-Bernard Lévy

Chairman and CEO of EDF

HALF-YEAR MANAGEMENT REPORT

AT 30 JUNE 2017

MANAGEMENT REPORT CONTENT

1	KEY FIGURES	7
2	ECONOMIC ENVIRONMENT	9
2.1	TRENDS IN MARKET PRICES FOR ELECTRICITY AND THE PRINCIPAL ENERGY SOURCES	9
2.2	ELECTRICITY AND GAS CONSUMPTION	13
2.3	ELECTRICITY AND NATURAL GAS SALES TARIFFS	13
2.4	WEATHER CONDITIONS: TEMPERATURES AND RAINFALL	14
3	SIGNIFICANT EVENTS	16
3.1	MAJOR EVENTS	16
3.2	NEW INVESTMENTS, PARTNERSHIPS AND INVESTMENT PROJECTS	16
3.3	REGULATORY ENVIRONMENT	17
3.4	SUSTAINABLE DEVELOPMENT	19
3.5	OTHER SIGNIFICANT EVENTS	19
4	ANALYSIS OF THE BUSINESS AND THE CONSOLIDATED INCOME STATEMENTS FOR THE FIRST HALF-YEARS OF 2016 AND 2017	20
4.1	SALES	20
4.2	EBITDA	23
4.3	OPERATING PROFIT (EBIT)	26
4.4	FINANCIAL RESULT	27
4.5	INCOME TAXES	27
4.6	SHARE IN NET INCOME OF ASSOCIATES AND JOINT VENTURES	27
4.7	NET INCOME ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	27
4.8	EDF NET INCOME	28
4.9	NET INCOME EXCLUDING NON-RECURRING ITEMS	28
5	NET INDEBTEDNESS, CASH FLOWS AND INVESTMENTS	29
5.1	OPERATING CASH FLOW	29
5.2	CHANGE IN WORKING CAPITAL	30
5.3	NET INVESTMENTS	30
5.4	DEDICATED ASSETS	31
5.5	CASH FLOW BEFORE DIVIDENDS	31
5.6	DIVIDENDS PAID IN CASH	31
5.7	GROUP CASH FLOW	32
5.8	EFFECT OF CHANGE IN EXCHANGE RATE	32
5.9	FINANCIAL RATIOS	32
6	MANAGEMENT AND CONTROL OF MARKET RISKS	33
6.1	MANAGEMENT AND CONTROL OF FINANCIAL RISKS	33
6.2	MANAGEMENT AND CONTROL OF ENERGY MARKET RISKS	39
7	TRANSACTIONS WITH RELATED PARTIES	40
8	PRINCIPAL RISKS AND UNCERTAINTIES FOR THE SECOND HALF-YEAR OF 2017	40
9	SIGNIFICANT EVENTS RELATED TO LITIGATION IN PROCESS	40
9.1	PROCEEDINGS CONCERNING EDF	40
9.2	PROCEEDINGS CONCERNING EDF'S SUBSIDIARIES AND INVESTMENTS	41
10	SUBSEQUENT EVENTS	42
11	FINANCIAL OUTLOOK	43

1 KEY FIGURES

Pursuant to European regulation 1606/2002 of 19 July 2002 on the adoption of international accounting standards, the EDF group's condensed consolidated financial statements for the half-year ended 30 June 2017 are prepared using the presentation, recognition and measurement rules set forth in the international accounting standards published by the IASB and approved by the European Union for application at 30 June 2017. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and SIC and IFRIC interpretations.

The accounting methods applied by the Group are presented in note 1 to the condensed consolidated half-year financial statements at 30 June 2017.

The figures presented in this document are taken from the EDF group's condensed consolidated half-year financial statements at 30 June 2017.

The condensed consolidated half-year financial statements comply with standard IAS 34 on interim financial reporting. They do not therefore include all the information required for full annual financial statements, and are to be read in conjunction with the consolidated financial statements at 31 December 2016.

The Group's key figures for the first half of 2017 are shown in the following table.

Extract from the consolidated income statement

<i>(in millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)	Organic growth (%)
Sales	35,723	36,659	(936)	-2.6	-1.1
Operating profit before depreciation and amortisation (EBITDA)	6,996	8,944	(1,948)	-21.8	-20.6
Operating profit (EBIT)	3,882	4,512	(630)	-14.0	-12.8
Income before taxes of consolidated companies	2,894	3,288	(394)	-12.0	-10.5
EDF net income	2,005	2,081	(76)	-3.7	-1.6
Net income excluding non-recurring items ⁽¹⁾	1,370	2,968	(1,598)	-53.8	-52.4

(1) Net income excluding non-recurring items is not defined by IFRS, and is not directly visible in the Group's consolidated income statement. It corresponds to the Group's share of net income (EDF net income) excluding the net change in fair value on energy and commodity derivatives, excluding trading activities, net of tax (see section 4.9 "Net income excluding non-recurring items").

From EDF net income to net income excluding non-recurring items

<i>(in millions of Euros)</i>	H1 2017	H1 2016
EDF net income	2,005	2,081
Gain on sale of 49.9% of CTE ⁽¹⁾	(1,289)	-
Other, including net changes in fair value on energy and commodity derivatives, excluding trading activities	291	156
Impairment	363	731
NET INCOME EXCLUDING NON-RECURRING ITEMS	1,370	2,928
Payments to bearers of perpetual subordinated bonds	(394)	(401)
NET INCOME AFTER PAYMENTS TO BEARERS OF PERPETUAL SUBORDINATED BONDS	976	2,567

(1) The company that holds 100% of RTE's shares (an independent EDF subsidiary as defined in the French Energy Code).

Group cash flow

<i>(in millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)
Group cash flow ^{(1) (2)}	1,482	107	1,375	n.a.

n.a.: not applicable

(1) Group cash flow is not an aggregate defined by IFRS as a measure of financial performance, and is not comparable with indicators of the same name reported by other companies. It is equivalent to the operating cash flow after changes in working capital and net investments, allocations and withdrawals from dedicated assets, and dividends (see section 5 of this half-year financial report).

(2) Before the capital increase.

Details of net indebtedness

<i>(in millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)
Net indebtedness ⁽¹⁾	31,268	37,425	(6,157)	-16.5
Equity (EDF share)	39,752	34,438	5,314	+15.4
Net indebtedness/EBITDA	2.2 ⁽²⁾	2.3		

(1) Net indebtedness is not defined in the accounting standards and is not directly visible in the Group's consolidated balance sheet. It comprises total loans and financial liabilities, less cash and cash equivalents and liquid assets. Liquid assets are financial assets consisting of funds or securities with initial maturity of over three months that are readily convertible into cash and are managed according to a liquidity-oriented policy (see note 20.3 to the condensed consolidated half-year financial statements at 30 June 2017).

(2) The ratio at 30 June 2017 is calculated based on cumulative EBITDA for the second half-year of 2016 and the first half-year of 2017.

2 ECONOMIC ENVIRONMENT

2.1 TRENDS IN MARKET PRICES FOR ELECTRICITY AND THE PRINCIPAL ENERGY SOURCES

In an interconnected European market, analysis of market prices in France must be considered in relation to prices in its neighbouring countries.

European spot electricity prices during the first half of 2017 were substantially higher than in first-half 2016. This rise is explained by colder first-half temperatures in the first quarter of 2017, the situation in the nuclear fleet at the start of the year, and the rise in fuel prices.

2.1.1 Spot electricity prices in Europe¹

	France	United Kingdom	Italy	Germany	Belgium
Average baseload price for H1 2017 (€/MWh)	44.4	51.2	51.2	35.5	43.7
Variation in average H1 baseload prices, 2017/2016	62.2%	14.2%	38.0%	42.2%	57.2%
Average peakload price for H1 2017 (€/MWh)	52.2	55.8	57.3	43.4	52.2
Variation in average H1 peakload prices, 2017/2016	55.1%	10.5%	40.8%	41.4%	50.9%

The comments below concern baseload prices.

In **France**, spot electricity prices stood at an average €44.4/MWh in the first half of 2017, €17.0/MWh higher than in the first half of 2016. This price rise is mainly explained by the increase in coal and gas prices, tensions concerning the nuclear power plant fleet early in the year, and a wave of cold weather in January 2017.

In the first half of 2017, demand in France was 0.4GW higher than in the corresponding period of 2016 at an average 56.8GW. It was met by making greater use of fossil-fired thermal plants, since nuclear power output was down in line with the larger number of scheduled outages in the first quarter (including outages for additional testing of steam generators), lower hydropower output and stable wind and solar power production.

There were contrasting developments in successive months. In January 2017, temperatures averaged 2.6°C. These low temperatures caused an increase in consumption, which was 10.4GW higher than in January 2016, leading to an average price of €78.0/MWh. The month of March 2017 was the warmest March since 1900 (on a par with 1957), registering an average temperature of 10.5°C, 2.0°C above normal. Demand declined by 6.0GW compared to March 2016 and the price averaged €35.4/MWh. May had some relatively cool weeks, while temperatures were high in June. Demand rose respectively by 0.5GW (driven by heating) and 1.2GW (driven by air conditioning).

In the **United Kingdom**, average spot electricity prices rose by €6.4/MWh over their first-half 2016 level to reach an average €51.2/MWh. The increase was greater in the first quarter (€10.7/MWh) than the second (€2.1/MWh) and prices stood at €55.8/MWh and €46.6/MWh respectively, reflecting the recovery in commodity prices since the previous year. Also, like most other European countries, British prices in the first quarter were sustained by particularly high demand following the cold weather of January. The United Kingdom was unable to make full use of the interconnection with France due to storm damage, which limited the exchange capacity with France to 1GW instead of 2GW between 20 November 2016 and 2 March 2017.

In **Italy**, average spot prices saw a year-on-year rise of €14.1/MWh, reaching €51.2/MWh for the first half-year of 2017. This rise was due to the recovery by commodity prices, particularly for gas, which accounts for close to 35% of Italian electricity generation.

In **Germany**, spot prices stood at an average €35.5/MWh, an increase of €10.5/MWh from first-half 2016 driven by the recovery of commodity prices, the wave of cold weather in January, and the fuel reloading campaign for nuclear plants in January after the tax on nuclear fuel was discontinued. Wind power output was up by 2.2GW from first-half 2016 to an average 11.1GW for first-half 2017. At 30 June 2017, the total installed wind power capacity in Germany was around 49GW. Photovoltaic solar power output was up by some 0.6GW to a total 4.6GW for first-half 2017, with installed photovoltaic capacity of around 41GW. Several significant periods

¹ *France and Germany: Average previous day EPEXSPOT price for same-day delivery;
Belgium: Average previous day Belpex price for same-day delivery;
United Kingdom: Average previous day EDF Trading OTC price for same-day delivery;
Italy: Average previous day GME price for same-day delivery.*

of wind and photovoltaic power generation led to negative prices in the first six months of 2017, descending to -€75.0/MWh on 30 April.

In **Belgium**, spot prices were up by €15.9/MWh compared to the first half of 2016, with an average price of €43.7/MWh. This rise was boosted by the prices of the first quarter, which stood at €51.7/MWh, a year-on-year increase of €23.3/MWh, while in the second quarter prices rose by €8.6/MWh compared to the previous year, to €35.7/MWh.

2.1.2 Forward electricity prices in Europe¹

	France	United Kingdom	Italy	Germany	Belgium
Average forward baseload price under the 2018 annual contract for H1 2017 (€/MWh)	35.8	50.1	43.7	30.0	34.9
Variation in average H1 forward baseload price under the annual contracts, 2017/2016	23.4%	9.6%	11.8%	25.5%	14.8%
Forward baseload price under the 2018 annual contract at 30 June 2017 (€/MWh)	36.6	47.3	44.3	30.8	34.9
Average forward peakload price under the 2018 annual contract for H1 2017 (€/MWh)	47.2	55.7	49.5	37.9	45.7
Variation in average H1 forward peakload price under the annual contracts, 2017/2016	24.9%	6.8%	9.8%	25.5%	15.6%
Forward peakload price under the 2018 annual contract at 30 June 2017 (€/MWh)	47.7	53.0	50.3	38.6	44.7

Average annual contract prices for baseload and peakload electricity in Europe were higher than in first-half 2016. The increase was mainly attributable to the recovery by fuel prices.

In **France**, the average annual contract baseload price was 23% higher than in first-half 2016, principally as a result of rising fuel prices: the average coal price increased by 51% between first-half 2016 and first-half 2017, and the average gas price by 18%. The lower availability of the nuclear fleet during the winter also helped to push prices up. The volumes traded on the markets were relatively low throughout the half-year, beginning an upturn from mid-May.

In the **United Kingdom**, the April Ahead contract baseload price for 1 April Y+1 to 31 March Y+2 was up by 9.6% compared to first-half 2016 to an average €50.1/MWh for first-half 2017. This increase is due to a rise in gas prices, which make a significant contribution to the formation of British electricity prices as gas-fired facilities account for a large portion of the UK's generation fleet. However, prices saw a downturn in March before stabilising, echoing the movements in forward gas prices. In late June, the operator Centrica announced the permanent closure of the Rough storage site, the largest in the United Kingdom, after several technical problems. The site had previously been declared unavailable for injections for a one-year period from April 2017.

In **Italy**, the annual contract baseload price also rose to an average €43.7/MWh, nearly 12% higher than in first-half 2016. This increase is explained by the significant increase in gas prices, which are a major factor in electricity prices in Italy.

In **Germany**, the average annual contract baseload price was up by 26% compared to first-half 2016, standing at €30.0/MWh. This rise is attributable to higher year-on-year fuel prices, mainly for coal which greatly influences the formation of German electricity prices, despite the greater installed renewable energy capacities, principally for wind power (both onshore and offshore) that put downward pressure on prices. In May, Germany and Austria signed an agreement to split the single electricity price zone from 1 October 2018, in order to reduce congestion costs in Germany.

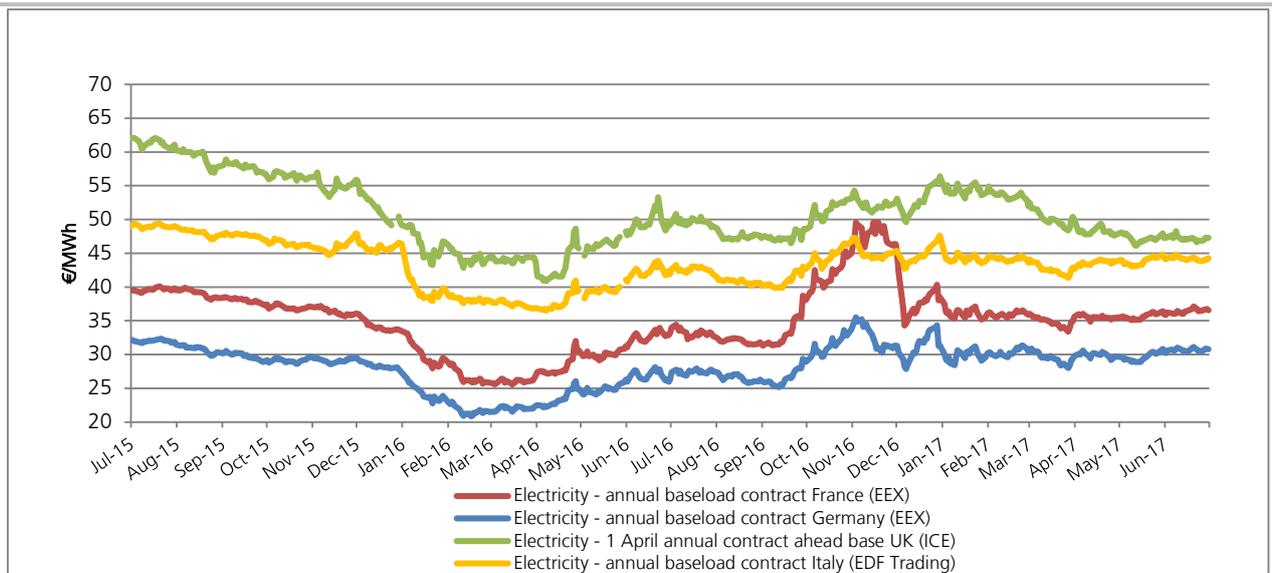
In **Belgium**, the annual contract baseload price was 15% higher than in first-half 2016 at €34.9/MWh, following the same trend as commodity prices despite the resumption of operations by the Doel 1, Doel 3 and Tihange 1 nuclear reactors in Belgium, which had been offline during the first half of 2016.

¹ *France and Germany: average year-ahead EEX price;*

Belgium and Italy: average year-ahead EDF Trading price;

United Kingdom: average ICE annual contract prices, April 2015 then April 2016 (in the UK, annual contract deliveries take place from 1 April to 31 March).

Principal forward electricity prices in Europe (baseload)



2.1.3 CO₂ emission rights prices¹

The price of CO₂ emission rights for delivery in December 2018 ended the half-year at €5.1/t, up by €0.6/t compared to 30 June 2016. In March, the European Union Council adopted a common position on the Market Stability Reserve (MSR) from 2024. Negotiations between European institutions (the Commission, the Parliament and the Council) about a proposed directive have begun but were not completed by 30 June. The proposals notably concern doubling the MSR, which could absorb almost 24% of the quotas in circulation in a given year if there are excess quotas on the market. In May, the European Commission also released a report on annual variations in CO₂ emissions governed by the EU-ETS system, stating that emissions had decreased by 2.6% between 2015 and 2016.

CO₂ emission rights prices



1. Average ICE prices for the annual contract, Phase III (2013-2020).

2.1.4 Fossil fuel prices¹

	Coal (US\$/t)	Oil (US\$/bbl)	Natural gas (€/MWhg)
Average price for H1 2017	66.3	52.7	17.2
Average H1 price variation, 2017/2016	+51%	+28%	+18%
Highest price in H1 2017	70.3	57.1	18.9
Lowest price in H1 2017	60.8	44.8	15.8
Price at 30 June 2017	70.2	47.9	15.9
Price at 30 June 2016	55.6	49.7	16.2

Coal prices for delivery in Europe in 2018 stood at an average US\$66.3/t in the first half of 2017, up by 51% (+US\$22.4/t) from the first half of 2016. This recovery by coal prices was partly due to rising oil prices, which pushed up the cost of coal transport and extraction, and partly by China's ambition to reduce its coal production and close unprofitable mines (China accounts for 50% of worldwide coal production and consumption). The Chinese government has set itself a target of cutting its national coal production by nearly 1 billion tonnes a year (for information, Europe imports a total 200 million tonnes of coal every year). The price of coal for delivery in Europe in 2018 was stable in May, then rose in June to end the half-year at US\$70.21/t, a year-on-year increase of US\$14.6/t.

Oil prices for the first half of 2017 were an average US\$52.7/bbl, up by 28% (+US\$11.5/bbl) from the previous year. This substantial increase was explained by the particularly low oil prices of early 2016, which hit their lowest point since 2003 on 20 January 2016 at US\$27.9/bbl due to excess supply on the market. Since then, prices have fluctuated in response to meetings between OPEC countries and Russia to find a way to limit coal production and absorb overcapacity. An agreement was finally reached in Vienna in November 2016, and this stabilised oil prices at around US\$55/bbl. However, the price of oil retreated by almost 7% over the first quarter of 2017. Causes were the higher American oil stocks, a rise in the number of drilling wells in operation in the United States following measures to reduce the associated costs, and the fragility of the Vienna agreement. In April, oil prices moved downwards as the reduction in American oil stock levels was smaller than expected. This downward price trend continued in May and June after the Vienna OPEC meeting of 25 May, since the market had anticipated a more substantial and durable reduction in coal production than actually occurred. A further factor in June was the rise in oil production by Nigeria and Libya, two OPEC countries that are exempt from the agreed restrictions. Oil prices reached their lowest level since November 2016, US\$44.8/bbl, on 21 June 2017 and ended the half-year at US\$47.9/bbl.

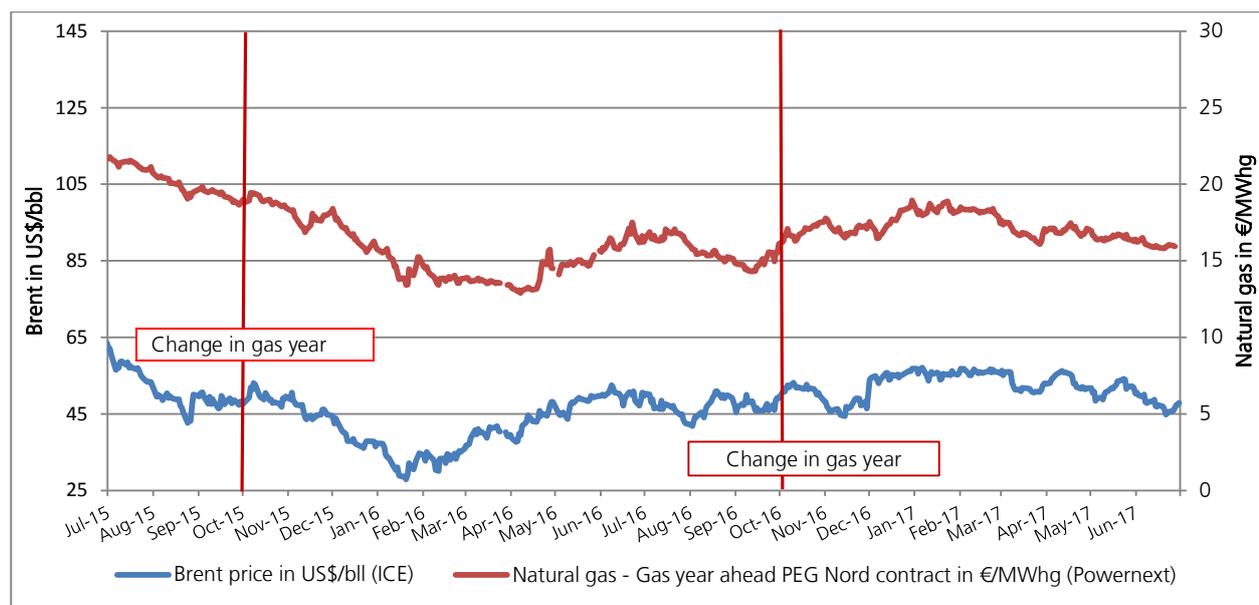
The annual gas contract for the French PEG Nord hub traded at an average €17.2/MWh in the first half of 2017, a year-on-year increase of 18% (+€2.6/MWh). This rise is explained by the recovery in oil prices, since long-term contracts are partly indexed on oil prices. Also, prices were relatively low in 2016 as the winter of 2015/2016 was mild and storage drawdown was low. Over the half-year, after two initial months of relative stability, prices moved downwards in the wake of oil prices and due to good LNG supplies in May. The Gas Year contract ended the half-year at €15.9/MWh, in line with the oil market, despite tensions observed in June between Qatar and its neighbouring countries over supplies of LNG.

1. Coal: average ICE prices for delivery in Europe (CIF ARA) for the next calendar year (US\$/t);

Oil: brent first reference crude oil barrel, ICE index (front month) (US\$/barrel);

Natural gas: average ICE OTC prices, for delivery starting from October of the following year in France (PEG Nord) - €/MWhg.

Natural gas and oil prices



2.2 ELECTRICITY¹ AND GAS² CONSUMPTION

Electricity consumption in France reached 248.9TWh for the first half-year of 2017, slightly less (-0.6%) than in first-half 2016. The relative temperature differences between 2016 and 2017 explain most of the variation in consumption levels. After correction for weather effects and the “leap year effect” of 2016, first-half electricity consumption in France was practically stable (+0.3% year-on-year).

In the United Kingdom, estimated electricity consumption was down by 3.9% compared to first-half 2016, principally as a result of a fall in consumption in several sectors. In Italy, electricity consumption was up by 1.4% compared to first-half 2016 due to favourable weather conditions, particularly in January and June 2017.

Estimated natural gas consumption in France rose by 2.0% over the first half of 2017 compared to the first half of 2016, mainly due to colder weather in January 2017 when temperatures were 2.4°C below normal. This led to an overall rise in consumption of 18.5TWh due to higher demand for heating and greater use of gas-fired power plants to produce electricity. However, the rise in January was offset by a marked 15% year-on-year decrease in the month of March, when average temperatures were 3.1°C higher in 2017 than 2016, causing an 8.4TWh downturn in consumption.

Estimated natural gas consumption in the United Kingdom was down by 5.9% from first-half 2016 thanks to warmer weather in the first half-year of 2017. The average temperature for the first half-year was 0.7°C higher in 2017 than 2016. In Italy, domestic demand for natural gas increased by 9.7% as a result of rising industrial and residential consumption, and this led to higher output by gas-fired power plants and lower hydropower production.

2.3 ELECTRICITY AND NATURAL GAS SALES TARIFFS

For details of recent developments concerning tariffs in France, see section 3.3.1.3., “Regulated electricity sales tariffs in France”.

In the United Kingdom, EDF Energy introduced two tariff changes:

- a 5.2% reduction in gas tariffs from 5 January 2017 and an 8.4% increase in electricity tariffs from 1 March 2017;
- then a 5.5% increase for gas and a second increase of 9% for electricity.

1. Sources: France: unadjusted data and data adjusted for weather effects provided by RTE.

United Kingdom: Department of Energy and Climate Change data or the first three quarters, local subsidiary estimation for the final quarter.

Italy: unadjusted data and data provided by Terna, the Italian national grid operator, and adjusted by Edison.

2. Sources: France: unadjusted data from Smart GRTgaz.

United Kingdom: Department of Energy and Climate Change data for the first three quarters, local subsidiary estimation for the final quarter.

Italy: Ministry for Economic Development (MSE), Snam Rete Gas data restated by Edison on the basis 1 bcm = 10.76TWh.

In the first half-year of 2017, electricity tariffs rose by a total 18.1% and gas tariffs remained stable. The five other largest energy suppliers, apart from British Gas, also increased their tariffs. These increases are mainly explained by the rise in wholesale market prices and non-energy costs.

2.4 WEATHER CONDITIONS: TEMPERATURES AND RAINFALL

Over the first half-year, temperatures were almost 1°C higher on average in 2017 than 2016, and 0.4°C above normal levels.

The wave of cold weather that crossed January 2017 brought the average monthly temperature down to 2.4°C below normal, while February and March were relatively mild. The weather grew even milder at the very end of March and this continued until mid-April. The second fortnight of April was then relatively cool (with temperatures 3.1°C below normal). The opposite happened in May, which saw particularly high temperatures late in the month (between 5° and 6°C warmer than normal), and June was also a month of high temperatures, registering an average 1.8°C above normal.

Temperatures^{(1) (2)} in France in first-half 2017 and first-half 2016

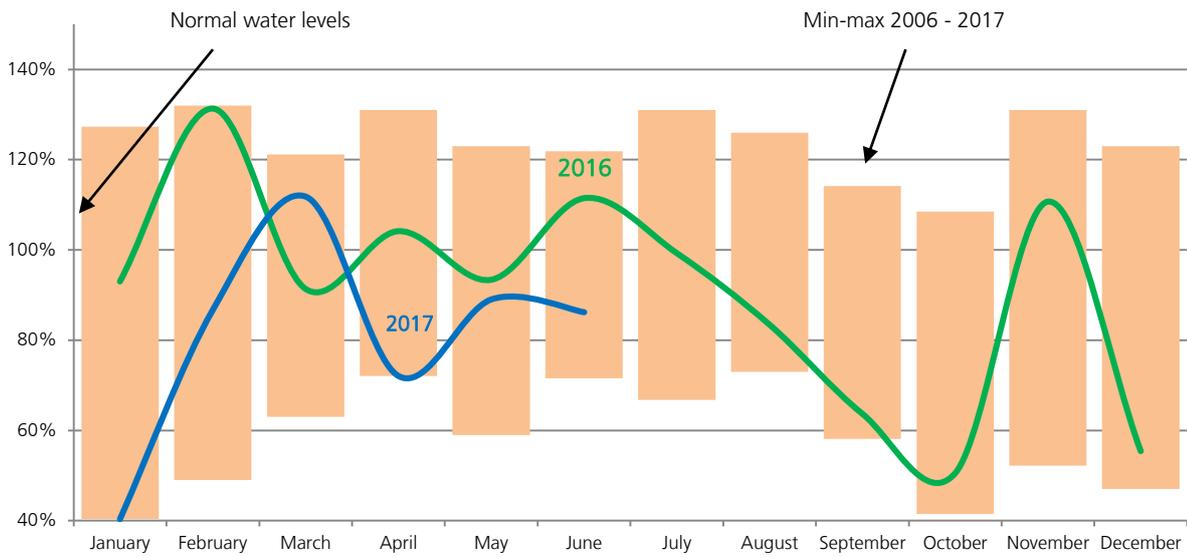


(1) Average temperatures recorded in 32 cities weighted by electricity consumption.

(2) Source: Miréor (data from Météo France).

The first half-year of 2017 was marked by a shortfall of precipitation in the Alps and the north-east of France, with closer-to-normal rainfall in the Pyrenees and Massif Central regions. Consequently, water levels in France were below normal in this first part of the year (apart from March). They were particularly low in January as a result of a very dry year 2016 followed by a month of January with low rainfall. The warm and dry spring did not improve matters, and low water levels were reached early in many zones as the summer began.

Water flow coefficients in France in 2016 and first-half 2017⁽¹⁾



⁽¹⁾ Weekly monitoring by the EDF group's Statistical Observatory energy observatory of French reservoir levels (Miréor) as far as the coast.

3 SIGNIFICANT EVENTS^{1 2}

This chapter reports on significant events following the publication, on 6 March 2017, of the 2016 Reference Document (see section 5.1.3 "Significant events of 2016").

3.1 MAJOR EVENTS

- EDF partially waived one of the conditions precedent contained in the NEW NP acquisition agreement (see press release of 12 July 2017).
- Binding agreements were signed with strategic investors for the acquisition of an equity stake in NEW NP (see press release of 10 July 2017).
- Clarifications were made to the Hinkley Point C project (see press release of 3 July 2017): update of project costs.
- Approval of the Flamanville 3 EPR's vessel: draft opinion of the French Nuclear Safety Authority specifying that the composition of the steel of the vessel head and bottom is not likely to call into question its commissioning under certain conditions and in particular the replacement of the vessel head by the end of 2024 (see press release of 29 June 2017).
- EDF announced the signing of an agreement with PGE for the sale of EDF Polska's assets (see press release of 19 May 2017 and note 2.5.2 to the condensed consolidated half-year financial statements at 30 June 2017).
- EDF's Board of Directors approved the creation of EDVANCE, a significant milestone in the reconstruction of the French nuclear industry (see press release of 17 May 2017).
- Board of Directors' meeting held on 6 April 2017: Fessenheim (see press release of 6 April 2017).
- EDF's Board of Directors considered the strategic plan for the first period of the French multiannual energy program (PPE) (see press release of 6 April 2017).
- EDF finalised the indirect sale of 49.9% of CTE³ to Caisse des Dépôts and CNP Assurances (see press release of 31 mars 2017 and note 2.5.1 to the condensed consolidated half-year financial statements at 30 June 2017).
- EDF announced the success of its share capital increase with preferential subscription rights for an amount of approximately €4 billion (see press release of 28 March 2017 and note 2.1 to the condensed consolidated half-year financial statements at 30 June 2017).
- Flamanville EPR launched its system performance test phase prior to reactor start-up in 2018 (see press release of 16 March 2017).
- EDF Trading and JERA: sale of the coal trading business (see note 2.5.4 to the condensed consolidated half-year financial statements at 30 June 2017).

3.2 NEW INVESTMENTS, PARTNERSHIPS AND INVESTMENT PROJECTS

EDF Énergies Nouvelles⁴

During the first half-year of 2017, EDF Énergies Nouvelles commissioned new facilities, signed electricity purchase agreements and undertook new projects.

- On 20 July 2017, EDF Énergies Nouvelles announced that its simplified tender offer for FUTUREN had been successful (see note 3.1. to the condensed consolidated half-year financial statements at 30 June 2017).

1. A full list of press releases is available from the EDF website www.edf.fr

2. See section 9 for details of litigation that has seen significant developments since the Reference Document was filed.

3. The company that holds 100% of RTE's shares (an independent EDF subsidiary as defined in the French Energy Code).

4. A full list of press releases is available from the EDF Énergies Nouvelles website: www.edf-energies-nouvelles.com

- On 13 July 2017, EDF Énergies Nouvelles acquired a group of wind power projects in the United Kingdom with capacity of over 600MW.
- On 5 July 2017, EDF Énergies Nouvelles acquired offshore wind farm operations and maintenance specialist OWS.

EDF Energy-Dalkia

On 6 July 2017, EDF Energy Services completed its purchase of Imtech. Imtech is a leading engineering services company and provider of technical services to construction, industrial, commercial and public sector clients in the United Kingdom and Ireland (see note 22.1.2. to the condensed consolidated half-year financial statements at 30 June 2017).

3.3 REGULATORY ENVIRONMENT

3.3.1 France

3.3.1.1 CSPE compensation mechanism for public energy service charges

Legal and regulatory framework

The financing and compensation mechanism for public energy service charges (*compensation des Charges de Service Public de l'Énergie*) results from a reform introduced by France's amended finance law for 2015, published in the *Journal Officiel* on 30 December 2015. Under the new legislative and regulatory framework, the public energy service charges (electricity and gas) are to be compensated via two State budget items included in France's finance laws from 2016 onwards. The initial finance law for 2017 thus makes the following provision regarding charges for the year 2017:

- a special "Energy Transition" budget item of €7 billion, principally to compensate for the additional costs associated with all contracts obliging the operators to purchase renewable energies and biogas, the annual contribution to repayment of the accumulated shortfall in compensation due to EDF, and reimbursement of surplus amounts to industrial operators who were exempt prior to 2016;
- a "Public Energy Service" item of €2.5 billion in the general budget to cover solidarity charges borne by gas and electricity suppliers, costs associated with purchase obligations excluding renewable energies, and the cost of applying the standard national tariffs to zones that are not connected to France's mainland network.

In 2017 this mechanism has two sources of funding:

- The special "Energy Transition" budget item is mainly funded by part of the income from taxes on fuel oils (TICPE), and also by the coal tax (TICC).
- The general budget is funded by the tax on electricity consumption (CSPE) and the tax on natural gas consumption (TICGN).

The CSPE is a tax collected by the State from electricity suppliers. Until 2016 it funded the special "Energy Transition" budget item, but it is now allocated to the State's general budget. The level of the CSPE remains stable compared to 2016, with the full rate for 2017 set at €22.5/MWh, and seven reduced rates ranging from €0.5/MWh to €7.5/MWh depending on criteria of electro-intensiveness, business category and the risk of carbon leaks from installations.

The amended finance law for 2016 changed the scope of the expenses eligible for compensation, incorporating costs related to conclusion and management of purchase obligation contracts from 1 January 2017.

Public service charges borne by EDF

The amount of expenses (excluding the annual contribution to repayment and associated interest) to be compensated for EDF for first-half 2017 is €3,424 million, stable compared to first-half 2016. This stability reflects two opposite effects: the volumes generated for purchase obligations were higher than in first-half 2016, but the unit compensation value was brought down by the rise in market prices. The amounts received in application of the new CSPE system over first-half 2017 (excluding the annual contribution to repayment and associated interest) totalled €3,553 million, higher than in first-half 2016, mainly as a result of the State's decision to defer the €414 million compensation payment to EDF out of the "Energy Transition" budget item from December 2016 to January 2017. The effects of this deferral on funding via the "Energy Transition" budget item for 2017 were adjusted through a budget carryover decision that took effect on 28 March 2017.

A repayment schedule for EDF's receivable corresponding to the accumulated shortfall in compensation, which amounted to €5,780 million at 31 December 2015, was set out in the ministerial decision of 13 May 2016, amended on 2 December 2016. Under this schedule the receivable will be fully repaid by 2020. On 22 December 2016 EDF securitised a portion of this receivable (€1.5 billion) through a State-approved "Daily law" assignment. Consequently, since 1 January 2017 EDF has received a 73.6% share of payments made by the State in reimbursement of the receivable as set out in the repayment schedule.

At 30 June 2017, EDF had received €362 million in repayment of the principal and €33 million in related interest, or a total of €395 million, in line with the ministerial decision of 13 May 2016 detailing the arrangements for EDF's recovery of the shortfall in compensation.

Finally, in accordance with decree 2016-158 of 18 February 2016 concerning compensation for public energy service charges, the CRE is shortly due to publish a decision recording the public service charges for 2016 and providing a revised forecast of charges for 2017 and a forecast of charges for 2018.

3.3.1.2 TURPE network access tariffs

Following the Council of State's decision of 13 July 2016, the CRE's decision of 17 November 2016 stated that remuneration was payable to suppliers for customer management under a single contract by distribution network operators ("supplier commissioning"), but did not set out the calculation methods. A detailed proposal was submitted to a consultation process with stakeholders organised by the CRE during the second quarter of 2017, as announced in the CRE's decision of 19 January 2017. This remuneration will be included in the expenses covered by the TURPE tariff. The CRE intends to issue a decision on this subject by the end of the summer 2017.

3.3.1.3 Regulated electricity sales tariffs in France

"Blue" tariffs

In application of the NOME law on the organisation of the French electricity market, the mission of proposing regulated sales tariffs was transferred to the CRE on 8 December 2015.

On 13 July 2016 the CRE published its decision giving details of the methodologies and options chosen to calculate regulated sales tariffs, using the "stacking" method in accordance with the Decree of 28 October 2014 and the NOME Law.

In view of the tariff change planned for 1 August 2017, the CRE also issued a guideline document on 20 June 2017 that proposed a 1.7% rise in blue tariffs for residential and non-residential customers from 1 August 2017. A meeting with stakeholders about this document was held by the CRE on 28 June 2017. The proposed changes are confirmed by two decisions, the proposal of 6 July 2016 and the decision of 20 July 2017 correcting errors, and the Ministers concerned have up to three months to make any objections to the CRE's proposal.

3.3.1.4 French capacity mechanism

On 8 November 2016, the European Commission concluded that the capacity mechanism proposed by France was compatible with internal market rules on State aid. As a result of this decision the mechanism was able to take effect as of 1 January 2017.

Two auctions of capacity for 2017 were held on the European Power Exchange EPEX SPOT, on 15 December 2016 and 27 April 2017. The volumes traded between obligated capacity purchasers and operators selling capacity amounted to 22.6GW in December 2016 and 0.5GW in April 2017. The equilibrium price determined was €10/kW in December 2016 and €10.42/kW in April 2017. The December price of €10/kW (from the only auction held ahead of the year of delivery) is the "market reference price" of capacity for 2017.

The capacity price is passed on to customers through their contracts with EDF as supplier, or with other suppliers. This price is already included in bills for customers on market-price contracts. For customers on regulated sales tariffs, the cost of capacity has been incorporated into the CRE's most recent tariff proposals (of 6 July 2017).

Further auctions will take place in November and December 2017 to trade capacities for 2018 and 2019.

In 2018, additional auctions will take place concerning capacity for 2017 and 2018 (rebalancing between actors) and later years (2019 to 2022).

3.3.1.5 Regulated gas sales tariffs in France

Decision by the Council of State of 19 July 2017

By a decision of 19 July 2017 the Council of State cancelled the decree of 16 May 2013 concerning regulated sales tariffs for natural gas, on the grounds that the legal basis underlying this decree is contrary to European Union law (directive 2009/73/EC, interpreted by the CJEU in opinions of 20 April 2010 (C-265/08, Federutility) and 7 September 2016 (C-121/15, ANODE) since at the date of the decree concerned, it was no longer possible to use the general economic interest as justification for continuing regulated gas prices.

As an exceptional measure, the Council of State ruled that the past effects of the decree are final and permanent, and consumers cannot therefore challenge effects that have already arisen from the cancelled decree. In its decision, the Council made a distinction between gas and electricity, stating that electricity, "in application of article L. 121-1 of the French Energy Code, is an 'essential product' that must be supplied 'over the whole national territory' ".

3.3.1.6 Energy savings certificates: preparations for the fourth period (2018-2020)

Decree 2017-690 of 2 May 2017 issued by the French Ministry for the Environment, Energy and the Sea, published in the *Journal Officiel* on 3 May 2017, sets the obligation levels for the fourth period of energy savings obligations to run from 1 January 2018 to 31 December 2020. The overall level of obligations for this three-year period is substantially increased by the decree: 1,200TWhc for the "standard" obligations and 400TWhc for the obligations that are to benefit households in situations of energy poverty, compared to 700TWhc and 150TWhc respectively for the previous period.

Energy sellers may fulfil their obligation in three ways: by supporting customers in their energy efficiency operations, funding ministry-approved energy savings certificate schemes, and purchasing certificates from eligible actors. Any surplus "stock" of certificates gained in the previous period also contributes to fulfilment of the obligation. If there is a shortfall at the end of the period, obligated actors must pay the Treasury the fine of €15 per MWhc of shortfall laid down in article L221-4 of the Energy Code, approximately five times the current cost of the standard obligation.

The EDF group will make every effort to gradually increase the number of certificates earned from energy saving efforts with customers in order to meet the objectives set by the State. However, the significant increase in obligations combined with the current lack of depth in the energy savings certificates market, whose future liquidity is uncertain, expose the Group to the risk of a shortfall in certificates for the fourth period.

3.4 SUSTAINABLE DEVELOPMENT

▪ Green bonds

In October 2015, EDF undertook its second US dollar green bond issue in the total amount of US\$1.25 billion with maturity of 10 years, and an annual fixed coupon of 3.625%. The funds collected are dedicated to development and construction of new renewable energy projects by EDF Énergies Nouvelles. By 30 June 2017, US\$1.22 billion had been allocated to construction of six wind farms.

In October 2016, EDF undertook a third green bond issue in Euro, in the total amount of €1.75 billion with maturity of 10 years, and an annual fixed coupon of 1%. The funds collected are dedicated to development and construction of new renewable energy projects by EDF Énergies Nouvelles, and also to renovation, modernisation and development of existing hydropower facilities in mainland France. By 30 June 2017, €83 million had been allocated to nearly 90 hydropower investment operations.

- EDF signed an innovative bilateral Revolving Credit Facility with an interest rate that depends on its sustainability rating (see press release of 22 May 2017).

3.5 OTHER SIGNIFICANT EVENTS

- Results of the option for payment of the balance of the dividend in respect of the 2016 financial year (see press release of 28 June 2017 and notes 17.1 and 17.2 to the condensed consolidated half-year financial statements at 30 June 2017).
- Appointments to the EDF group Executive Committee (see press release on 12 June 2017).
- New Leadership roles announced at EDF Energy (see press release on 27 July 2017).

4 ANALYSIS OF THE BUSINESS AND THE CONSOLIDATED INCOME STATEMENTS FOR THE FIRST HALF-YEARS OF 2016 AND 2017

The presentation and discussion of the consolidated income statements for the first half-years of 2016 and 2017 is shown at two levels of analysis for Sales and EBITDA: a first focusing on the Group, then a second reporting on the different business segments (France - Generation and supply activities, France - Regulated activities, United Kingdom, Italy, Other international and Other activities). EBIT (operating profit) and net income are analysed from a general standpoint.

<i>(in millions of Euros)</i>	H1 2017	H1 2016
Sales	35,723	36,659
Fuel and energy purchases	(19,345)	(18,764)
Other external expenses	(3,733)	(3,991)
Personnel expenses	(6,286)	(6,333)
Taxes other than income taxes	(2,687)	(2,727)
Other operating income and expenses	3,324	4,100
Operating profit before depreciation and amortisation (EBITDA)	6,996	8,944
Net changes in fair value on energy and commodity derivatives, excluding trading activities	(196)	(77)
Net depreciation and amortisation	(4,212)	(3,916)
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(41)	(15)
(Impairment)/reversals	(32)	(300)
Other income and expenses	1,367	(124)
Operating profit (EBIT)	3,882	4,512
Financial result	(988)	(1,224)
Income before taxes of consolidated companies	2,894	3,288
Income taxes	(712)	(960)
Share in net income of associates and joint ventures	(93)	(162)
GROUP NET INCOME	2,089	2,166
EDF net income	2,005	2,081
Net income attributable to non-controlling interests	84	85
EARNINGS PER SHARE (EDF SHARE) (IN EUROS)		
Earnings per share	0.66	0.88
Diluted earnings per share	0.66	0.88

4.1 SALES

Consolidated sales were down by 2.6%, corresponding to an organic decline of 1.1%.

4.1.1 Change in Group sales

<i>(in millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)	Organic growth (%)
Sales	35,723	36,659	(936)	-2.6	-1.1

Sales amounted to €35,723 million in the first half of 2017, a year-on-year decrease of €936 million (-2.6%). Excluding the effect of movements in exchange rates (-€396 million), principally the pound sterling's decline against the Euro, and changes in the scope of consolidation (-€121 million), sales showed an organic decline of 1.1%.

4.1.2 Change in Group sales by segment

The following table shows sales by segment, excluding inter-segment eliminations.

<i>(in millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)	Organic growth (%)
France - Generation and supply activities ⁽¹⁾	18,564	18,683	(119)	-0.6	-0.6
France - Regulated activities ⁽²⁾	8,174	8,125	49	+0.6	+0.6
United Kingdom	4,427	4,988	(561)	-11.2	-1.8
Italy	4,968	5,561	(593)	-10.7	-10.8
Other international	2,537	2,708	(171)	-6.3	-2.8
Other activities	3,811	3,528	283	+8.0	+6.8
Eliminations	(6,758)	(6,934)	176	-2.5	-2.5
GROUP SALES	35,723	36,659	(936)	-2.6	-1.1

(1) Generation, supply and optimisation in mainland France, and sales of engineering and consulting services.

(2) Regulated activities comprise distribution in mainland France, which is carried out by Enedis¹, transmission, EDF's island activities and the activities of *Électricité de Strasbourg*. In mainland France, distribution network activities are regulated via the network access tariff TURPE (Tarifs d'Utilisation des Réseaux Publics d'Électricité). Sales of Enedis include the share delivery costs for customers of alternative suppliers in mainland France.

4.1.2.1 France - Generation and supply activities

Sales in the first half-year of 2017 by the France - Generation and supply activities segment amounted to €18,564 million, an organic decrease of €119 million (-0.6%) compared to the first half-year of 2016.

Over the first half-year of 2017, weather factors (-0.1TWh) and the "leap year effect" of 2016 (-1.1TWh) had an adverse effect of €243 million.

The decrease of 1 August 2016 in regulated electricity sales tariffs also led to a €61 million decline in sales.

In an intensely competitive environment, there was a -5.2TWh decrease in volumes supplied in first-half 2017 due to losses of customers.

The first half-year of 2017 was marked by the high subscriptions to the ARENH scheme (for regulated access to historical nuclear electricity) made in the bidding round of 16 November 2016, totalling 40.7TWh, whereas no applications for ARENH were made in 2016. This favourable effect on sales (€1,709 million) was offset by the lower level of net sales on the market, which were down by €1,687 million², largely as a result of the downturn in energy production and sourcing of ARENH subscriptions.

Other sales were up by €420 million, particularly due to the higher market prices on resales of purchase obligations for renewable energies (+€221 million).

Electricity generation

Nuclear generation produced 197.2TWh in the first half-year of 2017, compared to 205.2TWh a year earlier, a decrease of -8.0TWh. This is consistent with forecasts, since a number of reactors were offline during the second half of 2016 for additional inspections.

The 8.0TWh (-3.9%) year-on-year decrease is essentially explained by the fact that Gravelines 5 and Fessenheim 2 were offline for the whole period for checks in connection with the Creusot Forge manufacturing records, and also by completion of tests of the steam generators concerned by the carbon segregation issue during the first quarter of 2017.

The unplanned reactor outages at Flamanville 1 and Cattenom 1 were largely counterbalanced by higher dispatch of the reactors in operation.

Based on nuclear generation output at 30 June, and the restart of operations by the Bugey 5 and the Gravelines 5 reactors, the Group has confirmed its nuclear output target of 390-400TWh for 2017.

Hydropower output stood at 21.3TWh³, down by 4.2TWh compared to first-half 2016 due to less favourable hydrological conditions (see section 2.4 "Weather conditions: temperatures and rainfall").

1. Enedis is an independent EDF subsidiary as defined in the French Energy Code.

2. Excluding necessary additional energy purchases on the markets.

3. After deduction of pumped-storage hydropower volumes, hydropower production stood at 17.6TWh for the first half-year of 2017 (22.1TWh for first-half 2016).

Thermal generation facilities, particularly gas-fired plants, were used more extensively. Production by these plants for the first half-year reached 7.8TWh, a year-on-year rise of 3.6TWh.

Sales volumes to final customers (a market segment that includes local distribution firms and excludes foreign operators) were down by 7.0TWh, including 5.2TWh resulting from loss of customers and 1.2TWh related to the “leap year effect” of 2016 and weather conditions.

EDF was a net seller on the wholesale markets to the extent of 30.0TWh. The 41.5TWh decrease in net market sales compared to first-half 2016 is principally explained by ARENH subscriptions and an 8.8TWh decrease in production, which was partly offset by a 7TWh decline in volumes sold to final customers.

4.1.2.2 France - Regulated activities

Sales in the first half-year of 2017 by the **France - Regulated activities** segment amounted to €8,174 million, an organic rise of €49 million (+0.6%) from first-half 2016. Sales benefited from the positive movement in the TURPE’s adjustment index at 1 August 2016, which had an impact of €74 million. However, weather effects and the fact that 2016 was a “leap year” had a negative effect of -€40 million on sales at 30 June 2017.

4.1.2.3 United Kingdom

Sales in the **United Kingdom** amounted to €4,427 million in the first half-year of 2017, €561 million lower than the first half-year of 2016. The pound sterling’s decline against the euro as preparations for Brexit began had an unfavourable impact of €473 million. Excluding foreign exchange effects, the organic decrease in sales compared to first-half 2016 was 1.8%.

This decline in UK sales is mainly explained by the lower realised prices for electricity and gas on the wholesale markets, and to a lesser extent by the downturn in consumption by residential customers. However, the number of customer accounts is quasi stable.

4.1.2.4 Italy

Sales in **Italy** totalled €4,968 million, an organic decrease of €599 million (-10.8%) from first-half 2016.

This decrease was essentially driven by the hydrocarbon business. Sales were down due to lower gas prices, particularly on the “derivatives” component, although the margin was not significantly affected. Exploration and production activities benefited from the rise in Brent oil prices. The volumes for gas sales on the markets declined following a rise in consumption levels by industrial customers and thermal power plants.

In the electricity business, the unfavourable volume effect was partly counterbalanced by more favourable price conditions in the first half-year of 2017.

4.1.2.5 Other international

The **Other international** segment principally covers operations in Europe, excluding the United Kingdom and Italy, and operations in the United States, Brazil and Asia (China, Vietnam and Laos).

Sales by the **Other international** segment stood at €2,537 million in the first half-year of 2017, €171 million or -6.3% less than in first-half 2016. Excluding foreign exchange effects (+€63 million) and changes in the scope of consolidation (-€157 million), sales saw a year-on-year organic decline of €77 million (-2.8%).

The downturn essentially comes from:

- **Brazil** (organic growth of -€51 million), due to the downward revision of the Power Purchase Agreement (PPA) sales tariff and lower sales of system services;
- **Poland** (organic decrease of -€25 million), as a result of the negative price effect on electricity and green certificates, and the trading margin on purchases and resales of coal. This was partly offset by higher sales of heat resulting from increasing customer numbers and a favourable weather effect.

However, sales were up in:

- **Belgium** (+€14 million in organic terms), due to the rise in volumes sold to business customers and the passing on of gas price increases to residential customers, together with continuing expansion in the service activities. This impact was partly counterbalanced by falling electricity prices and lower volumes sold to residential customers.

4.1.2.6 Other activities

Other activities comprise, among other entities, EDF Énergies Nouvelles, EDF Trading, Dalkia and the gas activities.

Sales by the Other activities segment totalled €3,811 million for the first half-year of 2017, €283 million higher than in first-half 2016 (+8.0%) or an organic increase of €239 million (+6.8%).

Sales by Dalkia contributed €1,934 million to Group sales for the first half-year of 2017. This organic increase of €112 million (+6.5%) was mainly explained by the conclusion or renewal of a large number of commercial contracts, favourable trends in the indexes for revising service prices, and the positive effect of rising energy prices.

EDF Énergies Nouvelles' contribution to Group sales was €620 million for the first half-year of 2017, an organic increase of 1.4% from first-half 2016, driven mainly by production from new facilities first commissioned in 2016.

EDF Trading's sales¹ amounted to €313 million, an organic rise of €39 million (+13.0%) compared to the first half-year of 2016. This increase resulted from a good performance in January, partly counterbalanced by unfavourable market conditions, particularly on seasonal gas contracts in North America.

4.2 EBITDA

EBITDA for the first half-year decreased by 21.8%, corresponding to an organic decline of 20.6%.

<i>(in millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)	Organic growth (%)
Sales	35,723	36,659	(936)	-2.6	-1.1
Fuel and energy purchases	(19,345)	(18,764)	(581)	+3.1	+4.8
Other external expenses	(3,733)	(3,991)	258	-6.5	-6.3
Personnel expenses	(6,286)	(6,333)	47	-0.7	+0.2
Taxes other than income taxes	(2,687)	(2,727)	40	-1.5	-0.8
Other operating income and expenses	3,324	4,100	(776)	-18.9	-19.0
EBITDA	6,996	8,944	(1,948)	-21.8	-20.6

4.2.1 Change in consolidated EBITDA and analysis

Consolidated EBITDA for first-half 2017 amounted to €6,996 million, a year-on-year decrease of 21.8% corresponding to an organic decline of 20.6%.

The Group's fuel and energy purchases amounted to €19,345 million in first-half 2017, up by €581 million (+3.1%) from first-half 2016, or an organic rise of €909 million (+4.8%).

- In the France - Generation and supply activities and France - Regulated activities segments, fuel and energy purchases rose by €1,228 million (+14.1%) year-on-year to €9,938 million, principally due to lower generation output and sourcing of ARENH subscriptions.
- Italy registered an organic decline of €647 million (-13.6%), essentially due to the favourable impact of derivatives on the hydrocarbon activities.
- In the United Kingdom, the €207 million organic increase observed (+7.5%) relates to the rise in costs for coal and nuclear fuels.

Other external expenses amounted to €3,733 million, €258 million lower than in first-half 2016 (-6.5%) corresponding to an organic decrease of €253 million (-6.3%).

- In the France - Generation and supply activities and France - Regulated activities segments, other external expenses totalled €2,023 million. The organic decrease of €260 million (-11.4%) notably reflects cost-cutting drives. Performance improvement plans are in application across all areas of business.
- In Italy, the organic decrease of €24 million (-8.7%) principally relates to ongoing efforts to reduce operating costs.

The Group's personnel expenses totalled €6,286 million, down by €47 million from first-half 2016, but on a like-for-like basis there was an organic increase of €11 million (+0.2%).

- In the France - Generation and supply activities segment, personnel expenses totalled €3,103 million, a decrease of €102 million from first-half 2016 that reflects the efforts made to control payroll costs. The average workforce numbers fell by 4.5% over the first half-year of 2017 across all activities.

1. EDF Trading's sales consist of its trading margin.

- In the France - Regulated activities segment, personnel expenses totalled €1,614 million, up by €19 million, while the average workforce shrank by 0.8% over the first half-year of 2017.
- In the United Kingdom, the €56 million organic rise in personnel expenses (+10.2%) resulted from a favourable effect on pension costs in 2016 (resulting from the pension reform, which had no equivalent at 30 June 2017) and the impact of applying a lower discount rate to calculate pensions. Excluding these factors, personnel expenses were down thanks to EDF Energy's cost control efforts.

Taxes other than income taxes amounted to €2,687 million for first-half 2017. The organic year-on-year decrease of €22 million principally concerned the France - Generation and supply activities segment.

Other operating income and expenses generated net income of €3,324 million for the first half-year of 2017, €776 million less than in first-half 2016 (an organic decrease of €778 million or -19.0%).

- In the France - Generation and supply activities segment, the €340 million decrease relates among other factors to recoveries of provisions during the first half-year of 2016 that had no equivalent in 2017, and the obligations associated with energy savings certificates.
- In the France - Regulated activities segment, the €323 million decrease principally reflects the impact of non-recurring items registered in 2016.
- EDF Énergies Nouvelles saw an organic decline of €94 million (-26.0%) driven chiefly by lower year-on-year levels of business in Development and Sales of Structured Assets during first-half 2017.

4.2.2 Change in consolidated EBITDA and analysis by segment

<i>(in millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)	Organic growth (%)
France – Generation and supply activities	2,453	3,450	(997)	-28.9	-28.9
France – Regulated activities	2,400	2,791	(391)	-14.0	-14.0
United Kingdom	627	1,118	(491)	-43.9	-34.4
Italy	426	328	98	+29.9	+28.4
Other international	275	363	(88)	-24.2	-21.5
Other activities	815	894	(79)	-8.8	-9.4
GROUP EBITDA	6,996	8,944	(1,948)	-21.8	-20.6

4.2.2.1 France – Generation and supply activities

EBITDA for the France - Generation and supply activities segment amounted to €2,453 million, corresponding to an organic decline of 28.9% (-€997 million) compared to first-half 2016.

EBITDA for the first half-year of 2017 was adversely affected by the lower year-on-year nuclear power and hydropower output, which had an unfavourable impact estimated at -€514 million.

EBITDA also reflects the negative effect of market conditions and the ARENH subscriptions made at the 16 November 2016 round of bids (40.7TWh), which is estimated at -€504 million. Tariff changes, excluding the incorporation of capacity costs in the tariff "stacking" calculation, led to an estimated decrease of €221 million compared to first-half 2016.

Intense competition and negative price effects on new offers also affected downstream market conditions, with a net unfavourable impact estimated at -€191 million.

The weather, particularly in the month of January 2017, and the "leap year effect" of 2016 had a negative effect for the first half-year of 2017 estimated at -€183 million.

The introduction of the capacity mechanism¹ had a favourable +€286 million estimated impact on EBITDA for the first half-year of 2017.

Under the EDF group's performance plan, operating expenses² were brought down by an estimated €272 million (-6.0%) through operating performance action on purchases and control of payroll costs. These measures are being applied across all entities, cutting the costs of support functions and commercial activities, and optimising costs for the hydropower and thermal fleet.

¹ Introduction of the capacity mechanism from 1 January 2017 which affected tariffs, purchases and sales on the wholesale markets and market price offers.

² Sum of personnel expenses and other external expenses. Based on 2016 scope and exchange rates and comparable discount rates for pensions. Excluding changes in operating expenses of the service activities.

4.2.2.2 France – Regulated activities

EBITDA for the France - Regulated activities segment stood at €2,400 million, an organic decrease of €391 million (-14.0%) reflecting an unfavourable volume effect estimated at €91 million linked to the weather, overruns in subscribed power due to the significant cold spell in January 2017 and the “leap year effect” in 2016. Exceptionally forceful gales in mainland France were another significant factor in the first half-year of 2017, with a estimated negative impact of -€62 million on operating expenses and indemnities for power cuts. All these unfavourable elements were only partially offset by tariff rises estimated at +€50 million. In addition, positive factors in 2016 that had no equivalent in 2017 also adversely affected EBITDA (-€240 million).

4.2.2.3 United Kingdom

The United Kingdom’s contribution to Group EBITDA for first-half 2017 was €627 million, an organic decrease of 34.4% from first-half 2016. The pound sterling’s decline against the Euro after the Brexit referendum had an unfavourable impact of €106 million compared to first-half 2016.

EBITDA in the United Kingdom was affected by the downturn in the energy margin, primarily reflecting the lower realised nuclear. The drop in consumption from residential customers following milder weather also had an impact on EBITDA. However the number of customer accounts is quasi stable compared to 31 December 2016.

Nuclear generation output amounted to 32.2TWh, +1.3TWh higher than at 30 June 2016, thanks to good operational performance sustained by favourable timing for fuel reloading operations and good availability in the nuclear fleet in the first half of 2017.

4.2.2.4 Italy

The Italy segment contributed €426 million to the Group’s consolidated EBITDA, an organic increase of 28.4% over first-half 2016.

EBITDA for the electricity activities was up, essentially reflecting favourable trends in average electricity sale prices. Also, the good performance in thermal power generation made up for the lower level of hydropower generation.

EBITDA for the hydrocarbon activities registered organic growth, principally driven by favourable movements in Brent oil and gas prices, and optimisation of maintenance costs for the exploration-production activity.

The downstream margin is improving.

4.2.2.5 Other international

EBITDA for the Other international segment stood at €275 million, an organic decrease of €78 million (-21.5%) compared to first-half 2016.

This change was essentially attributable to:

- **Belgium** (organic decline of -€46 million), mainly as a result of the downturn in realised electricity prices and lower nuclear power generation due to the maintenance programme. Unfavourable weather factors (high winds, low water levels) also contributed to the decline in EBITDA. Service activities increased and installed wind power capacity grew steadily to reach 309MW at 30 June 2017 (+3% compared with 31 December 2016);
- **Brazil** (organic decline of -€40 million) due to downward revision of the annual PPA (power purchase agreement) price, which was reduced by more than the decrease in fuel purchases and system service and market opportunities seized in 2016.

It was partly counterbalanced by:

- **Poland** (organic growth of +€3 million), thanks to the positive effect on heat (weather factors and new connections), a higher number of energy savings certificates and a downturn in the price of coal consumed. EDF Polska’s assets are currently held for sale¹.

4.2.2.6 Other activities

Other activities contributed €815 million to Group EBITDA for first-half 2017, a year-on-year organic decrease of €84 million (-9.4%).

¹ EDF Polska assets currently held for sale, see press release published by EDF on 19 May 2017.

EDF Énergies Nouvelles' contribution to consolidated EBITDA totalled €451 million, corresponding to an organic decrease of €113 million (-20.4%) from first-half 2016. The net installed capacity was up by +0.8GW to 6.7GW at 30 June 2017. Generation continued its organic growth, rising by +5.0% over the first half of 2017. The portfolio of projects under construction by EDF Énergies Nouvelles registered substantial development at 2.4GW at 30 June 2017 (of which 0.9GW concerned solar power). The significant volume of operations relating to the Development and Sales of Structured Assets activity in the first half of 2016 in Europe (Portugal, Greece), which had no equivalent in 2017, had a negative impact on EBITDA.

Dalkia's EBITDA was €155 million, corresponding to a year-on-year organic increase of €12 million (+8.9%), notably thanks to conclusion or renewal of a large number of commercial contracts, favourable trends in the indexes for revising service prices, and the positive effect of rising energy prices.

EBITDA at EDF Trading amounted to €187 million, an organic increase of €6 million (+3.2%) compared to first-half 2016. This change follows the rise in the trading margin mentioned earlier in the discussion of sales (see section 4.1.2.6).

4.3 OPERATING PROFIT (EBIT)

EBIT decreased by 14.0%.

<i>(in millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)
EBITDA	6,996	8,944	(1,948)	-21.8
Net changes in fair value on energy and commodity derivatives, excluding trading activities	(196)	(77)	(119)	+154.5
Net depreciation and amortisation	(4,212)	(3,916)	(296)	+7.6
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(41)	(15)	(26)	+173.3
(Impairment)/reversals	(32)	(300)	268	-89.3
Other income and expenses	1,367	(124)	1,491	-1,202.4
OPERATING PROFIT (EBIT)	3,882	4,512	(630)	-14.0

The Group's consolidated EBIT amounted to €3,882 million for the first half-year of 2017, down by €630 million from the first half-year of 2016. The favourable developments in other operating income and expenses, essentially related to the sale of 49.9% of CTE, and the absence of impairment partly offset the decline in EBIT and the higher net depreciation and amortisation.

4.3.1 Net changes in fair value on energy and commodity derivatives, excluding trading activities

The net changes in fair value on energy and commodity derivatives, excluding trading activities, decreased from -€77 million in first-half 2016 to -€196 million in first-half 2017. In Italy, this change was mainly attributable to settlement of financial instruments upon maturity, which generated positive results in 2015.

4.3.2 Net depreciation and amortisation

Net depreciation and amortisation was up by €296 million compared to first-half 2016.

The France - Generation and supply activities segment registered a €300 million increase in net depreciation and amortisation, essentially explained by the accelerated depreciation of oil-fired facilities in the thermal fleet, an increase in assets associated with provisions following revision of the discount rate, and a volume effect on commissioning of facilities in the nuclear fleet.

The France - Regulated activities segment registered a €42 million increase in net depreciation and amortisation, essentially attributable to the impact of the Linky smart meter rollout¹.

4.3.3 Net increases in provisions for renewal of property, plant and equipment operated under concessions

1. Linky is a project led by Enedis, an independent EDF subsidiary as defined in the French Energy Code.

The €26 million increase between first-half 2016 and first-half 2017 in the net increases in provisions for renewal of property, plant and equipment operated under concessions is attributable to the France – Regulated activities segment.

4.3.4 Impairment/reversals

At 30 June 2017 the Group booked impairment of €32 million in respect of certain real estate assets in France.

Impairment at 30 June 2016 amounted to €300 million, principally comprising €197 million concerning coal-fired plants in Poland and €103 million of impairment on specific assets.

4.3.5 Other income and expenses

Other income and expenses amounted to €1,367 million in the first half-year of 2017. They mainly comprised a gain of €1,462 million on the sale of 49.9% of the group's investment in CTE (see note 2.5.1 to the condensed consolidated financial statements at 30 June 2017).

In the first half-year of 2016, other income and expenses totalled -€124 million.

4.4 FINANCIAL RESULT

<i>(in millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)
Cost of gross financial indebtedness	(879)	(953)	74	-7.8
Discount effect	(1,283)	(1,367)	84	-6.1
Other financial income and expenses	1,174	1,096	78	+7.1
FINANCIAL RESULT	(988)	(1,224)	236	-19.3

The financial result for first-half 2017 is a financial expense of €988 million, €236 million lower than in first-half 2016. This change is explained by:

- a decrease in the cost of gross financial indebtedness, due notably to a favourable foreign exchange effect and the positive effect of variabilisation of the debt;
- a favourable change in the discount effect (€84 million), principally due to the lower discount rate;
- a €78 million increase in other financial income and expenses, notably due to the rise in gains on sales of dedicated assets which was diminished by the lower returns on plan assets.

4.5 INCOME TAXES

Income taxes amounted to €(712) million in the first half-year of 2017, corresponding to an effective tax rate of 24.6% (compared to an expense of €(960) million corresponding to an effective tax rate of 29.2% for the first half-year of 2016). This downturn in the effective tax rate between June 2016 and June 2017 essentially results from the partial sale of CTE which was completed on 31 March 2017. After adjustment for these non-recurring items, the effective tax rate for the first half-year of 2017 was 34.3%.

4.6 SHARE IN NET INCOME OF ASSOCIATES AND JOINT VENTURES

The Group's share in net income of associates and joint ventures was a negative -€93 million in first-half 2017, compared to a negative -€162 million in first-half 2016. This +€69 million change results primarily from impairment booked in respect of CENG assets (€341 million in the first half-year of 2017 and €458 million in the first half-year of 2016).

4.7 NET INCOME ATTRIBUTABLE TO NON-CONTROLLING INTERESTS

Net income attributable to non-controlling interests amounted to €84 million at 30 June 2017, stable compared to 30 June 2016.

4.8 EDF NET INCOME

EDF net income totalled €2,005 million at 30 June 2017, down by €76 million in comparison to first-half 2016 (-3.7%).

4.9 NET INCOME EXCLUDING NON-RECURRING ITEMS

The Group's net income excluding non-recurring items¹ stood at €1,370 million for first-half 2017, a decrease of 53.8% compared to first-half 2016, essentially results from the evolution of EBITDA.

1 Group net after-tax income excluding non-recurring items and net changes in fair value on energy and commodity derivatives, excluding trading activities net of tax.

Non-recurring items and net changes in fair value on energy and commodity derivatives, excluding trading activities, net of tax:

- *+€777 million for miscellaneous risks and impairment in first-half 2017, compared to -€828 million in first-half 2016.*
- *-€142 million of net changes in fair value on energy and commodity derivatives, excluding trading activities, net of tax in first-half 2017, compared to -€59 million for first-half 2016.*

5 NET INDEBTEDNESS, CASH FLOWS AND INVESTMENTS

Net indebtedness comprises total loans and financial liabilities, less cash and cash equivalents and liquid assets. Liquid assets are financial assets consisting of funds or securities with initial maturity of over three months that are readily convertible into cash and are managed according to a liquidity-oriented policy.

The Group's net indebtedness stood at €31,268 million at 30 June 2017 compared to €37,425 million at 31 December 2016.

<i>(in millions of Euros)</i>	H1 2017	H1 2016 restated	Variation	Variation (%)
Operating profit before depreciation and amortisation (EBITDA)	6,996	8,944	(1,948)	-21.8
Cancellation of non-monetary items included in EBITDA	(1,271)	(1,042)	(229)	
Net financial expenses disbursed	(828)	(800)	(28)	
Income taxes paid	(827)	638	(1,465)	
Other items including dividends received from associates and joint ventures	86	219	(133)	
Operating cash flow ⁽¹⁾	4,156	7,959	(3,803)	-47.8
Change in working capital	482	(1,720)	2,202	
Net investments ⁽²⁾	(1,480)	(5,569)	4,089	
Cash flow after net investments	3,158	670	2,488	
Dedicated assets	(1,105)	39	(1,144)	
Cash flow before dividends ⁽³⁾	2,053	709	1,344	
Dividends paid in cash	(571)	(602)	31	
Group cash flow	1,482	107	1,375	
Other monetary changes – including capital increase (Increase)/decrease in net indebtedness, excluding the impact of changes in exchange rate	3,738	(129)	3,867	
Effect of change in exchange rate	498	1,036	(538)	
Effect of other non-monetary changes	439	173	266	
(Increase)/decrease in net indebtedness	6,157	1,187	4,970	
NET INDEBTEDNESS AT BEGINNING OF PERIOD	37,425	37,395		
NET INDEBTEDNESS AT END OF PERIOD	31,268	36,208		

(1) Operating cash flow is not an aggregate defined by IFRS as a measure of financial performance, and is not directly comparable with indicators of the same name reported by other companies. This indicator, also known as Funds From Operations (FFO), is equivalent to net cash flow from operating activities excluding changes in working capital after adjustment where relevant for the impact of non-recurring effects, less net financial expenses disbursed and income taxes paid.

(2) Net investments are operating investments and financial investments for growth, net of disposals. They also include net debts acquired or transferred in acquisitions or disposals of securities, investment subsidies received, non-Group partner investments, and new developments including the Linky project and the asset disposals that finance them.

(3) Cash flow before dividends is not an aggregate defined by IFRS as a measure of financial performance, and is not comparable with indicators of the same name reported by other companies. It is equal to the operating cash flow defined in note (2) after the change in working capital, net investments (see note (3)) and net allocations to dedicated assets.

5.1 OPERATING CASH FLOW

The operating cash flow amounted to €4,156 million in first-half 2017 compared to €7,959 million in first-half 2016, a decrease of €3,803 million (-47.8%).

This change mainly reflects:

- the lower EBITDA (-€1,948 million);
- an increase in income taxes paid (-€827 million in first-half 2017 versus +€638 million in first-half 2016), essentially due to the change in the balance of income tax due for previous years, in correlation with the higher 2016 taxable income in France.

5.2 CHANGE IN WORKING CAPITAL

The change in working capital improved by €482 million in the first half of 2017.

This is mainly explained by the favourable change in working capital on optimisation and trading (+€414 million), reflecting the margin calls received after realisation of positions taken in the final quarter of 2016.

The difference between the change in working capital for first-half 2016 and first-half 2017 (+€2,202 million) essentially concerns France, and is explained by:

- favourable effects related to the CSPE (+€885 million), partly corresponding to deferral of payment to late 2016 and partly resulting from introduction of the CSPE reform as of 1 January 2016;
- a favourable weather effect in France (+€643 million);
- a favourable change in the tax effect associated with sales in France (+€510 million);
- an improvement in the change in working capital on optimisation and trading, reflecting margin calls received (in contrast to a net payment position in 2016): +€359 million;
- gradual receipt of the tariff regularisation adjustment of 2014.

5.3 NET INVESTMENTS

Net investments amounted to €1,480 million in the first half of 2017 (the level of investment was boosted by savings, but also by a review of expenditure schedules for certain projects) compared to €5,569 million in the first half of 2016, a decrease of €4,089. Details are as follows:

<i>(In millions of Euros)</i>	H1 2017	H1 2016	Variation	Variation (%)
France - Generation and supply activities	2,630	2,818	(188)	-6.7
France – Regulated activities	1,621	1,719	(98)	-5.7
United Kingdom	256	402	(146)	-36.3
Italy	190	254	(64)	-25.2
Other international	175	322	(147)	-45.7
Other activities	41	(350)	391	n.a.
NET INVESTMENTS EXCLUDING LINKY, NEW DEVELOPMENTS AND ASSET DISPOSALS	4,913	5,165	(252)	-4.9
LINKY, NEW DEVELOPMENTS AND ASSET DISPOSALS	(3,433)	404	(3,837)	n.a.
NET INVESTMENTS	1,480	5,569	(4,089)	-73.4

n.a. = not applicable.

5.3.1 Net investments excluding Linky, new developments and asset disposals

Net investments by the France - Generation and supply activities segment were down by €188 million or -6.7%. This decrease is notably attributable to investments in the thermal power plant fleet.

Net investments by the France- Regulated activities segment were down by €98 million (-5.7%), primarily as a result of lower user connections and road work services by Enedis, and a decline in investments in the island activities in line with new plant commissionings.

In the United Kingdom, the decrease of €146 million or -36.3% is mainly explained by lower investments in coal-fired and nuclear power plants, combined with a favourable foreign exchange effect.

In Italy, the decrease of €64 million was principally due to lower investments in maintenance, and an acquisition in 2016 in hydropower.

The decrease in the Other International segment (-€147 million) is notably explained by lower investments in Poland, and the deferral of investments in China to the second half of 2017.

In the Other activities segment, net investments were up by €391 million. This rise primarily concerned EDF Énergies Nouvelles following the acquisition of FUTUREN and a sustained level of investment in Brazil.

5.3.2 Linky, new developments and asset disposals

The Group is also continuing its investments in the Linky programme, which was stepped up in the first half of 2017.

New developments correspond to the Group's new development projects. In the first half of 2017, these new developments concerned New Nuclear investments in the United Kingdom (the ramp-up of the Hinkley Point C project was partly offset by a favourable foreign exchange effect), and to a lesser extent investments in offshore wind farm projects in the United Kingdom and France.

Asset disposals essentially concerned the sale of 49.9% of CTE, and the sale of EDF Démász Zrt in Hungary.

5.4 DEDICATED ASSETS

In compliance with the French Law of 28 June 2006 on the sustainable management of radioactive materials and waste, EDF has built up a portfolio of dedicated assets for secure financing of its long-term nuclear obligations which amounted to €25,711 million at 30 June 2017.

Overall, the changes in dedicated assets comprise:

- allocations to reach full coverage of obligations as defined in the law;
- reinvestment of financial income (dividends and interest) generated by these assets;
- withdrawals of assets corresponding to the costs incurred over the period in application of long-term nuclear obligations falling within the scope of the Law of 28 June 2006;
- exceptional withdrawals proposed to the governance bodies in charge of managing dedicated assets when the value of the portfolio exceeds the amount of the obligations to be financed; such withdrawals must be validated by these bodies.

The net movement of -€1,105 million in first-half 2017 is explained by a withdrawal made after the ministerial letter of 10 February 2017 (see note 18.2.1 to the consolidated half-year financial statements at 30 June 2017).

5.5 CASH FLOW BEFORE DIVIDENDS

The cash flow before dividends in first-half 2017 was positive at +€2,053 million (compared to a positive +€709 million in first-half 2016) and is mainly explained by the following factors:

- operating cash flow of +€4,156 million;
- net investments of -€1,480 million;
- net movements in dedicated assets of -€1,105 million.

The increase of €1,344 million in the cash flow before dividends compared to the first half of 2016 essentially resulted from asset disposals and an improvement in the change in working capital (+€2,202 million), despite a deterioration in operating cash flow (-€3,803 million) and net cash flows relating to dedicated assets (-€1,144 million).

5.6 DIVIDENDS PAID IN CASH

Dividends paid in cash during first-half 2017 (-€571 million) comprise:

- the balance of the 2016 dividends (-€75 million);
- payments made in 2017 to bearers of perpetual subordinated bonds for the "hybrid" bond issues of January 2013 and January 2014 (-€394 million);
- dividends paid by Group subsidiaries to their minority shareholders (-€102 million).

The favourable difference of €31 million compared to first-half 2016 is principally attributable to payment of dividends to minority shareholders.

5.7 GROUP CASH FLOW ¹

The Group cash flow amounted to +€1,482 million compared to +€107 million for first-half 2016. The +€1,375 million year-on-year improvement primarily reflects the +€1,344 million change in cash flow before dividends.

5.8 EFFECT OF CHANGE IN EXCHANGE RATE

The foreign exchange effect, while still favourable at €498 million, was -€538 million lower than in the first half-year of 2016, which saw a marked decline in the pound sterling and US dollar against the Euro². This decline continued in 2017 but was much less substantial³.

5.9 FINANCIAL RATIOS

	30 June 2017	31 December 2016	31 December 2015
Net indebtedness/EBITDA	2.2 ⁽¹⁾	2.3	2.1
Net indebtedness/(Net indebtedness + equity) ⁽²⁾	40%	48%	48%

(1) The ratio at 30 June 2017 is calculated based on cumulative EBITDA for the second half-year of 2016 and the first half-year of 2017.

(2) Equity including non-controlling interests.

1. Before the capital increase.

2. The pound sterling fell by -11.2% against the Euro, from €1.362/£1 at 31 December 2015 to €1.210/£1 at 30 June 2016. The US dollar fell by -2.0% against the Euro, from €0.919/\$1 at 31 December 2015 to €0.901/\$1 at 30 June 2016.

3. The pound sterling fell by -2.65% against the Euro, from €1.168/£1 at 31 December 2016 to €1.137/£1 at 30 June 2017. The US dollar fell by -7.69% against the Euro, from €0.949/\$1 at 31 December 2016 to €0.876/\$1 at 30 June 2017.

6 MANAGEMENT AND CONTROL OF MARKET RISKS

This section sets forth the policies and principles for management of the Group's financial risks defined in the Strategic Financial Management Framework (liquidity, interest rate, foreign exchange rate and equity risks), and the Group counterparty risk management policy set up by the EDF group. These principles apply only to EDF and subsidiaries controlled by the Group or subsidiaries that do not benefit by law from specific guarantees of independent management such as Enedis. In compliance with IFRS 7, the following paragraphs describe the nature of risks resulting from financial instruments, based on sensitivity analyses and credit (counterparty) risk assessments.

Since 2002, a dedicated body – the Financial Risks Control Department (*Département Contrôle des Risques Financiers et Investissements* – CRFI) – has been in charge of financial risk control at Group level by ensuring correct application of the principles of the Strategic Financial Management Framework (July 2015). This department, which has reported to the Group's Risk Division since 2008, is an independent unit that also has the task of carrying out a second-level check (methodology and organisation) of EDF entities and subsidiaries controlled by the Group (excluding Enedis), and a first-level check of financing activities at parent company level, including trading room activities.

The CRFI Department issues daily monitoring reports of risk indicators relevant to activities in EDF's trading room. Regular internal audits are carried out to ensure controls are actually applied and are effective.

6.1 MANAGEMENT AND CONTROL OF FINANCIAL RISKS

6.1.1 Liquidity position and management of liquidity risks

6.1.1.1 Liquidity position

At 30 June 2017, the Group's liquidities, consisting of liquid assets, cash and cash equivalents, totalled €27,579 million and available credit lines amounted to €12,038 million.

At 30 June 2017, no Group company was in default on any borrowing.

6.1.1.2 Management of liquidity risk

On 20 January 2017, EDF raised ¥137 billion, i.e. around €1.1 billion, through four senior bond issues on the Japanese market ("Samurai bonds") with maturities of 10 years and more:

- ¥107.9 billion bond, with a 10-year maturity and a fixed coupon of 1.088%;
- ¥19.6 billion green bond, with a 12-year maturity and a fixed coupon of 1.278%;
- ¥6.4 billion green bond, with a 15-year maturity and a fixed coupon of 1.569%;
- ¥3.1 billion bond, with a 20-year maturity and a fixed coupon of 1.870%.

With the issuance of two green tranches totalling ¥26 billion dedicated to financing its renewable investments, EDF has opened the Samurai green bond market, continuing its active contribution to the development of green bonds as financing instruments for the energy transition.

The EDF group was able to meet its financing needs by conservative liquidity management, and has obtained financing on satisfactory terms.

A range of specific levers are used to manage the Group's liquidity risk:

- the Group's cash pooling system, which centralises cash management for controlled subsidiaries. The subsidiaries' cash balances are made available to EDF SA in return for interest, so as to optimise the Group's cash management and provide subsidiaries with a system that guarantees them market-equivalent financial terms;
- centralisation of financing for controlled subsidiaries at the level of the Group's cash management department. Changes in subsidiaries' working capital are financed by this department in the form of stand-by credit lines provided for subsidiaries, which may thus be granted revolving credit from the Group. EDF SA and the investment subsidiary EDF Investissements Groupe (EDF IG), set up in partnership with the bank Natixis Belgique Investissements, also provide medium and long-term financing for EDF group operations outside France, arranged by EDF SA and EDF IG on a totally independent basis: each company sets its own terms, which are the same as the subsidiary would have in an arm's-length market transaction;

- active management and diversification of financing sources used by the Group: the Group has access to short-term resources on various markets through programmes for French commercial paper (*billets de trésorerie*), US commercial paper and Euro market commercial paper. For EDF, the ceilings for these programmes are €6 billion for its French commercial paper, \$10 billion for its US commercial paper and €1.5 billion for its Euro market commercial paper.

At 30 June 2017, EDF had an overall amount of €10,293 million in available credit facilities:

- the syndicated credit line amounts to €4 billion with maturity extending to November 2020. No drawings had been made on this syndicated credit line at 30 June 2017;
- bilateral credit lines represent an available amount of €6,163 million, with expiry dates extending to March 2021. The level of available credit is very regularly reviewed to ensure that the Group has sufficient back-up facilities;
- the amount available through credit lines with the European Investment Bank is €130 million. Three credit lines were fully drawn at 30 June 2017 for the respective amounts of €225 million, €500 million and €500 million. A fourth credit line of €200 million was drawn to the extent of €70 million at the same date.

EDF Investissements Groupe has a syndicated credit facility for €1,000 million (maturing in September 2020). At 30 June 2017, there were no drawings on this credit facility.

Edison has a €132 million credit line with the European Investment Bank (which is fully drawn), and a €300 million credit line with a pool of banks on which no drawings had been made at 30 June 2017.

6.1.2 Credit ratings

The financial ratings agencies Standard & Poor's, Moody's and Fitch Ratings attributed the following long-term and short-term ratings to EDF group entities at 30 June 2017:

Company	Agency	Long-term rating	Short-term rating
EDF	Standard & Poor's	A-, stable outlook ⁽¹⁾	A-2
	Moody's	A3, stable outlook ⁽²⁾	P-2
	Fitch Ratings	A-, stable outlook ⁽³⁾	F2
EDF Trading	Moody's	Baa2, stable outlook ⁽⁴⁾	n.a.
EDF Energy	Standard & Poor's	BBB-, stable outlook ⁽⁵⁾	A-3
Edison	Standard & Poor's	BB+, stable outlook ⁽⁶⁾	B
	Moody's	Baa3, stable outlook ⁽⁷⁾	n.a.

n.a. = not applicable.

(1) S&P downgraded EDF's rating from A to A- (with stable outlook) on 21 September 2016.

(2) Moody's downgraded EDF's rating from A2 to A3 (with stable outlook) on 28 September 2016. The rating for perpetual subordinated was also downgraded to Baa3.

(3) Fitch downgraded EDF's rating from A to A- on 7 June 2016.

(4) Moody's downgraded EDF Trading's rating from Baa1 to Baa2 on 13 May 2016. A stable outlook was added on 11 October 2016.

(5) S&P downgraded EDF Energy's rating from A- to BBB- on 13 May 2016. A stable outlook was added on 21 September 2016.

(6) S&P downgraded Edison's rating from BBB- to BB+ (with stable outlook) on 4 October 2016.

(7) Moody's downgraded Edison's rating from Baa2 to Baa3 on 13 May 2016. A stable outlook was added on 19 October 2016.

6.1.3 Management of foreign exchange risk

As a result of the financing and foreign exchange risk hedging policy, the Group's gross debt at 30 June 2017 breaks down as follows by currency after hedging:

GROSS DEBT STRUCTURE BY CURRENCY BEFORE AND AFTER HEDGING

30 June 2017 (in millions of Euros)	Initial debt structure	Impact of hedging instruments ⁽¹⁾	Debt structure after hedges	% of debt
Borrowings in Euros (EUR)	30,554	18,798	49,352	81%
Borrowings in US dollars (USD)	17,860	(15,974)	1,886	3%
Borrowings in pounds sterling (GBP)	9,595	(1,562)	8,033	13%
Borrowings in other currencies	3,000	(1,262)	1,738	3%
TOTAL DEBT	61,009	-	61,009	100%

(1) Hedges of liabilities and net assets of foreign subsidiaries.

The table below presents the impact of an unfavourable variation in exchange rates on the Group's gross debt at 30 June 2017.

EXCHANGE RATE SENSITIVITY OF THE GROUP'S GROSS DEBT

30 June 2017 (in millions of Euros)	Debt after hedging instruments converted into Euros	Impact of a 10% unfavourable variation in exchange rates	Debt after a 10% unfavourable variation in exchange rates
Borrowings in Euros (EUR)	49,352	-	49,352
Borrowings in US dollars (USD)	1,886	189	2,075
Borrowings in pounds sterling (GBP)	8,033	803	8,836
Borrowings in other currencies	1,738	174	1,912
TOTAL DEBT	61,009	1,166	62,175

Due to the Group's foreign exchange risk hedging policy for liabilities, the income statement for companies controlled by the Group is marginally exposed to foreign exchange rate risk.

The table below sets forth the foreign exchange position relating to net non-operating investments in foreign currencies of the Group's principal subsidiaries at 30 June 2017.

(in millions of currency units)	Net position after management (Assets) at 30 June 2017 ⁽¹⁾	Net position after management (Assets) at 31 December 2016
USD	2,774	2,857
CHF (Switzerland)	206	169
PLN (Poland)	539	164
GBP (United Kingdom)	8,765	8,058
BRL (Brazil)	1,429	1,377
CLP (Chile)	2,434	2,607
CNY (China)	10,133	10,141

(1) Net assets as stated at 30 March 2017. The net positions shown exclude certain non-significant exposures.

The assets in the above table are the net assets of the Group's foreign subsidiaries in foreign currencies, adjusted for changes in the fair value of cash flow hedges and available-for-sale financial assets recorded in equity, and changes in the fair value of financial instruments recorded in income.

6.1.4 Management of interest rate risk

The Group's gross debt after hedging instruments at 30 June 2017 was structured as follows: 58.3% of debt bore interest at fixed rates and 41.7% at floating rates.

A 1% uniform annual rise in interest rates would generate an increase of approximately €254 million in financial expenses, based on gross floating-rate debt at 30 June 2017 after hedging.

The average cost of Group debt (weighted interest rate on outstanding amounts after hedging) was 2.83% at 30 June 2017.

The table below sets forth the structure of Group debt and the impact of a 1% variation in interest rates at 30 June 2017.

STRUCTURE AND INTEREST RATE SENSITIVITY OF GROUP DEBT

30 June 2017 <i>(in millions of Euros)</i>	Initial debt structure	Impact of hedging instruments	Debt structure after hedges	Impact on net income of a 1% variation in interest rates
Fixed rate	58,280	(22,683)	35,597	-
Floating rate	2,729	22,683	25,412	254
TOTAL	61,009	-	61,009	254

6.1.5 Management of equity risks

The equity risk is concentrated in the following areas:

Coverage of EDF's nuclear obligations

Analysis of the equity risk is presented in section 6.1.6, "Management of financial risk on EDF SA's dedicated asset portfolio".

Coverage of EDF SA and EDF Energy's employee benefit obligations

Assets covering EDF's employee benefit liabilities are partly invested on the international and European equities markets. Market trends therefore affect the value of these assets, and a downturn in equity prices would lead to a rise in balance sheet provisions.

31.3% of the assets covering EDF's employee benefit obligations were invested in equities at 30 June 2017, representing an amount of €3.6 billion of equities.

At 30 June 2017, the three pension funds sponsored by EDF Energy (EDF Energy Pension Scheme, EDF Energy Group Electricity Supply Pension Scheme and the British Energy pension fund) were invested to the extent of 31% in equities, representing an amount of £2.548 million of equities.

6.1.6 Management of financial risk on EDF SA's dedicated asset portfolio

Content and performance of EDF's dedicated asset portfolio

BREAKDOWN OF THE PORFOLIO

	30/06/2017	31/12/2016
Equities sub-portfolio	33.2%	31.1%
Bonds sub-portfolio	29.1%	26.8%
Cash sub-portfolio	6.3%	3.5%
CSPE after funding	14.3%	16.7%
Unlisted assets (EDF Invest)	17.1%	21.9%
TOTAL	100%	100%

At 30 June 2017, the total value of the dedicated asset portfolio was €27,336 million compared to €25,677 million at 31 December 2016.

PORTFOLIO CONTENT UNDER THE CLASSIFICATION FROM ARTICLE 4, DECREE 2007-243 OF 23 FEBRUARY 2007

Categories <i>(in millions of Euros)</i>	30 June 2017		31 December 2016	
	Book value ⁽¹⁾	Realisable value	Book value ⁽¹⁾	Realisable value
OECD government bonds and similar	3,815	3,892	3,167	3,335
OECD corporate (non-government) bonds	568	618	542	593
Funds investing in the above two categories	5,141	5,291	3,910	4,058
Funds not exclusively invested in OECD bonds	7,299	8,886	6,059	7,790
Hedges, deposits, amounts receivable	69	69	(18)	(18)
TOTAL FINANCIAL PRODUCT PORTFOLIO	16,892	18,756	13,660	15,758
CTE (the company that holds 100% of RTE's shares) ⁽²⁾	2,705	2,705	3,905	3,905
Other unlisted securities and real estate assets	1,733	1,973	1,530	1,728
TOTAL EDF INVEST	4,438	4,678	5,435	5,633
CSPE after funding	3,822	3,902	4,182	4,286
TOTAL DEDICATED ASSETS	25,152	27,336	23,277	25,677

(1) Net book value in the parent company financial statements.

(2) At 30 June 2017, dedicated assets include 50.1% of the Group's investment in Coentreprise de Transport d'Électricité (CTE), the company that holds 100% of RTE's shares (75.9% at 31 December 2016).

Details of the coverage of nuclear liabilities by dedicated assets are provided in note 23 to the condensed consolidated half-year financial statements at 30 June 2017.

PERFORMANCE OF EDF'S DEDICATED ASSET PORTFOLIO

The table below presents the performance by portfolio at 30 June 2017 and 31 December 2016:

<i>(in millions of Euros)</i>	30/06/2017 Stock market or realisable value	Performance for first-half 2017		31/12/2016 Stock market or realisable value	Performance for 2016	
		Portfolio	Benchmark index ⁽¹⁾		Portfolio	Benchmark index ⁽¹⁾
Equities sub-portfolio	9,087	5.6%	5.4%	7,992	7.8%	9.8%
Bonds sub-portfolio	7,949	0.6%	-0.5%	6,866	4.3%	3.8%
TOTAL FINANCIAL PORTFOLIO	17,036	3.3%	2.4%	14,858	6.2%	6.8%
Cash sub-portfolio	1,720	-0.1%	-0.2%	900	0.2%	-0.3%
CSPE after funding	3,902	0.2%	-	4,286 ⁽²⁾	4.2% ⁽²⁾	-
EDF INVEST ⁽³⁾	4,678	5.1%	-	5,633	40.1% ⁽⁵⁾	-
<i>including CTE shares ⁽⁴⁾</i>	<i>2,705</i>	<i>5.0%</i>	<i>-</i>	<i>3,905</i>	<i>55.4% ⁽⁵⁾</i>	<i>-</i>
<i>including other unlisted assets ⁽⁶⁾</i>	<i>1,973</i>	<i>5.4%</i>	<i>-</i>	<i>1,728</i>	<i>7.9%</i>	<i>-</i>
TOTAL DEDICATED ASSETS	27,336	3.0%	-	25,677	11.1% ^{(5) (7)}	-

(1) Benchmark index: MSCI World AC DN hedged in Euros 50% (excluding emerging country currencies) for the equities sub-portfolio, composite index of 60% Citigroup EGBI and 40% Citigroup EuroBIG corporate for the bonds sub-portfolio, Eonia Capitalisé for the cash sub-portfolio, 49% equities index and 51% bonds index for the total financial portfolio.

(2) Including a €103 million adjustment at 31 December 2016 (€80 million at 30 June 2017) after the €22 million gain on the €872 million of receivable assigned. For the unadjusted receivable, the performance for 2016 was 1.7%.

(3) Performance for assets held at the start of the year. By limiting the value of certain investments in compliance with articles 4 and 16 of decree 2007-243 concerning calculation of the regulatory realisable value of dedicated assets which must be equal to or greater than long-term nuclear provisions, the amount of this regulatory realisable value was reduced to €4,266 million at 31 December 2016 for EDF Invest assets and a total €24,312 million for all dedicated assets; at 30 June 2017, these ceilings no longer have any impact.

(4) At 30 June 2017, 50.1% of the Group's investment in Coentreprise de Transport d'Électricité (CTE), the company that holds 100% of RTE's shares. At 31 December 2016, 75.93% of the Group's investment in CTE.

(5) Excluding adjustments related to the CTE operation, RTE's performance for the year 2016 was 1.6%, EDF Invest's performance was 3.8% and the overall performance by all dedicated assets was 5.2%. The performance for the first half-year of 2017 reflects the final valuation, corresponding to completion of the sale on 31 March 2017.

(6) 5.6% at 30 June 2017 (9.1% at 31 December 2016) after adjustment for foreign exchange effects.

(7) Including adjustments of RTE and the CSPE receivable; 4.8% at 31 December 2016 without these two adjustments. The performance by dedicated assets excluding RTE was 5.7% at 31 December 2016.

Change in unlisted assets

On 31 March 2017, following the approval by the relevant merger control authorities, EDF finalised the sale to Caisse des Dépôts and CNP Assurances of a 49.9% stake in the electricity transmission entity *Coentreprise de transport d'électricité* (CTE, formerly C25), which has held 100% of the shares of RTE since December 2016. The sale was based on a valuation of €8.2 billion for 100% of the equity of RTE. Since completion, EDF's entire investment in CTE, i.e. 50.1%, has been allocated to dedicated assets (see note 2.5.1 to the condensed consolidated half-year financial statements at 30 June 2017).

EDF Invest continued to build up its portfolio of infrastructures, real estate property and investment funds over the first half of 2017.

In April 2017, Atlantia's Board of Directors accepted a binding offer from the consortium consisting of Allianz, EDF Invest and the investment fund DIF for 5% of the capital of Autostrade per l'Italia, one of Europe's largest motorway concession operators, which manages more than 50% of the Italian motorway network and 61% of all kilometres of motorway in Italy. The company's network comprises a total 21 motorways covering approximately 3,000km across 16 regions of Italy.

This transaction was completed on 26 July 2017. The stake in Autostrade per l'Italia acquired by the consortium was raised from the initially planned 5% to 6.94% through the exercise of a call option granted by Atlantia.

In June 2017 EDF Invest acquired a non-controlling interest alongside Beni Stabili, the Italian subsidiary of Foncière des Régions, and Predica in Central Sicaf, which manages a portfolio of offices and technical premises that are all leased to Telecom Italia and were previously owned 100% by Beni Stabili.

Change in listed assets

Despite significant political uncertainty in Europe, things were relatively quiet on the financial markets during this first part of the year.

Apart from some short-lived episodes of tension over French government bonds just before France's presidential elections, the markets saw little tension. The economic environment also remained very favourable in most regions including Europe, where the pace of growth outstripped potential. The United States entered into its eighth year of growth and is showing no signs of overheating despite a record downturn in unemployment rates. This appears to indicate that the exceptional measures taken in recent years by the central banks to promote economic stability and recovery are working. The central banks, principally the Fed but also the ECB, are now trying to rein in the "over stimulation" made necessary by the crisis, without alarming the markets. But apart from this point of uncertainty, the horizon looks clear. In any case, that is what investors want to believe as US indexes rise ever higher in an environment with increasingly low volatility. It has in fact been more than 10 years since equity market volatility was so low.

Against this background, the investment policy applied for the financial portfolio brought good results, achieving an increase of +3.3% while the composite benchmark index rose by +2.4%. The main factor in this above-benchmark performance was the prudent positioning taken as regards sensitivity and exposure to core Euro zone sovereign bonds in a market of gradually rising long rates. The credit portfolio also significantly outperformed its benchmark index thanks to strong exposure to subordinated bank securities. Finally, the high exposure on equities was beneficial, since the MSCI World All Countries DN index hedged in Euros 50%, excluding emerging country currencies rose by +5.41% whereas the bond section of the benchmark index (60% Citigroup EGBI and 40% Citigroup EuroBIG corporate) retreated by -0.49%.

In the first half of 2017, the overall after-tax performance of dedicated assets (impacts on reserves and net income) was +€514 million, comprising +€348 million on the financial and cash portfolios (+€530 million before tax), +€20 million for the CSPE after hedging (+€31 million before tax) and +€146 million for EDF Invest (including +€114 million for the CTE shares allocated to dedicated assets).

Dedicated assets' exposure to risks

EDF is exposed to equity risks, interest rate risks and foreign exchange risks through its dedicated asset portfolio.

The market value of the equities sub-portfolio was €9,087 million at 30 June 2017. The volatility of the equities sub-portfolio can be estimated through the volatility of its benchmark index, which at 30 June 2017 was 9.7% based on 52 weekly performances, compared to 15.2% at 31 December 2016. Applying this volatility to the value of equity assets at the same date, the Group estimates the annual volatility of the equities portion of dedicated assets at €881 million. This volatility is likely to affect the Group's equity.

At 30 June 2017, the sensitivity of the bond sub-portfolio (€7,949 million) was 5.12, i.e. a uniform 100 base point rise in interest rates would result in a €407 million decline in market value which would be recorded in consolidated

equity. The sensitivity was 4.89 at 31 December 2016. This sub-portfolio's sensitivity is thus well below the sensitivity of the benchmark index (6.50).

6.1.7 Management of counterparty/credit risks

Counterparty risk is defined as the total loss that the EDF group would sustain on its business and market transactions if a counterparty defaulted and failed to perform its contractual obligations.

The Group has a counterparty risk management policy which applies to the parent company and all operationally controlled subsidiaries. This policy sets out the governance associated with monitoring for this type of risk, and organisation of the counterparty risk management and monitoring. The policy also involves monthly consolidation of the Group's exposures, updated monthly for financial and energy market activities and quarterly for other activities. The CRFI (Financial Risks Control) department closely monitors Group counterparties (daily review of alerts, special cautionary measures for certain counterparties).

The table below gives details, by rating, of the EDF group's consolidated exposure to counterparty risk. At 31 March 2017, 80% of the Group's exposure concerns "investment grade" counterparties, mainly as a result of the predominance of exposures generated by the cash and asset management activity, with most short-term investments in low-risk assets:

	Investment grade	Non investment grade	Unrated	Total
30/09/2016	80%	11%	9%	100%
31/03/2017	80%	12%	8%	100%

The exposure to counterparty risk by nature of activity is distributed as follows:

	Purchases	Insurance	Distribution and sales	Cash and asset management	Fuel purchases and energy trading	Total
30/09/2016	10%	0%	11%	72%	7%	100%
31/03/2017	13%	0%	10%	71%	6%	100%

Exposure in the energy trading activities is concentrated at the level of EDF Trading, where each counterparty is assigned a limit that depends on its financial robustness. A range of methods are used to reduce counterparty risk at EDF Trading, primarily position netting agreements, cash-collateral agreements and establishment of guarantees from banks or affiliates.

For counterparties dealing with EDF's trading room, the CRFI department has drawn up a framework specifying counterparty authorisation procedures and the methodology for calculation of allocated limits. The level of exposure can be consulted in real time and is systematically monitored on a daily basis. The suitability of limits is reviewed without delay in the event of an alert or unfavourable development affecting a counterparty.

As the situation in the Euro zone is still unstable, EDF has continued to apply a prudent management policy for its cash investments in non-core countries. Apart from dedicated assets, purchases of sovereign debt are restricted to maximum maturities of three years for Italy and Spain (no exposure in Portugal, Greece, Cyprus, etc.). Only "investment grade" banking counterparties are authorised, for limited amounts and maturities.

6.2 MANAGEMENT AND CONTROL OF ENERGY MARKET RISKS

This section presents the main changes in energy market risks affecting the Group since 31 December 2016.

The principles for management and control of energy market risks are presented in section 2.1.1 of the 2016 Reference Document. They have not been changed since 31 December 2016.

For operationally controlled entities in the Group, positions on the energy markets are taken predominantly by EDF Trading, the Group's trading entity, which operates on the markets on behalf of other Group entities and for the purposes of its own trading activity, backed by the Group's industrial assets. EDF Trading is therefore subject to a strict governance and control framework in compliance with European regulations on trading companies.

During the first half of 2017, the VaR limit was lowered from €50 million to €35 million, and the CaR limit for long-term contracts was lowered from €300 million to €250 million. CaR limits for operations on illiquid markets and the stop-loss limit were unchanged and remain at €250 million and €180 million respectively.

These limits were not exceeded and EDF Trading managed its risks within the boundaries of its mandate from EDF at all times. The stop-losses have never been triggered since their introduction.

7 TRANSACTIONS WITH RELATED PARTIES

The transactions undertaken with related parties are discussed in note 24 "Related Parties" to the condensed consolidated half-year financial statements at 30 June 2017.

8 PRINCIPAL RISKS AND UNCERTAINTIES FOR THE SECOND HALF-YEAR OF 2017

The principal risks and uncertainties to which the EDF group considers itself exposed are described in section 2 of the 2016 Reference Document.

The Group's policies for risk management and control are described in section 2 of the 2016 Reference Document.

This presentation of the major risks remains valid at the date of publication of this report as regards assessment of the principal risks and uncertainties for the second half-year of 2017, and the Group remains subject to the usual risks specific to its business.

9 SIGNIFICANT EVENTS RELATED TO LITIGATION IN PROCESS

Litigations concerning the EDF group are described in section 2.4 of the 2016 Reference Document. This chapter reports on litigations which have seen significant developments since the release of the 2016 Reference Document.

9.1 PROCEEDINGS CONCERNING EDF

9.1.1 Flamanville 3 - challenge to the amended decree authorising construction

An application for reconsideration was made to the French Prime Minister on 18 April 2017 by several associations seeking cancellation of the decree of 23 March 2017 that amended the decree authorising construction of Flamanville 3 (by extending the deadline for commissioning of the new reactor). This received no response, and the associations CRILAN and *Notre Affaire à Tous* filed an appeal on the grounds of ultra vires action before the Council of State on 23 May 2017.

9.1.2 Action against the final investment decision for the Hinkley Point C project

Application to the Regional Court in Paris by EDF SA's central works council

EDF SA's central works council (hereinafter the "CCE"), duly authorised by an order issued on 20 June 2016, filed an urgent application against EDF with the Presiding Judge of the Paris Regional Court, which was heard on 22 September 2016. In particular, the CCE asked the Presiding Judge of the Paris Regional Court in Paris, ruling as emergency proceedings, to order EDF to provide certain documents and/or information to the CCE, to extend the consultation period for EDF's CCE and to prohibit EDF from implementing the Hinkley Point C project. EDF contested these applications. In a decision issued on 27 October 2016, the Presiding Judge of the Paris Regional Court, ruling as emergency proceedings, held that the applications filed by the CCE were inadmissible and ordered it to pay €1,500 to EDF SA under Article 700 of the French Code of Civil Procedure. The CCE appealed this decision and a hearing was held before the Court of Appeal in Paris on 9 March 2017. In parallel, the CCE filed a request for a preliminary ruling on constitutionality (*question prioritaire de constitutionnalité* - QPC) challenging the constitutionality of the "employment security" Law no. 2013-504 of 14 June 2013, which now sets the conditions in which procedures for informing and consulting with employee representatives must be conducted in this type of situation. In a decision of 17 May 2017, the Court of Appeal ruled that the QPC put by the appellants was not devoid of interest, but would not be transferred to the Court of Cassation which had already been submitted a QPC on the same point. The Court of Appeal therefore decided to suspend its ruling until the Court of Cassation had given its conclusions. The Court of Cassation put the matter to the Constitutional Council on 6 June 2017, and the proceedings should therefore be suspended until the Constitutional Council has issued its decision. The hearing took place on 25 July 2017, and the decision is expected for 4 August 2017.

9.1.3 Fessenheim

Association Trinationale de Protection Nucléaire (ATPN), represented by Corinne Lepage, filed an appeal before the Council of State on 14 March 2017 seeking cancellation of the ASN's decision 2016-DC-0551 of 29 March 2016 setting out the methods for water drawing and consumption, effluent discharge and environmental monitoring at the Fessenheim plant, and the ASN's decision 2016-DC-0550 setting the limits for effluent discharge into the environment by the Fessenheim plant.

9.2 PROCEEDINGS CONCERNING EDF'S SUBSIDIARIES AND INVESTMENTS

9.2.1 Enedis

Application filed by the UFC Que Choisir association before the CoRDIS

On 25 June 2014, the association *UFC Que Choisir* filed a petition before the Settlement of Disputes and Sanctions Committee (*Comité de règlement de différends et des sanctions* or CoRDIS) seeking an end to alleged breaches by Enedis of its obligations to remain independent of EDF. On 23 March 2017, the CoRDIS member assigned to this matter issued a decision not to prosecute further.

9.2.2 Edison

Legal action initiated by ACEA SpA concerning Edison's shareholding in Edipower

In May 2006, ACEA SpA (ACEA), Rome's municipal utility, addressed a complaint to the Italian government and the Italian regulatory (AEEG) and competition (AGCM) authorities, alleging that the joint takeover of Edison by EDF and A2A SA (formerly AEM SpA) had exceeded the threshold of 30% of the share capital of Edipower held by State corporations (limit set forth by a decree of the President of the Italian Council of Ministers, dated 8 November 2000 defining the rules applicable to the privatisation of companies (called "Gencos") then held by Enel SpA).

On 7 July 2006, the AGCM rendered an opinion (*segnalazione*) supporting ACEA's position and officially requiring the Italian government and Parliament to take measures to comply with the provisions of the 8 November 2000 Decree.

In August 2006, ACEA initiated an action against EDF, IEB and WGRMH Holding 4 (along with Edison, A2A SA, Delmi, Edipower, AEM Turin, Atel and TdE) before the Civil Court in Rome.

According to ACEA, exceeding this threshold was a violation of the applicable laws and constituted an act of unfair competition which could adversely affect competition on the energy market and consumers' interests.

ACEA therefore asked the court to formally acknowledge the unfair behaviour of EDF and A2A SA, and force EDF and A2A SA to sell their stakes in order to return below the 30% limit and prohibit them from taking and using energy in excess of the 30% threshold, and, finally, to compensate ACEA for the prejudice suffered, which it was unable to precisely evaluate at that stage, and was to be valued in separate proceedings.

ACEA also indicated that it would request the court to take interim measures to protect its interests until the court ruled on the merits of the case. In January 2007, Endesa Italia joined ACEA in its legal action.

The judge rejected the addition to the file at that time of a memorandum from ACEA (new evidence) estimating the alleged prejudice to ACEA at €800 million.

In December 2010, Endesa Italia, now named E.ON Italia, and EDF signed a settlement agreement in which E.ON Italia undertook to drop the case and all other claims against EDF in connection with EDF's indirect investment in Edipower. The judge acknowledged this agreement in an order dated 19 May 2011.

On 19 September 2013, the Civil Court in Rome issued a judgment in favour of EDF, dismissing all of ACEA's claims. The Court excluded all liability for EDF under competition or tort law as all of EDF's acts had been authorised in advance by the relevant regulatory bodies and it had not breached any rules. ACEA appealed against this judgment on 23 September 2014.

At a preliminary hearing before the Court of Appeal in Rome on 15 June 2015, the case was listed for a procedural hearing on 21 March 2016. At this hearing, the judge ruled that the statements of case must be filed by 20 May and 9 June. In its judgment, handed down on 17 October 2016 and notified to the parties on 15 December 2016, the Court of Appeal dismissed all of the applications filed by ACEA and ordered it to pay the legal costs. The decision was served, triggering the 60-day period (expiring on 20 February 2017) during which an appeal could be lodged before the Court of Cassation. As that period has now ended, the ruling in favour of

EDF is final.

9.2.3 EDF Énergies Nouvelles

Silpro

Silpro (Silicium de Provence) went into court-ordered liquidation on 4 August 2009. The EDF ENR group held a 30% minority shareholding in Silpro and the main shareholder was the German company Sol Holding. On 30 May 2011, the liquidator brought an action against the shareholders and executives of Silpro, with joint and several liability, seeking payment of the shortfall in assets resulting from Silpro's liquidation, which amounted to €101 million.

In a judgment issued on 17 December 2013, the Commercial Court in Manosque, without indicating joint and several liability, ordered the EDF ENR group to contribute €120,000 and Sol Holding to contribute €200,000 to payment of the shortfall in Silpro's assets. The EDF ENR group appealed, and in a decision issued on 19 March 2015, the Court of Appeal in Aix-en-Provence quashed this judgment and dismissed all of the liquidator's claims.

The liquidator lodged an appeal with the Court of Cassation challenging this appeal decision of 19 March 2015.

In a ruling of 20 April 2017, the Court of Cassation overturned the part of the Court of Appeal's decision that quashed the order to Sol Holding to pay the liquidator the sum of €200,000 for the shortfall in assets.

10 SUBSEQUENT EVENTS

- Signature on 25 and 27 July 2017 of agreements for the sale of assets by Edison.
- On 5 July 2017 Sofilo and EDF signed an agreement for the sale of all their shares in two companies to which they had previously contributed a portfolio of non-strategic real estate assets owned by the Group. Completion of this operation is expected to take place in October.

11 FINANCIAL OUTLOOK

2017 TARGETS CONFIRMED

The Group maintains its financial objectives for 2017:

- nuclear output: 390 - 400TWh;
- EBITDA¹: €13.7 to €14.3 billion;
- net financial debt/EBITDA²: less than or equal to 2.5x;
- payout ratio, based on net income excluding non-recurring items³ post-hybrid: 55% to 65%.

2018 TARGETS AND BEYOND 2018 CONFIRMED

2018 targets:

- operating expenses⁴: -€0.7 billion decrease compared to 2015;
- EBITDA⁵: greater than or equal to €15.2 billion;
- net investments excluding Linky, new developments and asset disposals: around €10.5 billion;
- cash flow^{5 6}: greater than or equal to 0;
- net financial debt/EBITDA ratio^{2 5}: less than or equal to 2.5x;
- payout ratio, based on net income excluding non-recurring items³ post-hybrid: 50%.

Targets beyond 2018:

- an operating expenses⁴ in 2019 compared to 2015 of more than €1 billion;
- asset disposals over the 2015-2020 period of at least €10 billion;
- payout ratio, based on net income excluding non-recurring items³ post-hybrid, between 45% and 50%.

1. At 2016 exchange rate.

2. At 2016 exchange rate and at an assumed discount rate on nuclear provisions of 4.1% in 2017 and 3.9% in 2018.

3. Adjusted for the remuneration of hybrid bonds accounted for in equity.

4. Sum of personnel expenses and other external expenses. At comparable consolidation scope and exchange rates. At constant pensions discount rates. Excluding change in operating expenses of service activities.

5. At 2016 exchange rate and assumption for 2018 power prices in France on volumes not hedged as of 31/12/2016 \geq €36/MWh.

6. At 2016 exchange rate. Cash flow excluding Linky, new developments and asset disposals, with an assumed discount rate on nuclear provisions of 4.1% in 2017 and 3.9% in 2018, excluding interim dividend for 2018, which will be decided in second half of 2018.