French société anonyme
With a share capital of 1,578,916,053.50 euros
Registered head office: 22-30, avenue de Wagram
75382 Paris cedex 08
552 081 317 RCS Paris

EDF group

HALF-YEAR FINANCIAL REPORT AT 30 JUNE 2021

At its meeting of 28 July 2021, 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 2021 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the energy sector in France and worldwide, it is possible that this information could turn out to be mistaken or outdated.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, particularly in section 6 of the Management Report, "Financial Outlook", are based on assumptions and estimates that could evolve or be modified due to risks, uncertainties (relating notably to the economic, financial, competitive and regulatory environment, and weather conditions), 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 business environment, regulations, and the factors discussed in section 2 of the EDF group's 2020 Universal Registration Document, "Risk factors and control framework".

Pursuant to European and French legislation, the entities responsible for the transmission and distribution of electricity within the EDF group are not allowed to communicate certain information collected 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 cannot 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 2021 HALF-YEAR FINANCIAL REPORT

CERTIFICATION BY THE PERSON RESPONSIBLE FOR THE 2021 HALF-YEAR FINANCIAL REPORT

I certify that, to the best of my knowledge, the condensed consolidated half-year financial statements at 30 June 2021 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, together with a description of the principal risks and uncertainties for the remaining six months of the financial year.

Paris, 28 July 2021

Jean-Bernard Lévy
Chairman and Chief Executive Officer of EDF

HALF-YEAR MANAGEMENT REPORT AT 30 JUNE 2021

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1 SIGNIFICANT EVENTS AND KEY FIGURES

Strong increase in EBITDA

10% growth in renewable projects portfolio to 66GW

Extension of 1,300MW French reactors depreciation period to 50 years

2021 targets upgraded

- ## Nuclear
  - **France:**
    - Existing nuclear:
      - Increase of the nuclear output estimate for 2021 from 330-360TWh to 345-365TWh
      - ASN generic decision on the conditions for the continued operation of 900MW reactors after 40 years
    - Flamanville 3:
      - Onsite delivery of all fuel assemblies
      - Start of operations to repair penetration welds on the main secondary circuit, using remotely-controlled robots, following ASN agreement
      - Pending ASN decision on the treatment of three nozzles on the main primary circuit
    - New nuclear:
      - Submission by EDF and the nuclear industry, to the public authorities, of their contribution to the programme to build 3 pairs of new ERP2 reactors in France
      - Establishment of the industrial organisation for the Nuward Small Modular Reactor project
  - **China:**
    - Anomaly in the fuel assemblies of the reactor no. 1 of the Taishan nuclear power plant(1)
  - **United Kingdom:**
    - Hinkley Point C: start of the equipment installation phase and progressive delivery of civil engineering in the nuclear island buildings
    - Temporary restart of Hinkley Point B and Hunterston B before final shutdown; 3-month extension of the outage of Sizewell B until August 2021
    - Closure of Dungeness B and start of the defueling phase
    - Agreement with the British government to decommission the 7 AGR(2) nuclear power stations
  - **India**:
    - Binding technical and commercial offer submitted for the construction of six EPRs at the Jaitapur site(3)

- ## Renewables
  - Pipeline of projects(4) - 66GW gross capacity at end-June 2021, an increase of 10% vs. end-2020:
    - United States: winner of the 1.5GW offshore Atlantic Shores project (via a 50-50 joint venture) and 3 solar projects awarded for a total of more than 300MW
    - France: winner of 13 ground-mounted solar projects amounting to 75MW(5) as part of the solar plan
  - Capacity under construction for 8.6GW gross(6) at end-June 2021, up 8% vs end 2020
    - France: launch of the construction of the Courseulles-sur-Mer offshore farm (448MW)
    - Saudi Arabia: attribution and launch of the construction of a 300MW solar plant in Jeddah
  - Commissioning of 1GW during first-half 2021 (of which a 344MW wind farm in Brazil) vs 0.6GW during the same period in 2020
  - Hydropower: more than 40% of civil engineering work achieved on Nachtigal project (420MW) in Cameroon

- ## Enedis
  - Strong momentum in grid connections
  - Finalisation of the Linky programme: circa 32.5 million Linky smart meters installed at end-June 2021, representing a 95% programme achievement.

- ## Customers and services
  - Commercial performance:
    - Close to 1.2 million residential electricity customers in market offers in France, up 17.6% vs. end-2020
    - 1.15 contracts in electricity, services and gas per customer at end-June 2021 (target of 1.5 by 2030(7))
    - Signature of renewable power purchase agreements (PPAs) with Bouygues Telecom, SNCF and RATP

(1) See press releases published on 14 June 2021 and 22 July 2021.
(2) Advanced Gas-Cooled Reactor.
(3) EDF is neither an investor nor in charge of construction.
(4) Wind and solar projects.
(5) CRE tender.
(6) 8.6GW (o/w 1.7GW in onshore wind power, 2.1GW in offshore wind power and 4.8GW in solar power) vs 8GW at end-2020.
(7) EDF estimate: France, United Kingdom, Italy, and Belgium (residential customers).

- ◊ Broadened offering:
  - Launch of 20-year Lease-Purchase business offer for photovoltaic self-consumption
  - Partnership with Bosch to launch a comprehensive energy efficiency and decarbonisation offer for industrial customers

Italy - Edison

- ◊ Reorganisation of the Group's Italian renewable assets within Edison, with a target to achieve circa 4GW gross renewable capacity by 2030[(1)]
- ◊ Disposal of the E&P[(2)] business finalised

Innovations

- ◊ Pre-selection, by Germany, of an industrial renewable hydrogen production project (300MW) to the IPCEI[(3)]
- ◊ Cooperation agreement between Toyota and EDF as part of a "*Vert Electrique Auto*" offer in France
- ◊ More than 144,000 charging points rolled out and managed at end-June 2021 (of which 122,000 by Pod Point, i.e., +28% vs end-2020)
- ◊ Commissioning of 50MW of batteries in the United Kingdom as part of the ESO[(4)] project
- ◊ Blockchain: bond issue by the EIB (European Investment Bank) realised via Ethereum[(5)], based on solutions developed by Exaion, an EDF subsidiary.

International

- ◊ Signature of financing agreements to build the largest biomass plant in West Africa (Biovea, 46MW, Ivory Coast)
- ◊ Signature of a development agreement for a 240MW hybrid floating solar project on the Nam Theun 2 reservoir in Laos

Coal-fired plants step-out process in Europe

- ◊ France: shutdown of Le Havre coal-fired power plant on 31 March 2021[(6)]
- ◊ UK: shutdown of the West Burton A plant planned for September 2022, two years before the deadline set by the UK government for coal-fired plants

ESG

- ◊ EDF listed on "CAC 40 ESG", the new Euronext index including 40 socially responsible companies

Extreme cold snap in Texas

During the wave of extremely cold weather in Texas in February 2021, electricity price spikes were observed over several days. EDF Renewables shut down four wind farms and had to purchase energy at very high prices to honour its contractual commitments. EDF Trading benefited from high volatility on the commodity markets. The combination of these two effects had an estimated positive impact of €49 million on Group EBITDA. EDF net income was also impacted by the impairment recognised on one of the wind farms. Overall, the total impact of this event on EDF net income for the first half of 2021 is practically neutral.

Cost reduction and disposal plan

To mitigate the impacts of the health crisis on the Group's financial situation, a cost reduction and disposal plan was launched in mid-2020, with a view to reducing operating expenses by €500 million between 2019 and 2022, and generating approximately €3 billion in disposals[(7)] over the period 2020-2022 (see section 6, "Financial outlook"). At end-June 2021, The Group has reduced costs by €251 million. The divestments through signed or completed transactions, as of 29 July 2021, have a favourable effect of circa €1.2 billion on net financial debt and of circa €1,9 billion on the economic debt of the Group[(8)].

Prospects for reforming the existing nuclear regulatory framework in France

The French Government has indicated that the discussions with the European Commission on the ARENH reform, the hydro concessions and the overall EDF's reorganisation have not allowed a full agreement to be reached at this stage and will have to continue, with the aim to find a satisfactory outcome for all parties involved.

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(1) Excluding hydropower, divided between wind and solar.
(2) Exploration and Production activities, except activities in Algeria.
(3) Important Project of Common European Interest.
(4) Energy Superhub Oxford, with 100% renewable energy.
(5) Ethereum is a decentralised exchange protocol that allows users to create smart contracts.
(6) The coal-fired plant in Le Havre has been shut down and mothballed (multi-year guaranteed shutdown) since end-March 2021 and will be disconnected from the grid by end-2021.
(7) Signed or completed disposals: impact on the Group's economic debt reduction (Standard and Poor's definition).
(8) Economic debt according to Standard and Poor's definition.

Group key figures for the first half of 2021

The figures presented in this document are taken from the EDF group's condensed consolidated half-year financial statements at 30 June 2021.

Impact of the Covid-19 pandemic: The first half of 2020 was marked by the Covid-19 pandemic, which had an estimated impact of -€1,010 million on EBITDA at 30 June 2020. Even though the Covid crisis continued to have effects during the first half of 2021 (particularly due to deferral to 2021 of the end of certain nuclear reactor outages, which affected nuclear power output, and the fact that demand for electricity and service activities was lower than before the crisis), its impacts on the Group's EBITDA at 30 June 2021 are moderate, diffuse and not easily traceable. As a result it was not appropriate to take specific steps to value the pandemic's induced impacts on the Group's financial results for the first half of 2021 (see note 1.6.1 to the condensed consolidated half-year financial statements at 30 June 2021, "Consequences of the Covid-19 pandemic").

Extension to 50 years of the depreciation period of 1300MWe reactors in France: The Group considers that all the technical, economic and governance conditions for bringing the depreciation period of 1300MWe-series PWR plants in France in line with its industrial strategy were fulfilled during the first half of 2021. The Group therefore changed the accounting estimate at 1 January 2021 for all 1300MWe-series power plants. The impact on EDF net income is +€194 million (see note 1.6.2 to the condensed consolidated half-year financial statements at 30 June 2021).

(in millions of euros)	H1 2021	H1 2020	Variation	Variation (%)	Organic variation (%)
Sales	39,621	34,710	4,911	14.1	13.7
Operating profit before depreciation and amortisation (EBITDA)	10,601	8,196	2,405	29.3	29.8
Operating profit (EBIT)	4,272	1,624	2,648	163.1	165.1
Income before taxes of consolidated companies	5,133	(678)	5,811	n.a.	n.a.
EDF net income	4,172	(701)	4,873	n.a.	n.a.
Net income excluding non-recurring items (1)	3,740	1,267	2,473	n.a.	n.a.
Net income excluding non-recurring items, adjusted for the remuneration of hybrid bonds	3,452	981	2,471	n.a.	n.a.
Group cash flow (2)	(240)	(1,829)	1,589	- 86,9	n.a.
Net indebtedness (3)	41,007	42,002	(995)	- 2.4	n.a.

n.a : not applicable

(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 non-recurring items, net changes in the fair value of energy and commodity derivatives (excluding trading activities), and net changes in the fair value of debt and equity instruments, net of tax (see section 4.6 "Net income excluding non-recurring items").

(2) 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 less asset disposals, income taxes paid, net financial expenses disbursed, net allocations to dedicated assets, dividends paid in cash, and investments in the Hinkley Point C and Linky projects (see section 5).

(3) Net indebtedness is not defined in the accounting standards and is not directly visible in the Group's consolidated balance sheet (see section 5.1)

2 ECONOMIC ENVIRONMENT

2.1 Market prices for electricity and the principal energy sources

In an interconnected European market, analysis of French market prices must be related to analysis of market prices in the neighbouring countries.

During the first half of 2021, average spot prices for electricity were significantly higher all over Europe than in the first half of 2020.

2.1.1 Spot electricity prices in Europe (1)

	France	United Kingdom	Italy	Belgium
Average baseload price for H1 2021 (€/MWh)	58.5	79.0	67.2	56.6
Variation in average H1 baseload prices, 2021/2020	+146.6%	+141.6%	+108.8%	+132.9%
Average peakload price for H1 2021 (€/MWh)	67.1	91.9	74.5	63.9
Variation in average H1 peakload prices, 2021/2020	+139.4%	+146.3%	+108.6%	+126.6%

The comments below concern baseload prices.

In **France**, spot electricity prices stood at an average €58.5/MWh (baseload) and €67.1/MWh (peakload) in the first half of 2021, a year-on-year increase of €34.8/MWh and €39.1/MWh respectively.

This marked rise is observed over the whole period and was accentuated in the second quarter of 2021. Until the end of March, spot prices were pushed upwards by below-normal temperatures coupled with lower wind power output. The pressure continued during the second quarter as the economy recovered (bringing an increase in demand) and temperatures were cooler than normal in April and May (respectively 3.9° and 3.1° below the same months of 2020). The upward trend extended into May and June, driven by high rises in commodity prices and low wind power output, particularly in June.

In the first half of 2021, demand in France totalled 244.3TWh, 17.7TWh more than in first-half 2020. In response to this growing demand, French power output increased by a total 8.2TWh.

The higher generation output concerned the nuclear plants (+7.7TWh), fossil-fired plants (+2.6TWh) and solar plants (+0.4TWh) which respectively produced 181.7TWh, 19.9TWh and 6.8TWh. This increase compensated for the lower output of wind power (-1.4TWh) and hydropower (-1.0TWh), which totalled 19.2TWh and 33.8TWh respectively for the first half of 2021.

France's export balance for the first half of the year declined to 22.0TWh, down by 9.7TWh year-on-year. Exports to Spain, Switzerland and the Central West Europe zone were lower in the first half of 2021 than the same period of 2020 (-5.1TWh in total), while exports to Italy and the United Kingdom were higher (+4.5TWh in total). Imports, in contrast, increased across all borders (+9.2TWh in total).

This increase in imports mainly concerns the first four months of the year, when temperatures were cooler than in 2020 (-1.9° compared to the corresponding period of 2020) and consumption was higher (+3.1TWh on average per month compared to the same period of 2020).

In the **United Kingdom**, average spot electricity prices gained €46.3TWh compared to the first half of 2020, reaching an average €79.0MWh for the first half of 2021. The increase was observed throughout the period, becoming more marked from April as demand recovered, generation costs for gas-fired electricity increased and renewable energy output retreated across all of western Europe.

In **Italy**, average spot prices were up by €35.0/MWh compared to the first half of 2020, standing at an average €67.2/MWh for the first half of 2021. This increase reflects the recovery in demand, and the importance of gas in the electricity mix in Italy, as gas prices rose significantly during the first half of 2021.

In **Belgium**, average spot prices registered a year-on-year increase of €32.3/MWh, with the average price for the first half of 2021 standing at €56.6/MWh. Factors contributing to this increase were high prices for gas, coal and CO_2, lower renewable energy generation, a cold winter and the impact of the lockdown on demand.

(1) ***France:*** *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.*

2.1.2 Forward electricity prices in Europe [1]

	France	United Kingdom	Italy	Belgium
Average forward baseload price under the 2022 annual contract for H1 2021 *(€/MWh)*	58.5	67.3	63.9	54.8
Variation in average H1 forward baseload price under the annual contracts, 2021/2020	+33.6%	+48.3%	+30.9%	+37.6%
Forward baseload price under the 2022 annual contract at 30 June 2021 *(€/MWh)*	73.7	77.7	80.7	69.8
Average forward peakload price under the 2022 annual contract for H1 2021 *(€/MWh)*	72.1	76.5	70.1	65.6
Variation in average H1 forward peakload price under the annual contracts, 2021/2020	+27.5%	+48.0%	+27.4%	+26.0%
Forward peakload price under the 2022 annual contract at 30 June 2021 *(€/MWh)*	88.2	89.0	87.1	80.0

Average annual contract prices for baseload and peakload electricity were higher all over Europe in the first half of 2021 than the same period of 2020, due to higher commodity prices (for gas, coal and CO_2).

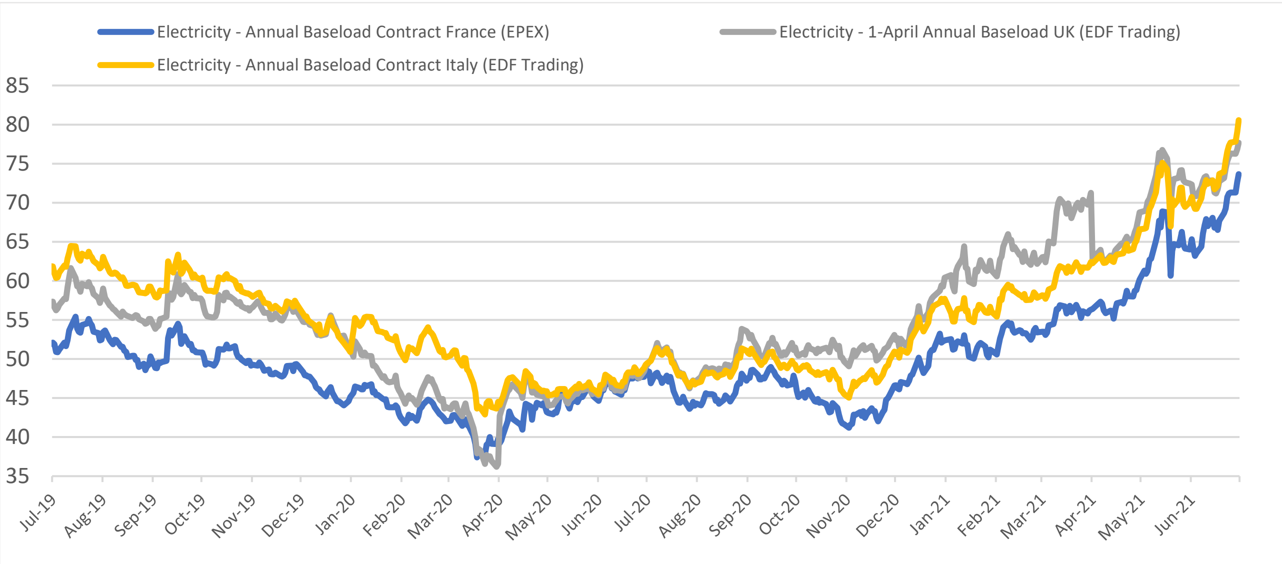
In **France**, the average annual contract baseload price for next-year delivery rose constantly over the whole half-year to an average €58.5/MWh, up by 33.6% compared to the first half of 2020. This rise was almost entirely driven by CO_2 prices in the first two months of the year, then during the final four months by the combined substantial increase in CO_2, gas and coal prices, as tensions on the short-term gas market triggered uncertainty about abilities to fill European stocks before the winter, and drove forward electricity prices upward in the second quarter of 2021.

In the **United Kingdom**, the April Ahead contract baseload price for 1 April Y+1 to 31 March Y+2 increased by 48.3% year-on-year to an average €67.3/MWh for the first half of 2021. Like France, the UK annual contract price saw an increase that spanned the whole period, due to rising commodity prices.

In **Italy**, the annual contract baseload price for next-year delivery also increased, reaching an average €63.9/MWh for the first half of 2021, up by +30.9% compared to the first half of 2020. This substantial increase relates to a rise in commodity prices since the start of the year. CO_2 prices, which remained volatile over the period, followed an upward trend due to the high gas component in the Italian electricity mix, and this kept electricity prices high.

In **Belgium**, the annual contract baseload price for next-year delivery rose by 37.6% year-on-year to an average €54.8/MWh for the first half of 2021. The increase was particularly pronounced in the second quarter, due to rising fuel prices.

➔ Principal forward electricity prices in Europe (baseload year ahead, in €/MWh)



(1) ***France***: *average year-ahead EEX price;*
Belgium *and* ***Italy***: *average year-ahead EDF Trading price;*
United Kingdom: *average ICE annual contract prices, April 2020 then April 2021 (in the UK, annual contract deliveries take place from 1 April to 31 March).*

2.1.3 CO_2 emission quota prices [(1)]

The price of CO_2 emission quotas for delivery in December Y+1 stood at an average €44.3/t for the first half of 2021 (+98.4% or +€22.0/t year on year). This price remained very volatile and has followed a robust upward trend since the beginning of the year.
The political environment was favourable for CO_2 emission quota prices at the start of 2021: it was announced in January that the United States would rejoin the Paris Agreement, and that allocation of the free quotas normally distributed in February would be delayed. Quota prices also benefited from a favourable market environment from February onwards as more speculative investors arrived on the market.
In April, temperatures were lower than normal and greater use of fossil-fired power plants was necessary.
Finally, following publication of the European Commission's new "Fit for 55" climate package in mid-July, the European legislators are due to examine proposals to cut European Union greenhouse gas emissions by 55% compared to 1990 levels (instead of 40% as previously) by 2030. In the proposed reform of the EU carbon market, free quotas and the volumes of quotas in circulation would be drastically reduced, and this could reinforce rises in CO_2 emission quota prices in the future.

➔ CO_2 emission quota prices in €/t for next-year deliveries in December (ICE)

2.1.4 Fossil fuel prices [(2)]

	Coal *(US$/bbl)*	Oil *(US$/t)*	Natural gas *(€/MWhg)*
Average price for H1 2021	73.8	65.2	19.6
Average H1 price variation, 2021/2020	+30.4%	+54.9%	+55.9%
Highest price in H1 2021	87.2	76.2	28.2
Lowest price in H1 2021	64.2	51.1	15.8
Price at 30 June 2021	87.2	75.1	28.2
Price at 30 June 2020	57.7	41.2	11.6

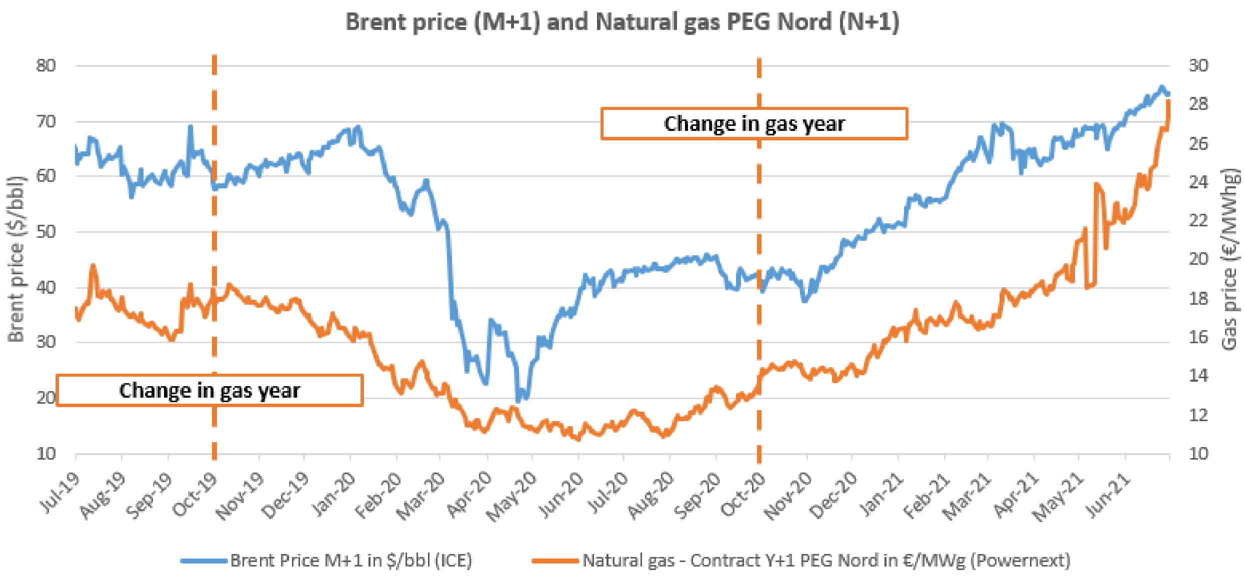
Coal prices for next-year delivery in Europe stood at an average US$73.8/t in the first half of 2021 (+30.4% or +17.2$/t compared to the first half of 2020), continuing the upward movement begun in 2020. Several weather events and incidents at generation sites since the start of the year (in Colombia, South Africa, Russia and Australia) resulted in a downturn in exports lasting several weeks, and thus a lower supply. Also, China's economic recovery, a cold winter and particularly low stocks in China prompted market tensions in Asia. The increase in coal prices in Asia had a knock-on effect on the European markets, which also experienced some waves of cold weather and a post-Covid economic recovery.

Oil prices stood at an average US$65.2/bbl for the first half of 2021 (+54.9% or +US$23.1/bbl compared to the same period of 2020). The price per barrel was generally higher year-on-year over the whole period, sustained by the agreements reached between OPEP+ members for a gradual adjustment of supply, in anticipation of an economic recovery in the various consumer countries. The introduction of the American Rescue Plan in the United States at the start of the year, and the acceleration of vaccination programmes throughout the world, also contributed to oil price increases.

The **annual gas contract price** for next-year delivery in the PEG Nord zone was an average €19.6/MWh in the first half of 2021 (+55.9% or +€7.0/MWh compared to the first half of 2020). Forward gas prices began the year with a rise, in an economic environment that was optimistic about the end of Covid infections in Asia. Below-normal temperatures in February helped to keep up supply-demand tension on the European market. In March, more below-normal temperatures were forecast and the Suez Canal was blocked for several days, and these factors continued the pressure on prices.
In the second quarter, prices marked an upturn driven by the worldwide business recovery and the low level of gas stocks in Europe, which stoked fears for the coming winter. In addition, uncertainties over gas supplies from Russia via the Ukraine or via NordStream 2 continued to cause tension on the European gas market, and competition between European and Asian markets to attract LNG cargo ships intensified due to a hot summer in Asia.

(1) Average ICE prices for the annual contract, Phase III (2013-2020) and phase IV (2021-2030).
*(2) **Coal:** average ICE prices for delivery in Europe (CIF ARA) for the next calendar year (US$/t);*
***Oil:** ICE price for Brent crude oil barrel (front month) (US$/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 Consumption of electricity and natural gas

2.2.1 Consumption of electricity and gas in France

Electricity consumption in France increased by 17.7TWh compared to the first half of 2020. This increase was mainly due to the relatively cooler weather (the average temperature for the half-year was 1.6° lower in 2021 than 2020), which made an estimated contribution of almost 14TWh.
A smaller but also positive relative contribution, estimated at around 5TWh, was made by the restrictions on activity introduced by the government to contain the Covid-19 pandemic. Although they affected all months of the period, the restrictions in 2021 were not as strict as in 2020 (when they came into force from 17 March).
Other factors such as the additional day in February 2020 also affected consumption (whether upwards or downwards), but their influence was minor.

Natural gas consumption in France for the first half of the year rose by 31.9TWh compared to the first half of 2020. This rise was mainly driven by an increase in demand caused by temperatures that were lower than in 2020, and by less strict government restrictions. Periods of cold weather (in mid-February and the first fortnight of April) led to peaks in household consumption, and meanwhile gas consumption by industrial sites registered an average increase as restrictions were relaxed. Finally, the gas requirements for CCG plants were higher overall, especially during episodes of cold weather to meet higher demand for electric heating.

2.2.2 Consumption of electricity and gas in Italy

Electricity consumption in Italy(1) totalled 154.9TWh in the first half of 2021, +7.9% higher than in the first half of 2020 due to resumption of business activity after the Covid crisis of 2020. The decrease in solar and wind power generation was more than offset by higher thermal generation. Net imports leapt up by 56.9%.

Domestic demand for natural gas in Italy(2) totalled 39.8bcm, a year-on-year increase of 11.0%, confirming the general resumption of business after Covid-related restrictions were lifted. All segments registered an increase. In absolute values, the biggest increase was in residential consumption (+2.0 billion m^3, +12.8% compared to the first half of 2020), due to a colder winter in the first quarter of 2021 than the previous year.

2.3 Sales tariffs for electricity and natural gas

In **France**, the “blue” regulated sales tariffs were raised on 1 February 2021 by +1.93% excluding taxes (+1.61% including taxes) for residential customers and +3.23% excluding taxes (+2.61% including taxes) for non-residential customers.

In the **United Kingdom**, a cap on the variable gas and electricity tariffs for residential customers was introduced on 1 January 2019. It is updated every six months to take account of cost revisions. In October 2020, the British government announced that the cap would continue for at least a further twelve months, until the end of 2021. It was raised by 9% for the period 1 April to 30 September 2021 to reflect developments in wholesale market prices, transport and distribution costs and costs related to (renewable) regulatory obligations. This new cap also takes into consideration the estimated additional bad debt suppliers have had to cope with as a result of the pandemic.

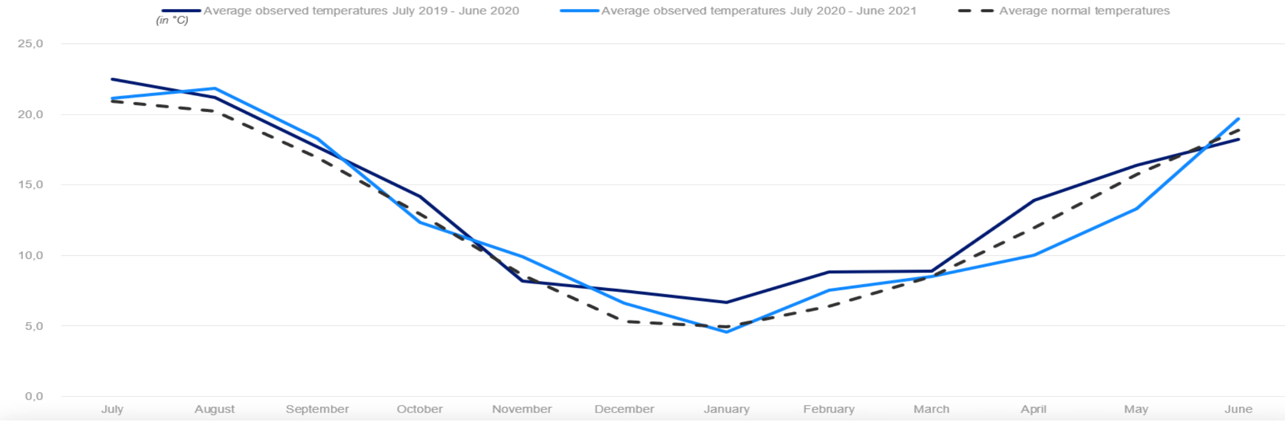
(1) Source of data for Italy: unadjusted data and data provided by Terna, the Italian national grid operator, and adjusted by Edison.
(2) Sources of data for Italy: Ministry for Economic Development (MSE), Snam Rete Gas data adjusted by Edison on the basis of 1Bcm = 10.76TWh.

2.4 Weather conditions: temperatures and rainfall

2.4.1 Temperatures in France

The first half of 2021 saw sharp contrasts in temperatures in France: there was a wave of cold weather in early January and during February, one of the coldest months of May in the last 25 years, and springlike weather in several days of the winter season (late January, late February and late March). The average temperature for the whole six months was 0.5° below normal and 1.6° below the average temperature for the same period of 2020. The first half of 2021 was thus markedly cooler than the first half of 2020, with monthly temperature differentials of more than -3°C in April and May.

➔ **Average monthly temperatures [(1) (2)] in France**



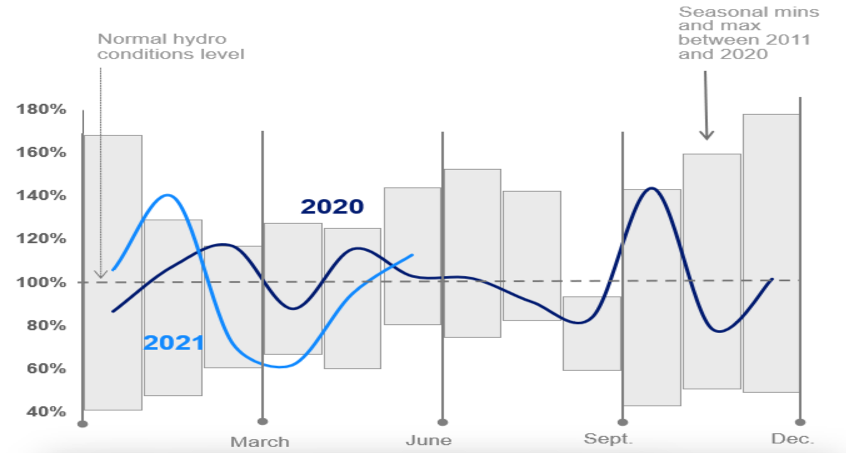
(1) Average temperatures recorded in 32 cities, weighted by electricity consumption.
(2) Source: Météo France.

2.4.2 Rainfall

Rainfall in **Europe** was close to normal overall for the first half of 2021, although there were slight disparities between the South of Europe (Spain, south-west France, Italy) which was drier than normal, and the rest of France, Scandinavia and Germany which registered surplus rainfall.

In **France**, hydrological conditions were slightly below normal, but contrasts between individual months were much more pronounced than in the first half of 2020: water flow coefficients were very high in January and February, then below normal in March. The coefficient for April was the lowest in 50 years due to the combined effect of a shortfall of rain and the absence of thawing snow. In the first half of 2020, the aggregate coefficient was slightly above normal.

➔ **Hydrological conditions in France ***



* Weekly monitoring of French reservoir levels by the EDF group's statistical observatory (Miréor project) as far as the coast

3 SIGNIFICANT EVENTS

In addition to the significant events mentioned in sectjon 1, details of significant events during the first half of 2021 are presented in note 2 to the condensed consolidated half-year financial statements at 30 June 2021, “Summary of Significant Events”.

3.1 Regulatory environment

Details of changes in regulations are provided in notes 5.1.1 and 5.3 to the condensed consolidated half-year financial statements at 30 June 2021.

3.2 Changes in EDF’s Board of Directors

At the General Shareholder’s Meeting of 6 May 2021, the shareholders decided to renew the appointments of Marie-Christine Lepetit, Colette Lewiner, Michèle Rousseau and François Delattre as directors, for a 4-year term to end with the General Shareholders’ Meeting called to approve the financial statements for the year ended 31 December 2024.

At the Board of Directors’ meeting of 15 June 2021 it was decided to call a General Shareholders’ Meeting on 22 July 2021 to propose the appointment of Nathalie Collin, Executive Vice-President in charge of Digital Services and Communication at Groupe La Poste, as a new independent director of EDF, for a 4-year term to end with the General Shareholders’ Meeting called to approve the financial statements for the year ended 31 December 2024.

Nathalie Collin will succeed Laurence Parisot, independent director, whose term of office ended with the General Shareholders’ Meeting of 6 May 2021.

4 ANALYSIS OF THE BUSINESS AND THE CONSOLIDATED INCOME STATEMENT FOR THE FIRST HALF-YEARS OF 2021 AND 2020

Presentation and analysis of the consolidated income statement for the first half-years of 2021 and 2020 is broken down by business segment for sales and EBITDA (France – Generation and supply, France – Regulated activities, EDF Renewables, Dalkia, Framatome, United Kingdom, Italy, Other international and Other activities). EBIT (operating profit) and net income are analysed without any breakdown.

(in millions of euros)	H1 2021	H1 2020
Sales	**39,621**	**34,710**
Fuel and energy purchases	(18,753)	(16,550)
Other external purchases [1]	(3,629)	(3,469)
Personnel expenses	(7,273)	(7,020)
Taxes other than income taxes	(2,509)	(2,813)
Other operating income and expenses	3,144	3,338
Operating profit before depreciation and amortisation (EBITDA)	**10,601**	**8,196**
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	(541)	(323)
Net depreciation and amortisation [2]	(5,194)	(5,358)
(Impairment)/reversals	(502)	(738)
Other income and expenses	(92)	(153)
Operating profit (EBIT)	**4,272**	**1,624**
Cost of gross financial indebtedness	(754)	(868)
Discount effect	(1,016)	(1,172)
Other financial income and expenses	2,631	(262)
Financial result	**861**	**(2,302)**
Income before taxes of consolidated companies	**5,133**	**(678)**
Income taxes	(1,458)	42
Share in net income of associates and joint ventures	344	11
Net income of discontinued operations	(3)	(161)
GROUP NET INCOME	**4,016**	**(786)**
EDF net income	**4,172**	**(701)**
EDF net income – continuing operations	4,175	(544)
EDF net income – discontinued operations	(3)	(157)
Net income attributable to non-controlling interests	**(156)**	**(85)**
Net income attributable to non-controlling interests – continuing operations	(156)	(81)
Net income attributable to non-controlling interests – discontinued operations	-	(4)

(1) Other external expenses are reported net of the change in inventories and capitalised production.

(2) Including net increases in provisions for replacement of property, plant and equipment operated under concessions.

4.1 Sales

Sales amounted to €39,621 million in the first half of 2021, a year-on-year increase of €4,911 million (+14.1%). Excluding the effect of movements in exchange rates (-€82 million) and changes in the scope of consolidation (+€247 million), sales registered organic growth of 13.7%.

4.1.1 Change in Group sales and sales by segment

(in millions of euros)	H1 2021	H1 2020	Variation	Variation (%)	Organic variation (%)
Sales	**39,621**	**34,710**	**4,911**	**+ 14.1**	**+ 13.7**

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

(in millions of euros)	**H1 2021**	**H1 2020**	**Variation**	**Variation (%)**	**Organic variation (%)**
France - Generation and supply (1)	16,001	14,449	1,552	+ 10.7	+ 9.5
France - Regulated activities (2)	9,096	8,139	957	+ 11.8	+ 11.8
EDF Renewables	807	770	37	+ 4.8	+ 8.2
Dalkia	2,326	1,988	338	+ 17.0	+ 15.7
Framatome	1,634	1,490	144	+ 9.7	+ 11.0
United Kingdom	4,887	4,595	292	+ 6.4	+ 5.6
Italy	3,911	2,909	1,002	+ 34.4	+ 34.9
Other international	1,394	1,244	150	+ 12.1	+ 12.8
Other activities	1,887	1,200	687	+ 57.3	+ 58.3
Inter-segment eliminations	(2,322)	(2,074)	(248)	+ 12.0	+ 12.0
GROUP SALES	**39,621**	**34,710**	**4,911**	**+ 14.1**	**+ 13.7**

(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 Enedis, 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). *Enedis is an independent EDF subsidiary as defined in the French Energy Code.*

4.1.1.1 France - Generation and supply

Sales in the first half of 2021 by the **France - Generation and supply** segment amounted to €16,001 million, up by €1,552 million (+10.7%) or €1,366 million (+9.5%) in organic terms compared to the first half of 2020.

Energy sales increased by +€355 million, reflecting a positive volume effect of +€325 million, largely driven by the +7.7TWh rise in nuclear power output.

Downstream market conditions had a positive effect estimated at +€234 million on the change in sales. This increase primarily results from the reinvoicing to final customers of capacity guarantee purchases (+€290 million) and a slightly negative impact of loss of market shares.

Resales of electricity subject to purchase obligations were up by +€463 million, mainly due to a rise in spot and forward market prices in the first half of the year, partly offset by a decline in volumes caused by a very windy 2020 (the effect on EBITDA was neutral because expenses relating to purchase obligations are covered by the CSPE mechanism).

A number of other factors, including the results of sales subsidiaries and aggregators, also played a role in the favourable change in sales (contributing +€184 million excluding changes in the scope of consolidation).

Electricity generation

Nuclear power generation produced 181.7TWh in the first half of 2021, up by 7.7TWh from the first half of 2020 despite the closure of the two reactors at Fessenheim (-5TWh). This increase is principally explained by much lower modulation of generation as demand was higher. The fuller schedule for maintenance outages was offset by a lower number of unscheduled outages, unforeseen issues and prolongations.

Gross hydropower output stood at 24.6TWh[1] for the first half of 2021, a year-on-year decrease of 5.4% (-1.4TWh). This lower level is mainly explained by slightly unfavourable hydrological conditions in 2021, although they were better than historical averages in 2020 (see section 2.4 "Weather conditions: temperatures and rainfall").

Thermal generation plants were used to produce 5.2TWh, an increase of 1.7TWh compared to the first half of 2020.

Sales volumes to final customers (a market segment that includes local distribution firms and excludes foreign operators) were up by 3.9TWh, including 8.5TWh related to weather effects.

EDF was a net seller on the wholesale markets to the extent of 38.2TWh, stable compared to the first half of 2020. Higher sales to final customers, higher volumes subject to the ARENH mechanism, and a decrease in purchase obligations on the markets were offset by the higher nuclear and fossil-fired power output.

4.1.1.2 France – Regulated activities

Sales in the first half of 2021 by the **France - Regulated activities** segment amounted to €9,096 million, a year-on-year increase of €957 million (+11.8%). For Enedis[2], the rise in sales mainly resulted from the colder weather in the first half of 2021 compared to the

(1) *After deduction of pumped-storage hydropower volumes, hydropower production stood at 21.9TWh for the first half of 2021 (22.7Wh for the first half of 2020).*

(2) *Enedis is an independent EDF subsidiary as defined in the French Energy Code.*

same period of 2020 (+€333 million), a favourable price effect (+€355 million) principally due to developments in the indexed adjustment to the TURPE 5 distribution tariff [(1)], and higher income from connections (+€174 million).

Électricité de Strasbourg and SEI's sales rose by €105 million.

4.1.1.3 EDF Renewables

The **EDF Renewables** segment's sales totalled €807 million and registered an organic increase of €63 million (+8.2%) compared to the first half of 2020.

A total volume of 8.8TWh was produced in the first half of 2021, an organic increase of 10.6% over the first half of 2020, due to the increase in power capacities commissioned.

Despite the new facilities commissioned during the second half of 2020 and in 2021, sales from energy generation showed moderate organic growth of +1.6%, because wind conditions had been exceptionally favourable in France and the United Kingdom in the first quarter of 2020. The spell of extremely cold weather in Texas had no significant impact on EDF Renewables' sales, although the company had to purchase energy at very high prices in order to honour its contractual commitments.

The distributed solar power business in the United States registered organic sales growth, reflecting the new MW capacities installed. The impact on EBITDA was limited. Development expenses reinvoiced to partner entities (accounted for by the equity method) were higher than in the first half of 2020.

4.1.1.4 Dalkia

Sales by **Dalkia** amounted to €2,326 million for the first half of 2020, an organic increase of €313 million (+15.7%) compared to the same period of 2020.

This growth reflects a reversal of the impact of the Covid-19 pandemic on Dalkia's business volumes (during the first half of 2020, work was suspended, and services to industry and buildings were significantly scaled back), a substantial rise in gas prices which had no repercussions for EBITDA, and dynamic business in France for industrial refrigeration, and in the United Kingdom. Dalkia's sales also benefited from slightly colder-than-normal weather conditions in 2021 after a milder first half-year in 2020.

4.1.1.5 Framatome

Framatome's sales amounted to €1,634 million in the first half of 2021, an organic increase of 11.0% compared to the first half of 2020. A significant portion of sales are made within the Group. This substantial rise is explained by growth in the "Installed base, "Fuel" and "Large Projects" businesses.

4.1.1.6 United Kingdom

Sales by the **United Kingdom** segment amounted to €4,887 million in the first half of 2021, up by €292 million from the first half of 2020. Excluding variations in exchange rates (+€30 million) and changes in the scope of consolidation (+€5 million), sales showed a year-on-year organic increase of 5.6%.

This rise is explained by a recovery in sales and supply activities with the business customer segment and the increase in volumes sold to residential customers, which were significantly affected by the first lockdown in the second quarter of 2020; other factors were the cold weather and the larger number of customers after the takeover of Green Network Energy (GNE). These favourable effects were partly counterbalanced by a decrease in nuclear power output (-1.8TWh) (notably reflecting the extended outage at Sizewell B) and thermal power output (-1.1TWh), and by lower realised sales prices for nuclear power due to purchases of energy at high prices.

4.1.1.7 Italy

The **Italy** segment's sales totalled €3,911 million for the first half of 2021, with organic growth of €1,015 million (+34.9%) compared to the first half of 2020.

In the gas activities, sales were up as a result of rising prices on all markets (although the effect on the margin was limited). The recovery in sales volumes to business customers following the Covid-19 measures of 2020, the colder winter than last year and an increase in sales of gas for thermal power generation also contributed to the increase in volumes.

In the electricity activities, sales also rose, notably due to the increase in electricity prices. The lower level of sales to the top end of the portfolio was not offset by higher sales on the residential customer segment or the post-Covid crisis recovery.

4.1.1.8 Other international

The **Other international** segment principally covers operations in Belgium, the United States, Brazil and Asia (China, Vietnam and Laos). Sales of this segment amounted to €1,394 million in the first half of 2021, showing year-on-year organic growth of €159 million (+12.8%).

In **Belgium**[(2)], sales registered an organic rise of €33 million (+3.7%) compared to the first half of 2020, benefiting from an increase in volumes sold to business, industrial and residential customers, and weather effects. The residential customer market is still intensely competitive. Sales during the first half of 2021 were penalised by the decline in forward prices in 2020. Annual indexed adjustments of contracts (particularly for residential customers), which apply gradually throughout the year, do not yet fully reflect the recent rise in gas prices on the wholesale markets. Wind power development is continuing, reaching net installed capacity of 557MWh[(3)] at 30 June 2020.

In **Brazil**, there was an organic increase of €84 million (+35.3%) in sales, principally due to higher volumes sold on the market and the +28% revaluation in November 2020 of the Power Purchase Agreement (PPA) price attached to EDF's Norte Fluminense power plant, in line with the change in the ICMS tax[(4)] (which had no impact on EBITDA). The foreign exchange effect was unfavourable in the first

(1) Indexed adjustment to the TURPE 5 distribution tariff: +2.75 % at 1 August 2020.
(2) Luminus and EDF Belgium.
(3) Net capacity of Luminus. Gross installed wind capacity amounted to 600MW (588MW at 31 December 2020).
(4) Tax on Circulation of Merchandise and Services in Brazil.

half of 2021 due to the fall of the Brazilian real against the Euro).

In **Vietnam**, sales showed an organic increase of €39 million (+36%) reflecting a rise in gas prices (on a pass-through basis, so there is no impact on EBITDA).

4.1.1.9 Other activities

Other activities comprise, among other entities, EDF Trading and the gas activities.
Sales by this segment amounted to €1,887 million in 2021, an organic increase of €700 million (+58.3%) compared to the first half of 2020.

- Sales by the **gas activities** amounted to €859 million, an organic year-on-year increase of €433 million. This growth is essentially explained by the favourable effect of the increase in prices on the wholesale gas market (+€323 million).
- **EDF Trading**'s sales totalled €781 million, an organic increase of 45.0% compared to the first half of 2020. Trading activities continued to perform well in Europe and the United States, particularly as a result of very high volatility on the commodity markets.

4.2 EBITDA

Consolidated EBITDA for the first half of 2021 amounted to €10,601 million, up by 29.3% from the first half of 2020. Excluding foreign exchange effects (-€35 million) and changes in the scope of consolidation (-€6 million), EBITDA registered an organic increase of 29.8%. This growth is essentially explained by higher nuclear power output in France, and colder weather, against a background of rising electricity and gas prices. Growth in connection activities compared to the first half of 2020 also contributed to this improvement.

EBITDA for the first half of 2021 was also up by 26.8% compared to the first half of 2019, which was not affected by the Covid crisis. This growth was driven mainly by an increase in electricity and gas prices as well as a rise in distribution tariff (TURPE). The performance also resulted from an excellent performance in trading activities, and a decline in production taxes. Nuclear power output in France declined by 22TWh between the first half of 2021 and the first half of 2019, due to the closure of Fessenheim (-7TWh), deferrals of outages due to the Covid pandemic (-6.4TWh), and an intense maintenance schedule under the *Grand Carénage* programme. Nuclear power output in the United Kingdom was still impacted by a number of outages.

(in millions of euros)	H1 2021	H1 2020	Variation	Variation (%)	Organic variation (%)
Sales	**39,621**	**34,710**	**4,911**	**+ 14.1**	**+ 13.7**
Fuel and energy purchases	(18,753)	(16,550)	(2,203)	+ 13.3	+ 12.1
Other external expenses	(3,629)	(3,469)	(160)	+ 4.6	+ 4.6
Personnel expenses	(7,273)	(7,020)	(253)	+ 3.6	+ 3.6
Taxes other than income taxes	(2,509)	(2,813)	304	- 10.8	- 10.3
Other operating income and expenses	3,144	3,338	(194)	- 5.8	- 5.3
EBITDA	**10,601**	**8,196**	**2,405**	**+ 29.3**	**+ 29.8**

4.2.1 Change in consolidated EBITDA and analysis

- The Group's **fuel and energy purchases** amounted to €18,753 million in the first half of 2021, up by €2,203 (+13.3%) million year-on-year, with organic growth of €1,999 million (+12.1%).
  - In the **France - Generation and supply** segment, fuel and energy purchases amounted to €6,912 million, an organic increase of €52 million (+0.8%) compared to the first half of 2020.
  - in the **United Kingdom**, the organic increase of €380 million (+12.5%) in fuel and energy purchases principally relates to the higher volume of electricity sales by the supply business to the business and residential customer segments, and the unfavourable impact of rising market prices for energy purchases.
  - In **Italy**, the organic increase of €917 million (+43.5%) in fuel and energy purchases essentially reflects higher gas prices and gas volumes (on the wholesale market).
  - **EDF Renewables** registered a €110 million (-42.6%) organic decline in fuel and energy purchases, mainly caused by the consequences of the Texas weather event in the first quarter of 2021, which led EDF Renewables to purchase energy at very high prices in order to honour its contractual commitments.
- The Group's **other external expenses** amounted to €3,629 million, an organic increase of €158 million (+4.6%) from the first half of 2020.
  - In the **France - Generation and supply** segment, other external expenses amounted to €933 million. The organic increase of €111 million (+13.5%) mainly reflects the economic recovery compared to the lockdown period in the second quarter of 2020, and a higher level of activity by the nuclear fleet.
  - In the **France - Regulated activities** segment, other external expenses amounted to €683 million. The organic decrease of €13 million (-1.9%) from the first half of 2020 reflects a higher level of capitalised production, in line with the level of network connection activity, which was partly offset by the rise in business (as there was no very strict rigid lockdown in 2021).
  - In the **United Kingdom**, other external expenses showed an organic decrease of €56 million (-13.7%), principally due to more

capitalised expenses associated with the larger number of maintenance outages in the nuclear fleet.

- **EDF Renewables** registered a €35 million (+13.5%) organic increase in other external expenses, principally due to growth in the renewable energies businesses in the United States
- At **Dalkia**, other external expenses were up by €92 million (+13.4%), reflecting the recovery of service activities and site work, which were significantly affected by the Covid-19 pandemic in the first half of 2020.

- The Group's **personnel expenses** totalled €7,273 million, up by €253 million (+3.6%) from the first half of 2020.

- In the **France - Generation and supply** segment, personnel expenses for the first half of the year totalled €2,987 million, a decrease of €32 million (-1.1%) that mainly reflects the impact of the 2020 post-Covid 19 recovery agreement which had no equivalent in 2021. The lower workforce numbers offset the increase in salaries.
- In the **France - Regulated activities** segment, personnel expenses for the first half of the year totalled €1,626 million, practically stable (-0.4%) compared to the same period of 2020, as price effects on pay and social charges made up for the end of the 2020 post-Covid 19 recovery agreement. Average workforce numbers were slightly lower than in 2020.
- **EDF Renewables** registered a €21 million rise (+10.8%) in personnel expenses, resulting principally from higher workforce numbers, notably due to growth in the development and construction businesses.
- **Dalkia** saw an increase of €50 million (+9.4%) in personnel expenses, driven by recovery in the service activities which was affected by the Covid-19 pandemic in the first half of 2020 (levels of work were lower and the company used furlough schemes in France and the United Kingdom), a workforce increase in line with business growth, and pay rises.
- In the **United Kingdom**, personnel expenses rose by €108 million (+19.8%), largely due to the recognition at 30 June of an incentive payment for employees in connection with the change of pension system (switch to a defined-contribution plan), most of which will be paid in August. This is expected to generate savings that will be visible from the second half of the year. Other factors contributing to the increase were higher overtime payments, reflecting the larger number of nuclear power plant outages, and the use of additional resources after the takeover of Green Network Energy (GNE).

- **Taxes other than income taxes** amounted to €2,509 million for the first half of 2021, down by €304 million (-10.8%) compared to the first half of 2020.

- In the **France - Generation and supply** segment, the €243 million (-12.4%) decrease is mainly attributable to the draft French finance law, which provides for lower generation taxes under the national recovery plan.
- In the **France - Regulated activities** segment, the €84 million (-14.4%) decrease is also explained by lower generation taxes.

- **Other operating income and expenses** generated net income of €3,144 million in the first half of 2021, down by €194 million (-5.8%) compared to the first half of 2020.

- In the **France - Generation and supply** segment, the €377 million decrease (-15.0%) in the income generated by other operating income and expenses is primarily attributable to a decrease in CSPE compensation (neutral impact on EBITDA).
- In the **France – Regulated activities** segment, the €62 million (+9.1%) increase in the income generated by other operating income and expenses mainly resulted from the lower provisions for risks and credit notes on non-recoverable payables.

4.2.2 Change in consolidated EBITDA and analysis by segment

(in millions of euros)	H1 2021	H1 2020	Variation	Variation (%)	Organic variation (%)
France - Generation and supply	4,838	3,894	944	+ 24.2	+ 24.2
France - Regulated activities	3,210	2,460	750	+ 30.5	+ 30.5
EDF Renewables	294	418	(124)	- 29.7	- 26.1
Dalkia	215	165	50	+ 30.3	+ 29.7
Framatome	183	98	85	+ 86.7	+ 94.9
United Kingdom	267	438	(171)	- 39.0	- 39.7
Italy	534	380	154	+ 40.5	+ 41.6
Other international	206	208	(2)	- 1.0	+ 5.8
Other activities	854	135	719	n.a.	n.a.
GROUP EBITDA	**10,601**	**8,196**	**2,405**	**+ 29.3**	**+ 29.8**

n.a.: not applicable

4.2.2.1 France - Generation and supply

The net impact on EBITDA of the 7.7TWh increase in nuclear output, combined with the 0.8TWh decline in hydropower output after the deduction of pumped volumes, is estimated at +€325 million.

Power prices had a positive effect on EBITDA of around €30 million. The increase in prices in the first half of 2021 had a favourable effect on energy sales in markets, which were almost offset by the increase in purchasing prices. As a reminder, in 2020, energy purchases were made at very low prices.

In the downstream market, despite the effect of customers losses for 6.6TWh, the favourable change is estimated at around €234 million, considering the positive impact of capacity prices invoiced to customers.

EBITDA also benefitted from a €257 million decrease in production taxes as part of the *France Relance* recovery plan.

4.2.2.2 France - Regulated activities

The strong growth in EBITDA resulted from the 10.8TWh increase in volumes distributed, in line with the colder weather conditions for €204 million, as well as from growth in grid connection for an estimated amount of €174 million.

Price movements had a positive €220 million impact, in line mainly with the TURPE 5 distribution and transport indexation [(1)] that took place on 1 August 2020.

Furthermore, EBITDA benefitted from a €74 million reduction in production taxes as part of the *France Relance* recovery plan.

4.2.2.3 EDF Renewables

The extreme cold weather in Texas had a significant impact on production EBITDA estimated at €94 million. Indeed, EDF Renewables had to purchase energy at very high prices to honour its contractual commitments and had to book an impairment on one of its wind farms, leading to a negative impact on net profit.

Production increased 10.6%, driven by a growth in commissioned capacity.

The EBITDA contribution from “Development and Sale of Structured Assets” transactions in the United States was lesser in first half of 2021 than in first half of 2020.

4.2.2.4 Dalkia

EBITDA growth is explained by the recovery in services and works after a first-half 2020 that was negatively impacted by the closure of many customer sites and the postponement of construction projects.

Colder temperatures and commercial activity in the United Kingdom during the first half of 2021 had a favourable impact on EBITDA. For example, we note the signature of the contract by Dalkia’s British subsidiary, Breathe, to support four hospitals benefiting from funding to improve their carbon footprints within the energy Refit framework for an amount of £100 million.

4.2.2.5 Framatome

The strong growth in EBITDA is explained by better production levels in “Fuel” and “Component Manufacturing” plants, partly linked to the business recovery after the health crisis and by higher sales volumes for “Large projects” and the “Installed Base” businesses mainly in the United States.

The action plan on structural costs is progressing.

4.2.2.6 United Kingdom

The change in EBITDA resulted mainly from the impact of the 1.8TWh decrease in nuclear output in particular linked to the extension of the Sizewell B outage and from the sharp decline in realised nuclear prices owing to the need to buy back electricity at high prices.

The commercial activities reported growth compared with the first half of 2020, the latter having been impacted by the health crisis, particularly the business customer segment.

4.2.2.7 Italy

The strong growth in EBITDA is mainly explained by the recovery in supply and services businesses and by colder weather in 2021.

The disposal of Infrastrutture Distribuzione Gas had a positive impact on gas activities’ EBITDA of first-half 2021. However, EBITDA suffered from a contraction in margins for some gas assets.

The electricity activities reported EBITDA growth thanks to better availability of Combined Cycle Gas Turbines (CCGT) and better optimisation of electric system services. The contribution from renewable production also increased.

4.2.2.8 Other international

In Belgium [(2)], the decline in EBITDA can be mainly attributed to reduced wind farm production, linked to less favourable wind conditions compared with 2020. Net installed wind capacity increased to 557MW [(3)], i.e. +1.6% compared to end-2020. Nuclear output was also down, requiring to buyback electricity at high prices.

Better availability of thermal plants enabled a good level of output and an increase in services provided to the electric system.

After the slowdown in 2020 owing to the health crisis, service activities returned to growth and supply activities held up well against a

(1) Indexation of TURPE 5 distribution: +2.75% and transport at -1.08% on 1 August 2020.
(2) Luminus and EDF Belgium.
(3) Net capacity for Luminus. Gross installed wind capacity totalled 600MW at end-June 2021 (+2%).

backdrop that continued to be marked by very intense competition and extensions of social tariffs.

In Brazil, EBITDA was up 59.3% in organic terms thanks to the 28% increase in Power Purchase Agreement (PPA) prices in November 2020, linked to the EDF Norte Fluminense plant and gas selling at high prices on the spot market. This favourable impact was partially offset by Brazilian real depreciation versus the euro.

4.2.2.9 Other activities

The increase in EBITDA for the gas business is explained by the marked improvement in medium-term and long-term United States/ Europe spreads.

EDF Trading's EBITDA[(1)] amounted to €608 million, an organic growth of 56.3% compared to the first half of 2020. The growth in the trading margin is attributable to a very good performance of trading activities in Europe and the United States, which benefited from significant commodity market volatility during the half-year.

4.3 EBIT

The Group's **consolidated EBIT** for the first half of 2021 amounted to €4,272 million, up by €2,648 million (+163.0%) from the first half of 2020, with organic growth of €2,682 million (+165.1%).

(in millions of euros)	H1 2021	H1 2020	Variation	Variation (%)
EBITDA	**10,601**	**8,196**	**2,405**	**+ 29.3**
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	(541)	(323)	(218)	+ 67.5
Net depreciation and amortisation *	(5,194)	(5,358)	164	- 3.1
(Impairment)/reversals	(502)	(738)	236	- 32.0
Other income and expenses	(92)	(153)	61	- 39.9
EBIT	**4,272**	**1,624**	**2,648**	**+ 163.1**

** Including net increases to provisions for replacement of asset operated under concessions.*

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, increased by €218 million in the first half of 2021 compared to the first half of 2020, in line with operations undertaken by EDF Trading on behalf of EDF entities.

4.3.2 Net depreciation and amortisation

Net depreciation and amortisation was down by €164 million year on year. The decrease principally concerns the **France** - **Generation and supply** segment (€166 million) and results essentially from the fact that the increase in investments was outweighed by the effect of extension of the depreciation period of 1300MWe-series power plants.

4.3.3 Impairment/reversals

In the first half of 2021, impairment amounted to €502 million, and mainly related to impairment of nuclear activities in the **United Kingdom** in view of the decision to close down the Dungeness B plant early[(2)]. Smaller amounts of impairment were recognised in respect of **EDF Renewables** photovoltaic plants, in view of a draft decree proposing to reduce purchase tariffs, from October 2021, for electricity generated by plants of over 250kWp for which the contracts were signed between July 2006 and August 2010.

4.3.4 Other income and expenses

Other income and expenses amounted to -€92 million for the first half of 2021. The **France – Generation and supply** segment contributed +€227 million, principally consisting of a settlement indemnity from Areva [(3)], partly offset by costs relating to repair work on penetration welds at the Flamanville 3 site; the **United Kingdom** segment contributed -€182 million, principally reflecting the decision to shut down the Dungeness B plant early; and the **Italy** segment contributed -€125 million, principally relating to litigation concerning the former company Montedison.

(1) See "Extreme cold snap in Texas" paragraph
(2) On 7 June 2021 EDF decided to move the Dungeness B AGR nuclear power plant in south-east England into the defueling phase.
(3) Settlement agreement signed on 29 June 2021 for a payment by Areva to EDF of €563 million, by 31 December 2021, in settlement of all the disputes between EDF and Areva regarding the acquisition contract for Framatome signed in 2017, and their commercial relations prior to the acquisition.

4.4 Financial result

(in millions of euros)	H1 2021	H1 2020	Variation	Variation (%)
Cost of gross financial indebtedness	(754)	(868)	114	- 13.1
Discount effect	(1,016)	(1,172)	156	- 13.3
Other financial income and expenses	2,631	(262)	2,893	n.a.
FINANCIAL RESULT	**861**	**(2,302)**	**3,163**	**n.a.**

n.a: not applicable

The financial result for the first half of 2021 is financial income of €861 million, an improvement of €3,163 million compared to the first half of 2020. This change is explained by:

- an improvement of €2,893 million in other financial income and expenses, driven mainly by a good performance of dedicated asset portfolio (+€2,666 million) (see section 7.1.6 "Management of financial risk on EDF SA's dedicated asset portfolio");
- the €156 million decrease in the effect of unwinding the discount, principally due to the decrease in the discount rate used to calculate provisions for post-employment benefits between end-2019 and end-2020.

  The real discount rate used to calculate nuclear provisions at 30 June 2021 was the same as at 31 December 2020: 3.4%, assuming inflation of 1.3% (respectively 3.6% and 1.3% at 30 June 2020);
- an improvement of +€114 million in the cost of gross financial indebtedness, as the level of debt was lower in the first half of 2021 than the first half of 2020 and refinancing operations were undertaken in a low-rate context.

4.5 Income taxes

Income taxes amounted to -€1,458 million at 30 June 2020, corresponding to an effective tax rate of 28.4% (compared to a tax receivable of €42 million at 30 June 2020, corresponding to an effective tax rate of 6.2%).

The €1,500 million increase in the Group's tax charge in 2021 essentially reflects the €5,811 million increase in net income before taxes, generating an additional tax expense of €1,651 million. This tax expense is also affected by the combined unfavourable impact of the difference between income tax rates in France and the United Kingdom, and the forthcoming increase in the UK's normative rate from 19% to 25% from 2023 (creating a larger negative effect than in 2020, when the rate had already been raised from 17% to 19%). This impact influenced the tax expense despite the favourable effect of asset revaluations for tax purposes in June 2021 in Italy, where special tax measures introduced in response to the Covid-19 pandemic enabled companies to realign the tax value of certain assets with their accounting value. This option, allowed by article 110 of decree-law 104/2020, was extended by Italy's finance law for 2021 (law 178/2020) to include goodwill, and the Group's Italian companies opted at 30 June 2021 to realign the tax value of certain tangible assets and goodwill. In return for payment of a 3% tax on the realigned value, companies applying this measure will be entitled to deduct tax-basis depreciation from the realigned value, and this will generate future tax savings.

After eliminating non-recurring items (mainly changes in unrealised gains and losses on the financial asset portfolio, impairment, the impacts of the change in the United Kingdom income tax rate and the tax revaluation of assets in Italy), the effective tax rate at 30 June 2021 is 26.5% (compared to 24.3% at 30 June 2020).

4.6 Net income excluding non-recurring items

The Group's net income excluding non-recurring items(1) stood at €3,740 million at 30 June 2021, up by €2,473 million year on year (see note 18.1 to the condensed consolidated half-year financial statements at 30 June 2021, "Net income excluding non-recurring items").

4.7 EDF net income

EDF net income totalled €4,172 million at 30 June 2021, €4,873 million higher than for the first half of 2020. The increase is explained by the higher net income excluding non-recurring items, and notably includes net changes in fair value amounting to +€1,003 million after taxes (on financial assets and derivatives hedging commodities).

This net income also comprises expenses related to the early closure of the Dungeness B plant, additional costs relating to repair work on welds at the Flamanville 3 EPR site, and net after-tax income of €370 million corresponding to the settlement indemnity received under the agreement signed between EDF and Areva on 29 June 2021.

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(1) EDF net income excluding non-recurring items, net changes in fair value on energy and commodity derivatives (excluding trading activities), and net changes in the fair value of debt and equity instruments, net of tax.

Amount of non-recurring items, net changes in fair value on energy and commodity derivatives, excluding trading activities, and net changes in the fair value of debt and equity instruments, net of tax

- *- €571 million of impairment and other non-recurring items in the first half of 2021, compared to -€1,032 million in the first half of 2020;*
- *-€393 million of net changes in the fair value of energy and commodity derivatives, excluding trading activities, net of tax in the first half of 2021, compared to -€249 million for the first half of 2020;*
- *+€1,396 million of net changes in the fair value of debt and equity instruments in the first half of 2021, compared to -€686 million for the first half of 2020.*

5 NET INDEBTEDNESS, CASH FLOWS AND INVESTMENTS

(in millions of euros)	H1 2021	H1 2020 [(5)]	Variation	Variation (%)
Operating profit before depreciation and amortisation (EBITDA)	**10,601**	**8,196**	**2,405**	**+ 29.3**
Cancellation of non-monetary items included in EBITDA	(391)	(304)		
CASH EBITDA	**10,210**	**7,892**		
Change in working capital	(1,896)	(1,364)		
Net investments [(1)] excluding Group disposals 2020-2022	(7,679)	(6,988)		
Other items including dividends received from associates and joint ventures	(69)	(56)		
Operating cash flow [(2)]	**566**	**(516)**	**1,082**	**n.a.**
Asset disposals	420	-		
Income taxes paid	(343)	(368)		
Net financial expenses disbursed	(393)	(591)		
Dedicated assets	(79)	54		
Dividends paid in cash	(411)	(408)		
Group cash flow [(3)]	**(240)**	**(1,829)**		
Issues of hybrid notes	1,235	-,		
Redemption of hybrid notes	-	-		
Other monetary changes	(293)	(125)		
(Increase)/decrease in net indebtedness, excluding the impact of changes in exchange rate	**702**	**(1,954)**		
Effect of change in exchange rates	(304)	467		
Effect of other non-monetary changes	885	637		
(Increase)/decrease in net indebtedness of continuing operations	**1,283**	**(850)**		
(Increase)/decrease in net indebtedness of discontinued operations [(4)]	**-**	**(19)**		
Net indebtedness at beginning of period	**42,290**	**41,133**		
NET INDEBTEDNESS AT END OF PERIOD	**41,007**	**42,002**		

(1) 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, and non-Group partner investments. They do not include the Group disposals for 2020-2022.

(2) 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, changes in working capital after adjustment where relevant for the impact of non-recurring effects, net investments (excluding Group disposals 2020-2022 and including Hinkley Point C and Linky), and other items, including dividends received from associates and joint ventures.

(3) Group 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. It is equal to the operating cash flow defined in note (3) less asset disposals, income taxes paid, net financial expenses disbursed, net allocations to dedicated assets, and dividends paid in cash.

(4) This corresponds to the net indebtedness of Edison's discontinued E&P operations.

(5) The published figures for H1 2020 include a €69 million reclassification between net financial expenses disbursed, dedicated assets and other non-monetary changes.

n.a. not applicable

5.1 Net indebtedness

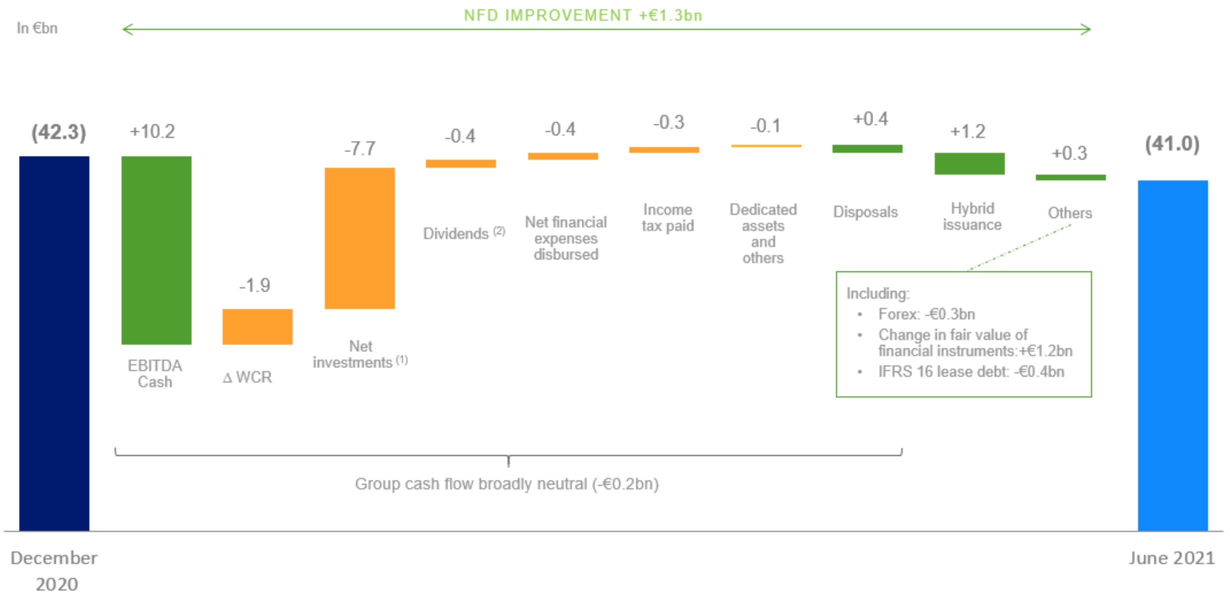
Net indebtedness comprises total loans and financial liabilities, less cash and cash equivalents and liquid assets. Liquid assets are financial assets consisting of funds or securities with initial maturity of over three months that are readily convertible into cash and are managed according to a liquidity-oriented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

The Group's net indebtedness was €41,007 million at 30 June 2021. It stood at €42,290 million at 31 December 2020.

The €1.3 billion decrease in net indebtedness since the 2020 year-end principally results from the cash EBITDA (+€10.2 billion) and the hybrid note issue[(1)] (+€1.2 billion), which were partly counterbalanced by net investments (-€7.7 billion) and the change in working capital (-€1.9 million).

(1) In compliance with accounting standards, the hybrid note issue is not included in net indebtedness.

Variation in net indebtedness between 31 December 2020 and 30 June 2021



NB: figured rounded up to the nearest whole number.
(1) Net investments excluding disposals.
(2) Dividends paid including hybrid bonds remuneration.

5.2 Operating cash flow (1)

The operating cash flow(1) amounted to €566 million in the first half of 2021 compared to -€516 million in the first half of 2020, an increase of €1,082 million.

5.2.1 Cash EBITDA

EBITDA after adjustment for non-cash items amounted to €10,210 million, up by €2,318 million from the first half of 2020, principally due to:

- the increase in the gross margin and the decrease in taxes other than income taxes in the **France – Generation and Supply** segment;
- the increase in the gross margin on by **Enedis** on delivery and non-delivery services;
- the increase in the trading margin, combined with a decreased in unrealised positions on the financial instruments of **EDF Trading.**

5.2.2 Change in working capital

Working capital deteriorated by -€1,896 million in the first half of 2021.

This change was mainly due to the deterioration in working capital of the optimisation/trading activity (-€1,101 million) and the seasonal nature of trade payables (-€880 million).

The year-on-year difference in the change in working capital (-€532 million) is essentially attributable to the optimisation/trading activity (-€421 million).

5.2.3 Net investments

Net investments (excluding Group disposals 2020-2022 and including Hinkley Point C and Linky) amounted to €7,679 million for the first half of 2021, up by €691 million from the first half of 2020 when investments were down because of the Covid-19 pandemic.

(1) Excluding the Group disposal plan for 2020-2022.

(in millions of euros)	H1 2021	H1 2020	Variation	Variation (%)
France - Generation and supply	2,655	2,812	(156)	- 6
France - Regulated activities	2,407	2,009	398	20
EDF Renewables	368	591	(222)	- 38
Dalkia	80	27	53	200
Framatome	74	83	(8)	- 10
United Kingdom	1,433	1,239	194	16
Italy	486	166	320	193
Other international	197	30	167	561
Other activities	(21)	31	(52)	- 168
NET INVESTMENTS	**7,679**	**6,988**	**691**	**10**

- Net investments by the **France – Generation and supply** segment decreased by -€156 million, due to lower expenses for nuclear maintenance and for Flamanville 3.
- Net investments by the **France – Regulated activities** segment (including Linky) were up by €398 million following the substantial rise in connections, and deferral of certain work from 2020 due to the Covid-19 pandemic.
- Net investments by **EDF Renewables** were down by €222 million, reflecting the rise in subsidies received in the United States.
- In the **United Kingdom**, net investments rose by €194 million due to the higher investments in the Hinkley Point C project (+€261 million), which was partly counterbalanced by the acquisition of Pod Point in the electric mobility sector in 2020, an operation that had no equivalent in 2021.
- In **Italy**, net investments increased by €320 million, notably due to acquisitions in the renewable energies sector, and thermal power plant development projects.
- The acquisition of Essent by Luminus largely accounts for the increase in net investments by the **Other International** segment.

5.3 Group cash flow

Group cash flow amounted to -€240 million at 30 June 2021, a clear improvement from the first half of 2020 when it was -€1,829 million.

5.3.1 Asset disposals

Asset disposals generated €420 million in 2020, and principally concerned the sale of Edison's Exploration & Production operations in Norway, and the sale of IDG (a gas distribution network) in Italy.

5.3.2 Dedicated assets

In compliance with French Law no. 2006-739 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 (see section 7.1.6).

In general, the changes in dedicated assets comprise:

- allocations to reach full coverage of obligations;
- reinvestment of financial income (dividends and interest) generated by these assets;
- withdrawals of assets corresponding to the costs incurred over the period to meet 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 change of -€79 million in dedicated assets in the first half of 2021 corresponds to the second and third of these categories.

5.3.3 Dividends paid in cash

Dividends paid in cash during the first half of 2021 amounted to €411 million, comprising:

- the 2020 dividend paid by EDF SA (€36 million);
- payments made in the first half of 2021 to bearers of perpetual subordinated bonds for the "hybrid note" issues of January 2013 and January 2014 (€288 million);
- dividends paid by Group subsidiaries to their minority shareholders (€87 million).

5.4 Effect of change in exchange rates

The foreign exchange effect (mainly appreciation of the pound sterling and US dollar against the Euro[(1)]) had an unfavourable impact of €304 million on the Group's net indebtedness at 30 June 2021.

5.5 Other non-monetary changes

Other non-monetary changes had an effect of €885 million in the first half of 2021, compared to €637 million in the first half of 2020, and mainly comprise changes in the fair value of debt instruments and new leases (IFRS 16).

5.6 Financial ratios

	30/06/2021	31/12/2020	31/12/2019
Net indebtedness/EBITDA	2.21[(1)]	2.61	2.46
Net indebtedness/(Net indebtedness + equity) [(2)]	39%	43%	42%

(1) The ratio at 30 June 2021 is calculated based on cumulative EBITDA for the second half of 2020 and the first half of 2021.

(2) Equity including non-controlling interests.

(1) The pound sterling rose by 4.8% against the Euro, from €1.112/£1 at 31 December 2020 to €1.165 /£1 at 30 June 2021;
The US dollar rose by 3.2% against the Euro, from €0.815/$1 at 31 December 2020 to €0.841/$1 at 30 June 2021.

6 FINANCIAL OUTLOOK

The 2021 targets have been upgraded and 2022 ambitions confirmed, subject to additional reinforced sanitary restrictions impacts.

2021 Targets

- EBITDA [(1)] : > €17.7 billion
- Net financial debt / EBITDA [(1)]: < 2.8x

2022 Ambitions

- Operating expenses [(2)] reduction : €500 million between 2019 and 2022
- Group disposals 2020-2022 [(3)] : ~ €3 billion
- Net financial debt / EBITDA [(1)] : ~ 3x

Dividend

- Target payout ratio of 2021 and 2022 net income excluding non-recurring items [(4)]: 45% - 50%.
  The French State committed to opt for a scrip dividend payment for 2021 fiscal year

7 MANAGEMENT AND CONTROL OF MARKET RISKS

7.1 Management and control of financial 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 operationally controlled subsidiaries 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 analyses of sensitivities and credit (counterparty) risks.

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, mainly 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 of the risk of counterparty default (methodology and organisation) for EDF entities and operationally controlled Group subsidiaries (excluding Enedis), and a first-level check of financing activities by EDF SA's Trading room. The CRFI Department also carries out a second-level check of management activities concerning the dedicated asset portfolio.

The CRFI Department issues daily and weekly monitoring reports of risk indicators relevant to activities in EDF SA's trading room.

Regular internal audits are carried out to ensure controls are actually applied and are effective.

7.1.1 Liquidity position and management of liquidity risk

7.1.1.1 Liquidity position

At 30 June 2021, the Group's liquidities, consisting of liquid assets, cash and cash equivalents, totalled €17,678 million and available credit lines amounted to €10,757 million.

The Group's debt repayments (principal and interest) for 2021 are forecast at 31 December 2021 at €4,761 million, including €791 million for bonds (excluding hybrid bonds).

No Group company was in default on any borrowing at 30 June 2021.

7.1.1.2 Management of liquidity risk

The EDF group was able to meet its financing needs by conservative liquidity management and has obtained financing on satisfactory terms. On 26 May 2021, €1.25 billion of social hybrid notes were issued at the initial rate of 2.625%.

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

(1) *On the basis of the scope and exchange rates at 01/01/2021. EBITDA target upgraded on 7 July 2021.*
(2) *Sum of personnel expenses and other external expenses. At constant scope, standards, exchange rates and pension discount rate; excluding inflation. Excluding the cost of sales of energy service and Framatome's nuclear engineering services and specific projects such as Jaitapur.*
(3) *Signed or completed disposals: impact on the Group's economic debt reduction (Standard and Poor's definition).*
(4) *Payout ratio based on net income excluding non-recurring items, adjusted for the remuneration of hybrid bonds accounted for in equity.*

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 also 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)* and US commercial paper. For EDF, the ceilings for these programmes are €6 billion for French NEU CP commercial paper and $10 billion for US commercial paper;
- transfer of bond liabilities to banking counterparties under cash repurchase agreements.

At 30 June 2021, the amount of the Group's commercial paper outstanding was €1,918 million for French commercial paper, and US$360 million for US commercial paper. EDF has access to the world's main bond markets: the Euromarkets through its EMTN programme, which currently has a ceiling of €45 billion, particularly for euro and sterling issues; and the domestic markets used for stand-alone issues in US dollars (144A bonds), yen (Samurai bonds) and Swiss francs.

The average maturity of the Group's gross debt was 15.3 years at 30 June 2021, compared to 14.5 years at 31 December 2020. For EDF SA, the average maturity was 16.0 years at 30 June 2021, against 15.0 years at 31 December 2020.

At 30 June 2021, EDF SA had a total amount of €9,952 million in available credit facilities (syndicated credit and bilateral lines):

- the syndicated credit line amounts to €4 billion and expires in December 2025. No drawings had been made on this syndicated credit line at 30 June 2021;
- bilateral lines represent an available amount of €5,952 million, with expiry dates extending to June 2024. The level of this available financing is very frequently reviewed to ensure the Group has sufficient backup credit facilities;
- credit lines with the European Investment Bank, which were drawn at 30 June 2021 for amounts of €500 million, €225 million, €500 million and €250 million (these four lines were already fully-drawn at 31 December 2020), and €400 million.

Edison has a credit line with the European Investment Bank for €689 million (available amount €400 million) and a credit line of €130 million, which was drawn to the extent of €100 million at 30 June 2021.

7.1.2 Credit rating

At 30 June 2021, 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:

Company	Agency	Long-term rating	Short-term rating
EDF	Standard & Poor's	BBB+, stable outlook	A-2
	Moody's	A3, negative outlook	P-2
	Fitch Ratings	A-, negative outlook	F2
EDF Trading	Moody's	Baa2, negative outlook	n. a.
EDF Energy	Standard & Poor's	BB+, stable outlook	B
Edison	Standard & Poor's	BBB, stable outlook	A-2
	Moody's	Baa2, negative outlook	n. a.

n. a. = not applicable.

7.1.3 Management of foreign exchange risk

Due to the diversification of its activities and geographical locations, the Group is exposed to the risk of exchange rate fluctuations, which may have an impact on the translation differences affecting balance sheet items, Group financial expenses, equity, net income and the IRR of projects.

To limit exposure to foreign exchange risks, the Group has introduced the following management principles:

- local currency financing: to the extent possible given the local financial markets' capacities, each entity finances its activities in its own functional currency. When financing is contracted in other currencies, derivatives may be used to limit foreign exchange risk;
- matching of assets and liabilities: the net assets of subsidiaries located outside the Euro zone expose the Group to a foreign exchange risk. The foreign exchange risk in the consolidated balance sheet is managed by market hedging involving use of financial derivatives. Hedging of net assets in foreign currencies complies with risk/return targets, and the hedging ratio ranges from 49% to 51% depending on the currency for the principal exposures. If no hedging instruments are available, or if hedging costs are prohibitive, the foreign exchange positions remain open and the risk on such positions is monitored by sensitivity calculations;
- hedging of operating cash flows in foreign currencies: in general, the operating cash flows of EDF and its subsidiaries are in their local currencies, with the exception of flows related to fuel purchases which are primarily in US dollars, and certain flows related to purchases of equipment, which concern lower amounts. Under the principles laid down in the strategic financial management framework, EDF and the main subsidiaries concerned by foreign exchange risks (EDF Energy, EDF Trading, Edison, EDF Renewables) are required to hedge firm or highly probable commitments related to these future operating cash flows.

As a result of the financing and foreign exchange risk hedging policy, the Group's gross debt at 30 June 2021 breaks down as follows by currency after hedging:

GROSS DEBT STRUCTURE, BY CURRENCY BEFORE AND AFTER HEDGING

30 June 2021 *(in millions of euros)*	**Initial debt structure**	**Impact of hedging instruments***	**Debt structure after hedges**	**% of debt**
Borrowings in Euros (EUR)	31,917	16,627	48,544	79%
Borrowings in US dollars (USD)	16,432	-13,468	2,964	5%
Borrowings in pounds sterling (GBP)	10,139	-1,255	8,884	14%
Borrowings in other currencies	3,015	-1,904	1,111	2%
TOTAL DEBT	**61,503**	**0**	**61,503**	**100%**

* *Hedges of liabilities and net assets of foreign subsidiaries.*

The table below presents the impact on equity of a variation in exchange rates affecting the Group's gross debt at 30 June 2021:

EXCHANGE RATE SENSITIVITY OF THE GROUP'S GROSS DEBT

30 June 2021 *(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)	48,544	-	48,544
Borrowings in US dollars (USD)	2,964	296	3,260
Borrowings in pounds sterling (GBP)	8,884	888	9,772
Borrowings in other currencies	1,111	111	1,222
TOTAL DEBT	**61,503**	**1,295**	**62,798**

Due to the Group's hedging policy for foreign exchange risk on the Group's gross debt, 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 assets in foreign currencies of the Group's principal subsidiaries:

NET ASSET POSITION

30 June 2021* *(in millions of currency units)*	**Net assets**	**Bonds**	**Derivatives**	**Net assets after management**
USD	6,578	1,450	1,784	3,344
CHF (Switzerland)	30		23	7
PLN (Poland)	279		153	126
GBP (United Kingdom)	20,195	5,435	4,873	9,887
BRL (Brazil)	1,671			1,671
CNY (China)	11,116			11,116

* *Net assets as at 30 June 2021; bonds and derivatives as at 30 June 2021. 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 debt and equity securities recorded in equity, and changes in the fair value of financial instruments recorded in profit and loss.

7.1.4 Management of interest rate risk

The exposure of the Group's net indebtedness to interest rate fluctuations covers two types of risk: a risk of change in the net financial expenses on floating-rate financial assets and liabilities, and a risk of change in the value of financial assets invested at fixed rates. These risks are managed by monitoring the floating-rate portion of net indebtedness, defined by reference to the risk/return for net financial expenses, taking into consideration expected movements in interest rates.

Some of the debt is variabilised and the Group may use interest rate derivatives for hedging purposes. The distribution of exposure between fixed and floating rates is monitored.

The Group's debt after hedging instruments at 30 June 2021 was structured as follows: 69% of debt bore interest at fixed rates and 31% at floating rates.

A 1% uniform annual rise in interest rates would generate an increase of approximately €189 million in financial expenses, based on gross floating-rate debt at 30 June 2021 after hedging.

The average cost of Group debt (weighted interest rate on outstanding amounts) was 2.27% at 30 June 2021.

The table below sets forth the structure of Group debt and the impact of a 1% variation in interest rates at 30 June 2021:

STRUCTURE AND INTEREST RATE SENSITIVITY OF THE GROUP'S DEBT

30 June 2021 *(in millions of euros)*	**Initial debt structure**	**Impact of hedging instruments**	**Debt structure after hedging**	**Impact on income of a 1% variation in interest rates**
Fixed rate	56,614	-13,999	42,615	-
Floating rate	4,889	13,999	18,888	189
TOTAL	**61,503**	**0**	**61,503**	**189**

7.1.5 Management of equity risk

The equity risk is mainly concentrated in the following areas:

Coverage of EDF's nuclear obligations

Analysis of the equity risk is presented in section 7.1.6 "Management of financial risk on EDF SA's dedicated asset portfolio".

Coverage of employee benefit obligations for EDF SA, EDF Energy and British Energy

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.

31.1% of the assets covering EDF SA's employee benefit obligations were invested in equities at 30 June 2021, representing an amount of €4.1 billion of equities.

At 30 June 2021, the two pension funds sponsored by EDF Energy (EDF Energy Pension Scheme and EDF Energy Group Electricity Supply Pension Scheme) were invested to the extent of 10% and 12% respectively in equities and equity funds (excluding diversified growth funds), representing an amount of £279 million of equities.

At the same date the British Energy pension fund was invested to the extent of 12% in equities and equity funds (excluding diversified growth funds), representing an amount of £946 million of equities.

CENG fund

CENG is exposed to equity risks in the management of its funds established to cover nuclear decommissioning expenses.

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

Dedicated assets have been built up progressively by EDF since 1999 for secure financing of its long-term nuclear obligations. The Law of 28 June 2006, codified in the French Environment Code (articles L594-1 to 14), and its implementing regulations defined provisions that are not related to the operating cycle and must therefore be covered by dedicated assets; they are listed in note 14.1.2 to the condensed consolidated half-year financial statements at 30 June 2021, "EDF's dedicated assets".

The dedicated asset portfolio is managed under the supervision of the Board of Directors and its advisory committees (the Nuclear Commitments Monitoring Committee (CSEN) and the Audit Committee).

A Nuclear Commitments Financial Expertise Committee (CEFEN) exists to assist the Company and its governance bodies on questions of matching assets and liabilities, and asset management. The members of this Committee are independent of EDF.

Governance and management principles

The governance principles setting forth the structure of dedicated assets, and the relevant decision-making and control processes for their management, are validated by EDF's Board of Directors as part of a policy for secure financing of nuclear expenses, in compliance with the applicable regulations. These principles also lay down rules for the asset portfolio's structure, selection of financial managers, and the legal, accounting and tax structure of the funds.

Strategic asset allocation is based on asset/liability reviews carried out to define the most appropriate target portfolio for financing long-term nuclear expenses. Strategic allocation is validated by EDF's Board of Directors and reviewed every three years unless circumstances require otherwise. A new strategic allocation was validated in 2018. This target allocation consists of a yield portfolio, a growth portfolio and a fixed-income portfolio, respectively accounting for 30%, 40% and 30% of the total portfolio. The yield portfolio consists of real estate assets and infrastructure assets; the growth portfolio consists of equities and equity funds (both listed and unlisted); the fixed-income portfolio consists of bonds, debt funds (both listed and unlisted), and cash. These portfolios are managed by EDF Gestion (formerly the Listed Asset Management Division) and EDF Invest.

The "cash" pocket of the fixed-income portfolio exists to provide secure coverage for future disbursements related to the purpose of the asset covered, and may be reinforced tactically, particularly when a conservative approach is required in the event of a market crisis.

Tactical management of the growth assets and fixed-income assets focuses on several areas:

- monitoring of exposure between growth assets and fixed-income assets;
- allocation by "secondary asset class" within each sub-portfolio;

- selection of investment funds, aiming for diversification;
- for bonds, a choice of securities held directly, through brokers, or via investment funds, also aiming for diversification.

The allocation policy between growth assets and fixed-income assets was developed by the Operational Management Committee [(1)] on the basis of the economic and financial outlook for each market and geographical area, a review of market appreciation in different markets and market segments, and risk analyses produced by the CRFI Department

At 30 June 2021, the total value of the portfolio was €35,903 million compared to €33,848 million at 31 December 2020. The content of the portfolio is presented in note 14.1.2.2 to the condensed consolidated half-year financial statements at 30 June 2021.

CONTENT AND PERFORMANCE OF EDF'S DEDICATED ASSET PORTFOLIO

	30/06/2021			31/12/2020		
(in millions of euros)	Share of portfolio	Stock market or realisable value	Performance for H1 2021	Share of portfolio	Stock market or realisable value	Performance for H1 2021
Yield assets	19.2%	6,898	7.5%	19.0%	6,420	2.3%
Growth assets	41.0%	14,705	14.4%	40.5%	13,692	10.3%
Fixed-income assets	39.8%	14,300	-.0.5%	40.5%	13,736	4.1%
TOTAL DEDICATED ASSETS	**100%**	**35,903**	**6.9%**	**100%**	**33,848**	**5.9%**

Changes in the portfolio during the first half of 2021

Changes in dedicated assets in the first half of 2021 are described in note 14.1.2.1 to the condensed consolidated half-year financial statements at 30 June 2021.

In the first half of 2021, the overall after-tax performance of dedicated assets (impacts on reserves and net income) was +€1,596 million, comprising +€116 million for the CTE shares allocated to dedicated assets, and +€1,480 million for other securities (€+1,970 million before tax).

The overall performance of the dedicated asset portfolio, comprising yield assets, growth assets and fixed-income assets, was +6.9%.

The unlisted assets managed by EDF Invest are distributed between yield assets, growth assets and fixed-income assets. This portfolio, including CTE, amounted to €7.5 billion at 30 June 2021 and generated a total performance of 7.8% in the first half of 2021.

During the first half of 2021 EDF invest added to its investment in smart meters in the United Kingdom and made new real estate investments in Germany and France. EDF has no obligation to add to the dedicated asset portfolio in 2021, and no allocation was made during the first half of 2021 (compared to allocations of €113 million in the first half of 2020 and €797 million in 2020).

The yield assets consist of unlisted real estate and infrastructure assets with a value of €6.9 billion at 30 June 2021 and generated a performance of 7.5% comprising dividends received and the change in the realisable value of equity investments. This robust performance was achieved through good sectorial and geographical diversification.

Due to an upturn on the listed markets, the growth assets pocket registered an overall performance of +14.4%, driven principally by listed equities, which outperformed their indexes for every geographical pocket (except the Asia Pacific zone): moderately in Europe (+0.3%) and much more substantially for emerging countries (+1.1%). The large portion of "value" funds was a creator of value overall, while the overweighting on the US dollar affected performance.

The performance of fixed-income assets was less satisfactory in absolute terms (-0.5%) but very good in relative terms. In the government bond portfolio, the low sensitivity of the portfolio limited the decline to 2.4% while the benchmark index decreased by 3.0%. The credit portfolio ended the half-year on 0.4% growth, whereas its benchmark index was down by 0.4%. Once again, low sensitivity limited losses, and the very high exposure to subordinated bank debt was largely positive.

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 listed equities in EDF's dedicated asset portfolio was €14,301 million at 30 June 2021. The volatility of the listed equities at the same date was 12.93% based on 52 weekly performances, compared to 26.6% at 31 December 2020. Applying this volatility to the value of listed equity assets at 30 June 2021, the Group estimates the annual volatility of the equities portion of dedicated assets at €1,849 million.

At 30 June 2021, the sensitivity of the listed bonds (€12,560 million) was 5.6, i.e. a uniform 100 base point rise in interest rates would result in a €697 million decline in market value. This sensitivity was 5.5 at 31 December 2020.

Assessment of the expected rate of return on dedicated assets

In compliance with the applicable regulations, based on the target allocation for dedicated assets stated above, studies to simulate the expected rate of return for the next few years, particularly the next twenty years (a horizon close to the duration of nuclear provisions) show with high probability that the average projected rate of return is higher than the 3.4% discount rate used to calculate nuclear provisions at 30 June 2021 (see note 14.1.1 to the condensed consolidated half-year financial statements at 30 June 2021).
The average annualised performance of dedicated assets since 2004, the year when their value first exceeded €1 billion, was 6.9% at 30 June 2021.

(1) An internal committee and permanent body for evaluation, consultation and operational decision-making for dedicated asset management.

Currently valid dispensations granted by the administrative authority, in application of articles 594-6 and D. 594-7 of the Environment Code

EDF received ministerial authorisation on 31 May 2018 to increase the portion of unlisted assets in its dedicated assets from 10% to 15% subject to conditions (this does not apply to the shares of CTE or real estate assets).

7.1.7 Management of counterparty/credit risk

Counterparty risk represents the potential loss the EDF group would sustain in the event of future default by its counterparty.

The Group has a counterparty risk management policy which applies to EDF 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 quarterly consolidation of the Group's exposures. 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 2021, 91% of the Group's exposure concerned "investment grade" counterparties, mainly due to the predominance of exposures generated by the cash and asset management activity, as most short-term investments concern low-risk assets.

	Good credit rating	Poor credit rating	No internal rating	Total
at 31/12/2020	91%	8%	1%	100%
at 31/03/2021	91%	8%	1%	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
at 31/12/2020	6%	1%	9%	78%	6%	100%
at 31/03/2021	6%	1%	9%	76%	8%	100%

Exposure in the energy trading activities is concentrated in 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. Only banking, sovereign and corporate counterparties with good credit ratings are authorised, for limited amounts and maturities.

7.2 Management and control of energy market risks

This section presents the main changes in energy market risks affecting the Group since 31 December 2020. The principles for management of energy market risks are presented in section 2.2.2 – 2C of the 2020 Universal Registration Document. They have not been changed since 31 December 2020.

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 2021, EDF Trading's exposure on the markets is controlled, being subject to a Value at Risk limit of €35 million, a Capital at Risk limit for long-term contracts and a Capital at Risk limit for operations on illiquid markets of €250 million each, and a stop-loss limit of €180 million.

During the first half of 2021, these limits were not exceeded and EDF Trading managed its risks within the boundaries of its mandate from EDF at all times. The stop-loss has never been triggered since its introduction.

8 TRANSACTIONS WITH RELATED PARTIES

The transactions undertaken with related parties are discussed in note 3.3 to the condensed consolidated half-year financial statements at 30 June 2021, "Related Parties".

9 PRINCIPAL RISKS AND UNCERTAINTIES FOR THE SECOND HALF-YEAR OF 2021

The principal risk factors to which the EDF group considers itself exposed, and its policies for risk management and control, are described in chapter 2 of the 2020 Universal Registration Document “Risk Factors and Control Framework” (pages 97 to 126). The French language version of the Universal Registration Document was filed with the *Autorité des Marchés Financiers* (French Financial Markets Authority or AMF) on 15 March 2021 and is available from the AMF website (www.amf-france.org), and the EDF group website (www.edf.com).

As the Group remains subject to the identified risks specific to its business, the presentation of the major risks contained in the 2020 Universal Registration Document remains valid at the date of publication of this report for assessment of the principal risks and uncertainties to which the Group is exposed at 30 June 2021 or which could affect it during the second half of the current financial year.

10 SIGNIFICANT EVENTS RELATED TO LITIGATION IN PROCESS

The principal litigations concerning the EDF group are presented in the 2020 Universal Registration Document (see also notes 16.2 and 5.1.1 to the condensed consolidated half-year financial statements at 30 June 2021).

11 SUBSEQUENT EVENTS

No developments have occurred since 30 June 2021 in addition to those presented in other notes.

CONDENSED CONSOLIDATED

HALF-YEAR FINANCIAL STATEMENTS

AT 30 JUNE 2021

CONSOLIDATED INCOME STATEMENT

(in millions of euros)	Notes	H1 2021	H1 2020
Sales	5.1	39,621	34,710
Fuel and energy purchases	5.2	(18,753)	(16,550)
Other external expenses[1]		(3,629)	(3,469)
Personnel expenses		(7,273)	(7,020)
Taxes other than income taxes		(2,509)	(2,813)
Other operating income and expenses	5.3	3,144	3,338
Operating profit before depreciation and amortisation	**5**	**10,601**	**8,196**
Net changes in fair value on energy and commodity derivatives, excluding trading activities	6	(541)	(323)
Net depreciation and amortisation[2]		(5,194)	(5,358)
(Impairment)/reversals	10.4	(502)	(738)
Other income and expenses	7	(92)	(153)
Operating profit		**4,272**	**1,624**
Cost of gross financial indebtedness		(754)	(868)
Discount effect	8.1	(1,016)	(1,172)
Other financial income and expenses	8.2	2,631	(262)
Financial result	**8**	**861**	**(2,302)**
Income before taxes of consolidated companies		**5,133**	**(678)**
Income taxes	9	(1,458)	42
Share in net income of associates and joint ventures	11	344	11
Net income of discontinued operations	3.2	(3)	(161)
CONSOLIDATED NET INCOME		4,016	(786)
EDF net income		**4,172**	**(701)**
EDF net income – continuing operations		4,175	(544)
EDF net income – discontinued operations		(3)	(157)
Net income attributable to non-controlling interests		**(156)**	**(85)**
Net income attributable to non-controlling interests – continuing operations		(156)	(81)
Net income attributable to non-controlling interests – discontinued operations		-	(4)
Earnings per share (EDF share) in euros:			
Basic earnings per share		1.25	(0.32)
Diluted earnings per share		1.17	(0.32)
Basic earnings per share of continuing operations		1.25	(0.27)
Diluted earnings per share of continuing operations		1.17	(0.27)

[1] Other external expenses are reported net of capitalised production costs.

[2] Including net increases in provisions for replacement of property, plant and equipment operated under concessions.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

		H1 2021			H1 2020		
(in millions of euros)	Notes	EDF net income	Net income attributable to non-controlling interests	Total	EDF net income	Net income attributable to non-controlling interests	Total
Consolidated net income		**4,172**	**(156)**	**4,016**	**(701)**	**(85)**	**(786)**
Fair value of cash flow hedges							
Fair value of cash flow hedges - gross change	17.5	797	5	802	895	(2)	893
Fair value of cash flow hedges - tax effects		(207)	(2)	(209)	(234)	-	(234)
Fair value of net investment hedges							
Fair value of net investment hedges - gross change	17.5	(666)	-	(666)	497	-	497
Fair value of net investment hedges - tax effects		45	-	45	17	-	17
Change in fair value of debt instruments							
Gross change in fair value of debt instruments	17.1.2	(216)	-	(216)	(49)	-	(49)
Related tax effect		56	-	56	14	-	14
Translation adjustments – controlled entities		**1,212**	**399**	**1,611**	**(1,476)**	**(537)**	**(2,013)**
Share in net income of associates and joint ventures – items that can be recycled to profit and loss		**470**	**-**	**470**	**(214)**	**-**	**(214)**
Gains and losses recorded in equity with recycling		***1,491***	***402***	***1,893***	***(550)***	***(539)***	***(1,089)***
Change in fair value of equity instruments							
Gross change in fair value of equity instruments	17.1.2	15	-	15	6	-	6
Related tax effect		-	-	-	-	-	-
Change in actuarial gains and losses on post-employment benefits							
Gross change in actuarial gains and losses on post-employment benefits	15.1.2	2,528	97	2,625	(8)	(3)	(11)
Related tax effect		(725)	(43)	(768)	(29)	1	(28)
Share in net income of associates and joint ventures – items that cannot be recycled to profit and loss		**77**	**-**	**77**	**(16)**	**-**	**(16)**
Gains and losses recorded in equity with no recycling		***1,895***	***54***	***1,949***	***(47)***	***(2)***	***(49)***
Total gains and losses recorded in equity		**3,386**	**456**	**3,842**	**(597)**	**(541)**	**(1,138)**
CONSOLIDATED COMPREHENSIVE INCOME		7,558	300	7,858	(1,298)	(626)	(1,924)
Comprehensive income of continuing operations		7,561	300	7,861	(1,145)	(622)	(1,767)
Comprehensive income of discontinued operations	3.2.2	(3)	-	(3)	(153)	(4)	(157)

CONSOLIDATED BALANCE SHEET

ASSETS *(in millions of euros)*	Notes	30/06/2021	31/12/2020
Goodwill	10.1	10,640	10,265
Other intangible assets	10	9,990	9,583
Property, plant and equipment used in generation and other tangible assets owned by the Group, including right-of-use assets	10.2	93,707	92,600
Property, plant and equipment operated under French public electricity distribution concessions	10	61,113	60,352
Property, plant and equipment operated under concessions other than French public electricity distribution concessions	10	6,806	6,858
Investments in associates and joint ventures	11	7,486	6,794
Non-current financial assets	17.1	50,636	47,615
Other non-current receivables	12.2	2,154	2,015
Deferred tax assets		974	1,150
Non-current assets		**243,506**	**237,232**
Inventories		14,680	14,738
Trade receivables	12.1	15,845	14,521
Current financial assets	17.1	26,915	23,532
Current tax assets		508	384
Other current receivables	12.2	8,451	6,918
Cash and cash equivalents		5,928	6,270
Current assets		**72,327**	**66,363**
Assets classified as held for sale	3.2	2,617	2,296
TOTAL ASSETS		318,450	305,891

EQUITY AND LIABILITIES *(in millions of euros)*	Notes	30/06/2021	31/12/2020
Capital	13	1,579	1,550
EDF net income and consolidated reserves		52,194	44,083
Equity (EDF share)		***53,773***	***45,633***
Equity (non-controlling interests)		10,279	9,593
Total equity	**13**	**64,052**	**55,226**
Provisions related to nuclear generation – back-end of the nuclear cycle, plant decommissioning and last cores	14	58,424	58,333
Provisions for employee benefits	15	19,783	22,130
Other provisions	16	5,467	5,374
Non-current provisions		***83,674***	***85,837***
Special French public electricity distribution concession liabilities		48,501	48,420
Non-current financial liabilities	17.2	52,777	55,899
Other non-current liabilities	12.3	4,803	4,874
Deferred tax liabilities		3,488	3,115
Non-current liabilities		**193,243**	**198,145**
Current provisions	14, 15 and 16	6,701	5,827
Trade payables		11,748	11,900
Current financial liabilities	17.2	23,136	17,609
Current tax liabilities		1,767	215
Other current liabilities	12.3	17,528	16,861
Current liabilities		**60,880**	**52,412**
Liabilities related to assets classified as held for sale	3.2	275	108
TOTAL EQUITY AND LIABILITIES		318,450	305,891

CONSOLIDATED CASH FLOW STATEMENT

(in millions of euros)	Notes	H1 2021	H1 2020[1]
Operating activities:			
Consolidated net income		**4,016**	**(786)**
Net income of discontinued operations		**(3)**	**(161)**
Net income of continuing operations		**4,019**	**(625)**
Impairment/(reversals)		502	738
Accumulated depreciation and amortisation, provisions and changes in fair value		4,526	7,166
Financial income and expenses		(25)	585
Dividends received from associates and joint ventures		112	112
Capital gains/losses		(108)	(74)
Income taxes		1,458	(42)
Share in net income of associates and joint ventures		(344)	(11)
Change in working capital		(1,896)	(1,364)
Net cash flow from operations		***8,244***	***6,485***
Net financial expenses disbursed		(393)	(591)
Income taxes paid		(343)	(368)
Net cash flow from continuing operating activities		**7,508**	**5,526**
Net cash flow from operating activities relating to discontinued operations		**-**	**59**
Net cash flow from operating activities		**7,508**	**5,585**
Investing activities:			
Acquisitions of equity investments, net of cash acquired		14	(96)
Disposals of equity investments, net of cash transferred		401	117
Investments in intangible assets and property, plant and equipment	10.3	(8,518)	(7,475)
Net proceeds from sale of intangible assets and property, plant and equipment		42	31
Changes in financial assets		3,103	4,511
Net cash flow from continuing investing activities		**(4,958)**	**(2,912)**
Net cash flow from investing activities relating to discontinued operations		**-**	**(71)**
Net cash flow from investing activities		**(4,958)**	**(2,983)**
Financing activities:			
Transactions with non-controlling interests[2]		293	436
Dividends paid by parent company	13.2	(36)	-
Dividends paid to non-controlling interests		(87)	(122)
Purchases/sales of treasury shares		(4)	-
Cash flows with shareholders		***166***	***314***
Issuance of borrowings	17.2.2.1	1,104	12,210
Repayment of borrowings	17.2.2.1	(5,962)	(3,136)
Issuance of perpetual subordinated bonds	13.3	1,235	-
Payments to bearers of perpetual subordinated bonds	13.3	(288)	(286)
Funding contributions received for assets operated under concessions and investment subsidies		441	71
Other cash flows from financing activities		***(3,470)***	***8,859***
Net cash flow from continuing financing activities		**(3,304)**	**9,173**
Net cash flow from financing activities relating to discontinued operations		**-**	**(7)**
Net cash flow from financing activities		**(3,304)**	**9,166**
Net cash flow from continuing operations		(754)	11,787
Net cash flow from discontinued operations		-	(19)
Net increase/(decrease) in cash and cash equivalents		**(754)**	**11,768**
CASH AND CASH EQUIVALENTS - OPENING BALANCE		6,270	3,934
Net increase/(decrease) in cash and cash equivalents		(754)	11,768
Currency fluctuations		116	(143)
Financial income on cash and cash equivalents		25	19
Other non-monetary changes [3]		271	(17)
CASH AND CASH EQUIVALENTS - CLOSING BALANCE		5,928	15,561

[1]The published figures for 2020 include a €69 million reclassification from "Net financial expenses disbursed" to "Changes in financial assets".
[2]Contributions via capital increases, or capital reductions and acquisitions of additional interests or disposals of interests in controlled companies. In 2021, this item includes an amount of €597 million relating to CGN's payment for the capital increases by NNB Holding Ltd (for the Hinkley Point C project) and Sizewell C Holding Co. and an amount of €(276) million relating to the acquisition of 70% of E2i Energie Speciali. In 2020, this item included an amount of €418 million relating to CGN's payment for the NNB Holding Ltd. and Sizewell C Holding Co. capital increases.
[3]Other non-monetary changes include €281 million resulting from reclassification at 1 January 2021 of debit positions on margin calls relating to derivatives, which were previously netted and included in other financial liabilities (see the "Other changes" line in note 17.2.2.1).

CHANGE IN CONSOLIDATED EQUITY

Details of the change in equity between 1 January and 30 June 2021 are as follows:

(in millions of euros)	Capital	Treasury shares	Translation adjustments (1)	Fair value adjustment of financial instruments (OCI with recycling)(2)	Other consolidated reserves and net income(3)	Equity (EDF share)	Equity (non-controlling interests)	Total equity
Equity at 31/12/2020	1,550	(10)	(871)	(1,116)	46,080	45,633	9,593	55,226
Gains and losses recorded in equity	-	-	1,529	(38)	1,895	**3,386**	456	**3,842**
Net income	-	-	-	-	4,172	**4,172**	(156)	**4,016**
Consolidated comprehensive income	***-***	***-***	***1,529***	***(38)***	***6,067***	***7,558***	***300***	***7,858***
Payments on perpetual subordinated bonds	-	-	-	-	(288)	**(288)**	-	**(288)**
Issuance of perpetual subordinated bonds (see note 13.3)	-	-	-	-	1,235	**1,235**	-	**1,235**
Dividends paid	-	-	-	-	(652)	**(652)**	(100)	**(752)**
Purchases/sales of treasury shares	-	(4)	-	-	-	**(4)**	-	**(4)**
Capital increase by EDF (see note 13.1)	29	-	-	-	587	**616**	-	**616**
Other changes(4)	-	-	-	-	(325)	**(325)**	486	**161**
EQUITY AT 30/06/2021	1,579	(14)	658	(1,154)	52,704	53,773	10,279	64,052

(1)Changes in translation adjustments amount to €1,529 million at 30 June 2021. This variation is due to the rise of the pound sterling against the euro (£1 = €1.112 at 31 December 2020 and £1 = €1.165 at 30 June 2021).

(2)Changes in reserves recorded in OCI (Other Comprehensive Income) with recycling are shown in the Statement of Comprehensive Income. They correspond to the effects of fair value adjustments of debt securities and financial instruments hedging cash flows and net foreign investments, and amounts recycled to profit and loss in respect of terminated contracts and debt instruments transferred.

(3)Fair value changes recorded in OCI with no recycling are presented in this column.

(4)In the first half of 2021, "Other changes" in equity (non-controlling interests) include the effect of capital increases funded by CGN for NNB Holding Ltd. and Sizewell C Holding Co. amounting to €597 million , and the transfer of the share of E2i Energie Speciali's equity acquired, amounting to €(121) million. The €(155) million difference between the sale price and the equity acquired is presented as a deduction from Equity (EDF share).

Details of the change in equity between 1 January and 30 June 2020 are as follows:

(in millions of euros)	Capital	Treasury shares	Translation adjustments (1)	Fair value adjustment of financial instruments (OCI with recycling)(2)	Other consolidated reserves and net income(3)	Equity (EDF share)	Equity (non-controlling interests)	Total equity
Equity at 31/12/2019	1,552	(64)	1,037	(1,198)	45,139	46,466	9,324	55,790
Gains and losses recorded in equity	-	-	(1,604)	1,054	(47)	**(597)**	(541)	**(1,138)**
Net income	-	-	-	-	(701)	**(701)**	(85)	**(786)**
Consolidated comprehensive income	**-**	**-**	**(1,604)**	**1,054**	**(748)**	**(1,298)**	**(626)**	**(1,924)**
Payments on perpetual subordinated bonds	-	-	-	-	(286)	**(286)**	-	**(286)**
Dividends paid	-	-	-	-	-	**-**	(143)	**(143)**
Purchases/sales of treasury shares	-	1	-	-	-	**1**	-	**1**
Other changes(4)	-	-	-	-	(19)	**(19)**	435	**416**
EQUITY AT 30/06/2020	1,552	(63)	(567)	(144)	44,086	44,864	8,990	53,854

(1)Changes in translation adjustments amount to €(1,604) million at 30 June 2020, mainly relating to the pound sterling's fall against the euro (£1=€1.175 at 31 December 2019 and £1 = €1.096 at 30 June 2020).

(2)Changes in reserves recorded in OCI (Other Comprehensive Income) with recycling are shown in the Statement of Comprehensive Income. They correspond to the effects of fair value adjustments of debt securities and financial instruments hedging cash flows and net foreign investments, and amounts recycled to profit and loss in respect of terminated contracts and debt instruments transferred.

(3)Fair value changes recorded in OCI with no recycling are presented in this column.

(4)Other changes in the first half of 2020 in equity (non-controlling interests) also include capital increases by NNB Holding Ltd. and Sizewell C Holding Co. funded by CGN (€418 million).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Electricité de France (EDF or the "Company") is a French *société anonyme* governed by French law, and registered in France (22-30, avenue de Wagram, 75008 Paris).

The condensed consolidated financial statements (hereafter called "the consolidated financial statements") reflect the accounting position of the Company and its subsidiaries (which together form the "Group") and the Group's interests in associates, joint arrangements classified as joint operations, and joint ventures, for the half-year ended 30 June 2021.

The Group is an integrated energy operator engaged in all aspects of the energy business: power generation (nuclear power, hydropower, wind and solar power, thermal energy, etc.), transmission, distribution, supply, trading, energy services, production of equipment and fuel assemblies, and reactor services.

The Group's consolidated financial statements at 30 June 2021 were prepared under the responsibility of the Board of Directors and approved by the Directors at the Board meeting held on 28 July 2021.

NOTE 1 GROUP ACCOUNTING POLICIES

1.1 DECLARATION OF CONFORMITY AND GROUP ACCOUNTING POLICIES

Pursuant to European regulation 1606/2002 of 19 July 2002 on the adoption of international accounting standards, the EDF group's consolidated financial statements at 30 June 2021 are prepared under the presentation, recognition and measurement rules set out in the international accounting standards published by the IASB and approved by the European Union for application at 30 June 2021. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and SIC and IFRIC interpretations.

The consolidated half-year financial statements comply with standard IAS 34 "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 2020.

Apart from changes in accounting standards, detailed in note 1.2, and the valuation methods specific to interim financial reporting described in note 1.4, the accounting principles and valuation methods are identical to those applied and described in note 1.3 and in individual notes to the consolidated financial statements at 31 December 2020.

1.2 CHANGES IN ACCOUNTING STANDARDS

1.2.1 Interest Rate Benchmark Reform - Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (phase 2)

These amendments were adopted on 13 January 2021 and are applicable (retrospectively) from 1 January 2021. The key points are the following:

- changes resulting from the Ibor reform must be recognised by prospectively modifying the effective interest rate on the financial assets and liabilities concerned, with no impact on profit and loss;
- some reliefs are provided to allow continuation of hedging relationships for instruments concerned by the reform.

These amendments are applicable to financial assets and liabilities on which the contractual modifications result directly from the Ibor reform, provided that the new basis for determining the contractual cash flows is economically equivalent to the previous basis.

The principal interest rates concerned by the reform that are used by the Group are Euribor, Eonia, Libor USD and Libor GBP.

In 2020 the EDF group set up a team involving all stakeholders to make the best preparations for the consequences of this reform and the changes to be implemented.

The work done has indicated that the reform will not have any significant effect on the Group's financial statements for 2021, and that its impacts are mainly operational (renegotiation of contracts, fallback provisions, information system upgrades). Due to its fixed-rate borrowing position, the Group's exposure is essentially concentrated in interest rate derivatives that are used to swap fixed-rate debt to floating rates.

At 31 December 2020

	31/12/2020				
	Initial debt structure		Impact of hedging instruments	Debt structure after hedging	
(in millions of euros)	amount	% of debt	amount	amount	% of debt
Fixed rates	60,667	92%	(15,217)	45,450	69%
Floating rates	4,924	8%	15,217	20,141	31%
LOANS AND OTHER FINANCIAL LIABILITIES	65,591	100%	-	65,591	100%

As part of the transition, in several collateral agreements for derivative transactions (CSA - Credit Support Annex) the reference rate curve used to calculate returns on the posted collateral and to value the derivatives was changed from the Eonia curve to the Ester curve. For the Group, these changes were materialised by receipt of a net €12 million cash compensation in consideration of a value adjustment to the derivatives.

The Group is due to become an adhering party to the ISDA Fallback protocol in the second half of 2021. During that period, it will replace the Libor GBP by the Sonia for all financial instruments concerned.

For USD Libor, the transition operations will take place in line with the end date for publication of USD Libor i.e. before 30 June 2023.

Finally, no action has so far been taken for Euribor, which could change but will not do so in the short term.

1.2.2 Covid-19-Related Rent Concessions - Amendment to IFRS 16 (not yet adopted by the European Union)

Application of the “Covid-19-Related Rent Concessions” amendment has been extended for one year (for payments up to 30 June 2022 at the latest). The amendment defines the accounting treatment applicable by the lessee to relief granted by the lessor on a current lease, in the form of “payment holidays” or temporary rent reductions, as a direct result of the Covid-19 pandemic.

This amendment has no impact on the Group’s financial statements.

1.2.3 IFRIC decision: "Attributing benefit to Periods of service" IAS 19

In May 2021, the IASB approved the agenda decision made by the IFRIC concerning attribution of benefits earned under post-employment benefit plans.

On the basis of EDF's ongoing analysis, this decision should mainly affect retirement indemnities in France. The corresponding commitment amounts to €911 million at 30 June 2021 for the two segments "France – Generation and Supply activities" and "France – Regulated activities".

In view of the features of the special IEG (electricity and gas sector) benefit plans in France, benefits under those plans should be attributed in a substantially similar way.

Consequently, this IFRIC decision is not expected to significantly affect EDF’s employee benefit commitments.

1.3 MANAGEMENT JUDGMENTS AND ESTIMATES

The preparation of the financial statements requires the use of judgments, best estimates and assumptions in determining the value of assets and liabilities, income and expenses recorded for the period, considering positive and negative contingencies existing at the closing date. The figures in the Group’s future financial statements could differ significantly from current estimates due to changes in these assumptions or economic conditions.

In a context characterised by financial market volatility, the parameters used to prepare estimates are based on macro-economic assumptions appropriate to the very long-term cycle of Group assets.

The principal operations for which the Group uses estimates and judgments are described in note 1.3.4 to the consolidated financial statements at 31 December 2020.

In the specific case of the depreciation period of its French nuclear power plants, the EDF group’s industrial strategy is to continue plant operation beyond 40 years, in optimum conditions for safety and performance.

The Group has therefore been making preparations for several years to extend the operation period, and making the necessary investments under its *Grand Carénage* industrial refurbishment programme which was approved in principle by the Board of Directors in January 2015.

The depreciation period of 900MWe-series power plants was extended from 40 years to 50 years in 2016 (except for Fessenheim where both reactors were permanently shut down in the first half of 2020) since all the technical, economic and governance conditions were fulfilled. The depreciation period of other series (1300MWe and 1450MWe), which are more recent, remained at 40 years until 31 December 2020.

During the first half of 2021, the technical, economic and governance conditions for extending the depreciation period of 1300MWe-series plants were fulfilled, and consequently the Group proceeded to the corresponding change of estimate at 1 January 2021 for all its 1300MWe power plants (see note 1.6.2, Extension to 50 years of the depreciation period of the 1300MWe PWR series in France).

The depreciation period of the 1450MWe series (the four reactors at Chooz and Civaux), which are much more recent, currently remains at 40 years as the conditions for extension are not yet fulfilled.

1.4 VALUATION METHODS SPECIFIC TO INTERIM FINANCIAL STATEMENTS

The following valuation methods specific to interim financial statements have been applied:

1.4.1 Employee benefits

The amount of the obligation corresponding to post-employment benefits and other long-term benefits at 30 June is calculated by projecting the prior year obligation over one half-year, taking into account the benefits paid out and the changes in fund assets, adjusted due to plan modifications where relevant.

In the event of amendment, curtailment or settlement during the accounting period, the actuarial assumptions and the amount of the obligation are updated at the date of the change. The current service cost and the net interest expense on defined benefits are adjusted accordingly from that date (see note 15.1.1).

In all other situations, the actuarial assumptions used to calculate employee benefits for interim financial statements differ from those used for the previous annual financial statements if significant developments arise for certain parameters (for example the discount rate).

1.4.2 Income taxes

For interim financial statements, income tax (current and deferred) is generally calculated by applying the last known estimated effective tax rate for the current year, for each entity or tax group, to the consolidated companies' pre-tax income.

1.5 SEASONAL NATURE OF THE BUSINESS

Interim sales and operating profit before depreciation and amortisation are affected by significant seasonal factors in the calendar year, principally in France. The variations observed are mainly associated with weather conditions and tariff structures specific to each period.

1.6 COMPARABILITY (INCLUDING THE EFFECTS OF THE COVID-19 PANDEMIC)

1.6.1 Consequences of the Covid-19 pandemic

The economic disruption caused by the Covid-19 pandemic in 2020 had significant repercussions for many of the Group’s activities in 2020, particularly nuclear power, worksites and services.

In-depth analyses were conducted in the Group’s local entities and centrally, to prepare reliable estimates of the impacts of the pandemic on the Group’s financial statements based on specific reporting for the half-yearly closing at 30 June 2020, then the annual closing at 31 December 2020, using valuation principles explained in the 2020 half-year financial statements (see note 2.1) and 2020 annual financial statements (see note 1.4.1).

The impact of the Covid-19 pandemic on the Group’s operating profit before depreciation and amortisation was estimated at €(1,010) million at 30 June 2020 and mainly concerned the France - Generation and Supply segment (€(482) million), due to lower nuclear power output, a decrease in demand, and recognition of impairment on trade receivables; the France - Regulated activities segment (€(212) million), reflecting lower delivery volumes and the downturn in network connection activity as site work was suspended or slowed down; and the United Kingdom (€(128) million), mainly due to the decline in demand. At 31 December 2020 the full-year impact was estimated at €(1,479) million, and concerned the France - Generation and Supply segment (€(872) million), the France - Regulated activities segment (€(237) million), and the United Kingdom (€(182) million). These figures reflected the fact that during the second half of 2020, compared to the first half, the pandemic had a bigger impact on nuclear activities in France, as deferrals and extensions of planned maintenance outages mainly affected nuclear power generation in the second half of the year, and a much smaller impact on network, sales and service activities due to the substantial recovery of business. During the second half of 2020, the Group announced and activated an action plan in response to the crisis that included a plan to reduce operating expenses by 2022.

Given this context, even though the Covid-19 pandemic continued to have effects during the first half of 2021 (an estimated impact of (6)TWh on nuclear output in France, particularly due to deferral to 2021 of the end of certain planned nuclear reactor outages; the fact that demand for electricity and service activities has not yet returned to pre-crisis levels), its impacts on the Group's operating profit before depreciation and amortisation at 30 June 2021 are moderate, diffuse and not easily traceable. As a result, it was not appropriate to take specific steps to value the pandemic's induced impacts on the Group's financial results for the first half of 2021.

Details of some items are presented below to facilitate comparability regarding the operating profit before depreciation and amortisation:

Impairment of trade receivables

The Group calculates impairment of trade receivables by reference to provision matrices based on credit loss histories (the IFRS 9 simplified approach).

Despite the support measures introduced by national governments, and the support measures put in place by the Group for its customers, it was considered in 2020 that the Covid-19 pandemic was likely to cause an increase in the amount of non-recoverable receivables.

Consequently, a €144 million increase to impairment of trade receivables resulting from the pandemic was booked at 30 June 2020, under "Other operating income and expenses" in the income statement, calculated under the principles presented in note 2.1.2 to the condensed consolidated half-year financial statements at 30 June 2020 (€60 million concerning the France – Generation and Supply segment, €23 million for the France – Regulated activities segment, €39 million for the United Kingdom, and €17 million for Belgium). The credit risk on EDF Trading's portfolio was also increased by an amount of €35 million booked in Sales (Trading).

At 31 December 2020, risk analyses conducted by different Group entities led to a €223 million increase to impairment of trade receivables for the year, resulting from the pandemic. This amount was calculated under the principles presented in note 1.4.1.2 to the consolidated financial statements at 31 December 2020 and booked under other operating income and expenses in the income statement. It comprised €80 million concerning the France – Generation and Supply segment, €58 million for the France – Regulated activities segment, €68 million for the United Kingdom, and €13 million for Belgium. The credit risk on EDF Trading's portfolio was also increased by an amount of €22 million booked in Sales (Trading).

The risk analyses were updated at 30 June 2021 and the results did not lead to any substantial modification to the approaches used, nor to recognition or recovery of any significant amount compared to the estimates reported in the financial statements at 31 December 2020.

Comparability between the Group's operating profit before depreciation and amortisation at 30 June 2021 and 30 June 2020 is thus affected by the level of impairment for trade receivables that was booked at 30 June 2020 due to the Covid-19 pandemic.

Imbalance settlement payments in France

Due to the significant downward revision in the first half of 2020 of estimates of nuclear power output in France for 2020, and the results of the most recent capacity auction at 30 June 2020 held on 25 June 2020, at the half-year closing of 30 June 2020 EDF considered that imbalance settlement payments were likely to be required for the delivery year 2020, and recorded a provision of €137 million for this purpose in "Other operating income and expenses" (see note 5.1 to the financial statements at 31 December 2020 for details of the operation of France's capacity mechanism). In view of the final nuclear power output achieved in 2020, particularly the availability of EDF's generation plants during the peak periods of the second half of the year, this provision was cancelled in the second half-year since EDF had fulfilled its obligations relating to the French capacity mechanism.

Comparability between the Group's operating profit before depreciation and amortisation at 30 June 2021 and 30 June 2020 is thus affected by the recognition of this provision for imbalance settlement payments at 30 June 2020 due to the Covid-19 pandemic.

1.6.2 Extension to 50 years of the depreciation period of the 1300MWe PWR series in France

The Group considers that all the technical, economic and governance conditions for bringing the depreciation period of 1300MWe-series PWR plants in France into line with its industrial strategy are now fulfilled.

The studies and work already completed, particularly concerning replacement of components and controlled equipment ageing, have given the Group sufficient assurance of the 1300MWe plants' technical capacity to operate for at least 50 years. This is also supported by the international benchmark.

The Group has also made progress with the Nuclear Safety Authority (*Autorité de Sûreté Nucléaire* (ASN)) on the question of the content of the fourth 10-year inspections of the 1300MWe series (a project included in the *Grand Carénage* programme). These inspections use a work methodology with ambitions focusing particularly on safety, similar to the fourth 10-year inspections of the 900MWe series and incorporating the lessons learned from that series. In December 2019, the ASN's response to the Re-examination Orientation file for the fourth 10-year inspections of the 1300MWe reactors gave general approval for the themes selected and commitments made by EDF for these inspections.

Finally, the ASN approval published in February 2021 for the generic aspects of the continued operation of 900MWe reactors for ten years following their fourth 10-year inspection, and the industrial success of the initial fourth 10-year inspections for such reactors (after the pilot reactor Tricastin 1 in December 2019, Bugey 2 and Bugey 4 reached 40 years of operation and were successfully restarted after a successful fourth 10-year inspection during the first half of 2021) reinforce EDF's confidence that its inspection content for the 1300MWe series is appropriate and well controlled.

Once its fourth 10-year inspections are completed, the 1300MWe PWR plants will thus have reached a level of safety close to EPR safety level.

Also, extending operation of the 1300MWe-series plants beyond 40 years offers high profitability even in low long-term price scenarios, and in a range of sensitivity scenarios.

Finally, operating the 1300MWe-series plants for 50 years is consistent with France's Energy and Climate law of 8 November 2019 (which sets a target of 50% nuclear for France's electricity output by 2035), and the adoption decree of 21 April 2020 for France's multi-year energy plan (*Programmation Pluriannuelle de l'Energie* (PPE)). A study for the energy future, *Futurs énergétiques 2050*, is being conducted by France's national grid operator RTE at the request of the French government, examining electricity mix scenarios to achieve carbon neutrality in France by 2050; a related progress report published in June 2021 noted a significant need for carbon-free generation capacity. For all scenarios relating to the post-2035 period, the study includes the assumption that EDF's existing nuclear power plant fleet will remain in operation beyond 50 years, and be shut down between 50 and 60 years of operation.

In view of all these factors, the Group considers that the best estimate for the depreciation period of the 1300MWe-series plants is now 50 years. This change of accounting estimate does not predetermine the ASN's future decisions to authorise continued operation, which will be given individually for each unit after each 10-year inspection, as currently applied and required by law.

The Group therefore changed the estimate at 1 January 2021 for all 1300MWe power plants.

This change of accounting estimate is applied prospectively, and has the following consequences for the Group's consolidated financial statements at 31 December 2021:

- At 1 January 2021, due to timing differences in the payment schedules, provisions relating to nuclear power generation were reduced by €1,016 million (see note 14), including €848 million covered by dedicated assets. This reversal from provisions is principally allocated to the net book value of the assets in accordance with IFRIC 1 (€1,031 million, see note 10.2), and the balance is allocated to profit and loss (€(15) million). It is largely taxable and generates a current tax liability of €184 million;
- In the first half of 2021:
  - the 10-year extension of the depreciation period and the reduction in the value of assets at 1 January in line with the decrease in nuclear provisions have led to a lower depreciation charge than for a 40-year depreciation period, estimated at €274 million for the half-year,
  - the decrease in nuclear provisions at 1 January 2021 led to a €17 million decrease in the cost of unwinding the discount,
  - the amounts of contributions received on jointly-operated power plants transferred to profit and loss decreased by €12 million.

In total, the various effects in the first half of 2021 lead to a €264 million increase in the income before taxes, and a €194 million increase in EDF net income.

NOTE 2 SUMMARY OF SIGNIFICANT EVENTS

The main significant events and transactions for the Group **in the first half of 2021** are the following:

- **Nuclear developments:**
  - EDF submitted to the Indian nuclear operator NPCIL the French binding techno-commercial offer to build six EPRs at the Jaitapur site (see the Group press release of 23 April 2021);
  - EDF decided to move Dungeness B into the defueling phase (see the EDF Energy press release of 7 June 2021, and notes 7, 10.4, 14.2).
- **Disposals:**
  - Edison completed the sale of Edison Norge to Sval Energi for a value of $374 million (see the Edison press release of 25 March 2021, and note 3.1);
  - EDF signed a binding agreement for the sale of the West Burton B CCGT gas power station to EIG (see the EDF Energy press release of 9 April 2021, and note 3.2);
  - Edison completed the sale of Infrastrutture Distribuzione Gas (IDG) to 2I ReteGas for a value of €150 million (see the Edison press release of 30 April 2021, and note 3.1);
  - Dalkia announced the signing of a binding agreement with Paprec for the sale of its subsidiary Dalkia Wastenergy (see the Dalkia press release of 21 May 2021, and note 3.2).
- **Financing operations:**
  - EDF launched an issue of a Euro-denominated perpetual social hybrid notes on 26 May 2021 with a total nominal amount of € 1.25 billion (see the Group release of 27 May 2021, and note 13.3).
- **Renewable energies:**
  - Edison completed the acquisition of E2i (see the Edison press release of 16 February 2021, and note 3.1);
  - EDF Renewables, Enbridge and wpd launched construction of the Calvados offshore wind farm (see the EDF Renewables press release of 22 February 2021, and note 11.2);
  - The EDF group won a 1.5GW offshore wind power project in New Jersey in the United States (see the Group press release of 1 July 2021 and note 11.2).
- EDF and Areva reached a settlement agreement (see the Group press release of 30 June 2021, and note 7);
- EDF put an end to Ecocombust, a project to develop a new class B wood-based fuel (see the Group press release of 8 July 2021, and note 10.2).

Apart from the Covid-19 pandemic, the main significant events and transactions for the Group **in 2020** were the following:

- **Nuclear developments:**
  - EDF restarted Hunterston B power station and confirmed its plan to move into the decommissioning phase by January 2022. It also announced that Hinkley Point B power station in Somerset would enter into the defueling phase no later than 15 July 2022 (see the EDF Energy press release of 27 August 2020 and 19 November 2020, and note 10.2);
  - The Group readjusted the cost of the *Grand Carénage* programme to increase safety and extend the operating life of nuclear reactors beyond 40 years (see the press release of 29 October 2020 and note 10.2);
  - Hinkley Point C project update (see the press release of 27 January 2021 and note 10.2).
- **Disposals:**
  - Edison completed the sale of Edison Exploration & Production SpA to Energean (see the Edison press release of 17 December 2020 and note 3.1).

NOTE 3 SCOPE OF CONSOLIDATION

3.1 CHANGES IN THE SCOPE OF CONSOLIDATION

3.1.1 Changes in the scope of consolidation in the first half of 2021

The following main changes took place in the Group's scope of consolidation during the first half of 2021:

- disposal of Edison Norge on 25 March 2021;
- disposal of Infrastrutture Distribuzione Gas (IDG) on 30 April 2021;
- acquisition of 70% of E2i on 16 February 2021.

Sale of Edison Norge to Sval Energi

On 25 March 2021, Edison announced the closing of the agreement signed with Sval Energi on 30 December 2020 to sell 100% of Edison Norge AS (the hydrocarbon exploration and production activities in Norway).

The balance sheet items for all of Edison Norge's operations were reclassified at 31 December 2020 as assets held for sale (see note 3.2).

This operation relates to the Group's exit from hydrocarbons exploration and production, and follows a first sale by Edison Exploration & Production to Energean, completed in December 2020. The price is based on an enterprise value of $374 million and includes a payment of $12.5 million receivable when the Dvalin gas field is commissioned.

The sale of Edison Norge reduced the EDF group's net indebtedness by €0.3 billion and has no significant impact on the Group's net income.

Sale of Infrastrutture Distribuzione Gas (IDG)

On 30 April 2021, Edison announced the closing of the agreement signed with 2i Rete Gas to sell 100% of Infrastrutture Distribuzione Gas (IDG) for €150 million, pursuant to an agreement signed on 14 January 2021.

IDG manages gas distribution networks and plants in 58 municipalities in Abruzzo, Emilia-Romagna, Lazio, Lombardy and Veneto, is present in 17 minimum territorial areas (Atem) and has 152,000 customers.

The balance sheet items for all of IDG were reclassified at 31 December 2020 as assets held for sale (see note 3.2).

This transaction reduced the Group's net indebtedness by €0.2 billion and has no significant impact on the Group's net income.

These two disposals (Edison Norge and IDG) will support Edison's plan for growth in strategic areas of business: production of renewable and low-carbon energies, energy efficiency, sustainable mobility and value-added services for customers.

Acquisition of 70% of E2i

On 16 February 2021, Edison announced the completion of the agreement signed on 14 January 2021 with F2i Fondi Italiani per le Infrastrutture to take over 70% of E2i Energie Speciali, a leading company in the Italian wind power sector that is already financially consolidated by Edison, which held the remaining stake of 30%, in application of a specific governance arrangement.

This acquisition increased the Group's net indebtedness by €0.3 billion.

As it concerned a minority interest and there is no change of consolidation method, the €155 million difference between the sale price and the equity acquired has been charged to Equity (EDF share).

3.1.2 Changes in the scope of consolidation in 2020

The following changes in the Group's scope of consolidation took place during 2020:

- disposal of Edison Exploration and Production SpA (E&P) on 17 December 2020 (see notes 1.4.2 and 3.2 to the consolidated financial statements at 31 December 2020);
- consolidation of EDF Pulse Croissance, Agregio, Energy2Market (E2M) and IZIVIA.

3.2 DISCONTINUED OPERATIONS

3.2.1 Assets held for sale and related liabilities

(in millions of euros)	30/06/2021	31/12/2020
ASSETS HELD FOR SALE	2,617	2,296
LIABILITIES RELATED TO ASSETS HELD FOR SALE	275	108

In application of IFRS 5, assets held for sale and related liabilities are shown below:

(in millions of euros)	30/06/2021	31/12/2020
Non-current non-financial assets(1)	436	316
Non-current financial assets	1,978	1,811
Current non-financial assets(2)	168	151
Current financial assets	35	18
TOTAL ASSETS HELD FOR SALE	2,617	2,296

(in millions of euros)	30/06/2021	31/12/2019
Non-current non-financial liabilities(3)	124	86
Non-current financial liabilities	13	1
Current non-financial liabilities	138	21
Current financial liabilities	-	-
TOTAL LIABILITIES RELATED TO ASSETS HELD FOR SALE	275	108

(1)Non-current non-financial assets comprise tangible assets and property, plant and equipment.
(2)Current non-financial assets comprise components of working capital and deferred taxes.
(3)Non-financial assets comprise provisions.

At 30 June 2021, assets held for sale and related liabilities concern the following:

- **Sale in progress of Dalkia Wastenergy**

On 21 May 2021, Dalkia announced the signature of a binding agreement with Paprec for the sale of its subsidiary Dalkia Wastenergy.

The transaction subject to all applicable regulatory authorisations, particularly clearance by the relevant competition authorities, should be completed very shortly.

The Dalkia Wastenergy assets and liabilities held for sale amount to €175 million and €187 million respectively at 30 June 2021.

- **Sale in progress of West Burton B**

On 9 April 2021, EDF announced the signature of a binding agreement with EIG to sell its 1332MWe Combined Cycle Gas Turbine power station and the 49MW battery storage facility at West Burton B in Nottinghamshire, and the West Burton C development project.

Completion of the transaction, which is conditional on issuance of all the necessary regulatory authorisations and unit 3 coming back into operation, is expected in August 2021.

The West Burton B assets held for sale and related liabilities amount to €400 million and €54 million respectively at 30 June 2021.

- **Sale in progress of the investment in CENG.**

The shares held in CENG are included in assets held for sale at the value of €1,977 million at 30 June 2021 (€1,811 million at 31 December 2020).

CENG owns five nuclear reactors across three nuclear power plants located in the states of New York and Maryland, with total capacity of 4041MWe (company-owned capacity). EDF has held a 49.99% share since 2014, alongside Exelon which controls CENG.

Pursuant to the agreements concluded with Exelon in 2014[1], EDF notified Exelon on 20 November 2019 that it had decided to exercise its put option on 49.99% of the shares of CENG.

This put option was exercisable by EDF from 1 January 2016 to 30 June 2022. The sale price for the CENG shares will be based on their fair value, determined under the contractual provisions of the put option agreement.

1 EDF Press Release of 1 April 2014 "EDF and Exelon finalize agreement on CENG".

All the regulatory approvals required in the contractual agreements have now been received, notably authorisation by the FERC (Federal Energy Regulatory Commission) on 30 July 2020, and authorisation by the New York State PSC (Public Service Commission) on 15 April 2021.

Valuations were exchanged during the second half of 2020, but no agreement was reached on the final price. Consequently, the "baseball arbitration" clause was activated. This clause requires the parties to agree on a third independent bank to determine which of the initial price proposals made by Exelon's and EDF's respective banks should apply. At 30 June 2021 this determination was still in progress. From 19 July 2021 EDF is entitled to withdraw its put option, as the sale will not have been completed within 18 months of the date it was exercised (19 January 2020).

The Group is currently continuing the sale process as stipulated in the agreements, and the value of CENG in the Group's balance sheet is based on the valuation used by the EDF group when exercising the put option.

Assets held for sale and related liabilities thus increased during the first half of 2021 due to the sales in progress of West Burton B and Dalkia Wastenergy. This increase was partly offset by decreases resulting from:

- the sale of Edison Norge in March 2021 (see note 3.1) which represented assets of €331 million and liabilities of €42 million at 31 December 2020;
- the sale of Infrastrutture Distribuzione Gas (IDG), a fully-owned subsidiary of Edison (see note 3.1) which represented assets of €98 million and liabilities of €7 million at 31 December 2020.

3.2.2 Net income of discontinued operations

In the 2020 half-year financial statements, the line "Net income of discontinued operations" comprised Edison's E&P operations (excluding the Algerian and Norwegian operations), and impairment recognised in respect of these assets.

As these E&P operations were sold in December 2020, no net income of discontinued operations is presented for the first half of 2021 except for the estimated adjustments to prices or warranties related to the sale transaction (see note 1.4.2 to the consolidated financial statements at 31 December 2020).

The principal profit and loss indicators for the E&P operations (excluding the Algerian and Norwegian operations) in the first half of 2020 are as follows:

(in millions of euros)	**H1 2021**	**H1 2020**
Sales	-	129
Operating profit before depreciation and amortisation	(3)	59
Operating profit	(3)	4
Financial result	-	(10)
Income taxes	-	(27)
NET INCOME	**(3)**	**(33)**
Impairment of discontinued operations, net of income taxes	-	(128)
NET INCOME OF DISCONTINUED OPERATIONS	**(3)**	**(161)**

3.3 RELATED PARTIES

There have been no significant changes since 31 December 2020 in the types of transaction undertaken with related parties. In particular, the Group has significant ongoing relationships with public-sector enterprises, primarily the Orano group for the supply, transmission and reprocessing of nuclear fuel.

NOTE 4 SEGMENT REPORTING

Segment reporting presentation complies with IFRS 8 “Operating segments”.

Segment reporting is determined before inter-segment eliminations and where applicable comprises the effects on profit and loss of asset and liability revaluations due to acquisition of control as defined by IFRS 3.

At 30 June 2021

(in millions of euros)	France – Generation and Supply	France – Regulated activities	Framatome	United Kingdom	Italy	Other international	EDF Renewables	Dalkia	Other activities(1)	Inter-segment eliminations	Total
Income statement:											
External sales	15,248	9,067	923	4,886	3,894	1,301	551	2,026	1,725	-	**39,621**
Inter-segment sales	753	29	711	1	17	93	256	300	162	(2,322)	**-**
TOTAL SALES	**16,001**	**9,096**	**1,634**	**4,887**	**3,911**	**1,394**	**807**	**2,326**	**1,887**	**(2,322)**	**39,621**
OPERATING PROFIT BEFORE DEPRECIATION AND AMORTISATION	**4,838**	**3,210**	**293**	**267**	**534**	**206**	**294**	**215**	**854**	**(110)**	**10,601**
OPERATING PROFIT	**2,712**	**1,591**	**153**	**(919)**	**190**	**54**	**34**	**66**	**501 (2)**	**(110)**	**4,272**
Investments in intangible assets and property, plant and equipment	**2,648**	**2,477**	**84**	**2,009**	**202**	**62**	**954**	**70**	**12**	**-**	**8,518**
- Purchases of assets	*2,217*	*2,271*	*105*	*2,120*	*222*	*62*	*811*	*75*	*10*	*-*	***7,893***
- Change in liabilities related to purchases of assets	*431*	*206*	*(21)*	*(111)*	*(20)*	*-*	*143*	*(5)*	2	*-*	***625***

(1)Sales by the “Other activities” segment include the €781 million trading margin realised by EDF Trading.
(2)The net changes in the fair value of energy and commodity derivatives (excluding trading activities) are mainly attributable to the “Other activities” segment.

At 30 June 2020

(in millions of euros)	France – Generation and Supply	France – Regulated activities	Framatome	United Kingdom	Italy	Other international	EDF Renewables	Dalkia	Other activities(1)	Inter-segment eliminations	Total
Income statement:											
External sales	13,860	8,113	879	4,593	2,895	1,134	506	1,705	1,025	-	**34,710**
Inter-segment sales	589	26	611	2	14	110	264	283	175	(2,074)	**-**
TOTAL SALES	**14,449**	**8,139**	**1,490**	**4,595**	**2,909**	**1,244**	**770**	**1,988**	**1,200**	**(2,074)**	**34,710**
OPERATING PROFIT BEFORE DEPRECIATION AND AMORTISATION	**3,894**	**2,460**	**211**	**438**	**380**	**208**	**418**	**165**	**135**	**(113)**	**8,196**
OPERATING PROFIT	**1,393**	**819**	**95**	**(765)**	**91**	**64**	**188**	**15**	**(163)(2)**	**(113)**	**1,624**
Investments in intangible assets and property, plant and equipment	**2,825**	**2,063**	**81**	**1,521**	**145**	**57**	**709**	**67**	**7**	**-**	**7,475**
- Purchases of assets	*2,195*	*1,690*	*94*	*1,613*	*146*	*52*	*878*	*74*	*7*	*-*	*6,749*
- Change in liabilities related to purchases of assets	*630*	*373*	*(13)*	*(92)*	*(1)*	*5*	*(169)*	*(7)*	-	-	*726*

(1)Sales by the “Other activities” segment include the €545 million trading margin realised by EDF Trading.
(2)The net changes in the fair value of energy and commodity derivatives (excluding trading activities) are mainly attributable to the “Other activities” segment.

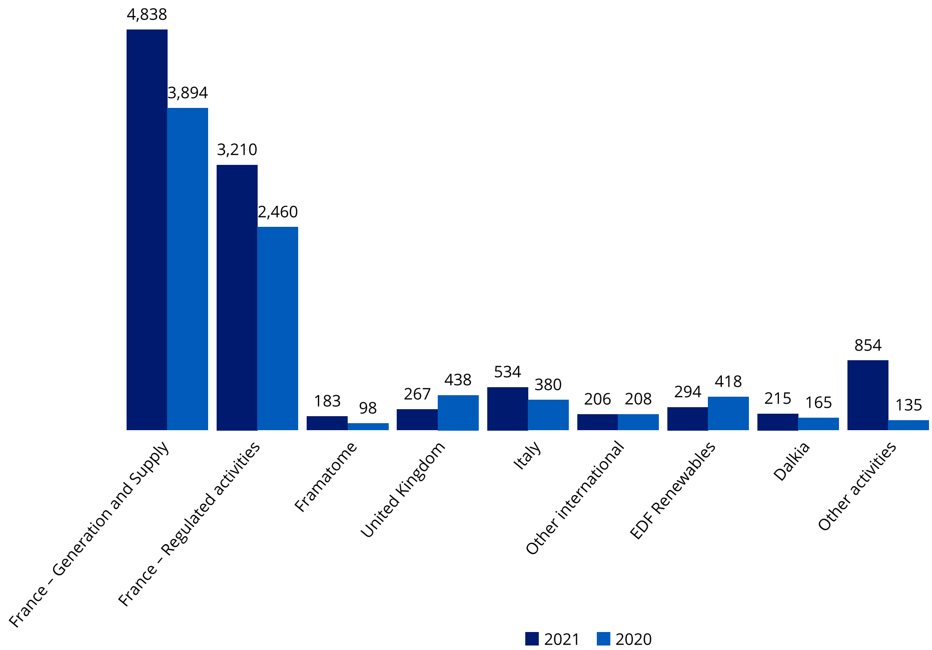
NOTE 5 OPERATING PROFIT BEFORE DEPRECIATION AND AMORTISATION

(in millions of euros)	Notes	30/06/2021	30/06/2020
Sales	5.1	**39,621**	**34,710**
Fuel and energy purchases	5.2	**(18,753)**	**(16,550)**
External services		(6,446)	(5,675)
Other purchases (excluding external services, fuel and energy)		(1,715)	(1,533)
Change in inventories and capitalised production		4,423	3,632
(Increase)/decrease in provisions on other external expenses		109	91
Other external expenses(1)		**(3,629)**	**(3,469)**
Personnel expenses		**(7,273)**	**(7,020)**
Payroll taxes		(162)	(157)
Energy taxes		(1,332)	(1,320)
Other non-income taxes(2)		(1,015)	(1,332)
Taxes other than income taxes		**(2,509)**	**(2,813)**
Other operating income and expenses	5.3	**3,144**	**3,338**
Operating profit before depreciation and amortisation		**10,601**	**8,196**

(1) After elimination of the effect of changes in foreign exchange rates and the scope of consolidation, other external expenses increased by 4.6% compared to the first half of 2020.
(2) Taxes other than income taxes mainly concern France and essentially comprise land tax and the French business taxes on land and value added. After elimination of changes in foreign exchange rates and scope of consolidation, other non-income taxes decreased by 10.3% compared to the first half of 2020, principally due to lower generation taxes introduced in France's economic recovery plan.

The Group's consolidated operating profit before depreciation and amortisation for the first half of 2021 amounts to €10,601 million, an increase of 29.3% from the first half of 2020.

The breakdown of the Group's operating profit before depreciation and amortisation by operating segment for the first half of 2021 and the first half of 2020 is as follows, in millions of euros (see note 4):



After elimination of foreign exchange effects and changes in the scope of consolidation, the Group's operating profit before depreciation and amortisation registered organic growth of 29.8% or €2,446 million. This increase is principally explained by the contributions of the France – Generation and Supply segment (+24.2% or +€944 million), the France – Regulated activities segment (+30.5% or +€750 million), Other activities (+€723 million), Italy (+41.6% or +€158 million), the United Kingdom (-39.7% or €(174) million) and EDF Renewables (-26.1% or €(109) million).

The rise in operating profit before depreciation and amortisation includes €349 million resulting from the lower generation taxes in France, under the government measures announced for the national recovery plan, including €257 million for the France – Generation and Supply segment and €74 million for the France – Regulated activities segment.

In the first half of 2020, operating profit before depreciation and amortisation was affected by the Covid-19 pandemic which had an estimated impact of €(1,010) million. The principal business segments concerned were France – Generation and Supply (€(482) million), France – Regulated activities (€(212) million) and the United Kingdom (€(128) million).

The €944 million increase in operating profit before depreciation and amortisation in the France – Generation and Supply segment is essentially explained by the 7.7TWh rise in nuclear power output, a favourable change in capacity invoiced to customers, and lower generation taxes (under the French government's national recovery plan).

Operating profit before depreciation and amortisation for the France – Regulated activities segment increased by €750 million, in line with the higher volumes delivered due to the favourable climate effect, changes in the TURPE 5 tariff indexations, a high number of connections established after a first half of 2020 that was affected by lockdown measures, and a decrease in generation taxes.

The €(109) million decline in EDF Renewables' operating profit before depreciation and amortisation was principally due to the consequences of the exceptional spell of cold weather in Texas, and to a lesser extent, a lower volume of development and sales of structured assets in the United States.

The Italy segment saw a rise of €158 million in operating profit before depreciation and amortisation, notably reflecting the resumption of business with industrial customers on the gas and electricity markets, the colder weather, and the gain on disposal of Infrastrutture Distribuzione Gas (IDG).

In the United Kingdom, the €(174) million decrease in operating profit before depreciation and amortisation is essentially explained by lower nuclear power output and the effect of a decline in realised nuclear power prices despite a recovery of business with industrial customers, which had been penalised in the first half of 2020 by the Covid-19 pandemic.

In the Other activities, of the €723 million improvement in operating profit before depreciation and amortisation, €484 million is attributable to the gas activities, principally reflecting higher gas prices (including the variation in provisions for onerous contracts between the first half of 2020 and the first half of 2021), and €220 million is attributable to EDF Trading following the high market volatility observed in Europe and the United States (notably during the extremely cold weather in Texas).

5.1 SALES

5.1.1 Regulatory changes in France

Regulated electricity sales tariffs in France – "Blue" tariffs

No modifications have been made during the first half of 2021 to the framework for regulated electricity sales tariffs and tariffs for use of the public electricity network. This regulatory framework is described in note 5.1.1 to the consolidated financial statements at 31 December 2020.

In application of France's Energy and Climate law, regulated sales tariffs ceased to apply for non-eligible customers from 1 January 2021 (business customers with more than 10 employees and annual sales, income or balance sheet total above €2 million). Customers who had not yet subscribed a market-rate contract at that date were automatically switched to a market-rate contract with their current supplier.

Tariff changes

In accordance with article L. 337-4 of the French Energy Code, the French Energy Regulatory Commission "CRE" (*Commission de Régulation de l'Énergie*) is responsible for sending the Ministers for the Economy and Energy its reasoned proposals for regulated sales tariffs for electricity. If no objections are made within three months, the proposals are deemed to have been approved.

In a decision of 2 July 2020, in view of changes in the TURPE network access tariffs applicable from 1 August 2020 and in application of the Energy Code, the CRE proposed an increase of 1.54% including taxes (1.82% excluding taxes) in the "blue" tariffs for residential customers and 1.58% including taxes (1.81% excluding taxes) in the "blue" tariffs for non-residential customers. This CRE proposal was confirmed by a tariff decision of 29 July 2020 that was published in the *Journal officiel* of 31 July 2020 and applied from 1 August 2020.

In a decision of 14 January 2021, the CRE proposed an increase of 1.61% including taxes (1.93% excluding taxes) in the "blue" tariffs for residential customers and 2.61% including taxes (3.23% excluding taxes) in the "blue" tariffs for non-residential customers from 1 February 2021. This proposed increase takes particular account of the rising cost of energy supplies and capacity guarantees, the "catch-up" adjustment to cover the cost-income differential on regulated sales tariffs in 2019 and 2020, movements in selling costs associated with unpaid receivable forecasts for 2021, particularly in the context of the Covid-19 pandemic, and adjustment of selling costs for non-residential customers who are still eligible for the regulated tariffs. This CRE proposal was confirmed by tariff decisions of 28 January 2021 that were published in the *Journal officiel* of 31 January 2021, and has applied since 1 February 2021.

In a decision of 8 July 2021, in view of changes in the TURPE tariff from 1 August 2021 and in application of the Energy Code, the CRE proposed an increase of 0.48% including taxes (1.08% excluding taxes) in the "blue" tariffs for residential customers and 0.38% including taxes (0.84% excluding taxes) in the "blue" tariffs for non-residential customers. The CRE is proposing that this change should apply from 1 August 2021.

The proposed tariff increase results from the increase in the TURPE network access tariffs from 1 August 2021 (+0.33% on regulated sales tariffs including taxes), the increase in the remuneration received by suppliers for the service of managing customers on behalf of the network operator, which is deducted from selling costs (-0.07% on regulated sales tariffs including taxes), and a new update of the "catch-up" adjustment for amounts not covered in 2019, so that the full amount will be recovered in two years, as the CRE had announced (+0.21% on regulated sales tariffs including taxes).

Comparability between periods is thus affected by the tariff changes introduced since 1 January 2020, presented in the table below:

Date of the CRE proposal	Increase in "blue" residential customer tariffs (inc. taxes / excl. taxes)	Increase in "blue" non- residential customer tariffs (inc. taxes/excl. taxes)	Date of the tariff decision	Date of application
16/01/2020	2.4% / 3.0%	2.4% / 3.1%	29/01/2020	01/02/2020
02/07/2020	1.54% / 1.82%	1.58% / 1.81%	29/07/2020	01/08/2020
14/01/2021	1.61% / 1.93%	2.61% / 3.23%	28/01/2021	01/02/2021
08/07/2021	0.48% / 1.08%	0.38% / 0.84%	forthcoming	01/08/2021 [(1)]

[(1)] *Subject to approval.*

"TURPE" Network access tariffs

The legal and regulatory framework for "TURPE" Network access tariffs is described in note 5.1.1 to the consolidated financial statements at 31 December 2020 and did not change during the first half of 2021.

Second TURPE 5 Distribution tariffs

By a decision of 20 May 2020, the CRE adopted a +2.75% increase to the second TURPE 5 tariff for the medium and low voltage network from 1 August 2020. This increase comprises +0.92% for inflation, +1.85% to balance the CRCP, and -0.02% in application of the Council of State's decision of 9 March 2018.

For transmission charges, on 14 May 2020, the CRE adopted a decision reducing the TURPE 5 tariff for the high voltage network by -1.08% from 1 August 2020, comprising +0.92% for inflation, and -2% to balance the income and expenses adjustment account (CRCP[1]).

TURPE 6 Distribution tariffs

On 27 January 2021 the CRE published two decisions of 21 January 2021 on the TURPE 6 Transmission (high voltage) and TURPE 6 Distribution (medium voltage – low voltage), after the Higher Energy Council (*Conseil supérieur de l'énergie*) gave its approval. These tariffs will apply from 1 August 2021 for a period of approximately 4 years.

In decision n° 2021-13 of 21 January 2021, the CRE asset the margin on assets at 2.5% (unchanged from the Second TURPE 5) and the additional return on regulated equity at 2.3% (compared to 4% for the Second TURPE 5, principally as a result of the lower market rates and lower corporate income tax rates). The average tariff increase will be +0.91% at 1 August 2021 and +1.39% per year for the whole tariff period, assuming average annual inflation of 1.07% over that period.

For transmission charges, in decision n° 2021-12 of 21 January 2021, the CRE set a nominal pre-tax weighted average cost of capital (WACC) of 4.6% for the return on RTE's regulated asset base, compared to 6.125% for TURPE 5. The average tariff increase will be +1.09% at 1 August 2021 and an average +1.57% per year for the whole tariff period, assuming average annual inflation of 1.07% over that period.

1 *A mechanism to measure and offset main differences between the actual figures and the forecasts on which tariffs are based.*

Supplier commissioning

In application of the CRE's decision of 18 January 2018, energy suppliers receive remuneration from distribution network operators for the service of managing single-contract customers on their behalf.

The commissioning principle is identical for all suppliers selling single-contract market-price offers. Only regulated electricity tariffs have given rise to slightly lower commissions (€4.50 instead of €6.80 per point of delivery until 1 August 2019), with progressive reduction of this difference to zero by 1 August 2022.

For remuneration of past customer management charges (prior to 1 January 2018), the CRE's decision set an amount it considered as a cap that can be passed on through the TURPE tariff.

However, Law 2017-1839 of 30 December 2017 introduced a measure intended to rule out the possibility of suppliers receiving remuneration from network managers for past customer management services. On 23 December 2016, ENGIE brought an action against Enedis before the Paris Commercial Court claiming such remuneration. In the course of this litigation, ENGIE filed an application for a preliminary ruling on constitutionality concerning the arrangements introduced by the French "Hydrocarbons" law which ended the possibility of obtaining supplier commissioning for past services. These arrangements were validated by the Constitutional Council in its decision 2019-776 of 19 April 2019. The proceedings at the Paris Commercial Court are still ongoing.

Capacity mechanism

The French capacity mechanism took effect on 1 January 2017. It was introduced by France's Energy Code to ensure secure national power supplies.

For delivery years 2017 to 2021, the mean market prices resulting from capacity auctions ahead of the delivery year were as follows:

Delivery year	2017	2018	2019	2020	2021
Price (€/kW)	10	9.3	17.4	19.5	31.2

The delivery year 2022 was opened to auction in 2020, and seven auctions have been held since then, three of them in 2021. These capacity auctions resulted in the following prices, in chronological order:

- In 2020: €16.6/kW in April; €38.9/kW in June; €18.1/kW in October and €18.2/kW in December;
- In 2021: €28.3/kW in March; €28.2/kW in April and €28.8/kW in June.

ARENH

The legal and regulatory framework of the ARENH mechanism is described in note 5.1.1 to the consolidated financial statements at 31 December 2020.

ARENH applications during the November 2020 session for delivery in 2021 totalled 146.2TWh (excluding applications from EDF subsidiaries and applications to cover network electricity losses). The CRE curtailed each supplier's application. Further volumes were also sold by EDF to its subsidiaries through contracts that replicate the ARENH mechanism, and to compensate for network electricity losses (26.3TWh). The May 2021 session did not modify these volumes.

In the context of the Covid-19 pandemic, in decision 2020-071 of 26 March 2020 the CRE introduced measures in favour of suppliers with respect to the ARENH mechanism. These measures consisted of cancelling the "CP2[1]" penalty for excessive ARENH applications for the year 2020, and deferring settlement of ARENH invoices upon request by the supplier, under the terms defined in ordinance 2020-316 of 25 March 2020 on settlement of invoices, as detailed in CRE decision 2020-076 of 9 April 2020.

EDF has also offered special payment terms to small suppliers in a fragile position. The application methods for these terms were established by CRE decision 2020-076 of 9 April 2020.

Litigation relating to the ARENH mechanism has also been instigated by some energy suppliers in the context of the Covid-19 pandemic. Details are provided in note 16.2.2.

In decisions 2020-250 of 1 October 2020 and 2020-315 of 17 December 2020, the CRE proposed changes to the ARENH master agreement model to clarify the applicable rules if any party claims *force majeure*, and to incorporate the modifications introduced by decree 2020-1414. The ARENH master agreement model was modified in line with the CRE's proposals, by orders issued by the Minister for Energy on 12 November 2020 and 12 February 2021.

1 *Penalties for excessive ARENH applications.*

As announced in the draft PPE published on 25 January 2019, in January 2020 the French government launched a call for contributions regarding the fundamental findings driving the plan to reform the economic regulations for existing nuclear facilities, and its construction and operating principles. The proposed new regulations would replace the ARENH system.

Like many other actors in the sector, the EDF group participated in this consultation, which ended on 17 March 2020.

In this context, France's Minister for the Ecological and Inclusive Transition and Minister of the Economy and Finance commissioned the CRE to carry out an assessment of the costs borne by the nuclear operator, and to determine fair remuneration for its nuclear activities under the government's potential future regulations for existing nuclear facilities.

The terms and conditions of new regulation for existing nuclear generation are currently being examined by the French government together with the European Commission.

5.1.2 Sales

Sales are comprised of:

(in millions of euros)	H1 2021	H1 2020
Sales of energy and energy-related services	36,503	32,046
– energy[1]	*25,882*	*22,543*
– energy-related services (including delivery[2])	*10,621*	*9,503*
Other sales of goods and services	2,337	2,114
Trading	781	550
SALES	**39,621**	**34,170**

[1]Sales of energy include €1,265 million of sales related to optimisation operations on the wholesale gas and electricity markets in the first half of 2021 (€1,007 million in the first half of 2020). These operations are carried out by certain Group entities to balance supply and demand, in compliance with the group's risk management policy. In 2020, the principal operating segments with a net short position in euros on the markers are France – Generation and Supply (gas and electricity), Italy (electricity) and the United Kingdom (electricity). In the first half of 2020, the segments were the same.

[2]Delivery services included in this item concern the distribution network operators Enedis, Electricité de Strasbourg and EDF SA for non-interconnected zones. However, delivery services concerning EDF Energy and Edison are included in Sales of energy, because those entities are classified as the principal under IFRS 15 for both supply and delivery. The delivery services by EDF Energy and Edison have no impact on net income because they are included in "Transmission and delivery expenses" in note 5.2.

After elimination of foreign exchange effects and changes in the scope of consolidation, the Group's sales for the first half of 2021 showed an increase of 13.7% or €4.8 billion. The business segments mainly concerned by this increase in sales were France – Generation and Supply (+8.7% or +€1.2 billion), France – Regulated activities (+11.8% or +€1.0 billion), Italy (+35% or €1 billion), Other activities (+69.6% or €0.7 billion), Dalkia (+17.4% or €0.3 billion) and the United Kingdom (+5.6% or +0.3 billion).

In the first half of 2020, sales were affected by the Covid-19 pandemic which had an estimated impact of €(1,299) million. The principal business segments concerned were France – Generation and Supply (€(417) million), France – Regulated activities (€(254) million), the United Kingdom (€(293) million), Italy (€(64) million), and Dalkia (€129 million).

Sales by the France – Generation and Supply segment were up by +€1.2 billion. The increase is principally explained by favourable energy market price effects on purchase obligations, a price effect associated with the rise in the regulated sales tariffs, and a positive volume effect in line with the 7.7TWh increase in nuclear power output compared to the first half of 2020, mainly because the Covid pandemic had led to significant modulation of generation.

The rise in sales by the France – Regulated activities segment (+€1.0 billion) principally reflects changes made in 2020 to the TURPE 5 distribution tariff (see the section on regulated sales tariffs above), which were applied in a context of higher delivery quantities (as the weather was colder in 2021 than 2020), and an increase in connection services (including the unfavourable effect of the Covid-19 pandemic in the first half of 2020).

The Italy segment registered a year-on-year sales increase of €1.0 billion in the first half of 2021.This development is primarily explained by favourable price effects in the gas business across all markets, and to a lesser degree by a volume effect. Higher electricity prices also contributed to the rise in sales for the first half of the year.

The €0.7 billion organic increase in sales by the Other activities segment essentially concerned the gas businesses (€0.4 billion) due to rising gas prices on the wholesale markets, and higher sales by EDF Trading (+0.3 billion) thanks to its trading performance in highly volatile commodity markets in Europe and the United States (notably during the spell of extremely cold weather in Texas in early 2021).

Dalkia registered an organic increase of +€0.3 billion in sales, attributable to a combination of higher business volumes (including the unfavourable effect of the Covid-19 pandemic in the first half of 2020), a substantial rise in gas prices, and a favourable weather effect in 2021.

In the United Kingdom, sales showed organic growth of +€0.3 billion, principally driven by a downstream electricity price effect.

5.2 FUEL AND ENERGY PURCHASES

Fuel and energy purchases comprise:

(in millions of euros)	H1 2021	H1 2020
Fuel purchases used – power generation[1]	(5,692)	(4,879)
Energy purchases[1]	(8,987)	(7,679)
Transmission and delivery expenses	(4,223)	(3,950)
Gain/loss on hedge accounting	(7)	(86)
(Increase)/decrease in provisions related to nuclear fuels and energy purchases	156	44
FUEL AND ENERGY PURCHASES	**(18,753)**	**(16,550)**

[1] Fuel purchases used and Energy purchases include respectively €279 million and €1,088 million for optimisation operations on the wholesale gas and electricity markets in the first half of 2021 (€204 million and €943 million in the first half of 2020). In the first half of 2021 the principal operating segments with net long positions in euros on the markets are the United Kingdom (gas), Other international (Luminus – gas and electricity) and Dalkia (gas). In the first half of 2020, the segments were the same.

Fuel purchases used include costs relating to raw materials for energy generation (nuclear fuels, fissile materials, gas, coal, oil and biomass), purchases of services related to the nuclear fuel cycle, and costs associated with environmental schemes (mainly greenhouse gas emission rights and renewable energy certificates).

"Energy purchases" include purchases made under the purchase obligation mechanism in France.

5.3 OTHER OPERATING INCOME AND EXPENSES

Compensation for public energy charges (CSPE) (France)

The legal and regulatory framework for the mechanism for compensation for public energy service charges is described in note 5.4.1 to the consolidated financial statements at 31 December 2020.

The corresponding operating receivable at 30 June 2021 is included in "Other receivables" (see note 12.2).

Energy savings certificates in France

4th period of the French Energy Savings Certificates Scheme (2018-2021):

Initially planned for the period 2018-2020, the fourth period of France's energy savings certificates scheme was extended by one year (by law no. 2019-1147 of 8 November 2019 on Energy and the Climate). This period substantially raises the energy savings obligation levels (to 1,600TWhc for the "standard" obligations and 533TWhc for the obligations intended to benefit households in situations of energy poverty), and adds a new chapter on antifraud measures concerning energy savings certificates (increasing the number and effectiveness of controls and sanctions).

If there is a shortfall in certificates surrendered at the end of the period, obligated actors must pay a fine of €15 per MWhc of shortfall.

In order to fulfil these obligations, the Group is making every effort to gradually increase its number of energy savings certificates, taking advantage of the "*Coup de pouce*" operations launched in France early in 2019 (subsidies for insulation, financial aid for replacing oil heating by heat pumps, 50% additional energy savings subsidy for heat pump users, special offers for heat pump maintenance contracts, etc.).

The Group currently considers that due to the combined effect of the expected increase in certificates earned by the end of 2021, certificates purchased from third parties (delegatees, obligated actors, traders, etc), and the extension of the fourth period, there is no risk of a shortfall in energy savings certificates at the end of the period.

5th period of the French Energy Savings Certificates Scheme (2022-2025):

Decree 2021-712 on the 5th period of the energy savings certificates scheme (2022-2025) was published in the *Journal officiel* of 5 June 2021. The decree makes the scheme more effective (for example by significantly reducing special measures and bringing calculations close to the real savings), increases funding for very vulnerable households (higher obligations intended to benefit households in situations of energy poverty, restriction of the scope to very vulnerable households, an increase in the penalties in this category to €20/MWhc) and encourages development of carbon-free energies:

- the overall obligation is increased by 17.2% to 2,500TWhc for this period (obligations intended to benefit households in situations of energy poverty: +37% to 730TWhc, "standard" obligations: +11% to 1,770TWhc);
- the Energy Savings Certificate coefficient (MWhc to be produced per MWh of energy sold) is reduced by 10.2% for electricity and increased by 51.8% for gas;
- for electricity and gas, the threshold below which no energy savings certificates are required is progressively reduced from the current 400GWh/year to 300GWh in 2022, 200GWh in 2023 and 100GWh/year in 2024 and subsequent years.

Other operating income and expenses mainly include the amount received or receivable by EDF under the CSPE (*Contribution au Service Public de l'Energie* - Contribution to the Public Energy Service) system, which is reflected in the consolidated financial statements by recognition of operating income of €3,865 million for the first half of 2021 (€4,461 million for the first half of 2020). The decrease in CSPE income is principally explained by the lower market prices observed in the first half of 2020 compared to 2021, and the smaller volume of purchase obligations in 2021.

Other operating income and expenses also include costs relating to energy savings certificates and the additional remuneration paid to producers of electricity from renewable sources in France (this was introduced by France's energy transition law for green growth, and applies in addition to purchase obligations).

At 30 June 2021, other operating income and expenses include the gain on the sale of IDG (a gas distribution network, see note 3.1).

At 30 June 2020, as a result of the Covid-19 pandemic, other operating income and expenses also included impairment of €(144) million on trade receivables and a €(137) million provision for risks relating to the capacity mechanism (see note 1.6.1).

Since the first half of 2020, these items have also included income and expenses related to closure of the Fessenheim plant (see note 5.4.3 to the consolidated financial statements at 31 December 2020).

NOTE 6 NET CHANGES IN FAIR VALUE ON ENERGY AND COMMODITY DERIVATIVES, EXCLUDING TRADING ACTIVITIES

(in millions of euros)	H1 2021	H1 2020
NET CHANGES IN FAIR VALUE ON ENERGY AND COMMODITY DERIVATIVES, EXCLUDING TRADING ACTIVITIES	(541)	(323)

Net changes in fair value on Energy and Commodity derivatives, excluding trading activities, decreased from €(323) million in the first half of 2020 to €(541) million in the first half of 2021, principally due to high volatility on the commodities market, particularly the electricity market and in line with Edison's gas positions.

NOTE 7 OTHER INCOME AND EXPENSES

Other income and expenses amount to €(92) million for the first half of 2021. They principally comprise :

- an amount of €505 million to be received in application of the agreement signed by Areva and EDF on 29 June 2021 (see note 2) for a settlement payment of €563 million, less certain amounts, principally payments collected for third parties and assets previously included in the balance sheet;
- exceptional additional costs relating to preparatory work for repairs to the main secondary circuit welds at the Flamanville 3 EPR, totalling €(278) million at 30 June 2021 (these are defined by IAS 16.22 as abnormal costs and cannot be included in the cost of assets in progress);
- costs relating to the early closure of Dungeness B, amounting to €(161) million including impairment of fuel inventories and spare parts, and provisions for penalties due under the capacity mechanism (see notes 2 and 10.4);
- provisions relating to proceedings before the civil, administrative and criminal courts concerning the sale by Montedison of Ausimont (the Bussi site) in Italy to Solvay in 2002 (see note 16.2.3).

Other income and expenses amounted to €(153) million for the first half of 2020. They principally comprised exceptional additional costs relating to repair work on the main secondary circuit welds in the Flamanville 3 EPR, totalling €(146) million, and restructuring expenses in certain Group entities.

NOTE 8 FINANCIAL RESULT

8.1 DISCOUNT EFFECT

The effect of unwinding the discount primarily concerns provisions for the back-end of the nuclear cycle, decommissioning and last cores, and long-term and post-employment employee benefits.

Details of the final discount effect are as follows:

(in millions of euros)	H1 2021	H1 2020
Provisions for long-term and post-employment employee benefits[1]	(245)	(325)
Provisions for the back-end of the nuclear cycle, decommissioning and last cores[2]	(731)	(796)
Other provisions and advances	(40)	(51)
DISCOUNT EFFECT	**(1,016)**	**(1,172)**

[1] *See note 15.1.2.*
[2] *Including the effect of discounting the receivable corresponding to amounts reimbursable by the NLF (see note 17.1.3).*

The decrease in the effect of unwinding the discount on provisions for long-term and post-employment employee benefits at 30 June 2021 is explained by the lower discount rate applicable during the first half of 2021 (0.9% against 1.3% in the first half of 2020), which was partly offset by a higher volume of commitments at 1 January 2021.

The decrease in the effect of unwinding the discount on nuclear provisions is largely explained by extension of the depreciation period of 1300MWe-series nuclear plants to 50 years (see note 1.6.2).

8.2 OTHER FINANCIAL INCOME AND EXPENSES

Other financial income and expenses comprise:

(in millions of euros)	H1 2021	H1 2020
Gains/(losses)on financial assets	422	374
Changes in financial instruments carried at fair value through profit and loss	1,841	(856)
Other	368	220
OTHER FINANCIAL INCOME AND EXPENSES	**2,631**	**(262)**

Gains and losses on financial assets consist of income on cash and cash equivalents, income and expenses on debt and equity securities, and other financial assets.

At 30 June 2021, changes in the fair value of financial instruments include €1,836 million concerning dedicated assets. Other items include €42 million of gains and losses on sale of debt securities carried at fair value through OCI with recycling (€34 million of which concern dedicated assets).

At 30 June 2020, changes in financial instruments included €(830) million concerning dedicated assets. Gains and losses on sale of debt securities carried at fair value through OCI with recycling amounted to €79 million, €70 million of which concerned dedicated assets.

NOTE 9 INCOME TAXES

The income tax expense amounts to €(1,458) million at 30 June 2021, corresponding to an effective tax rate of 28.4% (compared to a profit of €42 million at 30 June 2020, corresponding to an effective tax rate of 6.2%).

The €1,500 million increase in the tax expense in 2021 essentially reflects the €5,811 million increase in the Group's net income before tax, generating an additional tax charge of €1,651 million. The tax expense is also affected by the combined unfavourable impact of the difference between income tax rates in France and the United Kingdom, and the forthcoming increase in the UK's normative rate from 19% to 25% from 2023 (creating a larger negative effect than in 2020, when the rate had already been raised from 17% to 19%). This impact influenced the tax expense despite the favourable effect of asset revaluations for tax purposes in June 2021 in Italy, where special tax measures introduced in response to the Covid-19 pandemic enabled companies to realign the tax value of certain assets with their accounting value. This option, allowed by article 110 of decree-law 104/2020, was extended by Italy's finance law for 2021 (law 178/2020) to include goodwill, and the Group's Italian companies opted at 30 June 2021 to realign the tax value of certain tangible assets and goodwill. In return for payment of a 3% tax on the realigned value, companies applying this measure will be entitled to deduct tax-basis depreciation from the realigned value, and this will generate future tax savings.

After elimination of non-recurring items (principally fair value changes and unrealised gains and losses on financial assets, impairment, the impact of changes in the UK tax rate and the tax revaluation of assets in Italy), the effective current tax rate is 26.5% at 30 June 2021, compared to 24.3% for the half year in 2020.

NOTE 10 PROPERTY, PLANT AND EQUIPMENT

Details of property, plant and equipment and intangible assets are as follows:

(in millions of euros)	Notes	30/06/2021	Assets in progress	31/12/2020	Assets in progress
Goodwill	10.1	10,640	n.a.	10,265	n.a.
Other intangible assets		9,990	1,778	9,583	1,581
Property, plant and equipment used in generation and other tangible assets owned by the Group, including right-of-use assets	10.2	93,707	42,554	92,600	39,460
- Right-of-use assets		*4,128*	*n.a.*	*4,116*	*n.a.*
Property, plant and equipment operated under concessions other than French electricity distribution concessions		6,806	584	6,858	574
Property, plant and equipment operated under French public electricity distribution concessions		61,113	2,135	60,352	1,828
TOTAL PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS		**182,256**	**47,051**	**179,658**	**43,443**

n.a.: not applicable.

10.1 GOODWILL

At 30 June 2021, goodwill primarily related to EDF Energy (€7,929 million) and Framatome (€1,332 million).

The changes in goodwill in the first half of 2021 primarily related to translation adjustments (€366 million) resulting chiefly from the rise of the pound sterling against the Euro.

10.2 PROPERTY, PLANT AND EQUIPMENT USED IN GENERATION AND OTHER TANGIBLE ASSETS OWNED BY THE GROUP

The changes observed in property, plant and equipment used in generation and other tangible assets owned by the Group include a €1,268 million impact of translation adjustments due to the rise of the pound sterling against the euro, and a €(1,031) million impact resulting from extension to 50 years of the depreciation period of 1300MWe PWR nuclear plants at 1 January 2021 (see note 1.6.2).

At 30 June 2021, property, plant and equipment in progress used in generation and owned by the Group mainly comprise:

- Investments for the Flamanville 3 EPR amounting to €14,824 million, including capitalised interim interest of €3,476 million (€14,565 million at 31 December 2020, including capitalised interim interest of €3,291 million, i.e. an increase of €74 million over the half-year excluding capitalised interim interest). The amount capitalised for the Flamanville 3 project in the financial statements at 30 June 2021 is €15,045 million, of which €202 million concern assets that have been commissioned, including €25 million of interim interest.

  This capitalised amount of €15,045 million including capitalised interim interest, includes the following in addition to the construction cost:

  - an inventory of spare parts and capitalised amounts totalling €492 million for related projects (notably the initial comprehensive inspection and North Area development);
  - €733 million of pre-operating expenses and other property, plant and equipment related to the Flamanville project;
  - and the elimination of internal balances on balance sheet items and margins between Framatome and EDF SA in connection with the Flamanville 3 EPR project (€369 million, essentially consisting of advances and progress payments),

  giving a construction cost at historical value of €10,319 million in the consolidated financial statements at 30 June 2021, and a construction cost at completion (excluding borrowing costs) of €12.4 billion (in 2015 euros), as announced on 9 October 2019.

  In its report of July 2020 on EPR technology, the French Court of Auditors (*Cour des Comptes*) stated that by its calculations, in addition to the construction cost of €12.4 billion (in 2015 euros) announced by EDF, there will be further costs that could reach €6.7 billion (in 2015 euros), including €4.2 billion of interest expenses. As stated above, at 30 June 2021 the capitalised interest amounts to €3.5 billion and other capitalised project costs amount to €1.2 billion.

  The non-recurring additional costs resulting from the necessary repairs to the main secondary circuit welds are recorded in other income and expenses at the amount of €278 million in the first half of 2021 (see note 7), against €397 million at 31 December 2020.

- Investments relating to Hinkley Point C, amounting to €16,139 million including capitalised interim interest of €675 million (€13,586 million at 31 December 2020 including capitalised interim interest of €518 million). In the first half of 2021 investments in this project amount to €1,666 million.
- Studies concerning Sizewell C amounting to €420 million (€324 million in 2020).

The balance of property, plant and equipment in progress (excluding assets operated under concessions), i.e. €11,171 million, principally concerns EDF SA's existing nuclear plants (70%) in line with the *Grand Carénage* programme (replacement of major components, particularly steam generators; work in connection with periodical and 10-year inspections), and to a lesser extent (around 15%) EDF Renewables (power plants in development in Europe, North America and emerging countries).

Property, plant and equipment in progress increased by €3,094 million as the level of investment in 2021 is significantly higher than the amount of assets brought into service during the first half of the year.

Other intangible assets at 30 June 2021 include €660 million for studies concerning the EPR 2 (€577 million at 31 December 2020).

The net value of property, plant and equipment used in generation and other tangible assets owned by the Group, including right-of-use assets breaks down as follows:

(in millions of euros)	Land and buildings	Nuclear power plants	Fossil-fired and hydropower plants	Other installations, plant, machinery, equipment and other	right-of-use assets	Assets in progress	Total
NET VALUES AT 30/06/2021	6,065	25,619	3,768	11,573	4,128	42,554	93,707
NET VALUES AT 31/12/2020	6,248	26,976	4,716	11,084	4,116	39,460	92,600

Depreciation periods of nuclear plants in France

As stated in note 1.3, the depreciation period of nuclear power plants currently in operation in France, i.e. thirty-two 900MWe reactors, twenty 1300MWe reactors and four 1450MWe reactors, is 50 years for 900MWe-series plants (since 1 January 2016) and 1300MWe-series plants (since 1 January 2021), and 40 years for N4 plants which do not yet fulfil the conditions for a longer depreciation period.

Under France's multi-year energy programme (PPE, standing for *Programmation Pluriannuelle de l'Énergie*) for the periods 2019-2028, adopted by decree 2020-456 of 21 April 2020, twelve French nuclear reactors are to be shut down by 2035, in addition to closure of the two reactors at Fessenheim which took place in the first half of 2020 in accordance with decree 2020-129 of 18 February 2020 terminating the plant's operating licence. Consequently two 900MWe reactors will be shut down in 2027 and 2028 ahead of their fifth 10-year inspection (two others could also be shut down early in 2025-2026 if certain conditions are fulfilled, notably concerning the price of electricity and security of supply). To select the two reactors concerned, priority will be given to shutdowns that minimise the economic and social impact, have the lowest impact on the electricity network, and do not entail closure of an entire site. At the request of the French government, based on these criteria, on 20 January 2020 EDF proposed to examine the possibility of shutting down pairs of reactors at the sites of Blayais, Bugey, Chinon, Cruas, Dampierre, Gravelines and Tricastin. The PPE also stipulates that early reactor shutdowns will be confirmed 3 years prior to implementation. Consequently, notwithstanding the depreciation periods indicated above, adoption of the PPE in April 2020 led to re-estimation of nuclear provisions, referring to various scenarios for the early shutdowns of two 900MWe reactors in 2027 and 2028. The principal result was a €32 million increase in nuclear provisions at 31 December 2020 (mainly decommissioning provisions, due to the payment schedules being shortened by a few years). Accelerated depreciation schedules were also estimated based on these scenarios, leading to an increase in the depreciation expense recognised, with no significant impact on the Group's financial statements.

Depreciation period of coal-fired plants in France

In view of France's Energy and Climate law of 8 November 2019, the ends of the depreciation periods for the Le Havre and Cordemais coal-fired plants were changed at 1 June 2019, setting the closure of Le Havre at 1 April 2021 while Cordemais is to continue operating until 2026, considering a possible conversion to biomass as part of the Ecocombust project.

Le Havre power plant was permanently shut down on 31 March 2021.

As a result of the changes made in 2019 to the end of the depreciation period, accelerated depreciation (compared to the previous depreciation period) of €72 million was recognised during the first half of 2021 (compared to €103 million in the first half of 2020, as the Le Havre plant ceased operations on 31 March 2021).

On 8 July 2021, EDF announced it had decided to put an end to the Ecocombust project to develop fuel from class B "waste" wood as an alternative to coal, since the conditions for continuing the project were not fulfilled: the project cost could not guarantee an attractive price for the final product, and the industrial partner recently withdrew.

EDF began the Ecocombust project in 2015. Since late 2018 the project has consisted of adapting the Cordemais plant to use this alternative fuel, and creating a dedicated facility to produce pellets on site. EDF carried out successful technical and environmental feasibility studies.

The economics of the project were penalised by its very innovative nature, and the lack of experience with this type of product, as well as recently soaring commodity prices. Also, the partner with which EDF was holding discussions for the treatment of effluents from the pellet production facility decided to withdraw from the project. This meant the industrial commissioning date had to be deferred to 2024, as the Cordemais plant would not have been able to produce electricity from an alternative non-coal fuel during the period 2022/2024.

Cordemais will continue to operate until 2024, perhaps even 2026, to meet the requirements of the electricity system as defined by RTE, in compliance with the Energy and Climate law which allows the Cordemais plant to be used at full capacity for a maximum 750 hours a year. Consequently, the end of the depreciation period is currently unchanged at 2026, and the depreciation schedule will be adjusted from the second half of 2021 to take account of the expected new operating arrangements. The investment expenditure on the Ecocombust project (around ten million euros) was written off at 30 June 2021.

Principal projects in progress and investments during the half year

Grand Carénage programme

Since 2014 EDF has been implementing its "*Grand Carénage*" programme designed to enhance reactor safety and extend nuclear plant operating lifetimes beyond 40 years. The most recent estimate of the programme's cost for the period 2014-2025 dates from 29 October 2020 and amounts to €49.4 billion in current euros.

On 23 February 2021, the ASN issued its opinion on the generic aspects of continued operation of 900MWe reactors for ten years following their fourth 10-year inspection, considering that all the measures taken and recommended by EDF make this feasible.

After the commissioning of the Paluel 1 emergency diesel generator in February 2021, 56 emergency diesel generators are now in operation.

Also, after Tricastin 1 in late 2019, Bugey 2 and Bugey 4 reached the milestone of 40 years of operation, and were restarted after a successful fourth 10-year inspection during the first half of 2021.

Flamanville 3 EPR project

Developments in 2020

The main developments at the Flamanville site in 2020 were the following:

The second hot functional test phase started on 21 September 2019 and was completed in February 2020. Hot functional testing checks plant performance under simulated normal operating conditions.

In the context of the Covid-19 pandemic, after a cluster of cases was identified in the Manche area, work on the Flamanville site was restricted to safety, security and environment monitoring work only from mid-March. General activity on the site resumed progressively from 4 May 2020 and was back to near-normal levels in July 2020.

Functional tests of the open reactor vessel were successfully completed between 21 May and 25 June 2020.

Following the ASN's decision of 8 October authorising partial commissioning of the EPR, the first fuel assemblies arrived at the site on 26 October and are stored in the reactor building pool.

In parallel, the upgrading work continued on non-penetration welds on the main secondary circuit that had quality deviations or did not meet the break preclusion requirements defined by EDF, and several welds were repaired in August 2020 once the ASN issued its first authorisations. EDF also decided to include the welds on the circuit supplying water to the steam generators in the scope of the repairs concerning the main secondary circuit. Qualification of the repair procedure for these welds was in process, with the objective of performing the work in the second half of 2021. At this stage, the repairs concern a hundred welds in the secondary circuits.

A review was conducted in 2020 of the impact of France's first national lockdown on the Flamanville project. This did not lead to any change to the fuel loading dates or the construction cost announced in October 2019, but it showed that the project has no remaining margin in its schedule or cost. However, achievement of the targets depends on a number of factors, notably the ASN's examinations of EDF's proposed methods for repairing the main secondary circuit welds, particularly the qualification of welding robots for repairing the penetration welds.

Work on these repairs cannot begin until the ASN makes its final decision as to approval of the entire process involving remote-controlled robots, which has been deferred to the first quarter of 2021. This phase of the project is among those in the critical path for on-schedule finalisation of the EPR. A further review of the project will be conducted in 2021.

Developments in 2021

The process of repairing the penetration welds on the main secondary circuit using remote-controlled robots was approved by the ASN on 19 March 2021, several weeks later than expected, and work began on the eight welds that were not compliant with the break preclusion principle. The first weld repaired was declared compliant on 8 June prior to stress-relieving heat treatment, and repairs on the other seven welds are complete or in progress.

For the other non-penetration welds on the main secondary circuit that had quality deviations, the ASN gave its approval in April for repairs to a third batch of 6 welds. Of the 3 batches authorised to date, 12 weld upgrades have been completed. In April the ASN gave approval for the related regulatory checks, which are currently in process.

On 2 March 2021 EDF declared a significant event to the ASN, concerning incomplete application of the 2006 design standards when installing three nozzles on the main primary circuit (these nozzles connect auxiliary circuits to the primary circuit). At the request of the ASN, three scenarios were examined by EDF's and Framatome's engineering teams. A file was sent to the ASN on 21 June 2021, stating that EDF's chosen solution is to instal a containment collar, and requesting that the ASN's position on this solution be issued by the end of the summer, so that all the design and procurement activities can be launched. This solution is compatible with the project's baseline schedule, and the associated costs are currently being estimated.

The fuel assemblies required for the first fuel load continued to arrive during the first half of the year, and the entire first core is now stored in the reactor building pool at the Flamanville EPR.

Repairing the penetration welds on the main secondary circuit remains on the critical path for the project. There is no longer any margin on the schedule or costs.

Hinkley Point C

Progress continued on the Hinkley Point C project in the first half of 2021 as regards work on site, the design execution plans and the manufacturing of equipment. The blades of the first low-pressure rotor were installed. All the 45,000 segments of the wall of the water intake and outfall tunnels have now been produced, and boring of the outfall tunnels was completed in mid-July.

The management of Hinkley Point C have set the objective of putting the dome of Unit 1 in place by the end of 2022.

Significant progress was also made on Unit 2, which is following Unit 1 with a 12-month time lag.

Significant anti-Covid measures continued to be applied during the first half of 2021.

A detailed review of schedule and cost was performed in 2020, particularly to estimate the impact of the pandemic so far. The conclusions of this review were made public on 27 January 2021 and are as follows[1]:

- The start of electricity generation from Unit 1 is now expected in June 2026, compared to end-2025 as initially announced in 2016;
- The project completion costs are now estimated in the range of £$_{2015}$22 to 23bn[2];
- The risk of a COD delay for Units 1 and 2 is maintained at 15 and 9 months respectively. The realisation of this risk, which has a high probability, would incur generate a potential additional cost in the order of £$_{2015}$0.7bn.

Sizewell C

The key features of the project are described in note 10.6 to the consolidated financial statements at 31 December 2020. The underlying assumption is that the majority of the project will be owned by non-Group investors, and EDF expects to become a minority shareholder with correspondingly limited rights at the time of the financial investment decision, at which point it will deconsolidate the project.

For EDF, the final investment decision depends on operational control of the Hinkley Point C project and the ability to benefit from replication at this early stage, definition of a regulatory framework and an appropriate funding model, and interest by investors and lenders in the project.

The introduction of a law regulating new nuclear projects in the United Kingdom has not yet been confirmed, but this is an essential requirement for the project's funding.

The UK's Planning Inspectorate began its examination of the Sizewell C planning application in April 2021 and is expected to issue its final decision during the second quarter of 2022.

1 *Cf. press release of 27 January 2021. The information assumes the ability to begin a ramp up back to normal site conditions from the second quarter of 2021.*

2 *The costs previously announced in the press release of 25 September 2019 were £2015 21.5 – 22.5bn. Costs net of operational action plans, in 2015 sterling, excluding interim interest and excluding forex effect versus the reference exchange rate for the project of 1 sterling = 1.23 euro. Costs are calculated by deflating estimated costs in nominal terms using the British Construction OPI for All New Work index.*

10.3 INVESTMENTS IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT

The table below provides a breakdown of the investments in intangible assets and property, plant and equipment presented in the cash flow statement:

(in millions of euros)	30/06/2021	30/06/2020
Acquisitions of intangible assets	(688)	(583)
Acquisitions of property, plant and equipment	(7,205)	(6,165)
Change in payables to suppliers of fixed assets	(625)	(727)
INVESTMENTS IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT	**(8,518)**	**(7,475)**

Investments in property, plant and equipment and intangible assets during the first half of 2021 mainly concern:

- the France – Generation and Supply segment: €2,648 million, primarily investments made under the "*Grand Carénage"* programme, investments for Flamanville 3, and investments in hydropower generation;
- the France – Regulated activities segment: €2,477 million, essentially investments related to connections for customers and producers, but also investments for network renewal, quality of service and network modernisation;
- the United Kingdom segment: €2,009 million, principally investments related to nuclear power generation;
- the EDF Renewables segment: €954 million, mainly in wind and solar capacities in the United States, Europe and in emerging countries.

10.4 IMPAIRMENT/REVERSALS

Impairment tests are conducted for the half-year financial statements when there is an indication of loss of value.

In the unusual context resulting from the Covid-19 pandemic, a specific approach was adopted at the 2020 half-year closing to take account of macro-economic conditions (discount rates), changes in market prices for commodities and electricity, the initial orientations resulting from adjustment of the Medium-Term Plan, and the specific situation of certain Group entities. This led to recognition of a total €(738) million of impairment at 30 June 2020, principally in the United Kingdom. At 31 December 2020, the Group applied its normal method for impairment testing and updated the annual tests for goodwill and intangible assets, including those tested at 30 June 2020. The total impairment recognised in December 2020 amounted to €(799) million, close to the amount reported in the 2020 half-year financial statements.

In general, market conditions and the operating performance of Group entities in 2021 did not give any indication of potential impairment at 30 June 2021. However, some specific situations requiring impairment tests were identified and as a result €(502) million of impairment was recognised at 30 June 2021 in respect of single assets. Most of these assets relate to the British nuclear fleet operated by EDF Energy, and certain photovoltaic facilities owned by EDF Renewables in France.

United Kingdom – EDF Energy

On 7 June 2021 EDF decided to move Dungeness B AGR nuclear power plant in south-east England into the defueling phase. Since September 2018, this plant has been in an extended outage during which EDF has managed a range of specific and ongoing technical challenges. Although many difficulties were overcome, new detailed analyses highlighted additional plant-specific risks in some key components, including parts used in fuel assemblies.

EDF consequently decided not to restart the plant but to move it immediately into the defueling phase.

The value of the Dungeness B assets is entirely written off at 30 June 2021 in the amount of €(441) million. This early plant shutdown also resulted in recognition of impairment on non-reusable inventories (fuel and spare parts) and provisions for penalties due in connection with capacity previously attributed by auction to Dungeness, together amounting to €(161) million (see note 7). Nuclear provisions were also affected (see note 14.2).

The Group's existing nuclear fleet in the United Kingdom consists of 7 AGR plants and 1 PWR plant (Sizewell B). Since the acquisition of British Energy in 2009, the ONR (Office for Nuclear Regulation) has granted EDF Energy a licence to extend the initial lifetimes of AGR plants, with associated safety and upgrading programmes, as follows: until 2024 for Hartlepool and Heysham 1, following a 5-year extension granted in 2010 and a further 5-year extension in 2016; until 2023 for Hunterston and Hinkley Point B, following a 7-year extension granted in 2012; until 2030 for Heysham 2 and Torness, following a 7-year extension granted in 2016; and until 2028 for Dungeness B, following a 10-year extension granted in 2015. In August and November 2020 respectively, the Group announced the early shutdown of Hunterston no later than January 2022 and Hinkley Point B no later than July 2022. As stated earlier, in June 2021 the Group announced the early shutdown of the Dungeness B plant. There is no known information to date that could call into question the currently expected lifetimes of the other 4 AGR plants in operation.

In addition, a limited amount of impairment (€24 million) was recognised in respect of the West Burton B (WBB) plant which is in the process of being sold. Impairment has been booked on WBB more than once since it was first commissioned in

2013, mainly as a result of unfavourable changes in spark spreads and the insufficient amount of additional revenues generated by the capacity mechanism.

EDF Renewables

As explained in the consolidated financial statements at 31 December 2020, the French Finance Law for 2021, published in the *Journal officiel* on 30 December 2020, introduced a reduction in purchase tariffs for electricity produced by photovoltaic plants of more than 250kWp covered by a purchase obligation contract signed in application of the tariff decisions of July 2006, January 2010 and August 2010 (article 225). EDF Renewables is the exclusive or joint owner of solar power plants concerned by this tariff revision, with total net capacity of 145MWp. The modalities for application of these measures will be set out in a Council of State decree to be issued after the CRE has given its opinion and since no further information was available no risk of impairment could be estimated in the financial statements at 31 December 2020.

On 2 June 2021 the French government launched two consultations, concerning a draft decree which will define the application method for the revision principle, particularly the "safeguard clause", and a draft order setting the tariff conditions applicable to the power plants concerned, which proposes to make the revised purchase tariff notified to the producer applicable from October 2021. This decree and this order were examined by the Higher Energy Council *(Conseil supérieur de l'énergie)* on 22 July 2021.

Estimates founded on tariff assumptions provided by the CRE led to recognition of €9 million of impairment on fully-consolidated power plants, and €25 million on investments accounted for by the equity method (see note 11.2).

NOTE 11 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

Investments in associates and joint ventures are as follows:

		30/06/2021			30/06/2020	31/12/2020	
(in millions of euros)	Notes	Ownership%	Share of net equity	Share of net income	Share of net income	Share of net equity	Share of net income
Principal investments in associates							
CTE[(1)]		50.10	1,444	116	56	1,378	237
Taishan (TNPJVC)[(2)]	11.1	30.00	n.c.	n.c.	3	1,123	(12)
Other investments held by EDF SA	11.2		1,924	66	(16)	1,742	-
Investments held by EDF Renewables	11.2		1,391	(65)	42	1,198	70
Other investments in associates and joint ventures	11.2		n.c.	n.c.	39	1,353	67
Subtotal			**7,486**	**239**	**124**	**6,794**	**362**
CENG (reclassified as assets held for sale)	3.2	49.99	n.a.	105	(113)	n.a.	63
Subtotal			**-**	**105**	**(113)**	**-**	**63**
TOTAL			**7,486**	**344**	**11**	**6,794**	**425**

n.a. = not applicable.
n.c. = not communicated.
[(1)]CTE's affiliate, RTE (Réseau de Transport d'Électricité), is responsible for managing the high voltage and very high voltage public electricity transmission network. Enedis uses RTE's network to convey energy to the distribution network.
[(2)]The financial data for Taishan at 30 June 2021 are not reported in this table as CGN (Taishan's parent company) publishes its consolidated financial statements later than the Group.

11.1 TAISHAN

EDF owns 30% of Taishan Nuclear Power Joint Venture Company Limited (TNPJVC), which was set up to build and operate two EPR nuclear reactors in Taishan, in the province of Guangdong in China. Comprising two 1750-MW EPR reactors, Taishan nuclear power plant is the biggest cooperation project between China and France in the energy sector. CGN holds a 51% stake and Yudean a 19% stake.

Following the start of commercial operation by the first reactor on 13 December 2018, the second reactor began commercial operation on 7 September 2019. 2020 saw the first shutdown for refuelling of Taishan 1, from 29 June to 24 September 2020.

On 20 March 2019, the NDRC (National Development and Reform Commission) attributed regulated tariffs to the first three 3rd-generation nuclear projects in China, one of which is Taishan. The tariff attributed to Taishan was set at RMB435/MWh until the end of 2021, with retroactive effect to the date the first unit was commissioned (13 December 2018). Indexing mechanisms for the post-2021 tariffs were not set out in this decision and are not currently known. The impairment test takes account of the uncertainties over tariff levels and certain operating assumptions which were adjusted following the operations in 2020.

On 14 June 2021, a build-up of noble gases was detected in the primary circuit of reactor 1. The Chinese ministry for ecology and the environment stated that this was due to five unsealed fuel rods. On 22 July 2021 TNPJVC, the entity responsible for operation of the Taishan plant, held a meeting of its Board of Directors. At this meeting, EDF explained its position on Taishan's No. 1 reactor following the analysis of the data provided by the operator. Following the detection of unsealed assembly rods in reactor No. 1 of the Taishan power plant, EDF teams applied their expertise and skills to analysing the data provided by TNPJVC, especially data on the chemical composition of the primary circuit water, and assessed the consequences with particular regard to the evolving nature of the situation. According to the data available to EDF, the radiochemical parameters of the primary circuit water remain below the regulatory thresholds applicable at the Taishan plant, which are consistent with international practices. Analysis of the data available to EDF on the fact that the fuel rods are not completely sealed indicates that the situation may evolve, and is being continuously monitored by the operator.

As stated in the Group's press release of 22 July 2021, on the basis of the analyses carried out, in France, EDF's operating procedures for the French nuclear fleet would lead the company to shut down the reactor in order to accurately assess the situation and prevent it from progressing. In Taishan, the relevant decisions are up to TNPJVC.

11.2 OTHER INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

The other investments held by EDF SA are included in dedicated assets (see note 14.1.2).

The other investments held by EDF Renewables are mainly located in the United States, Europe, China and Brazil.

Other investments in associates and joint ventures principally concern:

- the dam owned by Compagnie Énergétique de Sinop (CES) in Brazil, 51%-owned by the Group;
- the Nachtigal dam in Cameroon, 40%-owned by the Group: construction began in March 2019, with commissioning expected in early 2024;
- the supercritical coal-fired plant owned by Jiangxi Datang International Fuzhou Power Generation Company Ltd. in China, 49%-owned by the Group.

During the first half of 2021, €(101) million of impairment was booked in respect of investments in associates and joint ventures principally concerning wind farms owned by EDF Renewables in the United States following the weather crisis in Texas in February 2021, and photovoltaic plants belonging to EDF Renewables in France following revision of the purchase obligation tariffs introduced for some facilities by the Finance Law for 2021 (see note 10.4).

Impairment of €(122) million was booked in respect of associates and joint ventures in the first half of 2020, concerning two EDF Renewables facilities in the United States and Chile due to specific circumstances, a coal-fired plant in China, and certain unlisted assets held by EDF SA (EDF Invest) that were included in dedicated assets (impairment of €(97) million), see note 14.1.2.

Developments in investments accounted for by the equity method owned by EDF Renewables in 2021

EDF Renewables, Enbridge and wpd launch construction of the Calvados offshore wind farm

On 22 February 2021, EDF Renewables, EIH S.a.r.l, a subsidiary of Enbridge Inc., a North American energy infrastructure company, and wpd, a European renewable energies company, announced the launch of construction activity on the Calvados offshore wind farm (Courseulles-sur-Mer). This announcement follows the finalisation of financing agreements between the consortium and its financial partners.

The 448MW Calvados offshore wind power project is comprised of 64 wind turbines located more than 10km from the Bessin coastline and occupies a total surface area of approximately 45km². Upon its commissioning, expected in 2024, it will generate the equivalent of the annual electricity consumption of 630,000 people, or over 90% of the Calvados department's population.

The total project cost is estimated at around €2 billion. The majority will be financed through non-recourse project finance debt. The Calvados offshore wind farm holds a 20-year power purchase agreement (PPA) granted by the French government in June 2018.

RTE, which is responsible for connecting the wind farm from the offshore substation to Normandy's electricity grid, commenced its onshore work in the first quarter of 2021. The consortium has signed and sealed its main supply agreements with top-tier providers.

All the project partners possess considerable experience in offshore wind farms and in the delivery of large-scale industrial projects:

- **EDF Renewables**, which owns 42.5% of the project *via* Eolien Maritime France, brings its expertise in the development, construction and operation of renewable energy projects, including in the offshore wind sector.
- **EIH S.a r.l.**, which owns 42.5% of the project *via* Eolien Maritime France, is a subsidiary of Enbridge Inc., a leading North American energy infrastructure company, with substantial renewable energy investments across North America and investments in several major European offshore wind farm projects.
- **wpd**, which owns 15% of the project, is a pioneer and a leading player in the offshore wind power industry.

EDF group wins a 1.5GW offshore wind power project in New Jersey, USA

On 1 July 2021, the EDF group, through Atlantic Shores Offshore Wind (Atlantic Shores), a 50-50 joint venture between its subsidiary EDF Renewables and Shell New Energies US LLC., announced that it has been awarded a 1.5GW offshore wind farm project off the coast of New Jersey, USA. The New Jersey Board of Public Utilities selected the winner of the project.

The future wind farm is located between 15 and 30km off the coast of New Jersey. This offshore wind farm will be one of the most powerful in the United States and will be able to supply enough power for 700,000 homes every year. Construction is scheduled to begin in 2024.

NOTE 12 TRADE RECEIVABLES, OTHER RECEIVABLES AND OTHER LIABILITIES

12.1 TRADE RECEIVABLES

Details of net trade receivables are as follows:

(in millions of euros)	30/06/2021	31/12/2020
Trade receivables, gross value – excluding EDF Trading	14,893	14,686
- contract assets[(1)]	*421*	*389*
Trade receivables, gross value – EDF Trading	2,174	1,036
Impairment[(2)]	(1,222)	(1,201)
TRADE RECEIVABLES - NET VALUE	**15,845**	**14,521**

[(1)]Contract assets represent an amount of €421 million at 30 June 2021 (€389 million at 31 December 2020), and mainly concern the Framatome, Dalkia, EDF Renewables and Other international operating segments.
*[(2)]**see note 1.6.1.*

Most trade receivables mature within one year.

Advances received from customers in France who pay in regular monthly instalments, amounting to €7,152 million at 30 June 2021 (€6,782 million at 31 December 2020), are deducted from trade receivables.

12.1.1 Trade receivables due and not yet due

	30/06/2021			31/12/2020		
(in millions of euros)	Gross value	Provision	Net value	Gross value	Provision	Net value
TRADE RECEIVABLES	**17,067**	**(1,222)**	**15,845**	**15,722**	**(1,201)**	**14,521**
overdue by up to 6 months	1,272	(287)	985	1,249	(242)	1,007
overdue by 6-12 months	395	(124)	271	465	(193)	272
overdue by more than 12 months	814	(613)	201	851	(526)	325
Trade receivables due	**2,481**	**(1,024)**	**1,457**	**2,565**	**(961)**	**1,604**
Trade receivables not yet due	**14,586**	**(198)**	**14,388**	**13,157**	**(240)**	**12,917**

12.1.2 Assignment of receivables

(in millions of euros)	30/06/2021	31/12/2020
Trade receivables assigned and wholly retained in the balance sheet	164	84
Trade receivables assigned and partly retained in the balance sheet	40	60
Trade receivables assigned and wholly derecognised	844	792

The Group assigned trade receivables for a total of €844 million at 30 June 2021, mainly concerning Edison, EDF SA and Dalkia (€792 million at 31 December 2020).

As most assignment operations are carried out on a recurrent, without-recourse basis, the corresponding receivables are no longer carried in the Group's consolidated balance sheet.

12.2 OTHER RECEIVABLES

At 30 June 2021, other receivables principally include tax receivables of €1,806 million (€2,236 million at 31 December 2020) and prepaid expenses of €1,500 million (€1,457 million at 31 December 2020). They also include a receivable corresponding to the shortfall in the CSPE, amounting to €2,218 million (€1,993 million at 31 December 2020) (see note 5.3).

EDF SA's Public Service Charges

The amount of expenses to be compensated to EDF SA for the first half of 2021 is € 3,855 million.

The amounts received between 1 January and 30 June 2021 totalled €3,990 million. Since 1 January 2021, the mechanism has been totally financed by the State's General Budget, in application of the initial Finance Law of 2020.

EDF also paid an amount of €255 million in the first half of 2021 for regularisations relating to the former CSPE mechanism.

Based on a receivable of €1,974 million at 31 December 2020, the operating receivable owed by the State to EDF SA amounts to €2,162 million at 30 June 2021.

Finally, in accordance with decree 2016-158 of 18 February 2016 concerning compensation for public energy service charges, on 22 July 2021 the CRE published its decision 2021-230 of 15 July 2021 setting out a forecast of EDF's public service charges for 2022 (€7,620 million), a revised forecast of charges for 2021 (€7,142 million), and the actual charges recorded for 2020 (€8,034 million).

The compensation mechanism for public energy service charges in France is presented in note 5.4.1 to the consolidated financial statements at 31 December 2020.

12.3 OTHER LIABILITIES

Details of other liabilities are as follows:

(in millions of euros)	30/06/2021	Including contract liabilities	31/12/2020	Including contract liabilities
Advances and progress payments received	1,854	1,383	1,788	1,344
Liabilities related to property, plant and equipment	3,638	-	4,196	-
Tax liabilities	4,868	-	4,532	-
Social charges	4,798	-	4,712	-
Deferred income on long-term contracts	3,337	3,289	3,290	3,233
Other deferred income[1]	881	456	827	430
Other	2,955	-	2,390	-
OTHER LIABILITIES	**22,331**	**5,128**	**21,735**	**5,007**
Non-current portion	4,803	3,208	4,874	3,092
Current portion	17,528	1,920	16,861	1,915

[1] Including the initial payment made under the Fessenheim compensation protocol received in 2020 (see note 5.3).

12.3.1 Advances and progress payments received

At 30 June 2021, advances and progress payments received comprise €545 million of payments made by the customers in Framatome's long-term contracts (€518 million at 31 December 2020).

12.3.2 Tax liabilities

At 30 June 2021, tax liabilities mainly include an amount of €610 million for the CSPE tax to be collected by EDF on energy supplied but not yet billed, less the CSPE tax collected on advances from customers who pay in regular monthly instalments (€502 million at 31 December 2020).

12.3.3 Deferred income on long-term contracts

EDF's deferred income on long-term contracts at 30 June 2021 comprises €1,808 million (€1,713 million at 31 December 2020) of partner advances made to EDF under the nuclear plant financing plans.

Deferred income on long-term contracts also includes an advance of €1.7 billion paid to the EDF group in 2010 under the agreement with the Exeltium consortium. This advance is transferred to the income statement progressively over the term of the contract (24 years).

12.3.4 Other

The final line of the table of other liabilities includes investment subsidies received during the first half of 2021, amounting to €376 million (€21 million for the first half of 2020).

12.3.5 Contract liabilities

Contract liabilities represent an entity's obligations to provide customers with goods or services for which it has already been paid, or for which payment is due.

Changes in contract liabilities were as follows:

(in millions of euros)	31/12/2020	Amounts recorded during the period	Amounts transferred to sales during the period	Amounts cancelled during the period with no impact on sales	Effect of unwinding the discount	Change in scope of consolidation	Foreign exchange effect	30/06/2021
Advance payments received	**1,344**	557	(536)	(11)	-	6	23	**1,383**
Deferred income on long-term contracts	**3,233**	271	(247)	-	28	-	3	**3,289**
Other deferred income	**430**	347	(311)	-	-	(1)	2	**456**

These liabilities comprise the majority of advances and progress payments received, amounting to 1,383 million (principally concerning the Framatome, United Kingdom and France – Regulated Activities segments), and the majority of deferred income (on long-term and other contracts), amounting to €3,745 million (principally concerning the France – Generation and Supply segment). They thus total €5,128 million at 30 June 2021 (€5,007 million at 31 December 2020).

Contracts expiring in more than one year on which obligations are unfulfilled or partially fulfilled at the reporting date should generate sales revenues of approximately €11,420 million which have not yet been recognised. €1,139 million of these sales revenues will be recognised progressively until 2034 on the Exeltium contract, and the balance will be recognised over the operating period for contracts relating to jointly-operated power plants, and over the term of the contract for other firm sale contracts (excluding energy sales).

NOTE 13 EQUITY

13.1 SHARE CAPITAL

At 30 June 2021, EDF's share capital amounts to €1,578,916,053.50 comprising 3,157,832,107 fully subscribed and paid-up shares with nominal value of €0.50, owned 83.77% by the French State, 14.85% by the public (institutional and private investors) and 1.34% by current and retired Group employees, with 0.04% held by EDF as treasury shares.

In June 2021, the payment of part of the dividend for 2020 in the form of a scrip dividend led to a €29 million increase in the share capital and an issue premium of €587 million following issuance of 57,908,528 new shares. The legal formalities for this operation were finalised in June 2021.

Under Article L. 111-67 of the French Energy Code, the French State must hold more than 70% of the capital of EDF at all times.

13.2 DIVIDENDS

At the General Shareholders' Meeting of 6 May 2021 it was decided to distribute an ordinary dividend of €0.21 per share in respect of 2020, offering shareholders the choice of payment in cash or shares (scrip option).

In application of Article 24 of the Company's articles of association, shareholders who have held their shares continuously for at least 2 years at the year-end and still hold them at the dividend distribution date benefit from a 10% bonus on their dividends. The number of shares carrying an entitlement to the bonus dividend cannot exceed 0.5% of the Company's capital per shareholder. The bonus dividend amounts to €0.231 per share.

The French government opted for the scrip dividend for 2020.

The amount of the cash dividend paid to shareholders who did not opt for the scrip dividend for 2020 amounts to €36 million.

13.3 PERPETUAL SUBORDINATED BONDS

13.3.1 Outstanding perpetual subordinated bonds at 30 June 2021

At 30 June 2021, perpetual subordinated bonds carried in equity amounted to €12,525 million (less net-of-tax transaction costs) (€11,290 million at 31 December 2020).

Issues of perpetual subordinated bonds were recorded in equity at 30 June 2021 at the total net value of €1,235 million (see note 13.3.2).

Interest paid by EDF to the bearers of perpetual subordinated bonds issued totalled €288 million in the first half of 2021, compared to €286 millions in the first half of 2020 and €501 million in 2020. The resulting cash payout is reflected in a corresponding reduction in Group equity.

In the second half of 2021, EDF paid interest of €152 million to the bearers of perpetual subordinated bonds in July 2021, compared to €149 million in July 2020.

13.3.2 Changes in perpetual subordinated bonds during the first half of 2021

Social hybrid notes issue

EDF launched on 26 May 2021 an issue of an Euro-denominated perpetual social hybrid notes for a total nominal amount of €1.25 billion with an initial coupon of 2.625% and a first redemption at the option of EDF on 1 June 2028.

EDF can redeem the social hybrid notes for cash at any time during the 60 days before the first interest reset date, which is expected to be in 7 years (i.e. in 2028), and before every coupon payment date thereafter.

The proceeds raised through the social hybrid notes will be dedicated to the financing of eligible projects including any capital expenditure engaged by EDF group and contracted with SMEs which contribute to the development or maintenance of EDF group's power generation or distribution assets in Europe and in the United Kingdom. In compliance with the social bond principles and the Sustainability Bond Guidelines of the ICMA (International Capital Market Association), this issuance of social hybrid notes is consistent with the commitments and the CSR (Corporate Social Responsibility) strategy of the Group in relation to the responsible development of local areas and the development of industrial sectors.

The settlement date occurred on 1st June 2021, on which date the social hybrid notes is admitted to trading on the regulated market of Euronext Paris.

This issue was recorded in equity upon reception of the proceeds, total net value of €1,235 million.

13.4 CONVERTIBLE GREEN BONDS *(OCÉANES)*

On 8 September 2020, EDF made an issuance of Green Bonds convertible into new shares and/or exchangeable for existing shares (*OCÉANEs Vertes*) with the nominal amount of €2,400 million and an issue value of €2,569 million (see note 14.5 to the consolidated financial statements at 31 December 2020).

These bonds are recorded at an amount of €2,389 million net of expenses and taxes in "Financial loans and borrowings" (see note 17.2.2.1) and €126 million in "Equity". At 30 June 2021, the transaction has no impact on equity as no subscriber has exercised their option to convert and/or exchange bonds into new and/or existing shares.

NOTE 14 PROVISIONS RELATED TO NUCLEAR GENERATION AND DEDICATED ASSETS

The breakdown between current and non-current provisions related to nuclear generation is as follows:

	30/06/2021			31/12/2020		
(in millions of euros)	Current	Non-current	Total	Current	Non-current	Total
Provisions for the back-end of the nuclear cycle	1,168	26,649	**27,817**	1,430	26,137	**27,567**
Provisions for decommissioning and last cores	1,358	31,775	**33,133**	723	32,196	**32,919**
Provisions related to nuclear generation	**2,526**	**58,424**	**60,950**	**2,153**	**58,333**	**60,486**

Details of changes in provisions for the back-end of the nuclear cycle, decommissioning and last cores are as follows:

(in millions of euros)	31/12/2020	Increases	Decreases	Discount effect	Translation adjustments	Other movements	30/06/2021
Provisions for spent fuel management	12,608	261	(622)	234	61	(9)	**12,533**
Provisions for waste removal and conditioning	546	2	-	16	26	-	**590**
Provisions for long-term radioactive waste management	14,413	45	(197)	255	52	126	**14,694**
Provisions for the back-end of the nuclear cycle	**27,567**	**308**	**(819)**	**505**	**139**	**117**	**27,817**
Provisions for nuclear plant decommissioning	28,036	28	(116)	569	497	(271)	**28,743**
Provisions for last cores	4,883	-	(338)	51	99	(305)	**4,390**
Provisions for decommissioning and last cores	**32,919**	**28**	**(454)**	**620**	**596**	**(576)**	**33,133**
PROVISIONS RELATED TO NUCLEAR GENERATION	**60,486**	**336**	**(1,273)**	**1,125**	**735**	**(459)**	**60,950**
EDF SA	44,822	324	(814)	732	-	(1,027)	**44,037**
- provisions within the scope of the Law of 28 June 2006	*43 746*	*303*	*(796)*	*705*	-	*(1,027)*	***42,931***
United Kingdom	15,280	12	(459)	389	735	568	**16,525**
Belgium	384	-	-	4	-	-	**388**

The change in the first half of 2021 in EDF SA's provisions related to nuclear generation is mainly explained by the extension of the depreciation period of 1300MWe-series power plants, which had an impact of €(1,016) million at 1 January 2021 (see note 1.6.2), distributed as follows: €(916) million on provisions for decommissioning, €(214) million on provisions for last cores, and €114 million on provisions for long-term radioactive waste management.

This impact on provisions related to nuclear generation principally results from timing differences in payment schedules (the discount effect on provisions), and also includes a minor revision of estimates to reflect the increase in decommissioning waste to be sent for interim or final storage in certain years, which requires industrial solutions to smooth the waste dispatch flows.

The €(1,016) decrease in provisions related to nuclear generation is presented as follows:

- €(1,031) million in "Other movements" for changes in the provisions with associated nuclear assets;
- €15 million in "Increases" and "Decreases" for provisions adjusted *via* profit and loss.

14.1 PROVISIONS RELATED TO NUCLEAR GENERATION AND DEDICATED ASSETS IN FRANCE

14.1.1 Nuclear provisions

The measurement of provisions for the back-end of the nuclear cycle, plant decommissioning and last cores is sensitive to assumptions concerning technical processes, costs, inflation rates, long-term discount rates, depreciation periods of plants currently in operation and disbursement schedules. A revised estimate is established at each closing date to ensure that the amounts accrued correspond to the best estimate of the costs eventually to be borne by the Group.

The regulatory and contractual framework for nuclear provisions in France and the main calculation methods used for provisions are described in note 15.1.1 to the consolidated financial statements at 31 December 2020.

In accordance with its powers under Article 594-4 of the Environment Code, in June 2020 the DGEC commissioned an external audit of the valuation of dismantling operations for EDF's permanently shut-down nuclear facilities, conducted by a consortium of specialist firms. This audit began in December 2020 and ended at the end of the first half of 2021. The final audit report is due to be published soon. It is not expected to have any significant impact on the provisions audited that would require adjustment of provisions at 30 June 2021.

Discount rate and inflation rate

The methods for calculation of the discount rate and inflation rate are described in note 15.1.1.5 to the consolidated financial statements at 31 December 2020.

Applying these methods, the discount rate is 3.4% at 30 June 2021 (3.3% at 31 December 2020), assuming inflation of 1.3% (1.2% at 31 December 2020), and the real discount rate is thus unchanged at 2.1%.

Regulatory discount rate limit

The decree of 1 July 2020 and the ministerial order of 1 July 2020 on secure financing for nuclear expenses, require the discount rate to comply with two regulatory limits. It must be lower than:

- a regulatory maximum, now expressed in real value, i.e. net of inflation; this value is equal to the unrounded value representative of expectations concerning the real long-term interest rate, as used for the calculation of the Ultimate Forward Rate (UFR) applicable at the date concerned published by the European Insurance and Occupational Pensions Authority (EIOPA), plus 150 bp. This maximum is applicable from 2024. Until 2024, the maximum is the weighted average of 2.3% and the above calculation. The weighting applied to the 2.3% rate is set at 50% for 2020, 25% for 2021, 12.5% for 2022 and 6.25% for 2023;
- and the expected rate of return on assets covering the liability (dedicated assets).

The maximum discount rate calculated by reference to the UFR is 2.8% at 30 June 2021 (2.66% rounded up to 2.7% at 31 December 2020).

Sensitivity to assumptions concerning costs, inflation rate, long-term discount rate, and disbursement schedules can be estimated through comparison of the gross amount estimated under year-end economic conditions with the present value of the amount.

Provisions related to nuclear generation within the scope of the Law of 28 June 2006	**30/06/2021**		**31/12/2020**	
(in millions of euros)	**Costs based on year-end economic conditions**	**Amounts in provisions at present value**	**Costs based on year-end economic conditions**	**Amounts in provisions at present value**
Spent fuel management	19,652	10,122	18,998	10,246
- amount unrelated to the operating cycle	*2,745*	*1,313*	*2,727*	1,297
Long-term radioactive waste management	36,127	13,495	35,580	13,300
BACK-END NUCLEAR CYCLE EXPENSES	**55,779**	**23,617**	**54,578**	**23,546**
Decommissioning of nuclear plants in operation	20,012	12,028	19,693	12,775
Decommissioning of shut-down nuclear plants	7,405	4,742	7,400	4,714
Last cores	4,288	2,544	4,258	2,711
DECOMMISSIONING AND LAST CORE EXPENSES	**31,705**	**19,314**	**31,351**	**20,200**
PROVISIONS RELATED TO NUCLEAR GENERATION within the scope of the law of 28 June 2006		***42,931***		***43,746***

Apart from adjustments resulting from extension of the deprecation period for the 1300MWe-series power plants at 1 January 2021, there has been little change in nuclear provisions during the first half of 2021 since there were no notable developments in estimates and the real discount rate was stable.

Note 15.1.1.5 to the consolidated financial statements at 31 December 2020 presents the impact on the present value of a +/- 20 bp variation in the discount rate.

14.1.2 EDF's dedicated assets

EDF has built up a portfolio of financial assets dedicated to secure financing of long-term nuclear obligations, in particular decommissioning of its power plants and long-term management of radioactive waste.

The key features of this portfolio, the principles governing its management and the applicable regulations are presented in note 15.1.2 to the consolidated financial statements at 31 December 2020.

14.1.2.1 Changes in dedicated assets in the first half of 2021

As the coverage of provisions by dedicated assets was above 100% at 31 December 2020 (103.6%), EDF had no obligation to add to the dedicated asset portfolio in 2021, and no allocation was made during the first half of 2021 (compared to allocations of €113 million in the first half of 2020 and €797 million in 2020).

Although the Covid-19 situation was still fragile at the start of 2021, the markets were boosted by prospects of a rapid improvement, with vaccination campaigns in western countries supporting expectations of a strong recovery in economic activity. That recovery is already under way in the United States, and is becoming visible in Europe as lockdowns are lifted. In the first half of the year, the equity markets rose by 14.7% (MSCI World All Countries index hedged 50% against foreign exchange risks in developed countries), and there was significant pressure on interest rates.

All equity markets saw an increase, but the United States and European markets outperformed the rest, particularly the Japanese market.

On the bond markets, German 10-year rates rose by +0.4%, and American rates by +0.5%. Although such rate rises are natural at this stage of the economic cycle, they are still being closely watched by the central banks, which want to maintain an accommodating monetary policy. Their support has successfully limited the rise in rates despite surprisingly vigorous inflation figures. The central banks consider that this increase in inflation is only temporary.

During the first half of 2021, EDF Invest continued to extend the portfolio of unlisted assets in smart meters *via* an additional investment in Energy Assets Group in the United Kingdom (the ownership interest percentage remains unchanged), and in real estate in France and Germany *via* acquisition of minority shareholdings and shares in diversified unlisted investment funds.

Positive changes in the fair value of the dedicated asset portfolio (investment funds, equities) amounting to €1,836 million were recognised in the financial result in the first half of 2021 (see note 8.2), compared to negative changes amounting to €(830) million in the first half of 2020 and €1,218 million in 2020.

Negative changes in the fair value of the bonds in the dedicated asset portfolio amounting to €(182) million were recognised in OCI in the first half of 2021 (see note 17.1.2), compared to positive changes amounting to €9 million in the first half of 2020 and €62 million in 2020.

Withdrawals from dedicated assets in the first half of 2021 totalled €245 million, equivalent to payments made in respect of the long-term nuclear obligations to be covered during the first half of 2021 (€261 million in the first half of 2020 and €431 million in 2020).

14.1.2.2 Valuation of EDF's dedicated assets

EDF's dedicated assets are included in the Group's consolidated financial statements at the following values:

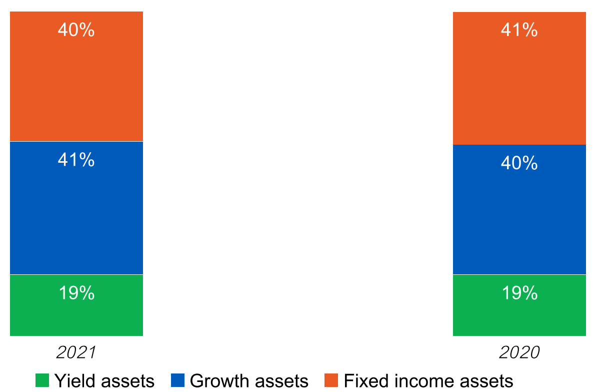
(in millions of euros)	Consolidated balance sheet presentation	30/06/2021		31/12/2020	
		Book value	Realisable value	Book value	Realisable value
Yield assets (EDF Invest)		**4,936**	**6,898**	**4,677**	**6,420**
CTE	Investments in associates[(1)]	1,444	3,045	1,378	2,788
Other associates	Investments in associates[(2)]	2,168	2,470	1,974	2,252
Other unlisted assets	Debt and equity securities and other net assets[(3)]	1,339	1,398	1,309	1,364
Derivatives	Fair value of derivatives	(15)	(15)	16	16
Growth assets		**14,705**	**14,705**	**13,692**	**13,692**
Equities (investment funds)	Debt securities	14,340	14,340	13,174	13,174
Unlisted equity funds (EDF Invest)	Debt securities	404	404	330	330
Derivatives	Fair value of derivatives	(39)	(39)	188	188
Fixed-income assets		**14,300**	**14,300**	**13,736**	**13,736**
Bonds	Debt securities	12,548	12,548	12,371	12,371
Unlisted debt funds (EDF Invest)	Debt securities	166	166	155	155
Cash portfolio	Debt securities	1,575	1,575	1,185	1,185
Derivatives	Fair value of derivatives	11	11	25	25
TOTAL EDF DEDICATED ASSETS		**33,941**	**35,903**	**32,105**	**33,848**

[(1)]The Group's investment of 50.1% of CTE, the company that holds 100% of the shares in RTE. The CTE shares are included at their equity value in the consolidated financial statements (book value in the table). The realisable value of CTE in the above table has been determined by an independent assessor, in the same way as for EDF Invest's other assets.

[(2)]Including the value of the share in equity of the controlled companies owning these investments.

[(3)]Including debt and equity securities amounting to €1,213 million and the value of the share in equity of other controlled companies.

The structure of the dedicated asset portfolio in the first half of 2021 and 2020 is as follows (in realisable value):



14.1.3 Coverage of EDF's long-term nuclear obligations

The Group's long-term nuclear obligations in France concerned by the regulations for dedicated assets related to nuclear generation are included in the EDF group's consolidated financial statements at the following values:

(in millions of euros)	30/06/2021	31/12/2020
Provisions for spent fuel management – portion unrelated to the operating cycle as defined in the regulations	1,313	1,297
Provisions for long-term radioactive waste management	13,495	13,300
Provisions for nuclear plant decommissioning	16,770	17,489
Provisions for last cores – portion for future long-term radioactive waste management	549	590
PRESENT COST OF LONG-TERM NUCLEAR OBLIGATIONS	**32,127**	**32,676**
REALISABLE VALUE OF DEDICATED ASSETS	**35,903**	**33,848**
REGULATORY COVERAGE RATE	**111.8%**	**103.6%**

At 30 June 2021, by the regulatory calculations provisions are 111.8% covered by dedicated assets. The regulatory caps on the realisable value of certain investments set in the Environment Code were respected at 30 June 2021.

At 31 December 2020, by the regulatory calculations provisions were 103.6% covered by dedicated assets and also respected these regulatory caps on realisable value.

14.2 EDF ENERGY'S NUCLEAR PROVISIONS

The regulatory and contractual framework related to provisions for the back-end of the nuclear cycle and decommissioning of EDF Energy's power plants is described in note 15.2 to the consolidated financial statements at 31 December 2020.

Since 2019, EDF Energy has been in discussions with the UK government to agree on changes and clarifications to the Restructuring Agreements (see note 15.2 to the consolidated financial statements at 31 December 2020), in order to ensure efficient recovery of qualifying costs and clarify the conditions for transferring the AGR plants, once they have finished defueling, to the Nuclear Decommissioning Authority (NDA) for subsequent decommissioning activities.

On 23 June 2021 EDF and the UK government signed an update to the Agreements, confirming that EDF will conduct the defueling activities in their entirety, and will recover all related qualifying costs from the Nuclear Liabilities Fund (NLF), and formally stipulating that after the defueling phase, ownership and responsibility for the AGR plants will be transferred to the UK government, which will then take charge of decommissioning and bear the associated costs.

The signature of these agreements has no immediate accounting consequences for decommissioning provisions or the receivable representing reimbursements to be made by the NLF and the UK government. Nuclear decommissioning liabilities and the associated assets will be derecognised during the agreement's operational implementation phase.

In addition, in early 2020 EDF Energy carried out phase 1 of the Decommissioning Plan Submission (DPS 20) which was an update to the defueling liability. This phase of the DPS 20 was approved by the NDA in June 2021. The second phase should be carried out by the end of 2021 and will cover decommissioning activities for the AGR plants and decommissioning of Sizewell B, and an update to the uncontracted liability discharge plan.

Finally, after the decision of 7 June 2021 to move the Dungeness B plant into the defueling phase (see note 10.4), nuclear provisions were affected as follows:

- provisions for last cores were reduced by €338 million, equivalent to impairment booked for the nuclear fuel inventories still in the reactor (the "Decreases" column in the table in note 14);
- provisions for decommissioning were increased by €665 million (with a corresponding adjustment to the receivable representing reimbursements to be made by the NLF and the UK government) in view of the plant's early closure (the "Other movements" column in the table in note 14).

The overall real discount rate for all EDF Energy's nuclear provisions at 30 June 2021 is 1.8%, unchanged from 31 December 2020.

NOTE 15 PROVISIONS FOR EMPLOYEE BENEFITS

15.1 GROUP PROVISIONS FOR EMPLOYEE BENEFITS

(in millions of euros)	30/06/2021	31/12/2020
Provisions for employee benefits – current portion	843	879
Provisions for employee benefits – non-current portion	19,783	22,130
PROVISIONS FOR EMPLOYEE BENEFITS	**20,626**	**23,009**

15.1.1 Breakdown of the change in the provision: obligations, fund assets, net liability

(in millions of euros)	Obligations	Fund assets	Net liability
Net employee benefit liability at 31/12/2020[1]	**46,558**	**(25,274)**	**21,284**
Net expense for first half 2021	783	(151)	632
Actuarial gains and losses	(2,842)	217	(2,625)
Employer's contributions to funds	-	(153)	(153)
Employees' contributions to funds	4	(4)	-
Benefits paid	(870)	207	(663)
Translation adjustment	476	(544)	(68)
Other movements	(71)	2	(69)
Net employee benefit liability at 30/06/2021	**44,038**	**(25,700)**	**18,338**
Including:			
Provisions for employee benefits			*20,626*
Non-current financial assets			*(2,288)*

[1]The net liability at 31 December 2020 comprised €23,009 million for the provisions for employee benefits and €(1,725) million of non-current financial assets, giving a net liability amount of €21,284 million.

Actuarial gains and losses on obligations amount to €(2,842) million for the first half of 2021, including:

- €(2,171) million in France as a result of:
  - the €(2,848) million change in the discount rate (+40 bp);
  - the €677 million change in the inflation rate (+10 bp);
- €(647) million in the United Kingdom, essentially associated with changes in the discount and inflation rates (see note 15.2).

Actuarial gains and losses on fund assets amount to €217 million for the first half of 2021. They mainly result from a €105 million change in the United Kingdom and a €125 million change in France, due to a downturn on the bond markets as interest rates rose: this had an unfavourable impact on liability driven investments which was partly offset by a positive performance of growth assets.

Developments in the United Kingdom

EDF Energy made the decision to close to its defined-benefit pension schemes EEGS, EEPS and BEGG, and replace them by a new defined-contribution plan called "my Retirement Plan".

This decision is applicable to all employees other than employees with protected pension rights, who will continue to benefit from future accruals in the existing defined-benefit pension schemes.

After consultation with the workforce, employees will join the new plan either on 1 July 2021 or on 1 January 2022.

The current pension schemes will remain in force for rights vested up to that date; the corresponding obligations will be adjusted for changes in discount and inflation rates, but will no longer be affected by new members or wage increases.

In application of IAS 19, the restatement of the new plan at 30 June 2021 led to a €35 million decrease in obligations resulting from the reduction in past service costs, recognised in profit and loss.

EDF Energy has also decided to grant its employees a transition bonus in connection with this change. The amount of the individual bonus depends on the date the employee joins the new plan. An accrued liability of €(82) million is recognised in "Personnel expenses" in the financial statements at 30 June 2021.

15.1.2 Post-employment and other long-term employee benefits

(in millions of euros)	H1 2021	H1 2020
Current service cost	(569)	(479)
Past service cost	35	-
Actuarial gains and losses – other long-term benefits	(1)	(55)
Effect of plan curtailment or settlement	(3)	-
Net expenses recorded as operating expenses	**(538)**	**(534)**
Interest expense (discount effect)	(245)	(325)
Return on fund assets	151	195
Net interest expense included in financial result	**(94)**	**(130)**
EMPLOYEE BENEFIT EXPENSES RECORDED IN THE INCOME STATEMENT	(632)	(664)
Actuarial gains and losses – post-employment benefits	2,842	(948)
Actuarial gains and losses on fund assets	(217)	937
Actuarial gains and losses	**2,625**	**(11)**
Translation adjustments	**68**	**(63)**
GAINS AND LOSSES ON EMPLOYEE BENEFITS RECORDED DIRECTLY IN EQUITY	2,693	(74)

There was no significant change during the first half of 2021 in the breakdown of the net employee benefit liability by geographical area (see note 16.1.1 to the consolidated financial statements at 31 December 2020).

15.2 ACTUARIAL ASSUMPTIONS

The methods for determining actuarial assumptions are unchanged from 31 December 2020.

The principal assumptions used to value employee benefits are the following:

	France		United Kingdom	
(in %)	30/06/2021	31/12/2020	30/06/2021	31/12/2020
Discount rate/rate of return on assets[1]	1.30%	0.90%	1.90%	1.45%
Inflation rate	1.30%	1.20%	2.84%	2.53%
Wage increase rate[2]	2.40%	2.30%	2.57%	2.37%

[1] The interest income generated by assets is calculated using the discount rate. The difference between this interest income and the return on assets is recorded in equity.
[2] Average wage increase rate, including inflation and projected over a full career.

NOTE 16 OTHER PROVISIONS AND CONTINGENT LIABILITIES

(in millions of euros)	Note	30/06/2021			31/12/2020		
		Current	Non-current	Total	Current	Non-current	Total
Other provisions for decommissioning		86	1,787	**1,873**	120	1,744	**1,864**
Other provisions	16.1	3,246	3,680	**6,926**	2,675	3,630	**6,305**
OTHER PROVISIONS		**3,332**	**5,467**	**8,799**	**2,795**	**5,374**	**8,169**

16.1 OTHER PROVISIONS

Details of changes in other provisions are as follows:

(in millions of euros)	31/12/2020	Increases	Decreases		Changes in scope	Other changes	30/06/2021
			Utilisations	Reversals			
Provisions for contingencies related to subsidiaries and investments	801	178	(16)	-	-	(24)	**939**
Provisions for tax liabilities (excluding income tax)	166	-	(23)	-	-	1	**144**
Provisions for litigation	392	32	(26)	(15)	-	(7)	**376**
Provisions for onerous contracts and losses on completion	1,890	10	(79)	(184)	1	8	**1,646**
Provisions related to environmental schemes	1,192	1,019	(445)	(4)	-	47	**1,809**
Other provisions for risks and liabilities	1,864	434	(235)	(59)	(7)	15	**2,012**
TOTAL	**6,305**	**1,673**	**(824)**	**(262)**	**(6)**	**40**	**6,926**

Provisions for onerous contracts

Provisions for onerous contracts are mainly attributable to the Group's LNG activities (long-term LNG purchase contracts and a long-term regasification contract with Dunkerque LNG).

A provision on a long-term LNG supply contract from the United States was recognised at 30 June 2021 following a substantial improvement in medium-term and long-term United States/Europe spreads, in a market that remains very volatile.

Provisions related to environmental schemes

Provisions related to environmental schemes include provisions for greenhouse gas emission rights, renewable energy certificates and energy savings certificates, where relevant. The increase in provisions over the period principally corresponds to allocations for renewable energy certificates in the United Kingdom. Many of the obligations under the renewable energy certificates scheme are covered by purchased certificates recorded as intangible assets.

Other provisions for risks and liabilities

These provisions cover various contingencies and expenses related to operations (employers' matching contributions to employee profit sharing, restructuring operations, contractual maintenance obligations, etc.). No individual provision is significant.

In extremely rare cases, description of a specific litigation covered by a provision may be omitted from the notes to the financial statements if such disclosure could cause serious prejudice to the Group.

16.2 CONTINGENT LIABILITIES

16.2.1 Tax inspections - EDF

For the period 2008 to 2017, EDF was notified of proposed tax adjustments, notably concerning the tax-deductibility of certain long-term liabilities. As stated in the 2019 financial statements, this recurrent reassessment, which is applied for each year, represented a cumulative financial risk of some €556 million in income taxes at 31 December 2019. In two rulings made in 2017 and one in 2019, Montreuil Administrative Court recognised the tax-deductibility of these liabilities and validated the position taken by the Company. The Minister appealed against two of these rulings. In January 2020, the Versailles Administrative Court upheld EDF's position for the year 2008, but the Minister appealed. In a decision of 11 December 2020 the Council of State overturned the Versailles court's decision and sent the case back before the same court. On 17 June 2021 the Court found against the Company and cancelled the first-instance judgements that had been in its favour. This decision led to a payment of €374 million in July. The Company may lodge an appeal before the Council of State.

EDF recognised a net tax liability of €510 million in its 2020 financial statements in connection with this dispute.

For the years 2012 to 2017, the French tax authorities notified the Company of certain recurrent tax reassessments concerning the *Cotisation sur la Valeur ajoutée des Entreprises* (tax on corporate value added) and questioned the deductibility of long-term provisions.

16.2.2 ARENH dispute – *Force majeure*

The Covid-19 pandemic and the emergency measures introduced by France's public authorities from 17 March 2020 led to a decline in electricity consumption by non-residential clients that affected all market players, including EDF.

Faced with this decline in electricity consumption, some suppliers wanted to reconsider their contractual commitments, citing *force majeure* to reduce the volumes they had purchased from EDF in November 2019 under the ARENH mechanism.

Confirming the French Energy Regulation Committee's (CRE's) decision of 26 March, on 17 April the French Council of State rejected an appeal filed by two energy supplier associations, considering it was not established that the losses incurred by the energy suppliers concerned were "such that they would jeopardise (...) the survival of the businesses over a horizon of a few months" or that "these losses would have such an impact during the timeframe required by the competent judge to make a ruling on the claims".

On 20, 26 and 27 May 2020, after summary proceedings the Paris Commercial Court ruled that the introduction of emergency measures by the French government constituted a *force majeure* event for the ARENH contracts with Alpiq, Gazel and Total Direct Energie, entailing suspension of those contracts. On 28 July 2020, the Paris Court of Appeal upheld the urgent application judge's decision. EDF has appealed against this ruling. Total Direct Energie is the only remaining party in the ongoing proceedings.

On 2 June 2020[1], EDF notified the energy suppliers Alpiq, Gazel and Total Direct Energie of the termination of their ARENH contracts, as allowed when these contracts are suspended for more than two months. This decision was made as a precautionary measure to protect EDF's rights.

A challenge to this termination was taken before the urgent applications judge, who issued a ruling concerning Total Direct Energie on 1 July 2020 that temporarily suspended the effects of EDF's contract termination letter. On 19 November 2020 the Paris Court of Appeal overturned that ruling and restored the effects of the termination notified by EDF on 2 June 2020.

In the meantime, three energy suppliers notified EDF of the end of the *force majeure* event in mid-June and ARENH deliveries resumed. As the CRE did not allow EDF's request to suspend ARENH deliveries to Total Direct Energie for the end of the year, in application of the Paris Court of Appeal decision of 19 November, on 10 December 2020 EDF brought a claim before the Council of State for abuse of power, requesting cancellation of the CRE's decision.

The suspension of deliveries to these three suppliers for approximately 15 days (from the ruling by the Paris commercial court in summary proceedings, to the notification of the end of *force majeure* by the suppliers), and the continuation of deliveries to Total Direct Energie, represents some tens of millions of euros in lost income for EDF at 31 December 2020 (due to the price effect of volumes being sold at market prices instead of ARENH prices during that period).

Further summary proceedings were initiated in late September 2020 by Ohm Energie, seeking a suspension of payments due for ARENH volumes, claiming that deliveries had been continued illegally by EDF since it had requested suspension of ARENH deliveries from April to June 2020 due to *force majeure*. On 23 October 2020 the Paris Commercial Court rejected all of Ohm Energie's claims.

These court decisions were issued in summary proceedings and are provisional. They do not settle the underlying question. Only cases concerning the substance of the matter will be able to give rise to a final ruling as to whether the parties' respective positions are well-founded.

To date, some alternative suppliers have brought cases against EDF before the Paris Commercial Court, claiming compensation from EDF for the alleged prejudice caused by its refusal to suspend ARENH deliveries on the basis of the *force majeure* clause. On 13 April 2021, the Paris Commercial Court issued a first judgement ordering EDF to pay one alternative supplier €5.88 million in damages. The court considered that the conditions for *force majeure* were fulfilled and concluded that in continuing its ARENH deliveries, EDF had committed a breach of contract for which it could be held liable. EDF has filed an appeal against this judgement before the Paris Court of Appeal. The other proceedings are

1 *See the press release of 2 June 2020: EDF has notified three energy suppliers of the termination of their Arenh contracts.*

ongoing.

16.2.3 Edison

Sale of Ausimont (site de Bussi)

Several legal actions before the civil, administrative and criminal courts were begun following the sale by Edison of the Ausimont SpA industrial complex to Solvay Solexis SpA in 2002. The following proceedings are still ongoing:

- two administrative cases:
  - On 28 February 2018, the Province of Pescara notified Solvay Speciality Polymers Italy SpA (formerly Solvay Solexis SpA) and Edison SpA of the launch of an administrative procedure to determine who was responsible for the pollution of the land outside the industrial complex belonging to Ausimont SpA which had been sold. The Province also ordered Edison to remove waste that was on the land concerned. Edison first appealed against this order before Pescara regional administrative court, and then before the Italian Council of State. In April 2020 the Council of State rejected the claim and Edison, considering the ruling unfair and unlawful, filed applications for its annulment before Court of Cassation, the Council of State and European Court of Human Rights. The application before Council of State has been rejected. The other proceedings are ongoing.

    Meanwhile Edison has begun work to make the site safe in agreement with the competent Public Administrations. In particular, Edison has completed the prevention measures (covering) of the polluted areas, reactivated the pump and stock system for the shallow waters and conducted further deep inspections on the soils. Furthermore, the Company has recently submitted a plan to the Ministry for the Environment for the first phase of the environmental remediation relating to the disposal and management of waste.

    On 11 June 2021 the Council of State published a ruling rejecting the appeal by the Ministry for the Environment against the decision of the TAR of Abruzzo concerning the annulment of the award of the integrated contract for remediation work in these areas to the Belgian company Dec Deme.

    Edison, which had already started the aforementioned work to make these areas safe and remediated following the decision of the Council of State of April 2020, is waiting to see how the administrations concerned intend to proceed.
  - In an announcement of 18 December 2019, the Province of Pescara ordered Edison SpA to clean up the land located inside the industrial complex. Edison has challenged this order before Pescara regional administrative court and the proceedings are ongoing;
- one arbitration case: in 2012, arbitration proceedings were launched by Solvay SA and Solvay Specialty Polymers Italy SpA (the purchaser of Ausimont) for violation by Edison of the representations and warranties in environmental matters concerning the Bussi and Spinetta Marengo sites contained in the sale agreement.

  At the end of June 2021, the Secretariat of the International Court of Arbitration of the International Chamber of Commerce notified to Edison the partial award by which the Arbitral Tribunal, largely granting the claims asserted by Solvay Specialty Polymers Italy in relation to the environmental warranties made by Montedison under the sale contract for Ausimont signed in 2001, ordered Edison to pay compensation of €91 million for the period from May 2002 (closing date) to December 2016.

  The Arbitral Tribunal postponed the quantification of the damages suffered by Solvay Specialty Polymers Italy in the period after December 2016 and the legal fees incurred by the parties to a further phase of the arbitration, unless the parties reach an agreement in this respect.The award is accompanied by a dissenting opinion by one of the members of the Arbitral Tribunal.
- one civil case: on 8 April 2019, the Italian Ministry for the Environment brought a civil action against Edison, claiming damages for environmental disaster. These proceedings are ongoing.

Mantua - criminal and environmental proceedings

Criminal proceedings

The Public Prosecutor's Office of Mantua has decided to initiate criminal proceedings against some executive directors working or having worked for Edison since 2015 and some of Edison's representatives, due to alleged environmental offences, also on the basis of Legislative Decree 231 of 2001, which allegedly occurred in certain areas of the Mantua petrochemical plant. Such orders of the Province of Mantua were confirmed by the Council of State's ruling of April 2020 as described below. The preliminary hearing is scheduled for September 10, 2021.

The Mantua petrochemical plant - which Edison (as the successor of Montedison) has not owned or managed since 1990 - is subject to a large-scale and complex program of environmental clean-up and restoration activities which also regarded all of the areas targeted by the procedure initiated by the Public Prosecutor. The ENI group has initiated these activities. After the transfer of the clean-up projects to Edison in June of last year, following the previously mentioned ruling of the

Council of State, Edison is carrying out large part of the activities.

Environmental procedure

Over the past few years, the Italian province of Mantua notified Edison of eight orders to rehabilitate the land and the whole Mantua petrochemical site sold by Montedison to the ENI group in 1990, despite two settlement agreements concerning these environmental issues signed by ENI and the Italian Ministry for the Environment.

Edison appealed against all these rulings before the Brescia Division of the Lombardy regional administrative court, but lost its appeal in August 2018. Edison then took the matter to the Italian Council of State.

The Council of State rejected Edison's appeal in a ruling of 1 April 2020 and the first-instance decisions were therefore upheld. Edison pursued its appeal before the Court of Cassation and the Council of State. However, as mentioned above, Edison has already begun cleanup work on the site, taking over from the previous operators and conducting a series of tenders.

16.2.4 Investigations by France's Competition Authority ("ADLC")

France's Competition Authority (the ADLC) is currently investigating the EDF group in relation to four separate matters.

The first, relating to the commercial practices of EDF and some of its subsidiaries in the energy services markets, follows a complaint filed on 17 October 2016 by Xélan. Following this complaint, the ADLC conducted search and seizure operations at the premises of EDF and several of its subsidiaries on 22 and 23 November 2016. EDF and its subsidiaries lodged appeals with the Court of Appeal in Versailles challenging the search and seizure procedures. In orders issued on 12 April 2018 and 10 January 2019, the President of the Court of Appeal in Versailles dismissed the appeals against the order authorising the search and seizure procedures and against the manner in which they were conducted. A further appeal to the French Supreme Court by EDF and its subsidiaries was dismissed by a decision dated 20 January 2021.

The second investigation follows a complaint filed by Engie on 19 June 2017 relating to EDF's commercial practices regarding retail electricity and gas sales, and specifically the circumstances in which EDF gave electricity suppliers, upon request, access to its file of customers paying the regulated "Green" and "Yellow" tariffs from the end of 2015, when these tariffs were about to be discontinued. Documents collected during search and seizure operations in November 2016 were used in the Engie proceedings. On 27 May 2021 EDF, Dalkia, Dalkia Smart Building, Citelum and Cham were notified of the ADLC's objections concerning the markets for retail electricity and gas supply, multi-technique management/maintenance and energy optimisation services, and energy control measures leading to issuance of energy savings certificates. This notification of objections is the first stage in a procedure in which both sides will present their arguments, and is not an indication of the final outcome.

The third investigation follows an ex-officio referral to the ADLC on 4 November 2019 and concerns the formation of a partnership for heat network operation. On 3 May 2021 EDF, Dalkia, Electricité de Strasbourg, ES Services Energétiques and EDEV were notified of the ADLC's objections. This marks the first stage in a procedure in which both sides will present their arguments, and is not an indication of the final outcome.

The fourth investigation, relating to EDF's pricing policy for its electricity supply offers to non-residential customers with a connection capacity of less than 36kVa, follows a complaint by Plüm Energie dated 14 September 2020. This complaint was accompanied by an application for precautionary interim measures, intended to make the ADLC take urgent action. On 18 February 2021, the ADLC rejected Plüm's application for interim measures. The investigation on the merits of the complaint is ongoing.

Should the ADLC conclude in any of these investigations, after examining the substance of the matter, that anti-competitive practices have been involved, it could impose a financial sanction, in application of article L. 464-2 of the French Commercial Code, which allows sanctions of up to 10% of the Group's worldwide sales excluding taxes.

Apart from the proceedings described above, no other significant change was observed during the first half of 2021 in the Group's contingent liabilities as presented in note 17.3 to the consolidated financial statements at 31 December 2020.

NOTE 17 FINANCIAL ASSETS AND LIABILITIES

17.1 FINANCIAL ASSETS

17.1.1 Breakdown between current and non-current financial assets

Current and non-current financial assets break down as follows:

(in millions of euros)	30/06/2021			31/12/2020		
	Current	Non-current	Total	Current	Non-current	Total
Instruments at fair value through OCI with recycling	10,401	6,312	**16,713**	13,044	5,696	**18,740**
Instruments at fair value through OCI with no recycling	33	240	**273**	34	228	**262**
Instruments at fair value through profit and loss	1 518	24 425	**25,943**	2,556	22,807	**25,363**
Debt and equity securities	***11,952***	***30,977***	***42,929***	***15,634***	***28,731***	***44,365***
Trading derivatives – Positive fair value	9,609	-	**9,609**	5,038	-	**5,038**
Hedging derivatives – Positive fair value [1]	3,516	2,823	**6,339**	1,625	3,814	**5,439**
Loans and financial receivables[2]	1,838	16,836	**18,674**	1,235	15,070	**16,305**
CURRENT AND NON-CURRENT FINANCIAL ASSETS	**26,915**	**50,636**	**77,551**	**23,532**	**47,615**	**71,147**

[1] Including €3,692 million of derivatives hedging liabilities included in net indebtedness (see note 18.2).
[2] Including impairment of €(390) million at 30 June 2021 (€(432) million at 31 December 2020).

17.1.2 Debt and equity securities

Details of debt and equity securities are shown in the table below:

(in millions of euros)	30/06/2021				31/12/2019
	At fair value through OCI with recycling	At fair value through OCI with no recycling	At fair value through profit and loss	Total	Total
Debt and equity securities					
EDF dedicated assets	6,413	-	23,833	**30,246**	**28,398**
Liquid assets	10,233	-	1,482	**11,715**	**15,028**
Other assets[1]	67	273	628	**968**	**939**
TOTAL	**16,713**	**273**	**25,943**	**42,929**	**44,365**

[1] Investments in non-consolidated companies.

Information on EDF's dedicated assets is given in note 14.1.2. The general management policy for dedicated assets is presented in note 15.1.2 of the consolidated financial statements for the year ended 31 December 2020.

Changes in fair value recorded in equity

Changes in the fair value of debt and equity securities were recorded in equity (EDF share) over the period as follows:

(in millions of euros)	H1 2021			H1 2020		
	Gross changes in fair value recorded in OCI with recycling[1]	Gross changes in fair value recorded in OCI with no recycling[1]	Gross changes in fair value recycled to profit and loss[2]	Gross changes in fair value recorded in OCI with recycling[1]	Gross changes in fair value recorded in OCI with no recycling[1]	Gross changes in fair value recycled to profit and loss[2]
EDF dedicated assets	(148)	-	34	79	-	70
Liquid assets	(26)	-	8	(49)	-	9
Other assets	-	15	-	-	6	-
DEBT AND EQUITY SECURITIES[3]	**(174)**	**15**	**42**	**30**	**6**	**79**

[1] + / ( ): increase / (decrease) in equity (EDF share).
[2] + / ( ): increase / (decrease) in income (EDF share).
[3] Excluding associates and joint ventures.

In the first half of 2021, gross changes in fair value recorded in OCI with recycling (before reclassification to profit and loss) principally concern EDF (€(216) million, including €(182) million for dedicated assets). In the first half of 2020, gross changes in fair value recorded in OCI with recycling principally concern EDF (€(49) million, including €9 million for dedicated assets).

No significant impairment was recorded in the first half of 2021.

17.1.3 Loans and financial receivables

Loans and financial receivables consist of the following:

(in millions of euros)	30/06/2021	31/12/2020
Amounts receivable from the NLF	14,631	13,034
Loans and financial receivables – other	4,043	3,271
LOANS AND FINANCIAL RECEIVABLES	**18,674**	**16,305**

At 30 June 2021 loans and financial receivables mainly include:

- amounts representing reimbursements receivable from the Nuclear Liabilities Fund (NLF) and the British government for coverage of long-term nuclear obligations, totalling €14,631 million at 30 June 2021 (€13,034 million at 31 December 2020), discounted at the same rate as the provisions they finance (see note 14.2);
- other loans and financial receivables notably include:
  - the overfunding of EDF Energy's EEGSG and BEGG pension schemes by €2,288 million at 30 June 2021, compared to €1,725 million at 31 December 2020,
  - an amount of €276 million representing the advance payments made by Luminus to Synatom to cover long-term nuclear obligations (€263 million at 31 December 2020). In Luminus' financial statements these amounts are discounted at the same rate as the provisions they fund. This receivable is equal to the fair value of the amounts held by Synatom on behalf of Luminus as fund assets,
  - loans made by EDF Renewables in the course of its project development activity, mainly in connection with wind farms in France and North America, amounting to €388 million at 30 June 2021 compared to €382 million at 31 December 2020.

17.2 FINANCIAL LIABILITIES

17.2.1 Breakdown between current and non-current financial liabilities

Current and non-current financial liabilities break down as follows:

	30/06/2021			31/12/2020		
(in millions of euros)	Non-current	Current	Total	Non-current	Current	Total
Loans and other financial liabilities	52,204	9,299	**61,503**	54,066	11,525	**65,591**
Trading derivatives - negative fair value	-	10,888	**10,888**	-	5,125	**5,125**
Hedging derivatives - negative fair value[1]	573	2,949	**3,522**	1,833	959	**2,792**
FINANCIAL LIABILITIES	**52,777**	**23,136**	**75,913**	**55,899**	**17,609**	**73,508**

[1]Including €861 million of derivatives used to hedge liabilities included in net indebtedness (see note 18.2).

17.2.2 Loans and other financial liabilities

17.2.2.1 Changes in loans and other financial liabilities

(in millions of euros)	Bonds	Loans from financial institutions	Other financial liabilities	Lease liability	Accrued Interest	Total
Balances at 31/12/2020	**50,196**	**3,297**	**6,571**	**4,307**	**1,220**	**65,591**
Increases	3	789	312	402	49	**1,555**
Decreases	(3,384)	(469)	(1,768)	(365)	(135)	**(6,121)**
Translation adjustments	338	46	81	28	1	**494**
Changes in scope of consolidation	-	139	(9)	(8)	-	**122**
Changes in fair value	(362)	-	(17)	-	-	**(379)**
Other changes	-	(2)	287	(38)	(6)	**241**
BALANCES AT 30/06/2021	**46,791**	**3,800**	**5,457**	**4,326**	**1,129**	**61,503**

The change in bonds is explained by repayments of €3.4 billion made during the year, including €(2.0) billion in January 2021 and €(1.4) billion in April 2021.

A breakdown of the issuance and repayments of borrowings as presented in the cash flow statement is presented below:

(in millions of euros)	Bonds	Loans from financial institutions	Other financial liabilities	Lease liability	Termination of hedging derivatives	30/06/2021
Issuance of borrowings	3	789	312	-	-	**1,104**
Repayments of borrowings	(3,384)	(469)	(1,768)	(365)	24	**(5,962)**

17.2.2.2 Maturity of loans and financial liabilities

(in millions of euros)	Bonds	Loans from financial institutions	Other financial liabilities	Lease liability	Accrued Interest	Total
Less than one year	2,371	577	4,917	642	792	**9,299**
From one to five years	9,745	1,484	218	2,279	114	**13,840**
More than five years	34,675	1,739	322	1,405	223	**38,364**
LOANS AND OTHER FINANCIAL LIABILITIES AT 30/06/2021	**46,791**	**3,800**	**5,457**	**4,326**	**1,129**	**61,503**

17.3 UNUSED CREDIT LINES

At 30 June 2021, the Group has unused credit lines with various banks totalling €10,757 million (€11,110 million at 31 December 2020). This total includes €6,400 million of credit lines indexed on ESG criteria, which were totally undrawn at 30 June 2021 (€5,650 million at 31 December 2020).

	30/06/2021				31/12/2020
	Total	Maturity			Total
(in millions of euros)		< 1 year	1-5 years	> 5 years	
CONFIRMED CREDIT LINES	**10,757**	**2,954**	**7,453**	**350**	**11,110**

17.4 FAIR VALUE OF LOANS AND OTHER FINANCIAL LIABILITIES

	30/06/2021		31/12/2020	
(in millions of euros)	Fair value	Balance sheet value	Fair value	Balance sheet value
LOANS AND OTHER FINANCIAL LIABILITIES	**71,061**	**61,503**	**75,680**	**65,591**

17.5 FAIR VALUE OF HEDGING DERIVATIVES

Changes in the fair value of hedging derivatives included in equity (EDF share) and profit and loss are detailed below:

(in millions of euros)	H1 2021			H1 2020		
	Gross changes in fair value recorded in equity[(1)]	Gross changes in fair value transferred to income - Recycling[(2)]	Gross changes in fair value transferred to income - Ineffectiveness	Gross changes in fair value recorded in equity[(1)]	Gross changes in fair value transferred to income - Recycling[(2)]	Gross changes in fair value transferred to income - Ineffectiveness
Interest rate hedging	36	-	-	-	-	-
Exchange rate hedging	1,441	248	(29)	885	(41)	(3)
Net foreign investment hedging	(666)	-	-	497	-	-
Commodity hedging	(65)	367	(5)	951	982	(3)
HEDGING DERIVATIVES[(3)]	**746**	**615**	**(34)**	**2,333**	**941**	**(6)**

[(1)] +/( ): increase/(decrease) in equity (EDF share).
[(2)] +/( ): increase/(decrease) in net income (EDF share).
[(3)] Excluding associates and joint ventures.

The amount transferred to operating profit before depreciation and amortisation in the first half of 2021 in respect of commodity hedges is €367 million, comprising:

- €521 million for CO_2 hedging contracts, mainly concerning the France - Generation and Supply segment;
- €(120) million for electricity hedging contracts, mainly concerning the France - Generation and Supply and the United Kingdom segments;
- €(34) million for other hedging contracts.

NOTE 18 FINANCIAL INDICATORS

The financial indicators are not defined by the accounting standards and are not directly visible in the Group's financial statements. The principal financial indicators are the following.

18.1 NET INCOME EXCLUDING NON-RECURRING ITEMS

Net income excluding non-recurring items corresponds to the Group's share of net income (EDF net income) excluding non-recurring items, net changes in the fair value of energy and commodity derivatives, excluding trading activities and net changes in the fair value of debt and equity instruments, net of tax.

The following tables show the transition from EDF net income to net income excluding non-recurring items:

At 30 June 2021

(in millions of euros)	Notes	H1 2021 Gross value	Income taxes	Non-controlling interests	EDF net income
Net income					**4,172**
Changes in the fair value of debt and equity instruments[(1)]	8.2	**(1,917)**	**524**	**3**	**(1,390)**
Net changes in fair value on energy and commodity derivatives, excluding trading activities	6	**541**	**(148)**	**-**	**393**
Impairment		**603**	**(125)**	**(66)**	**412**
- impairment of fixed assets[(2)]	10.4	*502*	*(125)*	*(66)*	***311***
- impairment of investments in associates and joint ventures	11.2	*101*	*-*	*-*	***101***
Other items		**160**	**20**	**(27)**	**153**
- other operating income and expenses[(3)]	7	*92*	*(1)*	*(27)*	***64***
- accelerated depreciation of thermal power plants in France	10.2	*72*	*(20)*	*-*	***52***
- Other		*(4)*	*41*[(4)]	*-*	***37***
NET INCOME EXCLUDING NON-RECURRING ITEMS					**3,740**

(1) Including fair value hedges of dedicated assets and changes in the fair value of debt and equity instruments comprised in investments in associates and joint ventures.
(2) In the first half of 2021, impairment includes €(441) million for the Dungeness plant assets.
(3) In the first half of 2021, other operating income and expenses mainly include €505 million received in application of the settlement indemnity agreement between Areva and EDF, €(161) million of costs associated with the early closure of Dungeness, and €(278) million of exceptional additional costs relating to repair work on the main secondary circuit welds in the Flamanville 3 EPR.
(4) This amount includes the tax income recognised following the tax revaluation of assets in Italy, offset by the unfavourable effect of the tax rate increase in the United Kingdom from 2023 (see note 9).

The net income excluding non-recurring items amounts to €3,740 million at 30 June 2021, increased by €2,473 million compared to the first half of 2020.

At 30 June 2020

(in millions of euros)	Notes	H1 2020 Gross value	Income taxes	Non-controlling interests	EDF net income
Net income					**(701)**
Changes in the fair value of debt and equity instruments[(1)]	8.2	**914**	**(248)**	**(7)**	**659**
Net changes in fair value on energy and commodity derivatives, excluding trading activities	6	**323**	**(74)**	**-**	**249**
Impairment		**988**	**(141)**	**(123)**	**724**
- impairment of fixed assets	*10.4*	*738*	*(141)*	*(120)*	***477***
- impairment of investments in associates and joint ventures	*11.2*	*122*	*-*	*-*	***122***
- impairment of Edison's E&P operations (application of IFRS 5)	*3.2.2*	*128*	*-*	*(3)*	***125***
Other items		**290**	**44**	**2**	**336**
- other operating income and expenses[(2)]	*7*	*153*	*(43)*	*2*	***112***
- accelerated depreciation of thermal power plants in France	*10.2*	*103*	*(29)*	*-*	***74***
- change of income tax rate in the United Kingdom		*-*	*122*	*-*	***122***
- Other		*34*	*(6)*	*-*	***28***
NET INCOME EXCLUDING NON-RECURRING ITEMS					**1,267**

(1) Including fair value hedges of dedicated assets and changes in the fair value of debt and equity instruments comprised in investments in associates and joint ventures.
(2) In the first half of 2020 other income and expenses notably include exceptional additional costs relating to repair work on the main secondary circuit welds in the Flamanville 3 EPR, totalling €(146) million.

18.2 NET INDEBTEDNESS

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 interest rate instruments with initial maturity of over three months that are readily convertible into cash and are managed according to a liquidity-oriented policy.

Net indebtedness are as follows:

(in millions of euros)	Notes	30/06/2021	31/12/2020
Loans and other financial liabilities	17.2.2	61,503	65,591
Derivatives used to hedge liabilities	17.1.1 and 17.2.1	(2,831)	(1,986)
Cash and cash equivalents		(5,928)	(6,270)
Debt and equity securities – liquid assets	17.1.2	(11,715)	(15,028)
Net indebtedness of assets held for sale		(22)	(17)
NET INDEBTEDNESS		**41,007**	**42,290**

The Group's net indebtedness amounts to €41,007 million at 30 June 2021 (€42,290 million at 31 December 2020). The ratio of net indebtedness to operating profit before depreciation and amortisation at 30 June 2021 is 2.21 (2.61 at 31 December 2020). The ratio at 30 June 2021 is calculated based on cumulative operating profit before depreciation and amortisation for the second half of 2020 and the first half of 2021.

NOTE 19 OFF-BALANCE SHEET COMMITMENTS

This note presents off-balance sheet commitments given and received by the Group at 30 June 2021. The amounts of commitments correspond to non-discounted contractual values.

19.1 COMMITMENTS GIVEN

(in millions of euros)	Notes	30/06/2021	31/12/2020
Operating commitments given[(1)]	19.1.1	17,881	17,151
Investment commitments given	19.1.2	17,166	16,494
Financing commitments given	19.1.3	6,021	5,536
TOTAL COMMITMENTS GIVEN		**41,068**	**39,181**

[(1)] *Excluding fuel and energy purchases and leases as lessee.*

In almost all cases, these are reciprocal commitments, and the third parties concerned are under a contractual obligation to supply the Group with assets or services related to operating, investment and financing activities.

19.1.1 Operating commitments given

19.1.1.1 Fuel and energy purchase commitments

Commitments to purchase commodities, energy and nuclear fuel (excluding purchases of gas and related services) amounted to €24,715 million at 31 December 2020, and there was no significant change during the first half of 2021.

19.1.1.2 Operating contract performance commitments given

At 31 June 2021, these commitments mature as follows:

	30/06/2021				31/12/2020
	Total	Maturity			Total
(in millions of euros)		< 1 year	1 to 5 years	> 5 years	
Operating guarantees given	9,483	2,347	2,479	4,657	9,185
Operating purchase commitments[(1)]	8,191	4,872	2,687	632	7,720
Other operating commitments	207	53	87	67	246
OPERATING CONTRACT PERFORMANCE COMMITMENTS GIVEN[(2)]	**17,881**	**7,272**	**5,253**	**5,356**	**17,151**

[(1)] *Excluding fuel and energy.*
[(2)] *Including commitments given by controlled entities to joint ventures, amounting to €1,826 million at 30 June 2021 (€1,714 million at 31 December 2020).*

In the course of its business, the Group provides contract performance guarantees, generally through the intermediary of banks.

Operating guarantees given at 30 June 2021 mainly consist of guarantees given by EDF, Edison, EDF Energy and EDF Renewables in connection with its development projects. The change in these guarantees is essentially explained by new EDF Renewables projects in development, particularly in the United States.

19.1.1.3 Lease commitments as lessee

Lease commitments as lessee that are not recognised in the balance sheet amounted to €369 million at 31 December 2020 and there was no significant change during the first half of 2021.

19.1.2 Investment commitments given

At 30 June 2021, details of investment commitments are as follows:

	30/06/2021				31/12/2020
	Total	Maturity			Total
(in millions of euros)		< 1 year	1 to 5 years	> 5 years	
Commitments related to acquisition of tangible and intangible assets	15,894	9,042	6,321	531	15,625
Commitments related to acquisition of financial assets	1,143	472	576	95	716
Other commitments related to investments	129	129	-	-	153
TOTAL INVESTMENT COMMITMENTS GIVEN[1]	**17,166**	**9,643**	**6,897**	**626**	**16,494**

[1]Including commitments given by controlled entities to joint ventures, amounting to €206 million at 30 June 2021 (€212 million at 31 December 2020).

The increase in commitments related to acquisition of tangible and intangible assets principally relates to the rise of the pound sterling against the Euro, and to a lesser degree contracts relating to maintenance of EDF SA's nuclear power plants. These increases were partly counterbalanced by a decrease in commitments given by EDF Energy (as construction of Hinkley Point C progresses) and Enedis (as rollout of the Linky smart meters continues).

The increase in commitments related to acquisition of financial assets is mainly explained by EDF Invest's commitment to acquire a minority interest, through a consortium, in Orange Concessions (a company formed by telecommunications operator Orange to carry its fibre-optics investments to bring the technology to rural areas of France). This transaction is expected to be finalised during the second half of 2021.

19.1.3 Financing commitments given

Financing commitments given by the Group at 30 June 2021 comprise the following:

	30/06/2021				31/12/2020
	Total	Maturity			Total
(in millions of euros)		< 1 year	1 to 5 years	> 5 years	
Security interests in real property	4,264	361	2,169	1,734	4,179
Guarantees related to borrowings	1,277	44	516	717	949
Other financing commitments	480	393	35	52	408
TOTAL FINANCING COMMITMENTS GIVEN[1]	**6,021**	**798**	**2,720**	**2,503**	**5,536**

[1]Including commitments given by controlled entities to joint ventures, amounting to €1,488 million at 30 June 2021 (€1,156 million at 31 December 2020). These financing commitments to joint ventures mainly concern EDF Renewables.

Security interests and assets provided as guarantees mainly concern pledges or mortgages of tangible assets and shares representing investments in consolidated subsidiaries which hold property, plant and equipment of EDF Renewables The increase in financing commitments given principally concerns EDF Renewables and concerns commitments related to development of its projects in France, the United States and Brazil.

19.2 COMMITMENTS RECEIVED

The table below shows off-balance sheet commitments received by the Group that have been valued.

(in millions of euros)	30/06/2021	31/12/2020
Operating commitments received[1]	7,995	7,397
Investment / divestment commitments received	1,004	132
Financing commitments received	37	31
TOTAL COMMITMENTS RECEIVED[2]	**9,036**	**7,560**

[1]*Excluding commitments related to supplies of energy and related services and operating lease commitments as lessor (€711 million at 31 December 2020).*
[2]*Excluding commitments related to credit lines, which are described in note 17.3.*

Operating sale commitments received exclude energy deliveries and principally concern firm orders made through contracts recorded on a percentage-of-completion basis at Framatome (construction and engineering contracts) and EDF Renewables (agreements for operation services, maintenance services, and development and sale of structured assets).

The increase in investment/divestment commitments received is explained by the sales in progress of Dalkia Wastenergy and West Burton B (see note 3.1). Completion of these sales is subject to fulfilment of conditions precedent, and a guarantee received in connection with a repurchase agreement concerning securities held by EDF.

NOTE 20 SUBSEQUENT EVENTS

No developments have occurred since 30 June 2021 in addition to those presented in other notes.

Electricité de France S.A.

Siège social : 22-30, avenue de Wagram – 75008 Paris

Statutory Auditors' Review Report on the Half-yearly Financial Information

Period from January 1st to June 30, 2021

This is a free translation into English of the statutory auditors' review report on the half-yearly financial information issued in French and is provided solely for the convenience of English-speaking users. This report includes information relating to the specific verification of information given in the Group's half-yearly management report. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In compliance with the assignment entrusted to us by your General Meeting and in accordance with the requirements of article L. 451-1-2-III of the French Monetary and Financial Code (*"code monétaire et financier"*), we hereby report to you on:

- the review of the accompanying condensed half-yearly consolidated financial statements of Electricité de France S.A, for the six-month period from January 1st to June 30, 2021,
- the verification of the information presented in the half-yearly management report.

Due to the global crisis related to the Covid-19 pandemic, the condensed half-yearly consolidated financial statements have been prepared and reviewed under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the state of sanitary emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties on their future prospects. Those measures, such as travel restrictions and remote working, have also had an impact on the companies' internal organization and the performance of our review procedures.

These condensed half-yearly consolidated financial statements are the responsibility of the Board of Directors. Our role is to express a conclusion on these financial statements based on our review.

1. Conclusion on the financial statements

We conducted our review in accordance with professional standards applicable in France.

A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with professional standards applicable in France and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Based on our review, nothing has come to our attention that causes us to believe that the accompanying condensed half-yearly consolidated financial statements are not prepared, in all material respects, in accordance with IAS 34 - standard of the IFRSs as adopted by the European Union applicable to interim financial information.

2. Specific verification

We have also verified the information presented in the half-yearly management report on commenting on the condensed half-yearly consolidated financial statements subject to our review. We have no matters to report as to its fair presentation and consistency with the condensed half-yearly consolidated financial statements.

Paris-La Défense, July 28, 2021

The Statutory Auditors

French original signed by

KPMG S.A.		**Deloitte & Associés**	
Jay Nirsimloo	Michel Piette	Damien Leurent	Christophe Patrier