

EDF GROUP 2024 MANAGEMENT REPORT

French *société anonyme*
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1 Significant events and key figures

**Excellent operational performance
in a context of lower market prices**
Flamanville 3 connected to the French national grid for the first time
Net financial debt stabilised
Rollout of the “Ambitions 2035” strategy
Successful commercial offerings

EDF has adopted its “Ambitions 2035” strategy and is rolling it out with a focus on 4 pillars:

Supporting customers in reducing their carbon footprint:

- **Successful deployment of the commercial policy:** 9 letters of intent signed for long-term industrial partnerships⁽¹⁾ representing over 12TWh a year, including one with a binding contract, and 6,000 medium-term power supply contracts signed (around 22TWh for 2028 and 12TWh for 2029).
- **Growth in the residential customer portfolio** in the G4 countries to 41.5 million at end-2024⁽²⁾
- **CO₂ emissions avoided** reached 13.4Mt in 2024.
- **Debarbonising uses:** 18% increase in electric vehicle charging points installed or managed in the G4 countries. The biomass boiler installed by Dalkia at the Swiss Krono plant will avoid 35,000 t of fossil CO₂ emissions a year.

Producing more low-carbon electricity:

- With **over 94% of carbon-free electricity generation, EDF has one of the lowest carbon intensities in the world at 30 gCO₂/kWh**, reduced by 19% compared to 2023.
- **Excellent operational performance, including:**
 - > a **significant 43.1TWh increase in nuclear power output in France** to 361.7TWh, reflecting optimisation of reactor outages under the START 2025 programme, and industrial control of the stress corrosion checks and repairs.
 - > a **12.7TWh increase in hydropower output** to 55.5TWh⁽³⁾, explained by high availability and exceptionally good hydraulicity conditions.
 - > a **6.7% increase in wind and solar power output** to 28.5TWh, largely driven by new installed capacities. The portfolio of wind and solar projects reached 114GW gross (a major contract was won in December for a 250MW floating wind farm in the Mediterranean).
- **EDF is mobilised for success in its nuclear projects :**
 - > **Flamanville 3:** the reactor was connected to the network on 21 December. After the first nuclear reaction on 3 September 2024, EDF's teams conducted a programme of tests and controls for a gradual reactor ramp-up. Testing and grid connection and disconnection phases will continue until the reactor reaches full power. On 31 January 2025, the ASN approved an increase to above 25% power.
 - > **Hinkley Point C :** the first reactor pressure vessel, supplied by Framatome, is now installed.
 - > **EPR2 :** after a maturity review, the project is moving into the detailed design phase for the principal nuclear island buildings.
 - > **Small Modular Reactor :** conceptual design phase launched for a pressurised water SMR by NUWARD based on proven technological building blocks.

Developing networks to meet the challenges of the energy transition:

- **Higher number of connections** by Enedis⁽⁴⁾ in 2024: +21% for installed capacity for electric vehicles (to 5.1GW) and +19% for renewable energy facilities (to 5.5GW).
- Enedis ranked “**world's smartest grid**” in the Smart Grid Index for the third consecutive year.
- The French network was fully available at all sites throughout the Paris Olympic and Paralympic Games, **cutting CO₂ emissions by 80%** for Paris 2024.
- Power restored to **90% of customers within 48 hours** after weather events in France.

(1) Nuclear power allocation contracts

(2) The customer portfolio consists of electricity, gas and recurring services contracts

(3) After deduction of pumped-storage consumption, hydropower output totals 47.8TWh in 2024 vs 37.0TWh in 2023

(4) Enedis is an independent subsidiary of EDF under the French Energy Code

Developing flexibility solutions to meet the needs of the power system:

- Greater flexibility is required to cope with the **system instability** caused by the renewable energy intermittency. This entails **high price volatility** (hourly prices < €10/MWh were observed for 1,366 hours in 2024, i.e. more than 15% of the time vs more than 5% in 2023) and more **modulation** of nuclear power plants.
- **Decarbonisation of flexible thermal plants:**
 - > Start of work at the **Ricanto liquid biomass plant** (130MW - France), to replace the Vazzio thermal plant.
 - > Inauguration of the **Prezenzano CCGT plant** (800MW - Italy) with 30% lower CO₂ emissions, and a turbine ready to run on hydrogen.
- 18% increase in capacity of **flexibility offers for customers** in the G4 countries: 2.1GW at the end 2024⁽¹⁾.

EDF presents its new CSR architecture and raises its targets

- The new CSR architecture places the “Building the electricity system of tomorrow” objective on two fundamental pillars, “Working within the planetary boundaries” and “Acting for a just transition”.
- **Stronger ambitions to cut CO₂ emissions:**
 - > For scope 1, a new target of 65% reduction by 2027, in addition to the targets of 70% by 2030 and 80% by 2035 (vs 2017 levels),
 - > For scope 3, three new targets: reduction of 30% by 2027, 35% by 2030 and 45% by 2035 (vs 2019 levels).
- To meet its skill requirements, the Group has **hired nearly 20,000 people in France** (including around 10,000 permanent employees, 4,500 work-study trainees, and 5,000 interns), promoting a good gender balance and diversity, and bring young people into work.

EDF issued €5 bn green bonds to fund development of its business activities in 2024 (nuclear, renewables and network activities) and **€500 M bonds dedicated to the Hinkley Point C project**.

1.1.1 Key figures

The financial information presented in this document is prepared from the EDF group's consolidated financial statements at 31 December 2024.

The Group's very good operational performance is reflected in substantially higher nuclear output in France and hydropower output in Europe. Regulated activities and renewable energies also registered growth. Nevertheless, EBITDA was down by €3.4 billion in a decreasing market price environment.

(in millions of euros)	2024	2023	Variation	Variation (%)	Organic variation (%)
Sales	118,690	139,715	(21,025)	-15.0	-15.7
EBITDA	36,523	39,927	(3,404)	-8.5	-8.4
Operating profit (EBIT)	18,327	13,174	5,153	39.1	43.0
Income before taxes of consolidated companies	17,395	9,825	7,570	77.0	82.2
EDF net income	11,406	10,016	1,390	13.9	17.1
Net income excluding non-recurring items ⁽¹⁾	15,233	18,481	(3,248)	-17.6	-15.8
Net income excluding non-recurring items, adjusted for the remuneration of hybrid notes	14,651	17,851	(3,200)	-17.9	n.a
Group cash flow ⁽²⁾	3,868	9,581	(5,713)	-59.6	n.a
Net financial debt ⁽³⁾	54,346	54,381	(35)	-0.1	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 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 the section on “Net income excluding non-recurring items”).

(2) Income from cash and cash equivalents is now presented in the Group cash flow (in the amount of €351 million for 2024 and €293 million for 2023). In 2023, it was included in “Other financial investments”. The comparative figures have been restated accordingly.

(3) Net financial debt is presented in detail in section 4.1.

(1) Excluding shifted power in France due to peak/off-peak signals.

2 Economic environment

2.1 Market prices for electricity, fossil fuels and CO₂ emission certificates

2.1.1 Spot electricity prices in Europe ⁽¹⁾

	France	United Kingdom	Italy	Belgium
Average baseload price for 2024 (€/MWh)	57.7	85.9	108.5	70.2
Variation in average baseload prices, 2024/2023	-39.1	-22.2	-18.7	-27.0
Average peakload price for 2024 (€/MWh)	64.2	96.4	115.9	77.6
Variation in average peakload prices, 2024/2023	-45.4	-23.8	-21.2	-31.7

Figures are rounded to one decimal place. 2024/2023 variations are calculated from the exact amounts

In France, spot electricity prices were significantly lower than in 2023 (an average difference of €(39.1)/MWh), ranging between €(87.3)/MWh and €284.2/MWh in 2024. The general easing of spot prices resulted from the following factors in the supply-demand balance⁽²⁾:

- An increase in power production: French electricity output rose by 9%, principally due to higher generation of nuclear power (+13% vs 2023) and very good hydraulicity conditions (+27% vs 2023).
- A decrease in commodity prices: -12% vs 2023 for the PEG spot index (the reference index for gas in France).
- Sluggish demand: Consumption in 2024 (unadjusted for weather effects and load-shedding) totalled 437.2TWh (+0.9TWh vs 2023); along with 2023, demand for electricity in France in 2024 was the lowest for 20 years.

Consequently,

- As a result of this electricity output and restrained consumption, France was a net exporter in every month of 2024. The country's net export balance rose substantially in 2024 due to a decrease in imports (-50% vs 2023) and an increase in exports (+35% vs 2023), principally in the Core region (consisting of 13 countries including Germany and Belgium, Italy and the United Kingdom). The net total 89TWh of exports in 2024 broke France's previous record of 77TWh, dating from 2002.
- 2024 was marked by several hours of negative or zero spot prices in France when renewable energy output was high given the increase in installed renewable capacities and very good hydraulicity conditions combined with sluggish demand. Specifically, there were 361 hours of negative spot prices in 2024, compared to 147 in 2023. European countries were also affected by a downturn in commodity prices which drove spot electricity prices down all over Europe in 2024.

2.1.2 Forward electricity prices in Europe ⁽³⁾

	France	United Kingdom	Italy	Belgium
Average 2024 forward baseload price under the 2025 annual contract (€/MWh)	76.7	94.1	108.0	85.0
Variation in average forward baseload price under the annual contracts, 2024/2023	(86.0)	(50.0)	(40.2)	(43.9)
Forward baseload price under the 2025 annual contract at 27 December 2024 (€/MWh)	77.6	108.5	128.7	91.8
Average 2024 forward peakload price under the 2025 annual contract (€/MWh)	90.1	106.1	114.9	n.a.
Variation in average forward peakload price under the annual contracts, 2024/2023	-147.6	-63.8	-52.1	n.a.
Forward peakload price under the 2025 annual contract at 27 December 2024 (€/MWh)	87.7	120.7	135.2	n.a.

n.a. : not applicable

Figures are rounded to one decimal place. 2024/2023 variations are calculated from the exact amounts

(1) **France**: average day-ahead EPEXSPOT price; **Belgium**: average day-ahead Belpex price; **United Kingdom**: average day-ahead Nordpool price; **Italy**: average day-ahead GME price.

(2) Source: ENTSO-E Transparency Platform

(3) France, Italy, Belgium, United Kingdom: year-ahead EEX price

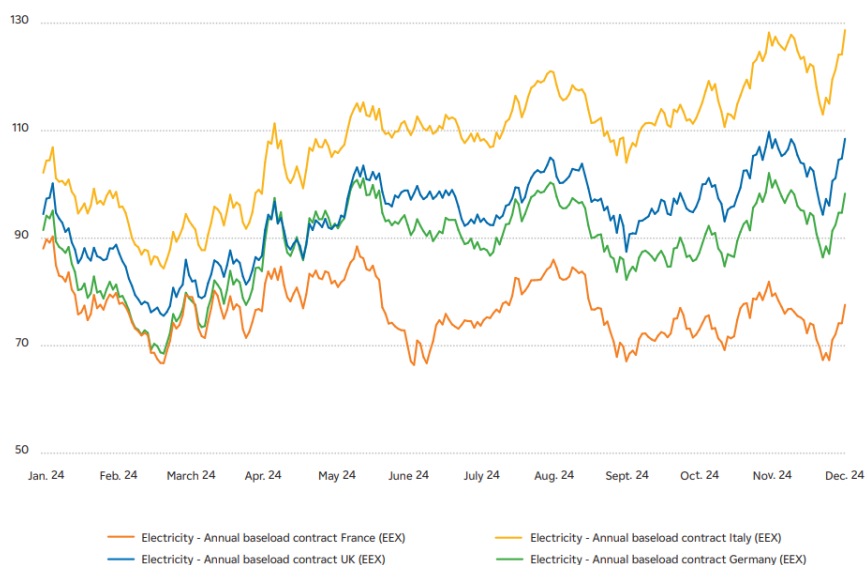
Average forward prices for baseload and peackload electricity for next-year delivery under annual contracts were down all over Europe compared to 2023.

In **France**, the average annual contract baseload price for next-year delivery was €76.7/MWh for 2024, down by €86.0/MWh from 2023. This price fluctuated between €66.4/MWh and €90.3/MWh, ending the year at €77.6/MWh (for comparison, the 2024 calendar product peaked at €234.7/MWh on 3 January 2023 while the 2025 product peaked at €90.3/MWh on 5 January 2024).

The forward price for 2025 delivery mainly echoed the downturn in gas, coal and CO₂ prices, and the lower demand, since consumption has not yet returned to pre-Covid levels. The easing of forward electricity prices is also explained by the spot prices observed in 2024 as market actors progressively adapted to levels well below 2023 prices.

The differential with the annual year-ahead contract prices in Germany, Europe's most liquid market, fluctuated between €0.8/MWh and €(25.1)/MWh. The French price was almost always above the German price in 2023, but then spent practically all of 2024 below the German price, again in response to realised spot prices which were an average €21.2/MWh lower in France than Germany in 2024.

PRINCIPAL FORWARD ELECTRICITY PRICES IN EUROPE (BASELOAD YEAR AHEAD), IN €/MWH



2.1.3 Fossil fuel and CO₂ emission certificates prices⁽¹⁾

	Coal (US\$/t)	Oil (US\$/bbl)	Natural gas (€/MWh)	EU ETS Dec year Y (€/t)
Average price for 2024	114.7	79.9	36.2	66.4
Average price variation, 2024/2023	-11.6	-2.3	-14.4	-19.1
Highest price in 2024	130.8	91.2	46.2	77.4
Lowest price in 2024	89.2	69.2	26.6	52.2
Price at 31 December 2024	113.7	74.6	46.2 (at 27 Dec)	63.3 (at 16 Dec)
Price at 29 December 2023	97.6	77.0	35.0 (at 27 Dec)	69.1 (at 18 Dec)

The annual **gas** contract price for next-year delivery at the French PEG hub stood at an average €36.2/MWh in 2024, substantially lower than in last year (-28% or -€14.4/MWh vs 2023). Nevertheless, the general trend over the year 2024 was upward: the PEG 2025 price closed at €46.2/MWh, its highest level of the year. Although demand was down from 2023 (-6.1%) due to lasting energy-sufficient behaviour and relatively high European gas stocks throughout the year, prices were sustained by geopolitical tensions that stoked market actors' fears for European supplies, and tougher competition with Asia for LNG.

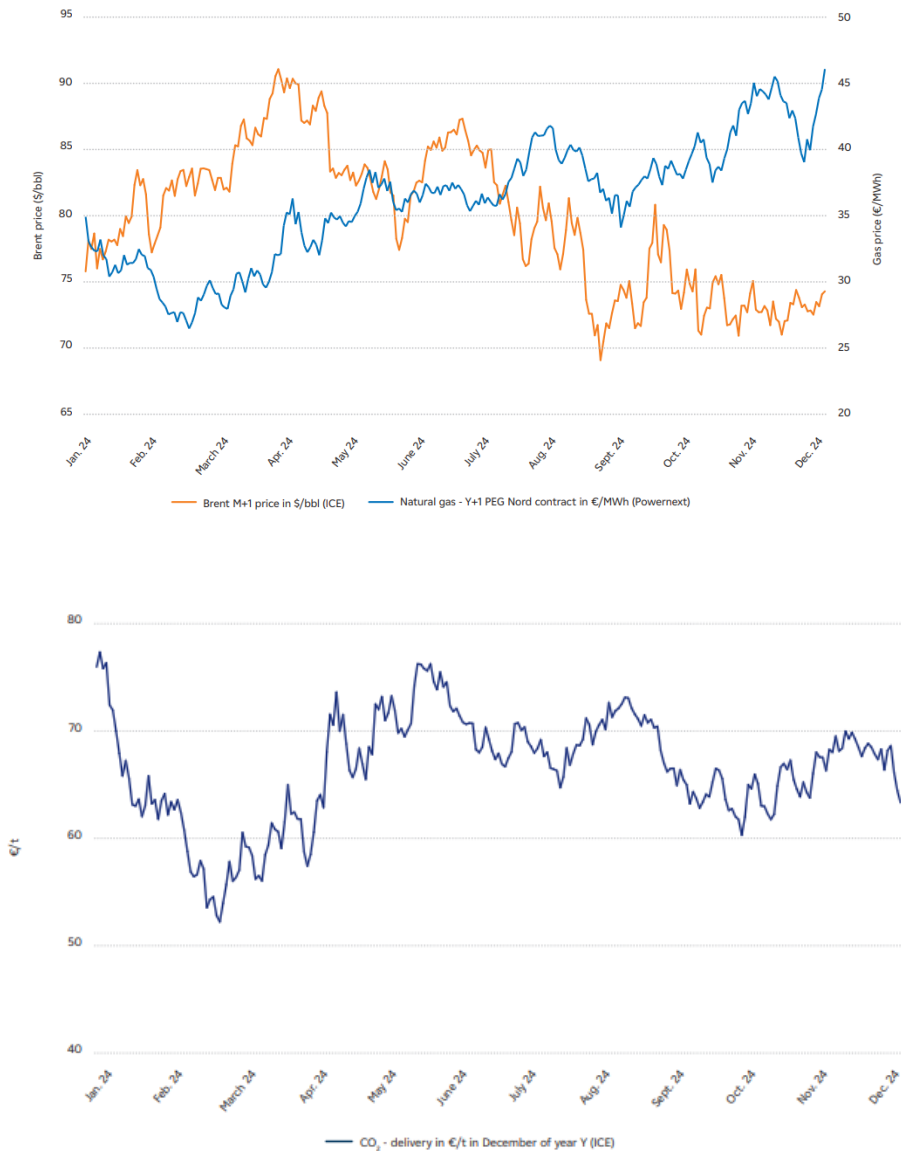
Coal prices for next-year delivery in Europe's principal ports, "ARA" (Amsterdam, Rotterdam and Antwerp), stood at an average \$114.7/t in 2024, down by -9% or -\$11.6/t from 2023, and ended the year at \$113.7/t. At a time when European countries are declaring their aim to exit coal, demand remained low in Europe. It generally fluctuated in line with gas price movements, and coal prices were boosted by demand in Asia where imports reached close-to-record levels during the summer to cope with heatwaves. Forecast costs for gas and coal-fired electricity generation occasionally drew closer in the summer, as coal and CO₂ prices declined, while gas prices were rising.

(1) France, Italy, Belgium, United Kingdom: year-ahead EEX price

Oil prices stood at an average \$79.9/bbl for 2024 (-3% or -\$2.3/bbl vs. 2023). Brent prices were volatile in 2024, following no clear trend. Prices were held back by the lack of tangible signs of recovery in the world economy, particularly in China, but were also sustained by market anxiety about supplies in a tense geopolitical environment, especially in the Middle East, and by the OPEC+ countries' strategy of deliberately limiting production to encourage an upturn in oil prices.

The price of **CO₂ emission certificates** for delivery in December Y stood at an average €66.4/t for 2024 (-22% or €(19.1)/t vs 2023), trading within a range of €52.2/t and €77.4/t. The high market volatility observed was decorrelated from commodity price trends, indicating the market's sometimes speculative nature. For example, the outcome of the European parliamentary elections in June, revealing the advance of political parties that have lower climate ambitions, triggered a downturn in CO₂ emission certificate prices. The decrease in these prices is also explained by the lower use of carbon-emitting thermal power plants this year compared to 2023.

NATURAL GAS, OIL AND CO₂ EMISSION CERTIFICATE PRICES



2.2 Consumption of electricity and natural gas

2.2.1 Consumption of electricity and gas in France

Electricity consumption in mainland France totalled 438.3TWh (unadjusted) in 2024, an increase of 3.2TWh. This rise is explained by the additional day in February (+1.4TWh), temperatures that were generally milder in the cold season (principally February) and cooler in the summer (- 2.3TWh), less load-shedding (+0.2TWh) and a 3.9TWh increase which may indicate that energy-sufficient behaviours are falling off slightly or reflect the beginnings of electrification of uses.

Gas consumption in mainland France totalled 352.5TWh (unadjusted) in 2024, down by 23.1TWh (-6.1%) compared to 2023.

2.2.2 Consumption of electricity and gas in the United Kingdom

Electricity consumption in the United Kingdom was 1% higher than in 2023, while **gas consumption** was up by 3.9% (data unadjusted for weather effects). These changes were observed in a time of falling energy prices for consumers.

2.2.3 Consumption of electricity and gas in Italy

Electricity consumption in Italy in 2024 totalled 312.3TWh, up by +2.2% from 2023. This rise is explained by a recovery in consumer demand, particularly from industrial users, as market prices decreased due to a decline in gas prices.

Consumption of natural gas in Italy was down by 2.2% compared to 2023, due to lower demand from electricity generation plants since hydraulicity conditions had improved.

2.3 Sales tariffs for electricity and natural gas

In **France**, the French Energy Regulation Commission (*Commission de Régulation de l'Énergie* or CRE) issued a decision of 15 January 2025 proposing an average decrease (excluding taxes) of 22.61% in the "blue" tariffs for residential customers, and an average decrease of 22.67% in the "blue" tariffs for non-residential customers from 1 February 2025. This proposal was adopted by the tariff decision of 28 January 2025. Another decision of 20 December 2024 set out the excise duty rates on electricity applicable from 1 February 2025. These steps have the combined effect of reducing the "blue" tariffs (including taxes) by an average 15% for residential customers, and 15.06% for non-residential customers.

In a decision of 16 January 2025, the CRE proposed tariff scales for the "yellow" and "green" tariffs applicable for sites with subscribed power above 36kVA. Like the scales for sites with lower power levels, these scales are constructed by the "cost stacking" method described in articles L.337-6 and R.337-6 of the French Energy Code.

In the **United Kingdom**, the Energy Price Cap on the Standard Variable Tariff (SVT) for residential electricity and gas customers was adjusted in line with market price movements: it was raised by 5% on 1 January 2024 (to £1,928 a year) then reduced twice, by 12% in the second quarter (to £1,690 a year) and 8% in the third quarter (to £1,568 a year), before being raised again by 12% in the final quarter of 2024 (to £1,717 a year).

All these price caps are well below the maximum levels applicable in the first quarter of 2023 (£4,729 a year).

In **Italy**, the average PUN TWA (Time Weighted Average Single National Price) electricity tariff for 2024 was €108.4/MWh, down by 14.9% from 2023 (€127.4/MWh). This decrease is explained by lower gas prices in 2024: spot gas prices were 14.3% below 2023 levels, standing at €38.4/smc⁽¹⁾ as pressures eased on the international markets.

The Italian energy regulator ARERA has begun to discontinue regulated tariffs progressively for residential customers, switching them to market-price contracts.

(1) €0.01/smc3 = 1 €/MWh

2.4 Weather conditions: temperatures and hydraulicity conditions in France

2.4.1 Temperatures in France

The average temperature in France in 2024 was 13.3°C, which is 0.5°C below the 2023 average but 0.6°C above normal. The winter period in the early part of the year was milder than in 2023 (particularly in February: 9.1°C in 2024 vs 6.4°C in 2023), the summer was not as hot (20.3°C in 2024 vs 21.3°C in 2023), and the spring and the rest of the year were distinctly cooler.

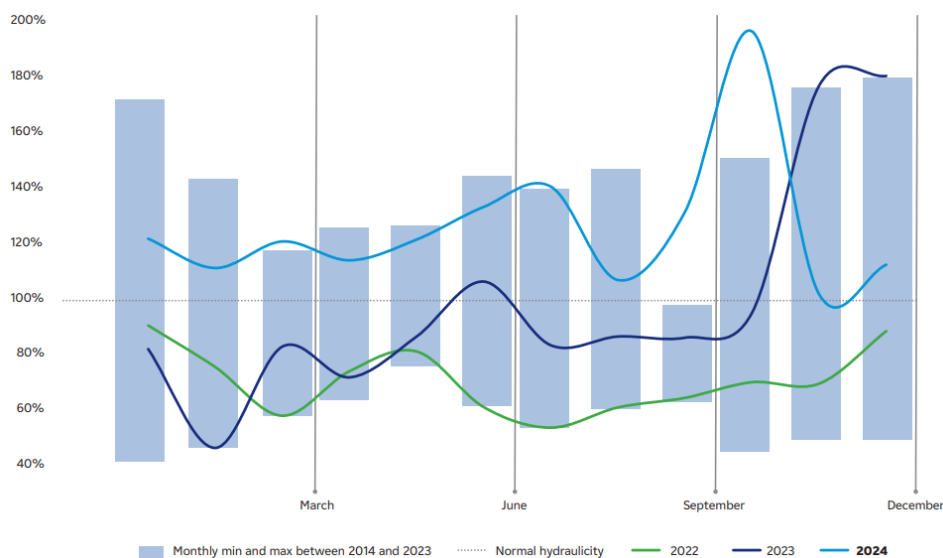
2.4.2 Rainfall, snow cover, and hydraulicity conditions in France

2024 saw heavy rainfall, in contrast to the droughts of 2023 and 2022. There was a significant shortfall of snow cover in the Pyrenees throughout the year, but snow cover in the Alps was constantly above normal, peaking at close to the 90th quantile around 2 April.

In view of the accumulated precipitation and high snow stocks in the Alps, water reserves in 2024 were above the historical average* throughout the year. The overall water flow coefficient in 2024 stood at 1.26 for hydro facilities operated by EDF, compared to 0.98 for 2023 and 0.71 in 2022. Hydropower stocks were thus at 68.8% of full capacity at 31 December 2024, 5.8 points above the historical average*.

HYDRAULICITY CONDITIONS FOR EDF IN FRANCE *

(*) for the period 1986 to 2023



2.4.3 Weather events in France and action by the Group

France was hit by a large number of serious weather events (cyclones, floods, storms, etc) in 2024. The EDF group continued to demonstrate its engagement with climate hazards by mobilising extensive human and material resources.

For example, when Cyclone Chido struck the Mayotte archipelago in December 2024, EDF provided support for the local electricity company Electricité de Mayotte (EDM). The specialist crisis management team FARN (*Force d'Action Rapide du Nucléaire*) was mobilised to provide logistical resources, including the installation of two accommodation camps. Enedis' Rapid Response Electricity Task Force, FIRE (*Force d'intervention rapide de l'électricité*), was also deployed to reinforce local action.

Similarly, when Storm Caetano swept across mainland France, the electricity distribution network had to cope with harsh weather conditions causing trees and branches to fall on the cables. Enedis immediately sent employees and contractors to deal with these issues. Reinforcements from the FIRE task force were made available in the most seriously affected regions as soon as access was possible, in another illustration of the EDF group's commitment and rapid response to weather crises.

Substantial resources were also mobilised when Cyclone Belal brought violent winds to Reunion Island, seriously damaging its electricity network: 200 technicians, 50 vehicles, 6 helicopters, and the Rapid Response Electricity Task Forces from Enedis and the Island Energy Systems provided assistance, with reinforcements from Enedis and EDF Corsica.

3 Analysis of the business and the consolidated income statement for 2024

Sales and EBITDA are analysed by business segment (France – Generation and supply, France – Regulated activities, EDF Renewables, Dalkia, Industry and Services, United Kingdom, Italy, Other international and Other activities). EBIT and net income are analysed without any breakdown.

(in millions of euros)	2024	2023
Sales	118,690	139,715
Fuel and energy purchases	(54,217)	(80,989)
Other external purchases ⁽¹⁾	(10,798)	(10,493)
Personnel expenses	(16,916)	(15,470)
Taxes other than income taxes	(4,142)	(4,064)
Other operating income and expenses	3,906	11,228
EBITDA	36,523	39,927
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	443	363
Net depreciation and amortisation	(11,970)	(11,161)
(Impairment)/reversals	(1,835)	(13,011)
Other income and expenses	(4,834)	(2,944)
EBIT	18,327	13,174
Cost of gross financial indebtedness	(4,094)	(3,830)
Discount effect	(3,190)	(3,988)
Other financial income and expenses	6,352	4,469
Financial result	(932)	(3,349)
Income before taxes of consolidated companies	17,395	9,825
Income taxes	(4,887)	(2,470)
Share in net income of associates and joint ventures	(683)	257
Net income of discontinued operations	29	-
CONSOLIDATED NET INCOME	11,854	7,612
EDF net income	11,406	10,016
Net income attributable to non-controlling interests	448	(2,404)

(1) Other external expenses are reported net of capitalised production.

3.1 Sales

Sales amounted to €118,690 million in 2024, down by €21,025 million (-15%) compared to 2023. Excluding the effect of movements in exchange rates (€545 million) and changes in the scope of consolidation (€318 million), sales registered an organic decrease (-15.7%).

3.1.1 Change in Group sales and breakdown by segment

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

(in millions of euros)	2024	2023	Variation	Variation (%)	Organic variation (%)
France - Generation and supply ⁽¹⁾	50,966	64,244	(13,278)	-20.7	-20.7
France - Regulated activities ⁽²⁾	20,071	19,413	658	3.4	3.4
EDF Renewables	2,154	2,031	123	6.1	6.3
Dalkia	6,018	6,395	(377)	-5.9	-5.4
Industry and services ⁽³⁾	5,173	4,066	1,107	27.2	18.0
United Kingdom	17,498	21,132	(3,634)	-17.2	-19.8
Italy	15,223	17,787	(2,564)	-14.4	-14.4
Other international	4,596	5,583	(987)	-17.7	-17.2
Other activities	4,848	7,677	(2,829)	-36.9	-36.8
Inter-segment eliminations	(7,857)	(8,613)	756	-8.8	-8.8
GROUP SALES	118,690	139,715	(21,025)	-15.0	-15.7

(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).

(3) The Industry and services segment now consists of Framatome and Arabelle Solutions, which has been consolidated since 31 May 2024.

France – Generation and supply

Sales by the **France – Generation and supply** segment amounted to €50,966 million in 2024, an organic decrease of €13,278 million (-20.7%).

In the supply activity, sales invoiced to final customers were down by €(7,409) million due to price movements. Sales to customers on market-price contracts decreased because of lower market prices, while sales to customers on regulated-tariff contracts increased since the regulated tariffs were higher in January 2024 than January 2023 (they were raised by 20% excluding taxes from 1 February 2023, then by 10% on 1 August 2023), and remained stable year-on-year (excluding taxes) over the period February to December (raised by 0.2% on 1 February 2024). The French State's "tariff shield" price cap introduced in late 2022 ended on 1 February 2024 for electricity and 1 July 2023 for gas, and only the electricity "shock absorber" compensation mechanisms remained in force. As a result, the compensation received under these mechanisms in 2024 totalled €1,563 million, €(12,337) million less than in 2023. This compensation income is included in Other operating income and expenses (with an impact on EBITDA). The total decrease in revenues from the customer portfolio was €(19,686) million.

Resales of electricity subject to purchase obligations were down by €(4,967) million due to a clear price downturn between 2023 and 2024. The effect on EBITDA was neutral because net expenses relating to purchase obligations are compensated by the CSPE mechanism (Compensation for public energy service charges).

Capacity auction sales had a negative impact of €404 million, resulting from the observed decrease in capacity guarantee prices for future delivery years. This reflected expectations of a more relaxed supply-demand balance in the next few years.

Gas sales had a negative impact of €180 million, driven by the downturn in prices which was partly offset by higher sales volumes.

Finally, sales by the aggregation subsidiaries were down by €463 million due to declining market prices (with a limited impact on EBITDA).

Electricity generation

In France, the 41.3TWh increase in nuclear power output to 361.7TWh, in line with the revised estimate published on 11 December 2024, reflects better fleet availability.

The **11.8TWh increase in gross hydropower output in France⁽¹⁾ to 50.6TWh** is attributable to better hydraulicity conditions (see section 2.4 "Weather conditions: temperatures and hydraulicity conditions in France").

Thermal power plants were used less in 2024 than 2023 (2.7TWh vs 6.7TWh).

Sales volumes to final customers decreased by -3.9TWh (excluding weather and leap year effects), with the decrease partly mitigated by unit consumption 1.0TWh above the 2023 level. The impact of weather effects is estimated at -1.3TWh, as 2024 was milder than 2023, especially in the first half of the year.

EDF was a net seller on the wholesale markets to the extent of 82.1TWh; it was also a net seller in 2023 to the extent of 29.3TWh.

(1) Hydropower output excluding the island activities, before deduction of pumped-storage volumes. Total cumulative hydropower production after deduction of pumped-storage hydropower was 42.9TWh in 2024 (33.0TWh in 2023).

France – Regulated activities

Sales by the **France – Regulated activities** segment amounted to €20,071 million, an organic increase of €658 million (+3.4%) compared to 2023.

This increase was driven by a €747 million rise in sales by Enedis⁽¹⁾, reflecting the indexed adjustment of the TURPE 6 tariff (+4.81% excluding taxes as of November 1, 2024, or +€698 million).

EDF Renewables

EDF Renewables' sales totalled €2,154 million, an organic increase of €127 million (+6.2%) compared to 2023 driven by the generation performance of plants currently in operation. Energy output totalled 25TWh in 2024, up by 9.8% from 2023. The positive impact of new facilities commissioned in 2023 and 2024 was mitigated by less favourable wind and sunshine conditions and the decrease in prices.

Dalkia

Sales by **Dalkia** amounted to €6,018 million for 2024, an organic decrease of €347 million (-5.4%). This principally reflects the 23% drop in average gas prices and ad hoc disposals of generation assets during 2023, which had no equivalent in 2024.

Industry and services

The **Industry and services** segment consists of the Framatome subgroup and Arabelle Solutions' nuclear activities, which became part of the Group in May 2024.

Sales by the **Framatome subgroup alone** amounted to €4,667 million in 2024, an organic increase of €480 million (+11.8%) compared to 2023 due to the intensification of Nuclear New Build projects in France and the United Kingdom, and a step-up in fuel deliveries in the United States and Europe.

Sales by **Arabelle Solutions** for the 7 months of its inclusion in the EDF group consolidation amounted to €506 million.

United Kingdom

The **United Kingdom** registered sales of €17,498 million, an organic decrease of €4,194 million (-19.8%) compared to 2023.

This change is mainly explained by the impact over the past year of decreasing energy prices on regulated tariffs for gas and electricity sales to customers.

Italy

Sales in **Italy** totalled €15,223 million in 2024, an organic decrease of €(2,554) million (-14.4%) from 2023, in a period of generally falling market prices.

Other international

The **Other international** segment principally covers operations in Belgium, Brazil and Asia (Vietnam and Laos). Sales by this segment amounted to €4,596 million in 2024, an organic decrease of €(962) million (-17.2%) compared to 2023.

In **Belgium**⁽²⁾, sales showed an organic decline of €(967) million (-20.9%) compared to 2023, as a result of lower sales prices for electricity and gas.

Sales in **Brazil** registered an organic increase of €39 million (+5.8%), resulting from greater use of the Group's power plant due to low water resource availability in the country.

Other activities

Other activities essentially comprise EDF Trading and the gas activities.

Sales by this segment amounted to €4,848 million in 2024, an organic decrease of €(2,827) million (-36.8%) compared to 2023.

- Sales by the **gas activities** totalled €2,709 million, an organic decrease of €(1,074) million (-28.4%) driven by a decline in wholesale gas market prices and the volumes delivered to the Dunkirk terminal.
- **EDF Trading's** sales totalled €1,908 million, an organic decrease of €(1,757) million (-47.9%) from 2023 as market volatility and prices were lower in 2024. This is a better result than in 2021 and earlier years, demonstrating a good performance by EDF Trading.

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

(2) Luminus and EDF Belgium

3.2 EBITDA

After elimination of foreign exchange effects and changes in the scope of consolidation, the Group's EBITDA showed an organic decrease of €(3,354) million (-8.4%). This change is principally explained by a decrease in the **France - Generation and supply** segment (€(3,727) million), the Other activities segment (€(1,269) million), and the **United Kingdom** (€(595) million), whereas growth was registered in the **France - Regulated activities** segment (€1,869 million) and at **EDF Renewables** (€456 million).

(in millions of euros)	2024	2023	Variation	Variation (%)	Organic variation (%)
Sales	118,690	139,715	(21,025)	-15.0	-15.7
Fuel and energy purchases	(54,217)	(80,989)	26,772	-33.1	-33.5
Other external expenses	(10,798)	(10,493)	(305)	2.9	0.5
Personnel expenses	(16,916)	(15,470)	(1,446)	9.3	7.6
Taxes other than income taxes	(4,142)	(4,064)	(78)	1.9	1.7
Other operating income and expenses	3,906	11,228	(7,322)	-65.2	-64.9
EBITDA	36,523	39,927	(3,404)	-8.5	-8.4

3.2.1 Analysis of Group EBITDA

- The Group's **fuel and energy purchases** amounted to €54,217 million in 2024, an organic decrease of €(27,104) million (-33.5%) compared to 2023.
 - > In the **France - Generation and supply** segment, fuel and energy purchases showed an organic decrease of €(17,201) million due to falling market prices and lower energy purchase volumes given the increase in nuclear and hydropower output,
 - > In the **France - Regulated activities** segment, fuel and energy purchases showed an organic decrease of €(1,447) million due to the lower prices of energy purchases to cover network losses,
 - > In **Italy**, fuel and energy purchases showed an organic decline of €(2,441) million, largely due to lower prices and gas purchase volumes,
 - > In the **United Kingdom**, the organic decrease of €(3,628) million (-25.4%) in fuel and energy purchases principally reflects the impact of falling market prices.
- The Group's **other external expenses** amounted to €10,798 million in 2024, an organic increase of €48 million (+0.5%) compared to 2023. This change is essentially attributable to the **France - Generation and supply** segment, which registered an increase of €41 million, up by +1.4% from 2023, notably reflecting purchases connected with the growth of service activities, and nuclear fleet maintenance.
- The Group's **personnel expenses** for 2024 totalled €16,916 million, an organic increase of €1,171 million (+7.6%) driven by pay rises in an inflationary economy, and workforce growth, mainly in the nuclear activities.
- **Taxes other than income taxes** amounted to €4,142 million, an organic increase of €68 million (+1.7%) compared to 2023;
 - > In the **France - Generation and supply** segment, the €141 million (+6.8%) organic increase is mainly attributable to higher rates for property taxes and the *Contribution Economique et Territoriale* business tax,
 - > In the **United Kingdom**, the organic increase of €90 million (+17.1%) in taxes mainly reflects the Electricity Generation Levy on revenues from nuclear generation, which rose because realised nuclear prices were higher in 2024 than 2023.
- **Other operating income and expenses** generated net income of €3,906 million in 2024, an organic decrease of €7,283 million (-64.9%) compared to 2023, essentially concerning the **France - Generation and supply** segment which registered an organic decrease of €7,804 million. The main factor in this decrease was the lower level of the CSPE compensation following discontinuation of the "tariff shield" price cap in February 2024. **EDF Renewables** registered an organic increase of €430 million (+140.1%) in other operating income and expenses, primarily driven by disposals in the United States and asset swap transactions in Brazil.

3.2.2 Change in consolidated EBITDA and analysis by segment

(in millions of euros)	2024	2023	Variation	Variation (%)	Organic Variation (%)
France - Generation and supply	20,950	24,677	(3,727)	-15.1	-15.1
France - Regulated activities	5,576	3,707	1,869	50.4	50.4
EDF Renewables	1,387	932	455	48.8	48.9
Dalkia	425	407	18	4.4	4.7
Industry and services ⁽¹⁾	118	255	(137)	-53.7	-1.6
United Kingdom	3,485	3,967	(482)	-12.2	-15.0
Italy	1,762	1,855	(93)	-5.0	-4.1
Other international	835	872	(37)	-4.2	-3.1
Other activities	1,985	3,255	(1,270)	-39.0	-39.0
GROUP EBITDA	36,523	39,927	(3,404)	-8.5	-8.4

(1) Industry and Services now comprises Framatome and Arabelle Solutions, which has been consolidated since 31 May 2024

France – Generation and supply

EBITDA for this segment declined by €3,727 million (-15.1%) between 2023 and 2024. The principal reasons were the decrease in sale prices to final customers, lower energy purchase volumes made at lower prices, and purchases/sale transactions on the markets. This “price” impact was counterbalanced by higher generation output, both of nuclear power (+41.3TWh) and hydropower (+9.9TWh⁽¹⁾) with a favourable effect of €3,121 million and €863 million respectively.

France – Regulated activities⁽²⁾

The increase in EBITDA is principally explained by a positive change in the gross margin on delivery (+€1,823 million), associated with lower market prices for energy purchases to cover network losses and higher income following the change in the TURPE 6 network access tariff.

EDF Renewables

The growth in EDF Renewables’ EBITDA mainly concerns Development and Sales of Structured Assets, with significant operations in the United States and Brazil. EBITDA for generation progressed, due to a 9.8% increase in volume output following the commissioning of new plants in 2023 and 2024, despite less favourable wind and sunshine conditions in France and falling market prices.

Dalkia

At Dalkia, the rise in EBITDA is attributable to the business performance of energy efficiency services and decarbonisation in France. However, sales of electricity produced by co-generation plants were lower than in 2023, as expected.

Industry and services

The Industry and services segment consists of the Framatome subgroup and Arabelle Solutions’ nuclear activities.

EBITDA for the **Framatome subgroup alone** amounts to €629 million, showing organic growth of €35 million (+5.9%). This growth reflects progress on New Nuclear projects in France and the United Kingdom, combined with faster-paced fuel sales in the United States.

Framatome’s contribution to Group EBITDA was €242 million: despite better fuel sales in the United States, this is practically stable compared to 2023, given the larger share of results relating to nuclear new build projects internal to the EDF group in France and the United Kingdom, and R&D costs;

Arabelle Solutions’ EBITDA for the 7 months of its inclusion in the EDF group consolidation amounts to €(120) million.

United Kingdom

The decrease in EBITDA is explained in particular by lower margins in the domestic and small business customer segments, and by the impact of falling market prices, given that the first half of 2023 benefited from an exceptional recovery of some of the costs incurred during the energy crisis.

Operational performance was strong, with nuclear power output stable at 37.3TWh despite longer unplanned outages than in 2023. The impact of these outages was offset by optimisation of scheduled outages and higher realised nuclear prices.

Italy

In the gas business, the downturn in EBITDA is particularly attributable to lower margins on the portfolio of procurement contracts.

In the electricity generation business, despite falling prices, the exceptionally good hydraulicity conditions led to higher output, with a resulting positive contribution to EBITDA. The contribution by thermal power plants, however, was negatively affected by the downturn in prices.

In the sales activities, margins on gas and electricity sales improved.

(1) After deduction of pumped-storage consumption.

(2) Including Enedis, Électricité de Strasbourg and the French island activities.

Other international

In Brazil, EBITDA was down slightly due to an unfavourable foreign exchange effect and downward revision of the price of the Power Purchase Agreement (PPA) attached to EDF's Norte Fluminense plant in November 2023. The PPA ended in November 2024, and a merchant period began involving new tenders.

Other activities

The increase in EBITDA for the **gas activities** (€275 million in 2024, or +€341 million vs 2023) is explained by better margins in the Group's gas storage activities and, to a lesser degree, in its LNG facility management activity, despite the lower level of business at the Dunkirk terminal.

EDF Trading's EBITDA reflects its good performance, although its contribution was down due to lower prices and lower volatility on the wholesale markets.

3.3 EBIT

The Group's consolidated **EBIT** for 2024 amounted to €18,327 million, up by €5,153 million from 2023, with an organic increase of €5,664 million.

(in millions of euros)	2024	2023	Variation	Variation (%)
EBITDA	36,523	39,927	(3,404)	-8.5
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	443	363	80	22.0
Net depreciation and amortisation *	(11,970)	(11,161)	(809)	7.2
(Impairment)/reversals	(1,835)	(13,011)	11,176	-85.9
Other income and expenses	(4,834)	(2,944)	(1,890)	64.2
EBIT	18,327	13,174	5,153	39.1

* Including net increases to provisions for replacement of concession assets

3.3.1 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 €80 million in 2024 in a context of price normalisation and volatility on the commodity markets.

3.3.2 (Impairment)/reversals

Impairment recognised in 2024 amounted to €1,835 million and principally concerned:

- assets under construction for the Hinkley Point C (HPC) project (€1,116 million) following revision of the discount rate, inflation and exchange rate assumptions. This impairment is reversible if there is evidence of a significant recovery in the value of the asset, other than the effect of the passage of time on discounted cash flows,
- assets related to Nuward, the EDF Group's Small Modular Reactor (SMR) development project (€230 million) following the project's switch to a new design using proven technological building blocks, which is more appropriate to market conditions,
- EDF Renewables projects in the United States, China, the United Kingdom (€157 million).

The principles and result of impairment tests are presented in note 10.7 "Impairment/ Reversals" to the 2024 financial statements.

3.3.3 Other income and expenses

Other income and expenses generated a net expense of €4,834 million in 2024. The increase of €1,890 million compared to 2023 is principally due to higher nuclear provisions in the **France - Generation and supply** segment. Following the change of industrial strategy for interim storage of spent fuel, and re-estimation of costs for the Cigeo storage facility, an additional provision of €3,978 million was booked in 2024, while in 2023, a provision of €1,073 million was recorded after renegotiation of the ATR 24-26 agreement with Orano that has no equivalent in 2024.

3.4 Financial result

(in millions of euros)	2024	2023	Variation	Variation (%)
Cost of gross financial indebtedness	(4,094)	(3,830)	(264)	6.9
Discount effect	(3,190)	(3,988)	798	-20.0
Other financial income and expenses	6,352	4,469	1,883	42.1
FINANCIAL RESULT	(932)	(3,349)	2,417	-72.2

The financial result for 2024 was an expense of €(932) million, an improvement of €2,417 million compared to 2023 resulting from:

- the good performance by the dedicated asset portfolio, which achieved a return of 10.8% (vs 10.2% in 2023) thanks to favourable developments on the financial markets, particularly the equity markets in 2024, leading to a €1,883 million improvement in other financial income and expenses (with a limited cash impact);
- a €798 million decrease in the cost of unwinding the discount, principally attributable to the 0.10% rise in the real discount rate for nuclear provisions in France in 2024 whereas the discount rate had remained stable in 2023 (no cash impact);
- active debt management in a high interest rate environment, resulting in a stabilised cost of gross financial debt at €264 million.

The financial result excluding non-recurring items (particularly the change in fair value of the dedicated asset portfolio) was up by €1,865 million to €(3,709) million.

3.5 Income taxes

The income tax expense amounts to €(4,887) million at 31 December 2024, corresponding to an effective tax rate of 28.09% (compared to an income tax expense of €(2,470) million in 2023, corresponding to an effective tax rate of 25.13%).

The €(2,417) million change between 2023 and 2024 essentially reflects the €7,570 million increase in the Group's pre-tax income, generating a theoretical additional tax expense of €(1,955) million.

The change in the income tax expense was also affected by write-downs of €183 million on deferred tax assets in the United States, whereas in 2023 the Group recognised the entire deferred tax asset of €1,060 million on the loss reported in 2022 by the French tax group (EDF SA, Enedis, PEI and other French subsidiaries owned more than 95%). The year 2023 was also marked by the unfavourable effect of impairment in the United Kingdom, as a significant share of this impairment was non-deductible for tax purposes, and this factor had no equivalent in 2024.

After elimination of non-recurring items (principally impairment, nuclear provisions, and changes in unrealised gains and losses on the financial asset portfolio and commodities), the effective tax rate at 31 December 2024 is 26.48%, compared to 20.6% in 2023.

3.6 Net income

Net income excluding non-recurring items amounts to €15,233 million. The €3,248 million decrease from 2023 mainly reflects the lower EBITDA and a higher income tax expense, limited by the improved financial result.

The **Group's share of net income** is €11,406 million, up by €1,390 million. This improvement, despite the lower net income excluding non-recurring items caused by the decrease in EBITDA, is explained by the following items after tax:

- €782 million of impairment on the Hinkley Point C project in 2024 following revision of the discount rate and inflation assumptions. At 31 December 2023, impairment of €7,927 million was booked against the value of the project and EDF Energy's goodwill after a new schedule and additional costs were announced in January 2024;
- impairment in connection with the Atlantic Shores offshore wind project in the United States (€934 million⁽¹⁾), included in the share in net income of associates and joint ventures;
- the new estimate of forecast spent fuel storage costs in France (€2,376 million) and re-estimation of costs for the Cigéo storage facility (€575 million);
- the change in the fair value of financial instruments, and write-downs of shareholder loans (€306 million), particularly for the Neart na Gaoithe (NNG) project.

(1) Including a provision.

4 Net financial debt, cash flows and investments

(in millions of euros)	2024	2023	Variation	Variation (%)
EBITDA	36,523	39,927	(3,404)	-8.5
Cancellation of non-monetary items included in EBITDA	(1,522)	3,939	(5,461)	-138.6
Cash EBITDA	35,001	43,866	(8,865)	-20.2
Change in working capital	(1,452)	(7,785)	6,333	-81.3
Net investments ⁽¹⁾	(22,402)	(19,100)	(3,302)	17.3
Other items including dividends received from associates and joint ventures	53	(53)	106	-200.0
Operating cash flow ⁽²⁾	11,200	16,928	(5,728)	-33.8
Asset disposals	9	80	(71)	-88.8
Income taxes paid	(3,384)	(3,695)	311	-8.4
Net financial expenses disbursed	(2,362)	(2,241)	(121)	5.4
Dedicated assets	(344)	(378)	34	-9.0
Dividends paid in cash	(1,252)	(1,113)	(139)	12.5
Group cash flow ⁽²⁾	3,868	9,581	(5,713)	-59.6
Issues of hybrid notes	1,728	1,377	351	25.5
Redemption of hybrid notes	(3,742)	(1,369)	(2,373)	173.3
Other monetary changes	(523)	(365)	(158)	43.3
(Increase)/decrease in net indebtedness, excluding the impact of changes in exchange rate	1,332	9,224	(7,892)	-85.6
Effect of change in exchange rates	(240)	(162)	(78)	48.1
Effect of other non-monetary changes	(1,057)	1,057	(2,114)	-200.0
(Increase)/decrease in net indebtedness of continuing operations	35	10,119	(10,084)	-99.7
(Increase)/decrease in net indebtedness of discontinued operations				
Net financial debt at beginning of year	54,381	64,500	(10,119)	-15.7
NET FINANCIAL DEBT AT END OF YEAR	54,346	54,381	(35)	-0.1

(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, and non-Group partner investments. They do not include the Group's assets disposals.

(2) Income from cash and cash equivalents is now presented in the Group cash flow (in the amount of €351 million for 2024 and €293 million for 2023). In 2023, it was included in "Other financial investments". The comparative figures have been restated accordingly.

4.1 Net financial debt

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

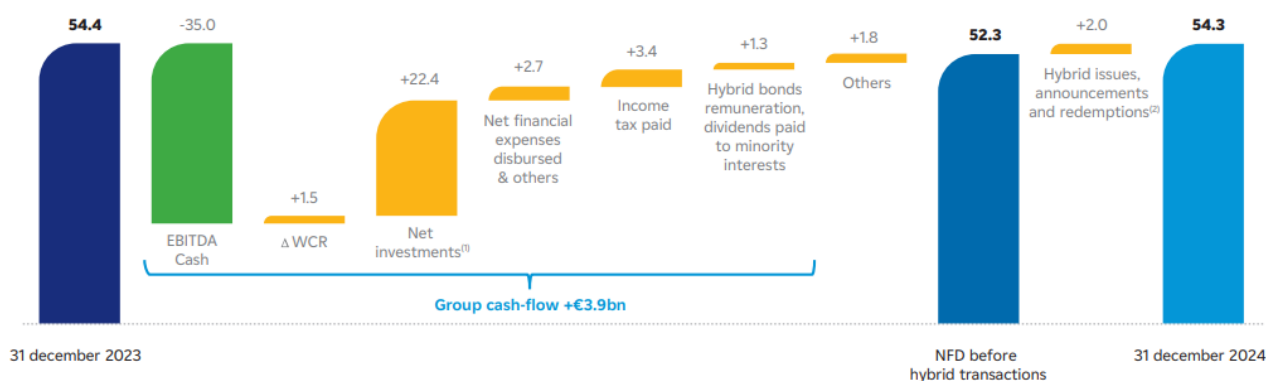
Net financial debt for 2024 was stable compared to 2023 at €54.3 billion. The favourable impact of the Group's positive cash flow was counterbalanced by hybrid note issues and redemptions, and the announcement that EDF was to redeem the hybrid notes with nominal value of €1.25 billion issued in January 2013 and replace its equity content with the capital resulting from conversion of the Oceane bonds in 2023⁽¹⁾.

The bond issues of 2024, totalling €6,672 million, the reduction in short-term debt, and early repayments of bank loans have extended the maturity of the financial debt to 13 years in 2024 (vs 11 years in 2023) and controlled the cost of financing in a high interest rate environment.

(in millions of euros)	31/12/2024	31/12/2023	Variation	Variation (%)
Loans and other financial liabilities	81,801	86,647	(4,846)	-5.6
Derivatives used to hedge liabilities	(1,872)	(1,379)	(493)	35.8
Cash and cash equivalents	(7,597)	(10,775)	3,178	-29.5
Debt and equity securities - liquid assets	(17,997)	(20,077)	2,080	-10.4
Derivatives for macro-hedging of liquid debt securities	11	(35)	46	-131.4
NET FINANCIAL DEBT	54,346	54,381	(35)	-0.1

CHANGE IN NET FINANCIAL DEBT BETWEEN 31 DECEMBER 2023 AND 31 DECEMBER 2024

In billions of euros



(1) Net investments excluding Group disposals.

(2) The announcement of the redemption on 18.12.2024 of the hybrid bond issued in January 2013 for a total amount of €1.25 billion led to its reclassification as other financial liabilities.

(1) See the Group press release of 18 December 2024. As a result of this announcement, the instruments concerned were reclassified from equity to other financial liabilities in the financial statements at 31 December 2024.

4.2 Group cash flow

Group cash flow for 2024 amounted to €3.9 billion, versus €9.6 billion in 2023. This change is explained by cash EBITDA of €35.0 billion resulting from a good operating performance despite the drop in market prices.

Working capital increased by €1.5 billion, comprising:

- €(2.8) billion due to the shortfall in CSPE compensation at the 2024 year-end: the net expenses of €(6.9) million were partly covered by payments of €4 billion received from the State;
- +2.3 billion reflecting the effect of the price downturn on receivables, particularly in the business market;
- a €(0.8) billion decrease in the amount of receivables factored in 2024;
- €(0.4) billion due to the increase in delivery receivables, correlated with the tariff indexation of 1 November 2024, and €(0.2) billion due to the lower liabilities for purchases to cover network losses since electricity prices have decreased.

This Group cash flow funded net investments of €22.4 billion, €3.3 billion more than in 2023, due notably to new nuclear projects including Hinkley Point C, network development and reinforcement, nuclear fleet maintenance, and external growth operations including the acquisition of Arabelle Solutions on 31 May 2024.

4.2.1 Net investments

Net investments (excluding asset disposals) amounted to €22,402 million in 2024, up by €3,302 million from 2023.

(in millions of euros)	2024	2023	Variation	Variation (%)
France - Generation and supply	8,471	6,566	1,905	29
France - Regulated activities	5,582	5,025	557	11
EDF Renewables	1,797	1,759	38	2
Dalkia	391	297	94	32
Industry and services	511	386	125	32
United Kingdom	5,013	4,088	925	23
Italy	612	632	(20)	-3
Other international	429	292	137	47
Other activities	(404)	55	(459)	n.a.
NET INVESTMENTS	22,402	19,100	3,302	17

Net investments by the **France - Generation and supply** segment increased by €1,905 million, principally due to the acquisition of the nuclear activities of Arabelle Solutions, the purchase of Assystem's investment in Framatome, progress on the EPR2 project, and an increase in investment expenditure for the existing fleet (the *Grand Carénage* industrial refurbishment programme, major repairs and periodic inspections).

Net investments by the **France - Regulated activities** segment were up by €557 million, largely due to the higher volume of connection work and network reinforcement.

In the **United Kingdom**, the €925 million rise in net investments reflects the significant progress on the Hinkley Point C (HPC) project.

The €125 million increase in net investments by the **Industry and services** segment essentially relates to necessary investments for the EPR2.

The €137 million increase in net investments by the **Other International** segment principally relates to new developments in the Asia Pacific zone.

Net investments were stable for **EDF Renewables** and **Italy**. In Italy, the rise in renewable energy activities was offset by a downturn in energy services and thermal energy operations following commissioning of the Marghera and Presenzano plants.

The capital increase of €500 million for EDF Investissements Groupe subscribed by minority shareholders to provide funding for HPC, generated resources that reduced the level of investments by the **Other activities** segment.

4.2.2 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 of the 2023 Universal Registration Document "General information about the Company").

The changes concerning dedicated assets amount to €344 million in 2024 and comprise:

- reinvestments of the 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.

At 31 December 2024, by the regulatory calculations provisions are 104.7% covered by dedicated assets. As the coverage rate was above 100%, EDF had no obligation to add to the dedicated asset portfolio in 2024 and no allocation was made during the year.

4.2.3 Dividends paid in cash

EDF paid out €1,250 million in 2023, comprising:

- €582 million to holders of perpetual subordinated bonds;
- €668 million of dividends paid by Group subsidiaries to their minority shareholders.

4.3 Other non-monetary changes

The **foreign exchange effect** had an unfavourable impact of €(240) million on the Group's net financial debt, caused mainly by the rise of the US dollar and pound sterling against the euro⁽¹⁾.

Other non-monetary changes had an effect of €(1,057) million in 2024, compared to €1,057 million in 2023, and mainly comprised new leases (IFRS 16). In 2023 they included the conversion of OCEANE bonds into shares by the French State.

(1) The pound sterling rose by 4.81% against the Euro, from €1.1507/£1 at 31 December 2023 to €1.2060/£1 at 31 December 2024. The US dollar rose by 6.36% against the Euro, from €0.9050/\$1 at 31 December 2023 to €0.9626/\$1 at 31 December 2024

5 Non-financial performance

The EDF group's CSR objectives are part of the "Ambitions 2035" corporate plan and the Group's *raison d'être*: EDF is committed to building the electricity system of the future, respecting the planet's limits and acting for a fair transition.

5.1.1 Environmental criteria

With 94% of its 2024 electricity output decarbonised, the EDF group is now the world's leading producer of low-carbon electricity⁽¹⁾ and is pursuing its ambition to contribute to Net Zero by 2050.

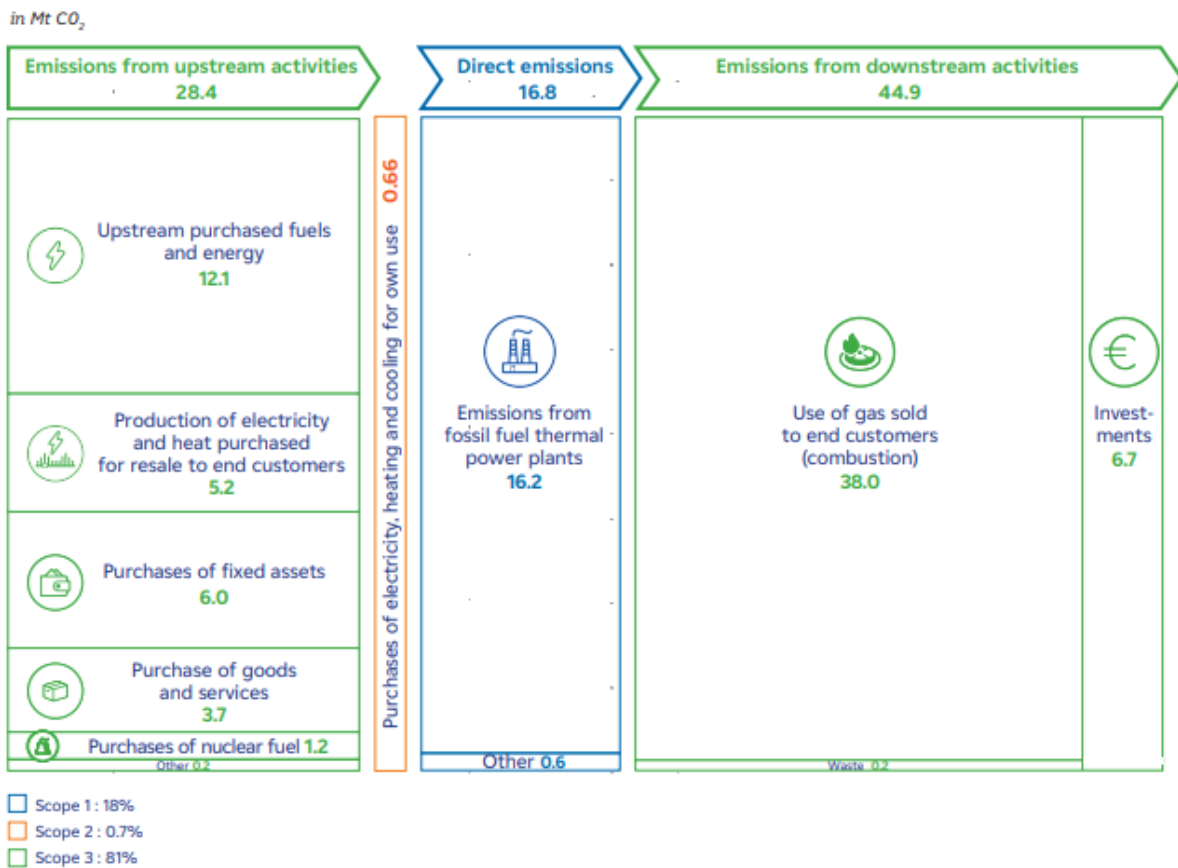
The Group's carbon emissions

Direct (Scope 1) emissions continued to decline, decreasing by -11% or -2.1 MtCO_{2e} from 2023 to 16.8 MtCO_{2e} in 2024. This reduction is mainly due to lower use of fossil-fired thermal power plants which produced 10TWh (-23%) less electricity in France in a context of stable electricity consumption and the very good availability of low-carbon generation facilities, particularly EDF's own power plants (for nuclear and renewable energy). Conversion of island generation to run on liquid biomass (the Port Est plant on Reunion Island) and continued decarbonisation of heat production also helped to bring emissions down. This latest year-on-year reduction in direct emissions continues the downward trend observed since 2017 (-15%)⁽²⁾.

The Scope 2 emissions recorded, which account for 0.7% of the Group's carbon footprint, increased by 0.4 MtCO_{2e} between 2023 and 2024, mainly due to higher consumption of electricity and heat in some of the Group's geographical areas.

Scope 3 emissions increased by 1% in 2024 (+0.9 MtCO_{2e}), principally because of a rise in emissions related to gas sales to final customers (+2.6 MtCO_{2e} or +7%) and higher purchases of goods (+0.8 MtCO_{2e} or +8%). Emissions related to minority investments were down by -0.3 MtCO_{2e} (-5%), largely due to lower fossil energy output in Chile. Emissions related to purchases of gas and electricity for resale to final customers, together with emissions by minority investments, make up 81% of the Group's Scope 3 emissions.

All these factors contributed to a 0.9 MtCO_{2e} decrease in the Group's carbon emissions in 2024, to a total 90.7 MtCO_{2e}.



(1) Source: Enerdata, *World ranking of zero direct CO₂ emissions producers*.

(2) CAGR (compound annual growth rate).

Carbon intensity

The EDF group's carbon intensity⁽¹⁾ was 30 gCO₂/kWh in 2024, one of the lowest in the world and around seven times lower than the average for European utilities (210 gCO₂/kWh⁽²⁾). As well as the effect of the lower direct emissions, the decrease in carbon intensity (-19% vs 2023) reflects the higher levels of low-carbon electricity produced by the Group in 2024, from all its generation technologies: +11% for nuclear power, +30% for hydropower and +7% for wind and solar power.

EDF group indicator	Outturn for 2024	Outturn for 2023
Carbon intensity (gCO ₂ /kWh)	30	37

Avoided emissions

EDF proposes carbon-reducing solutions and levers for its customers, contributing to the move towards a net-zero economy. EDF has set itself the target of avoiding 30 million tonnes of CO₂ emissions by 2030, and 45 million tonnes by 2035 through sales of innovative products and services.

	2024	2023	2022
Avoided emissions (Mt CO ₂)	13.4	12.4	11.4

The avoided emissions indicator covers the following activities exercised by EDF SA, Dalkia, Luminus, EDF Energy, and Edison: increasing renewable energies in heat networks; energy efficiency; solar power (installations sold to customers and self-consumption, excluding EDF installations that inject their output into the network); electric mobility; residential heat pumps, sale of biomethane for light vehicles, hydrogen. This indicator corresponds to the differential between emissions by the sold product/service and estimated emissions in a baseline scenario defined for each product/service. Annual direct and indirect emissions as determined in the life cycle analysis are included in its calculation.

5.1.2 Social criteria

Health and safety

Health and safety are integral aspects of the EDF group's activities every day. The fact that EDF continues to register fatal work-related accidents confirms the absolute priority of eradicating such events, particularly through application of the Group's 10 lifesaving rules⁽³⁾ which cover the principal occupational risks (electrical work, lifting, work at height, risks on the road, and more).

Apart from the very atypical year 2020, the total LTIR⁽⁴⁾ (Lost Time Incident Rate) has followed a steady downward trend since 2019, illustrating the improvements achieved by accident prevention campaigns for employees and contractors.

Indicator	Scope	2024	2023	Progression
LTIR	Employees + Contractors	1.6	1.7	5.4%

Gender diversity

With full awareness of its responsibility to promote equality, respect for diversity and inclusive values, while respecting the managerial independence of regulated infrastructure operators, the EDF group is committed to developing concrete action to promote equality in the workplace and occupational and social integration for people with disabilities, combating sexism, violence and all forms of discrimination, and supporting parents.

Diversity - especially gender diversity - in its executives and future executives are essential levers for transforming the Group. Going further than the requirements of France's "Rixain" law, the EDF group has set itself the target of having 40% of women among the Group's executives, including all its foreign subsidiaries. This is particularly ambitious as regards the timescale, especially for an industrial group without a sufficient pool of female employees to reach 40% women executives rapidly. Nevertheless, the percentage of women in the company is gradually rising, thanks to the many actions taken to promote gender diversity.

At 31 December 2024, EDF had 26.7% female executives (compared to 24% one year earlier), showing that the executive gender balance is advancing in the Group.

(1) Carbon intensity is a ratio of the Group's Scope 1 emissions (Direct CO₂ emissions related to generation, excluding the life-cycle assessment (LCA) of generation facilities and fuel) by power plants and heat generating plants, and associated outputs.

(2) Source: 2023 figure for the EU-27, European Environment Agency, Greenhouse gas emission intensity of electricity generation in Europe, October 2024

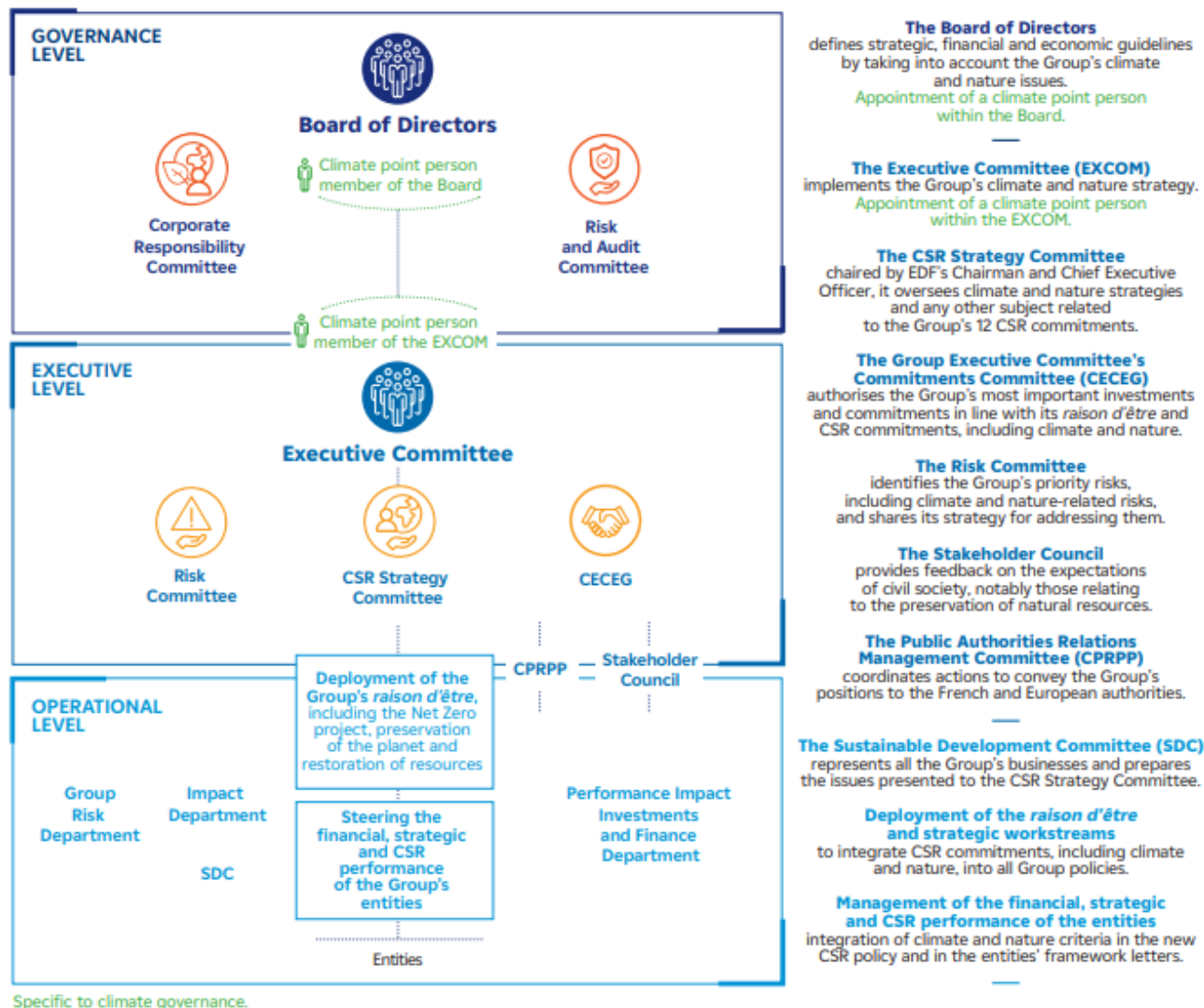
(3) <https://www.edf.fr/en/the-edf-group/taking-action-as-a-responsible-company/corporate-social-responsibility/well-being-and-solidarity/health-and-safety/10-life-saving-rules>

(4) Lost Time Incident Rate (LTIR): the Group's overall LTIR represents the number of accidents occurring in the course of work (for employees and contractors, regardless of the level of subcontracting, including co-contracting and temporary workers) that resulted in one or more days off work and happened over a period of 12 months, per million hours worked. It is calculated by multiplying the number of work-related accidents involving lost time by one million, then dividing by the number of hours worked by employees.

5.1.3 Governance criteria

Governance of climate- and nature-related issues

To properly address climate- and nature-related issues, specific governance arrangements have been set up for these matters, involving various committees and bodies as presented in the following diagram.

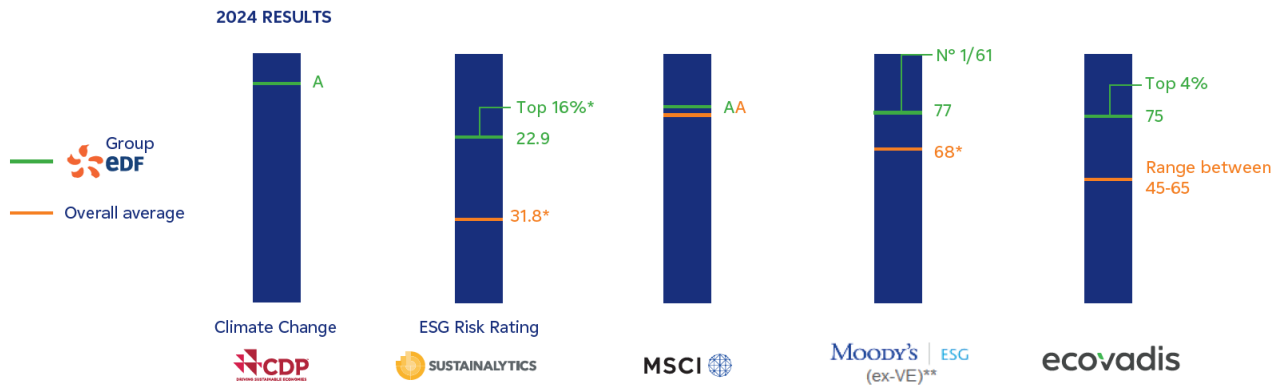


The Corporate Responsibility Committee examines the Group's commitments and policies in the light of the Group's strategy, and considers their implementation in terms of ethics, compliance, and Corporate Social Responsibility (CSR). One important focus is the way the Company takes account of climate change-related issues into consideration.

The Corporate Responsibility Committee met four times in 2024. It discussed the EDF group's 2023 Vigilance Plan, Gender diversity and equality in the workplace, Preventive health and safety action, the situation with regard to the *Raison d'être*, and Responsible and sustainable purchases. The Committee also had three joint meetings during the year with the Risk and Audit Committee to consider sustainability matters. The subjects covered included sustainability training for directors, appointment of the auditors to certify consolidated sustainability reporting, double materiality assessment, and the ESG target-setting process.

5.1.4 Non-financial ratings

The EDF group is rated by ESG ratings agencies and sustainable fund managers, which assess companies based on their sustainable development results using their own sector-specific methodologies.



MAIN INTERNATIONAL COALITIONS OF EDF



The Group's carbon trajectory was validated by Moody's as compatible with a +1.5°C global warming scenario in February 2024.

6 Financial outlook

Outlook for 2025

EBITDA is expected to retreat against a backdrop of falling market prices.

Nuclear output in France including Flamanville 3 is estimated at **350-370TWh** in 2025, 2026 and 2027

2027 targets⁽¹⁾

Net financial debt / EBITDA : **≤ 2.5x**

Adjusted economic debt / adjusted EBITDA⁽²⁾ : **≤ 4x**

(1) Based on scope and exchange rates as at 1 January 2025 and assuming French nuclear output including Flamanville 3 of 350-370TWh in 2025, 2026 and 2027.

(2) Applying constant S&P ratio methodology

7 Management and control of market risks

7.1 Management and control of financial risks

This section presents 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 EDF. 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.

The Financial Risks Control Department (*Département Contrôle des Risques Financiers et Investissements* - CRFI), which is part of the Group's Risk Division, is in charge of financial risk control at Group level, mainly by ensuring correct application of the principles of the strategic financial management framework. This department carries out a first-level check of financing activities by EDF SA's trading room, producing daily and weekly monitoring reports and risk indicators. It also carries out a second-level check of the risk of counterparty default for EDF entities and operationally controlled Group subsidiaries (excluding Enedis, which has its own system), and management activities concerning the dedicated asset portfolio.

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

7.1.1 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. In 2024, the Group undertook several bond issues in six currencies with a total euro-equivalent value of some €6.7 billion, and one hybrid bond issue (perpetual super-subordinated notes) with a euro-equivalent value of €1.7 billion.

Over the year, the EDF group redeemed part of its two perpetual subordinated notes with a first call option for EDF on 22 January 2026 and 29 January 2026 for the total euro-equivalent value of €1.2 billion, and a euro-equivalent value of €2.9 billion of senior debt matured.

In 2024, the Group also concluded 3-year and 5-year bilateral credit lines for the euro-equivalent value of €6.5 billion, and a 10-year €500 million credit line from the European Investment Bank. These credit lines are fully drawn.

EDF made early repayments of some of its bank loans in 2024, for the total euro-equivalent value of €12.4 billion.

At 31 December 2024, the residual maturities of financial liabilities (including interest) are as follows⁽¹⁾:

(in millions of euros)	Liabilities	Interest rate swaps ⁽¹⁾	Currency swaps ⁽¹⁾	Guarantees given for borrowings
< 1 year	15,909	(13)	(415)	73
1 - 5 years	33,364	(281)	(1,479)	617
> 5 years	88,638	(14)	(3,906)	505
TOTAL	137,911	(308)	(5,800)	1,195
- repayment of the nominal value	81,802			
- interest expenses	56,109			

(1) Data on hedging instruments includes asset and liability positions.

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

- the cash pooling system, which centralises cash management for controlled subsidiaries. The subsidiaries' cash balances are made available to EDF SA so as to optimise the Group's cash management and provide subsidiaries with a system that guarantees them market-equivalent financial terms;
- centralisation of financing for controlled subsidiaries: changes in subsidiaries' working capital are financed by the Group's cash management department through stand-by credit lines provided for subsidiaries, which can thus have revolving credit from the Group;
- active management and diversification of financing sources: the Group has access to short-term resources on various markets through programmes for French commercial paper (*billets de trésorerie*), Negotiable European Commercial Paper (NEU CP), and US commercial paper (US CP). For EDF, the ceilings are €12 billion for the NEU CP programme and US\$10 billion for US CP. The Group also has access to medium-term resources through a Negotiable European Commercial Medium Term Notes (NEU MTN) programme with a ceiling of €2 billion (including €500 million for "green" NEU MTN);
- transfer of bond liabilities to banking counterparties under cash repurchase agreements.

At 31 December 2024, the amount of the Group's commercial paper outstanding was €2,981 million for NEU CP, and US\$10 million for the US CP programme.

EDF has access to the world's main bond markets:

- the Euromarkets through its EMTN (Euro Medium Term Notes) programme, which currently has a ceiling of €50 billion, particularly for euro and sterling issues;
- and domestic markets used for stand-alone issues in US dollars (144A bonds), yen (Samurai bonds) and Swiss francs.

(1) Valued by reference to exchange rates and interest rates at 31 December 2024.

The average maturity of the Group's gross debt was 13.0 years at 31 December 2024, compared to 11.0 years at 31 December 2023.

At 31 December 2024, EDF SA had a total amount of €13,688 million in available credit facilities (syndicated credit and bilateral lines):

- a €6 billion syndicated credit facility indexed on ESG criteria, maturing in November 2029. No drawdowns had been made on this credit facility at 31 December 2024;
- bilateral credit lines representing an available amount of €7,688 million, with expiry dates extending to August 2029.

The level of this available financing is very frequently reviewed to ensure the Group has sufficient financial security.

The credit lines with the European Investment Bank were all fully drawn by EDF SA at 31 December 2024, for a total amount of €3,175 million.

Edison also has a credit line with the European Investment Bank with an available amount of €70 million at 31 December 2024.

Several levels of liquidity in the portfolio (1 month to 6 months) are monitored weekly by the CRFI department, in order to have both a short-term outlook and an appropriate approach to potential liquidity needs (notably associated with margin calls) that takes all types of available funding into consideration.

7.1.2 Credit rating

At 31 December 2024, the three financial ratings agencies Standard & Poor's, Moody's and Fitch Ratings attributed the following long-term and short-term ratings to EDF group entities. On 6 June 2024 Standard & Poor's revised the outlooks from "stable" to "positive".

The factors most likely to affect the Group's credit rating are "Changes in public policies and the regulatory framework in France and Europe" and "Risk of access to liquidity".

Company	Agency	Long-term rating	Short-term rating
EDF	Standard & Poor's	BBB positive outlook	A-2
	Moody's	Baa1 / stable outlook	P-2
	Fitch Ratings	BBB+ / negative outlook	F2
EDF Trading	Moody's	Baa3 / stable outlook	n.a.
	Standard & Poor's	BB- / positive outlook	B
EDF Energy	Moody's	Baa3 / stable outlook	n.a.
	Fitch Ratings	BBB- / stable outlook	n.a.
	Standard & Poor's	BBB / positive outlook	A-2
Edison	Moody's	Baa3 / stable 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 internal rate of return (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 through debt issued or contracted in foreign currencies, or use of financial derivatives. Hedging of net assets in foreign currencies complies with risk/return targets, and the hedging ratio varies depending on the currency. 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.

GROSS DEBT STRUCTURE AT 31 DECEMBER 2024, BY CURRENCY BEFORE AND AFTER HEDGING

As a result of the financing and foreign exchange risk hedging policy, the Group's gross debt at 31 December 2024 breaks down as follows by currency after hedging:

(in millions of euros)	Initial debt structure	Impact of hedging instruments ⁽¹⁾	Debt structure after hedges	% of debt
Borrowings in euros (EUR)	43,014	22,327	65,341	80%
Borrowings in US dollars (USD)	22,841	(21,543)	1,298	2%
Borrowings in pounds sterling (GBP)	10,580	1,843	12,423	15%
Borrowings in other currencies	5,367	(2,627)	2,740	3%
TOTAL DEBT	81,802		81,802	100%

(1) Hedges of liabilities and net foreign investments.

FOREIGN EXCHANGE RISK SENSITIVITY OF THE GROUP'S GROSS DEBT

The table below presents the impact on equity of a variation in exchange rates on the Group's gross debt at 31 December 2024:

(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)	65,341		65,341
Borrowings in US dollars (USD)	1,298	130	1,428
Borrowings in pounds sterling (GBP)	12,423	1,242	13,665
Borrowings in other currencies	2,740	274	3,014
TOTAL DEBT	81,802	1,646	83,448

Due to the Group's hedging policy for foreign exchange risk on the Group's gross debt, the income statement of companies controlled by the Group is marginally exposed to foreign exchange risk.

STRUCTURE AND FOREIGN EXCHANGE RISK SENSITIVITY OF NET ASSETS

The table below presents the foreign exchange position relating to net assets in foreign currencies of the Group's subsidiaries, and the risk of a foreign exchange loss based on equity at 31 December 2024.

(in millions of currency units)	Net assets	Bonds	Derivatives	Net assets after hedging	Net assets after hedging converted into euros	Impact on equity of a 10% variation in exchange rates
USD	3,958	1,750	191	2,017	1,941	194
CHF (Switzerland)	17	-	8	9	10	1
PLN (Poland)	308	-	153	155	36	4
GBP (United Kingdom)	21,393	6,584	3,701	11,108	13,396	1,340
BRL (Brazil)	2,203	-	-	2,203	343	34
CNY (China)	7,666	-	4,267	3,399	448	45

This table shows 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 instruments recorded in equity, and changes in the fair value of financial instruments recorded in income.

The foreign exchange risk is based on the assumption of an unfavourable, uniform 10% variation in exchange rates against the Euro. Net assets are converted at the closing rate and impacts are reported in absolute value.

The foreign exchange risk on debt and equity securities is mostly concentrated in EDF's dedicated asset portfolio, which is detailed in section 7.1.6 entitled "Management of financial risk on EDF SA's dedicated assets".

The foreign exchange risk associated with short-term investments and operating liabilities in foreign currencies remains under control for the Group at 31 December 2024.

7.1.4 Management of interest rate risk

The exposure of the Group's net financial debt 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 financial debt, defined by reference to the risk/return for net financial expenses, taking into consideration expected movements in interest rates.

Under this policy, some of the debt is variabilised and the Group may use interest rate derivatives for hedging purposes.

The Group's debt after hedging instruments at 31 December 2024 comprised 52% at fixed rates and 48% at floating rates.

A 100bp uniform annual rise in interest rates would generate an approximate €390 million increase in financial expenses at 31 December 2024 based on gross floating-rate debt after hedging.

The average cost of Group debt (weighted interest rate on outstanding amounts) was 3.85% at 31 December 2024.

STRUCTURE AND INTEREST RATE SENSITIVITY OF GROUP DEBT

(In millions of euros)	Initial debt structure	Impact of hedging instruments	Debt structure after hedging	Impact on income of a 1% increase in interest rates
Fixed rate	68,608	(25,766)	42,842	-
Floating rate	13,194	25,766	38,960	390
TOTAL	81,802		81,802	390

Concerning financial assets, the table below presents the interest rate risk on the floating-rate notes (FRN), negotiable debt instruments and short-term floating-rate deposits held by EDF, and their sensitivity to interest rate risks (impact on net income).

INTEREST RATE RISK SENSITIVITY OF FLOATING-RATE INSTRUMENTS

(in millions of euros)	Value	Impact on income of a 1% variation in interest rates	Value after a 1% variation in interest rates
FLOATING RATE INSTRUMENTS	2,101	(210)	1,891

The Group's interest rate risk notably relates to the value of the Group's long-term nuclear obligations and its pension and other specific employee benefit obligations, which are adjusted to present value using discount rates that depend on interest rates for various time horizons, and debt securities held for management of the dedicated assets set aside to cover these obligations.

7.1.5 Management of equity risk

COVERAGE OF EMPLOYEE BENEFIT OBLIGATIONS FOR EDF SA AND EDF 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.

33% of the assets covering EDF SA's employee benefit obligations were invested in equities at 31 December 2024, representing an amount of €3.4 billion of equities.

At 31 December 2024, EDF Energy's defined-benefit pension fund, named EDF Group (EDFG), raised its allocation to equities and equity funds (excluding diversified growth funds) such that it now represents an exposure of 8.9% (4.9% in 2023), or an amount of £483 million.

COVERAGE OF EDF'S NUCLEAR OBLIGATIONS

Analysis of the equity risk associated with coverage of EDF's nuclear obligations is presented in the following section discussing the dedicated asset portfolio.

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 to ensure secure financing of its long-term nuclear obligations. The Law of 28 June 2006, codified in France's Environment code (Articles L.594-1 to 14) and its implementing regulations, defined the provisions that are unrelated to the operating cycle, and must therefore be covered by dedicated assets. They are listed in note 15.1.3 to the 2024 financial statements, "Coverage of EDF's long-term nuclear obligations".

The dedicated asset portfolio is managed under the supervision of the Board of Directors and its advisory committees (Nuclear Commitments Monitoring Committee (CSEN), 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 under a policy for ensuring secure financing of nuclear expenses, in compliance with the 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 obligations. 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 June 2024, slightly reducing the share of real estate investments and increasing investments in infrastructures and private equity. This target allocation consists of a yield portfolio, a growth portfolio and a fixed-income portfolio, respectively accounting for 29%, 41% 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 and EDF Invest.

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 value appreciation in different markets and market segments, and risk analyses produced by the Financial Risks Control (CRFI) department.

At 31 December 2024, the total value of the dedicated assets portfolio was €40,320 million compared to €36,885 million in 2023. Changes in dedicated assets in 2024, and details of their realisable value and book value, are presented in note 15.1.2. to the 2024 consolidated financial statements.

CONTENT AND PERFORMANCE OF EDF'S DEDICATED ASSET PORTFOLIO

(in millions of euros)	31/12/2024			31/12/2023		
	Share of portfolio	Realisable value	Performance for 2024	Share of portfolio	Realisable value	Performance for 2023
Yield assets	23.5%	9,485	4.6%	23.4%	8,657	2.9%
Growth assets	41.3%	16,633	21.0%	38.1%	14,036	17.5%
Fixed-income assets	35.2%	14,202	4.5%	38.5%	14,192	7.9%
TOTAL DEDICATED ASSETS	100.0%	40,320	10.8%	100.0%	36,885	10.2%

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

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 €15,934 million at 31 December 2024. The volatility of the listed equities at the same date was 12.37% based on 52 weekly performances, compared to 11.36% at 31 December 2023. Applying this volatility to the value of listed equity assets at 31 December 2024, the Group estimates the annual volatility of the equities portion of dedicated assets at €1,971 million.

At 31 December 2024, the sensitivity of the listed bonds (€13,182 million) is 5.16, i.e. a uniform 100 base point rise in interest rates would result in a €680 million decline in market value. This sensitivity was 5.34 at 31 December 2023.

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 discount rate used to calculate nuclear provisions, estimated at 4.5% at 31 December 2024 (see note 15.1.1 to the 2024 consolidated financial statements).

The average annualised performance of dedicated assets since 2004, the year when their value first exceeded €1 billion, was 6.1% at 31 December 2024.

7.1.7 Management of counterparty/credit risk

The EDF group is exposed to counterparty risk in its operating and financial activities, and this risk is actively managed. It is monitored through governance arrangements that are described in one of the Group's corporate policies and involve consolidation of the Group's exposures by the Financial Risks Control (CRFI) department. The quarterly consolidation shows the scale of the exposure concerning "Investment Grade counterparties" (89% of exposures at 30 September 2024), in line with the share of exposures generated by financial activities (69% of exposures at 30 September 2024).

These exposures primarily concern cash management and asset management. For counterparties dealing with EDF's trading room, the Group's Risk Division has drawn up a framework specifying counterparty authorisation procedures and the methodology for calculating the assigned limits. The degree of exposure is updated in real time and verified daily, and in the event of an alert or unfavourable development relating to a counterparty, the suitability of limits is reviewed promptly.

The exposures generated by fuel procurement and trading on the energy markets (11% of exposures at 30 September 2024) are mainly managed by EDF Trading, which monitors its own exposure levels on a daily basis and assigns limits based on each counterparty's financial health. EDF Trading also takes steps to reduce the counterparty risk, for example using position netting agreements, cash-collateral agreements and guarantees.

7.2 Management and control of energy market risks

Through its generation, supply and trading activities, the EDF group has operations on deregulated energy markets, principally in Europe, which expose it to price variations on the energy market that can significantly affect its financial statements.

Consequently, the Group has an energy market risk policy for all energy commodities, applicable to EDF and entities over which it has operational control.

The purpose of this policy is to:

- define the general framework for management of risks on the energy markets where the Group entities carry out their asset portfolio management activities (energy generation, optimisation and sale), and trading activities in the case of EDF Trading;
- define the responsibilities of asset managers and traders, and the various levels of control of activities;
- implement a coordinated Group-wide hedging policy that is coherent with the Group's financial commitments;
- consolidate the exposure of the various entities operationally controlled by EDF on the structured energy-related markets.

The Group Risk Division presents an annual report on the implementation of this policy to the Board of Directors' Audit Committee.

At entities not operationally controlled by EDF, the risk management framework is reviewed by the governance bodies.

Principles for operational management and control of energy market risks

The principles for operational management and control of energy market risks for the Group's operationally controlled entities are based on strict segregation of responsibilities for managing those risks, distinguishing between management of assets (generation and supply) and trading.

The operators of generation and supply assets are responsible for implementing a risk management strategy that smooths the impact of energy market risks on the variability of their financial statements. However, they are still exposed to structural price trends to the extent of volumes that are not yet hedged, and uncertainties over volumes (relating to generation plant availability and customers' consumption). The energy market risk control process involves Group management and is based on a risk indicator and measurement system incorporating escalation procedures in the event risk limits are exceeded.

For operationally controlled entities in the Group, positions on the energy markets are taken predominantly by EDF Trading, which as the Group's trading entity executes most of the Group's purchase/sale orders on the wholesale markets. Consequently, EDF Trading is subject to a strict governance and control framework, particularly the European regulations on trading companies.

EDF Trading's exposure on the energy markets is strictly controlled through daily limit monitoring overseen by the subsidiary's management and by the division in charge of energy market risk control at Group level. Automatic escalation procedures also exist to inform members of EDF Trading's Board of Directors of any breach of limits for risks (value at risk limit) or losses (stop-loss limit). Value at Risk (VaR) is a statistical measure of the potential maximum loss in market value on a portfolio in the event of unfavourable market movements, over a given time horizon and with a given confidence interval.

In 2024, EDF Trading's commitment on the markets was subject to a VaR limit initially of €57 million, then revised downwards to €50 million in July 2024, and a stop-loss limit of €180 million.