

# **EDF PRESENTION** APRIL 2024

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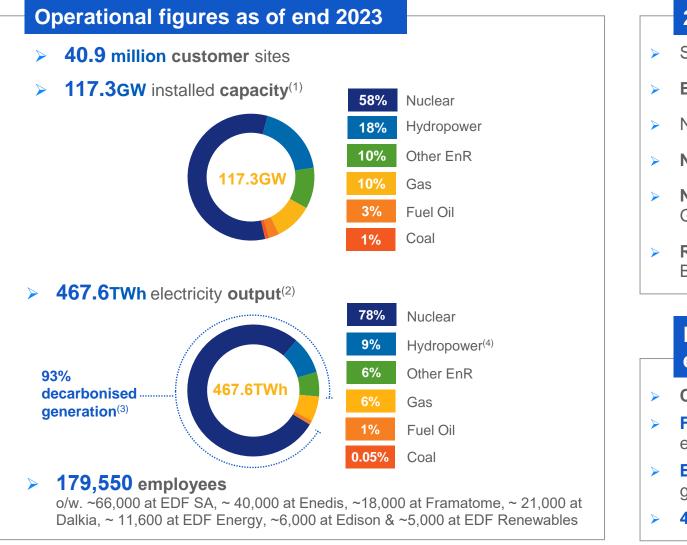
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## **EDF PRESENTATION**

A world leader in generating carbon-free electricity, constantly available on demand

### **EDF GROUP 2023 KEY FIGURES**



#### **2023 Financials**

- Sales: €139.7bn
- EBITDA: €39.9bn
- Net income excluding non-recurring items<sup>(5)</sup>: €18.5bn
- Net investments<sup>(6)</sup>: €19.1bn
- Net financial debt : €54.4bn Green bonds issued on 2013-2023: ~€11bn
- Ratings<sup>(7)</sup>: BBB stable (S&P) / Baa1 stable (Moody's) / BBB+ stable (Fitch)

# EDF, the world leader in low-carbon electricity generation

- Carbon intensity: 37gCO<sub>2</sub>/kWh
- First producer worldwide of zero direct CO<sub>2</sub> emission electricity<sup>(8)</sup>.
- EDF's trajectory validated by Moody's as in line with a 1.5°C global warming scenario<sup>(9)</sup>
- 4gCO<sub>2</sub>eq/kWh: carbon footprint of nuclear life-cycle <sup>(10)</sup>

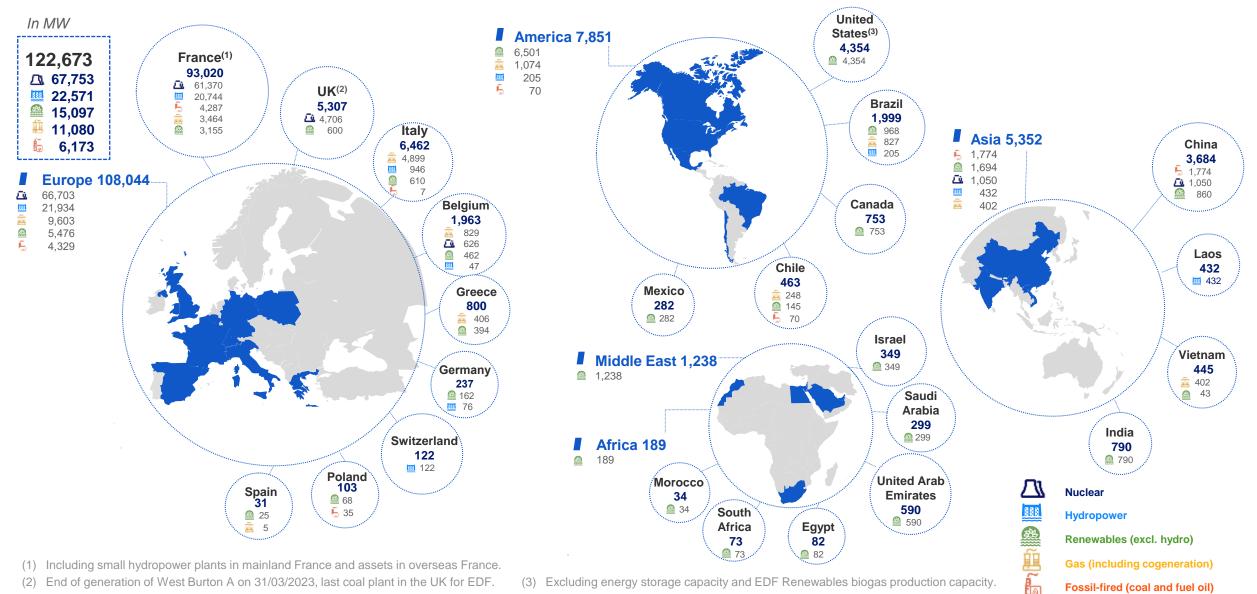
- (1) Consolidated capacities of EDF Group.
- (2) Output from fully consolidated entities.
- (3) Direct carbon emissions related to generation, excluding life cycle assessment of generation means and fuels.
- (4) Hydro output including pumping and sea energy.
- (5) Net income excluding non-recurring items is not defined by IFRS standards, also see note 19.1 of the consolidated financial statements.
- (6) Total net investments including acquisitions.

- (7) Sources: rating agencies as of 08/04/2024.
- (8) Enerdata Power Plant Tracker in 2022 (latest publication).
- (9) Net Zero Assessment report.
- (10) 2022 Life Cycle Analysis Report (latest publication).



#### EDF GROUP'S NET INSTALLED CAPACITY BY COUNTRY AT END-2023

Net capacity according to EDF's percentage ownership in Group companies, including associates and joint ventures.



edf

## 1 RAISON D'ÊTRE<sup>(1)</sup>, 4 PILLARS, 16 CSR COMMITMENTS

To build a net zero energy future with electricity and innovative solutions and services, to help save the planet and drive wellbeing and economic development



(1) EDF's Raison d'être, approved by the Shareholders' Meeting of 07/05/2020.

Priority SDGs as defined in WBCSD public report: "An SDD Roadmap for Electric Utilities".

#### INDUSTRIAL AND HUMAN CHALLENGES FOR ALL THE GROUP'S BUSINESSES LINES IN FRANCE AND INTERNATIONALLY FOR 2035

Promoting decarbonisation through energy efficiency and electrification, from industrial processes to mobility<sup>(1)</sup>, in addition to tertiary and residential buildings Supporting our **customers** to reduce their carbon footprint

Generating more low-carbon electricity, with nuclear and renewables

Decarbonisation through performance of nuclear fleet and construction of new infrastructure

Mobilising a range of solutions: using its generation hydro assets, storage capacities, customer portfolio and innovative flexibility solutions

Mobility: charging stations for electric vehicles & hydrogen for heavy mobility.
In France, the public distribution network is independently managed by Enedis.

Developing flexibility solutions to meet the needs of the electricity system Developing networks<sup>(2)</sup> to meet the challenges of the energy transition

Strengthening & transforming the distribution networks to guarantee their long-term resilience and performance



### A COMMITMENT TO LOW-CARBON GROWTH

#### First producer worldwide of zero direct CO<sub>2</sub> emission electricity<sup>(1)</sup> (434TWh)

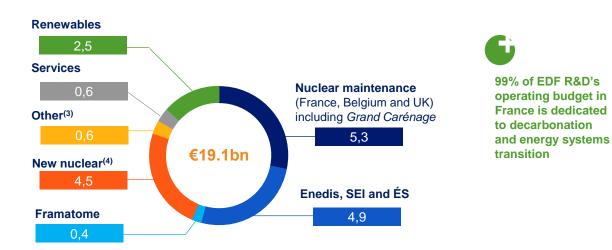
93% decarbonised generation<sup>(2)</sup> thanks to nuclear 78% & renewables 15%

#### Renewable energy leader in Europe

Installed renewable capacity of 47GW gross worldwide at end-2023 with a target of **100GW** gross in 2030

## First energy company investor – 95% of the net investments are made in accordance with its carbon neutrality target

End-2023 (in €bn)



#### **Nuclear & renewable pipeline of projects**

• Nuclear projects : 5 EPR

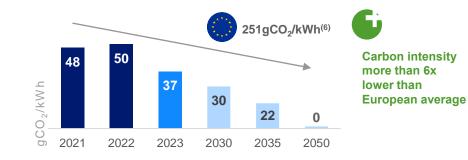


Hinkley Point C (3.26GW under construction) Sizwell C (3.26GW under development)

- 6 EPR2 to be developed in France, SMR & international EPR projects
- A large portfolio of renewable projects end-2023



#### Target: net zero CO<sub>2</sub> emissions by 2050<sup>(5)</sup> & new ambitions



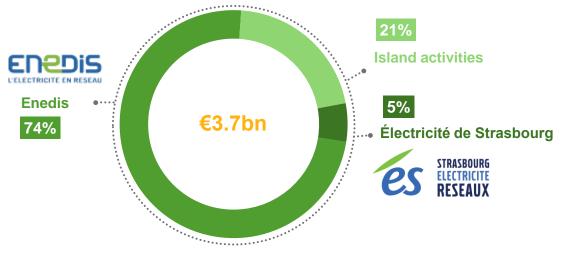
- (1) Enerdata Power Plant <u>Tracker</u> in 2022 (latest publication).
- 2) Direct carbon emissions related to generation, excluding life cycle assessment of generation means & fuels.
- (3) Mainly thermal maintenance, gas, property, central functions.
- (4) Including HPC, Flamanville 3 and EPR2.
- (5) For the 3 scopes.
- (6) EU 27 value in 2022, European Environment Agency.

## FRANCE: REGULATED ACTIVITIES (ENEDIS, ÉS<sup>(1)</sup> & ISLAND ACTIVITIES)

#### ➤ Enedis

- The largest distribution grid in Europe and the main distribution grid in France: connected to 95% of the metropolitan population
- A **regulated business model**: Enedis has the national monopoly on 376 concession contracts
- Represents usually a share of about **a quarter** in the metrics of the EDF Group: **EBITDA**, net investments (€4.6bn in 2023) and headcount (~40k)
- €96bn net investments planned over the period 2023-2040

#### **Breakdown of EBITDA**



(1) Électricité de Strasbourg.

(2) Fully consolidated data as of 31/12/2023.

#### > 2023 key figures:

- €2.7bn: EBITDA Exceptional year related to the cost of the buy-back of network losses at a very high price
- 38.5m customers (o/w 28.9m EDF)
- 1.4m km electric network

#### ➤ Island activities

- Integrated business model including generation, electricity purchases, distribution (via concessions) and supply at the regulated tariff
  - Capacity 2.0GW<sup>(2)</sup> (fuel 78%, hydropower and other EnR 22%)
  - Electricity generation 6.1TWh<sup>(2)</sup> (fuel 77%, hydropower and other EnR 23%)
  - 1.3m of customers (electricity)

#### Électricité de Strasbourg

• Electricity distribution (15,000km electric network), energy supply to c. 0.58m customers (electricity) & 0.11m customers (gas et biogas), energy services, renewable energy generation

# **2023 ANNUAL RESULTS**

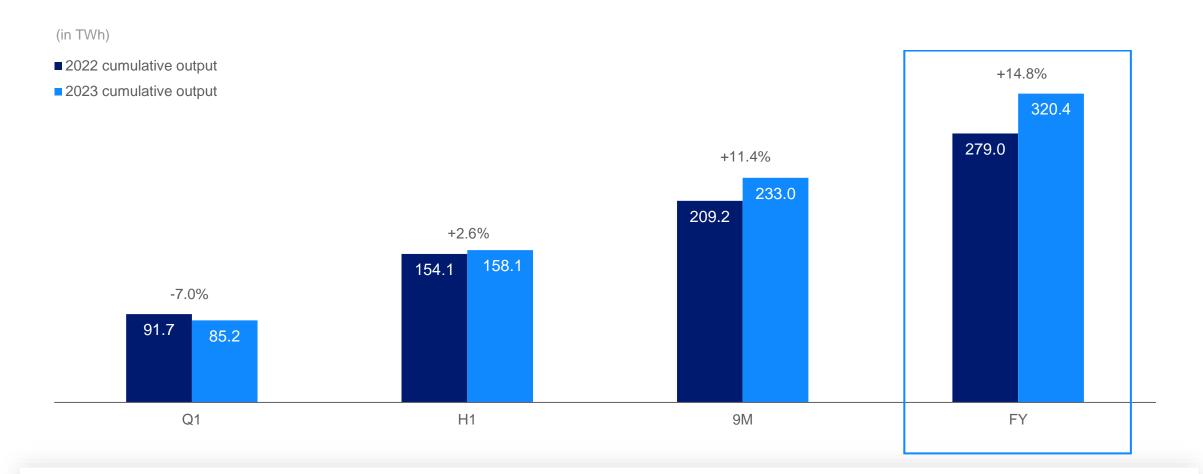
## 2023 FINANCIAL RESULTS: PARTIAL REDUCTION IN DEBT

In billions of euros	2022	2023	Δ	
Sales	143.5	139.7	-3.8	
EBITDA	(5.0)	39.9	+44.9	
EBIT	(19.4)	13.2	+32.6	
Net income excl. non-recurring items	(12.7)	18.5	+31.2	
Net income – Group share	(17.9)	10.0	+27.9	
Net financial debt (NFD)		NFD / EBITD	OA ratio	
<b>€54.4</b> bn -€10.1bn vs end-2022		<b>1.36x</b>		





## **RECOVERY IN FRANCE NUCLEAR OUTPUT ENGAGED**

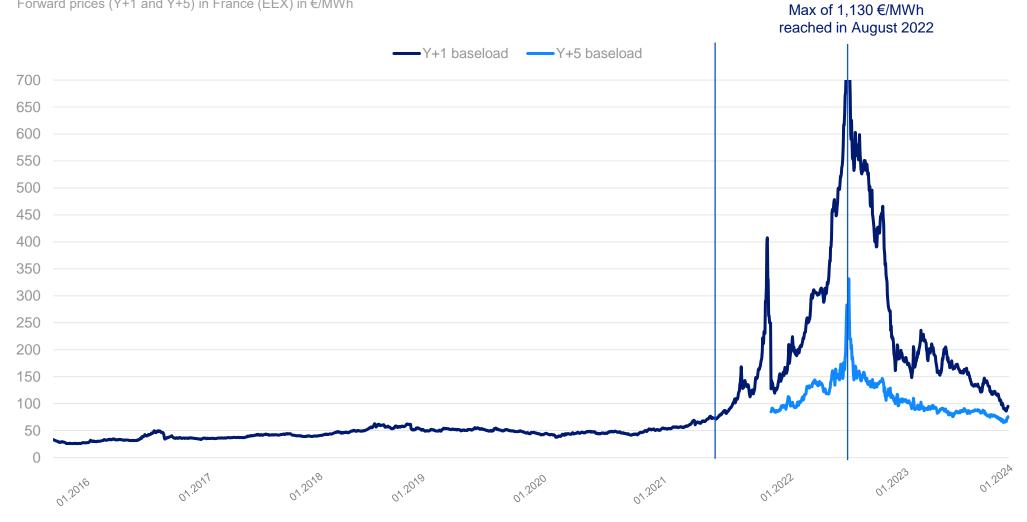


> +41.4TWh of nuclear output in France in 2023 vs 2022, mainly due to the optimisation and a good management of the stress corrosion treatment works



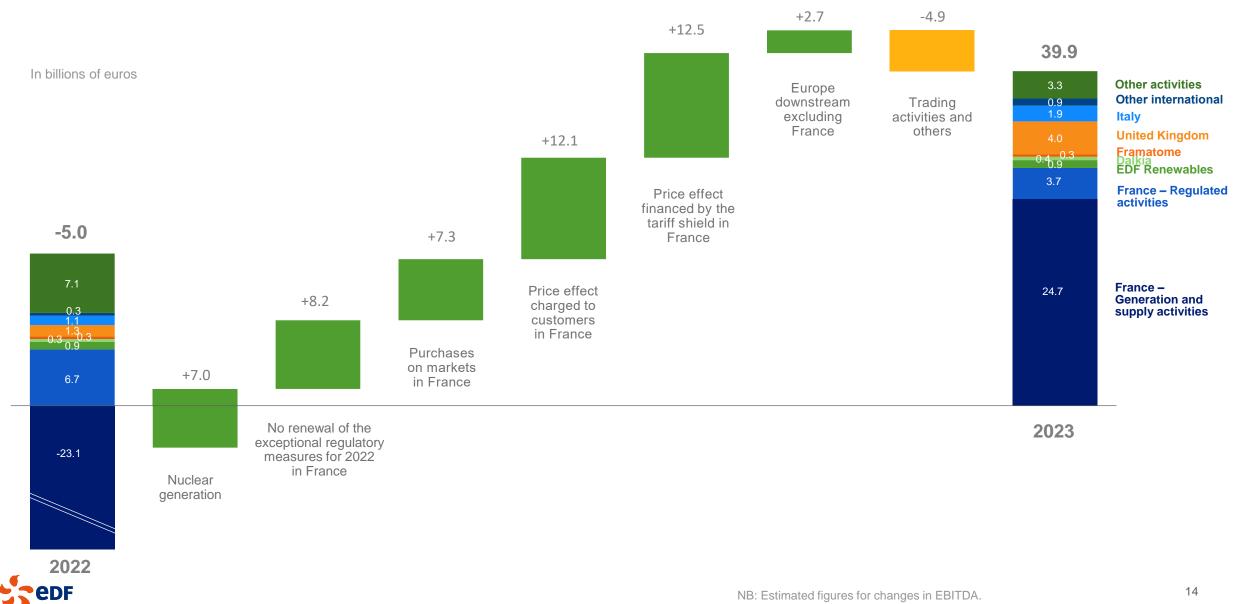


Forward prices (Y+1 and Y+5) in France (EEX) in €/MWh





### **EBITDA – IMPROVED PERFORMANCE AND HIGH PRICES**



THE EDF GROUP April 2024



In billions of euros	2022	2023	$\Delta$
EBITDA	(5.0)	39.9	+44.9
Commodities volatility	(0.8)	0.4	+1.2
Amortisation/depreciation expenses and provisions for renewal	(11.1)	(11.2)	-0.1
Impairments and other operating income and expenses	(2.4)	(16.0)	-13.6
EBIT	(19.4)	13.2	+32.6

Impairments in 2023: including, in the United Kingdom, HPC fixed assets for €(11.2)bn and EDF Energy goodwill for €(1.7)bn

NB: The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.





In billions of euros	2022	2023	Δ
EBIT	(19.4)	13.2	+32.6
Financial result	(3.5)	(3.3)	+0.2
Income taxes	3.9	(2.5)	-6.4
Share of net income from associates and joint-ventures	0.8	0.3	-0.5
(-) Deducting net income from minority interests	0.3	2.4	+2.1
Net income – Group share	(17.9)	10.0	+27.9
(-) Change in financial instruments & commodities fair value	2.9	(1.9)	-4.8
(-) Impairments <sup>(1)</sup>	1.3	8.3	+7.0
(-) Other items	1.0	2.1	+1.1
Neutralisation of non-recurring items net of tax	5.3	8.5	+3.2
Net income excluding non-recurring items	(12.7)	18.5	+31.2

#### Change in financial result

- Better performance of Dedicated Asset portfolio: +10.2% vs -8.5% in 2022 (+€5.6bn)
- Stability in the real discount rate of French nuclear provisions<sup>(2)</sup> to 2.5% after the positive impact of 50bp rate increase in 2022 (-€2.5bn)

**Coverage rate** of nuclear provisions by the Dedicated Assets: 108.5% at end-2023, vs 107.1% at end-2022

 Increase in the cost of financial debt of €2.1bn

NB: The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

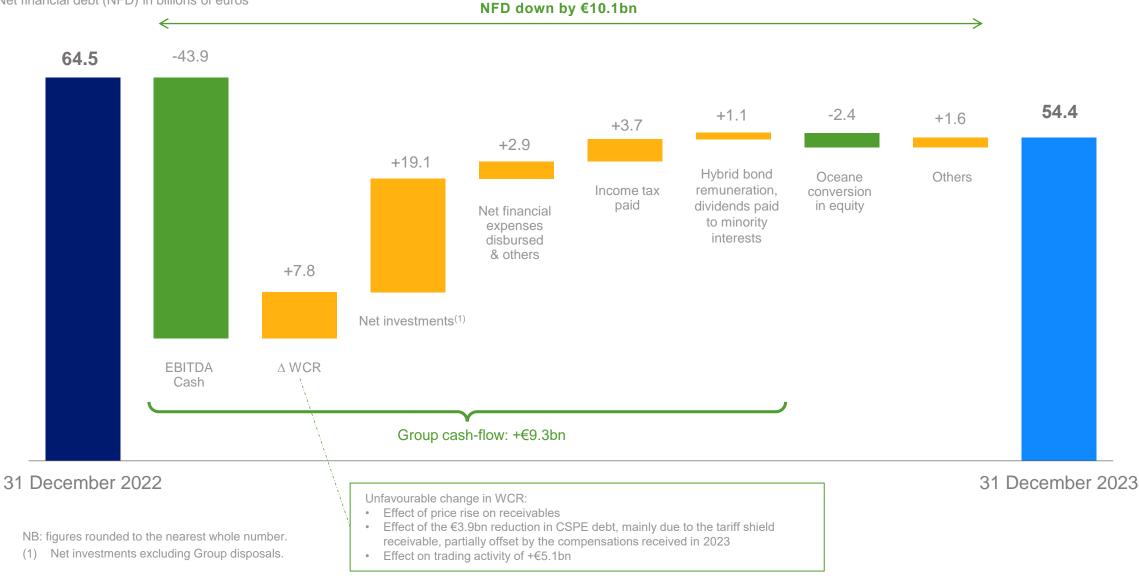
(1) Including 2023 impairments in the United Kingdom related to HPC fixed assets and EDF Energy goodwill for a total amount of €(7.9)bn net of tax.

(2) Between 31/12/2022 and 31/12/2023.



### > PARTIAL REDUCTION IN DEBT

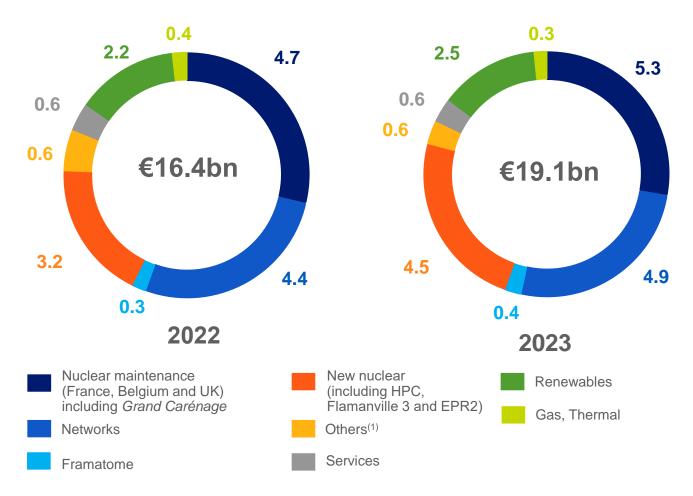
Net financial debt (NFD) in billions of euros



#### THE EDF GROUP April 2024

### **NET INVESTMENTS INCLUDING ACQUISITIONS**

In billions of euros



NB: figures	rounded	up to	the	nearest	decimal	number.
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(1) Mainly property, central functions

	Maintenance	Development	<b>TOTAL 2023</b>
Nuclear maintenance (France, Belgium and UK) including <i>Grand Carénage</i>	5.3	0.0	5.3
Networks	2.3	2.6	4.9
New nuclear (including HPC, Flamanville 3 and EPR2)	0.0	4.5	4.5
Renewables	0.4	2.1	2.5
Framatome	0.1	0.3	0.4
Services	0.0	0.6	0.6
Gas, Thermal	0.1	0.2	0.3
Others <sup>(1)</sup>	0.1	0.5	0.6
TOTAL	8.4	10.7	19.1

~95% of the Group's investments are made in accordance with its carbon neutrality target

56% of investments correspond to development investments

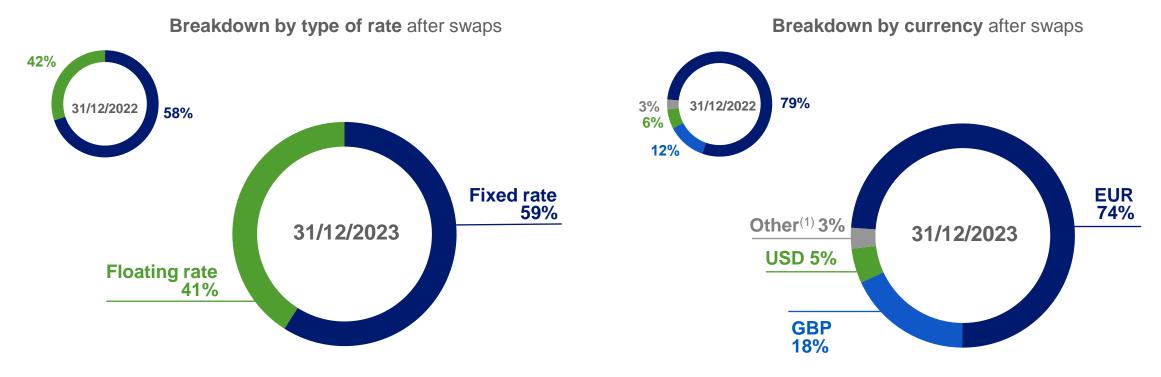
# **2023 ANNUAL RESULTS**

## FINANCING AND LIQUIDITY



#### **GROSS DEBT**

	31/12/2022	31/12/2023
<ul><li>Average maturity of gross debt</li><li>Average coupon</li></ul>	9.4 years 2.63%	11.0 years 4.11%



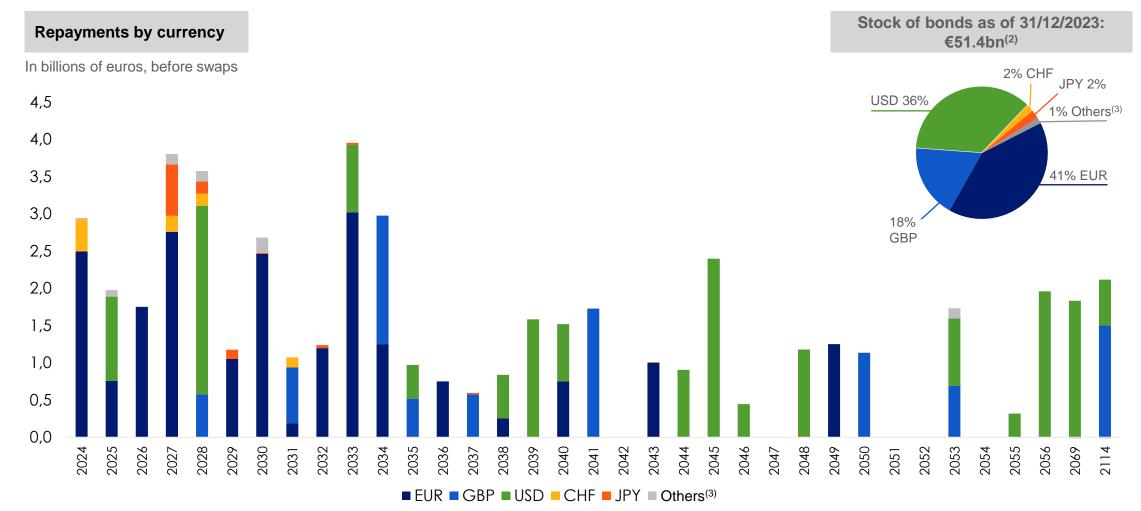
(1) Mainly ILS, INR and BRL.

#### **HIGH LEVEL OF LIQUIDITY**

31/12/2022	31/12/202
10.9	10
18.5	20
14.1	15
43.5	46
(28.7)	(18.9
14.8	27.
	10.9 18.5 14.1 <b>43.5</b> (28.7)



### FOCUS ON BONDS<sup>(1)</sup>



(1) Nominal amounts only.

(2) €51.4bn vs €49.1bn in note 18 of the 2023 consolidated financial statement that includes accrued interests and depreciation.

(3) Mainly CAD, INR, HKD, BRL and NOK.



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### **GREEN FINANCING: PROCEEDS ALLOCATION AND IMPACT REPORTING**

Issue date	Maturity	Nominal amount	New renewable capacities	Investments in hydro facilities	Biodiversity projects		<sup>1)</sup> capacity of rojects (in MW)	Expected net <sup>(1)</sup> avoided emissions (in Mt/yr)	
Nov. 2013	7.5Y	1,400M€	1,400	-	-	9	76	1.55	
Oct. 2015	10Y	1,250M\$	1,250	-	-	8	15	1.83	
Oct. 2016	10Y	1,750M€	1,248	502	-	1,8	865	1.62	
Jan. 2017	12Y–15Y	26,000M¥	14,021	14,021 11,979		1,2	219	0.13	
Sept. 2020	4Y	2,400M€	2,246	2,246 110 28		1,	535	1.35	
Nov. 2021	12Y	1,850M€	1,594	1,594 189		1,487		1.11	
						7,8	897	7.59	
Issue date	Maturity	Nominal amount	Distribution	of electricity projects	Renewabl connecte	<b>e capacity</b> d (in MW)	Number of sma meters	art New grid lines b (in km)	ouilt
Oct. 2022	12Y	1,250M€		1,250	5,1	81	5,488,000	2,950	
Jul-2023	Evergreen REPO	565M€		565		61	614,000	1,015	
Aug-2023	4Y–8Y	325MCHF		325		76	592,000	1,976	
Issue date	Maturity	Nominal amount		Existing French nuclear reactors in relation to their lifetime extension			Expected net	(1) avoided CO <sub>2</sub> emission (in Mt/yr)	ns
Nov. 2023	3.5Y	1,000M€		1,000				1.82	

The detailed list of EDF Renewables projects and hydraulic investment operations by category will be published in EDF 2023 URD.

(1) Sum of the impacts of each project weighted by the share of total investment funded by the corresponding Green Bond.

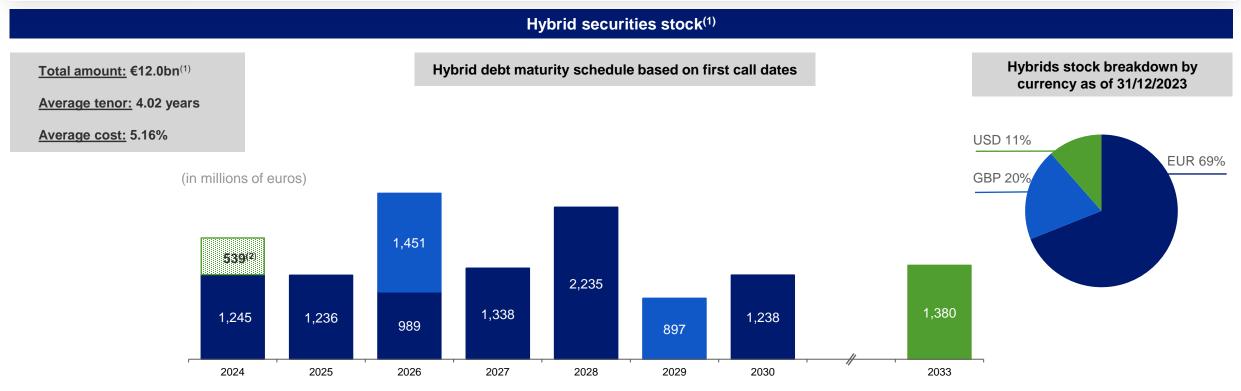
#### **FOCUS ON HYBRIDS SECURITIES**

#### Hybrid bond issue

Hybrid bond issues contribute to strengthening the balance sheet through their qualification as equity under IFRS and 50/50 as debt and equity by rating agencies

A new \$1.5bn emission paying 9.125%, with a 10-year first call date at EDF's discretion, was issued in June 2023.

A tender offer on the \$1.5bn hybrid bonds, callable in January 2024 was launched at the same time, resulting to a purchased amount of around \$0.9bn (redemption of the remaining outstanding bonds on 22 January 2024)



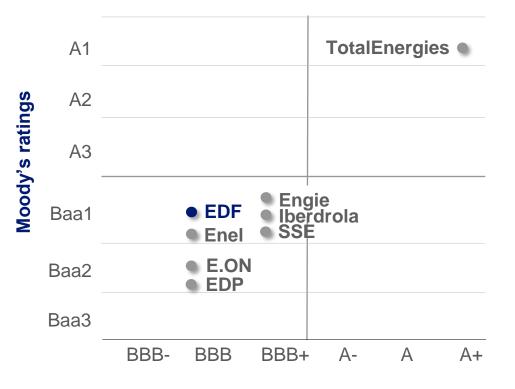
(1) Exchange rate as of transaction time.

(2) Amount redeemed on 22/01/2024 and reclassified on 31/12/2023 as Other financial debt for €539M (\$596M) (see press release of 14 December 2023).

#### THE EDF GROUP April 2024

### **COMPARATIVE CREDIT RATINGS**<sup>(1)</sup>

Rating Agency	Sedf	Latest Changes
<b>S&amp;P Global</b> Ratings	<b>BBB</b> Stable	14 December 2022 Outlook revised to Stable from Negative CreditWatch Negative Removed
Moody's	Baa1 Stable	1 June 2023 Outlook revised to Stable from Negative
<b>Fitch</b> Ratings	BBB+ Stable	6 September 2022 Outlook revised to Stable from Negative (affirmed on 28 March 2024)



S&P ratings

Sources: rating agencies as of 05/04/2024. See <u>EDF's ratings</u>



# COMPLEMENTARY BOOK

### **ELECTRICITY OUTPUT**

#### Fully consolidated entities

(in TWh)	20	22	202	3
Nuclear	328.0	76%	363.4	78%
Total ENR	60.2	14%	70.8	15%
Hydro <sup>(1)</sup>	35.6	59%	42.8	60%
Wind	21.2	35%	23.5	33%
Solar	2.5	4%	3.2	5%
Biomass	0.9	2%	1.4	2%
Gas	36.5	8%	28.5	6%
Fuel oil	5.4	1%	4.6	1%
Coal	1.7	0.4%	0.2	0.1%
Group	431.7	100%	467.6	100%

NB: The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

(1) Hydro output includes tidal energy for 549GWh in 2022 and 504GWh in 2023. Hydro output after deduction of pumped volumes is 28.2TWh in 2022 and 37.0TWh in 2023.



## **CO<sub>2</sub> EMISSIONS AND CARBON INTENSITY<sup>(1)</sup>**

Fully consolidated entities

Heat and power generation by segment		Emissio	ns (in kt C	0 <sub>2</sub> )		intensity <sub>2</sub> /kWh <sup>(4)</sup> )	
	20	022	2	023	2022	2023	
France – Generation and supply activities	5,327	23%	2,901	16%	17	8	
France – Regulated activities <sup>(2)</sup>	3,352	15%	2,917	16%	512	469	
Dalkia	4,127	18%	3,588	20%	156	147	
United Kingdom	149	1%	4	0%	3	0	
Italy	6,842	30%	6,263	34%	301	302	
Other international	3,251	14%	2,547	14%	216	182	
Group <sup>(3)</sup>	23,078	100%	18,249	100%	50	37	

NB: The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

(1) Including direct CO<sub>2</sub> emissions (excluding life cycle analysis (LCA) of fuel, production means and other CO<sub>2</sub>-equivalent gas emissions). The other CO<sub>2</sub>-equivalent gas emissions are included in the Scope 1 calculation.

(2) Power generation in ZNI: « Zones non interconnectées » corresponding to overseas departments and Corsica - (mainly island territories) and Electricité de Strasbourg (ES).

(3) Framatome contributes to 29ktCO<sub>2</sub> in 2023 and 31ktCO<sub>2</sub> in 2022, The direct CO<sub>2</sub> emissions from "Others activities" segments are not significant compared to Group total emissions and are not disclosed in this table.

(4) Carbon intensity corresponds to CO<sub>2</sub> emissions in relation to the Group's electricity and heat generation, The EDF Group's heat generation amounts to 23.7TWh in 2023 (vs 26.0TWh in 2022).



#### THE EDF GROUP April 2024

#### **INSTALLED CAPACITY AS OF 31 DECEMBER 2023**

(in GW)	Total net capacity of E including shares in ass joint venture	sociates and	Investments in associates and joint ventures	Consolidated ca of EDF Gro	
Nuclear <sup>(1)</sup>	67.8	55%	-0.2	67.9	58%
Hydro <sup>(2)</sup>	22.6	18%	1.0	21.6	18%
ENR <sup>(3)</sup>	15.1	12%	2.8	12.3	10%
Gas <sup>(4)</sup>	11.1	9%	-0.2	11.3	10%
Fuel oil <sup>(3)</sup>	3.2	3%	0.1	3.1	3%
Coal <sup>(5)</sup>	3.0	2%	1.8	1.2	1%
Total	122.7	100%	5.3	117.3	100%

NB: The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

(1) Taking into consideration the shutdown of Tihange 2.

(2) Including sea energy: 0.24GW in 2023.

- (3) Taking into consideration the conversion of the Port Est plant (Reunion) to biomass.
- (4) Taking into consideration the disposal of the Sloe CCGT in the Netherlands.
- (5) Taking into consideration the closure of the 2 last units of West Burton A.



### **EDF: A EUROPEAN LEADING PLAYER IN RENEWABLE ENERGIES**

#### **INSTALLED CAPACITY: 37.7GW NET**<sup>(1)</sup> CAPACITY BY SECTOR: 4.7GW 0.4GW<sup>(2)</sup> **OTHER** SOLAR **POWER** 37.7 9.9GW 22.6GW of hydropower **A DIVERSIFIED** • GW WIND MIX WITH 37.7GW 14.7GW of wind and solar power • (net) 22.6GW<sup>(3)</sup> IN OPERATION **HYDRO 0.4GW others** (biomass, geothermal, ...) • **CAPACITY BY GEOGRAPHY:** Leading European producer • of hydropower **HYDROPOWER** More than 400 production sites • worldwide 2.9GW gross commissioned in 2023 ٠ A GLOBAL 6.4GW gross currently under LEADER IN WIND • 5.4GW construction (1.5GW in onshore wind, AND SOLAR 1.2GW in offshore wind, 3.7GW in **ENERGY** solar) NB: situation at 31/12/2023. (1) Installed capacity shown as net, corresponding to the consolidated data based on EDF's

- participation in Group companies, including investments in affiliates and joint ventures.
- (2) Biomass and geothermal.
- (3) Including sea energy: 0.24GW.



#### THE EDF GROUP April 2024

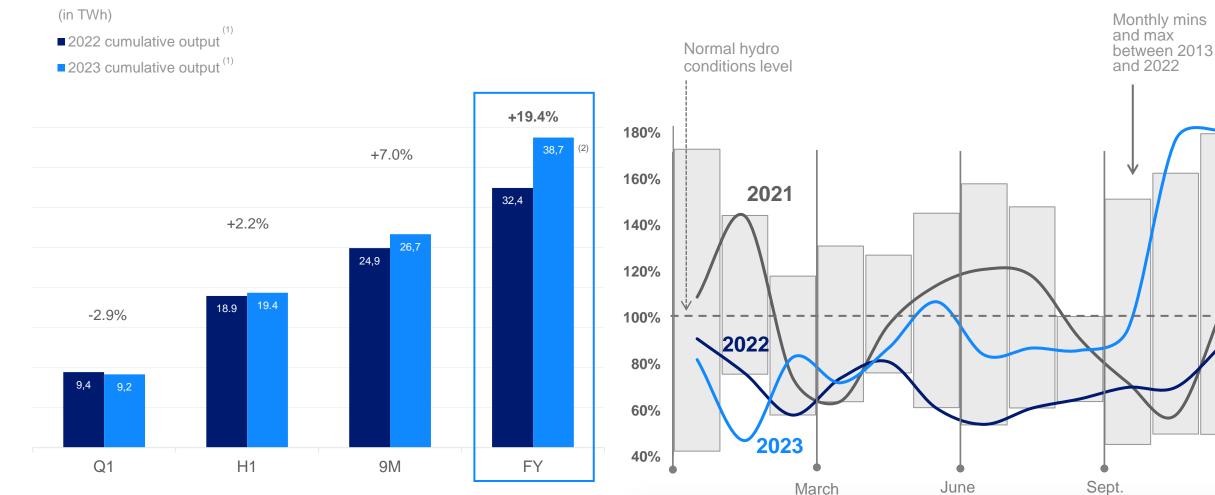
1.3GW

### **10-YEAR INSPECTIONS OF THE NUCLEAR FLEET**

Number of 10-year inspections



### **FRANCE HYDRO OUTPUT**



(1) Hydropower excluding electrical activities on French islands, before deduction of pumping consumption.
(2) Production after deduction of pumped volume consumptions 25 oTW/h in 2022 (22 oTW/h in 2022)

- (2) Production after deduction of pumped volume consumption: 25.0TWh in 2022 / 33.0TWh in 2023.
- Favourable hydro conditions in the last two months of 2023 almost offset the overall deficit of the first ten months: hydraulic conditions index of 0.98 in 2023 vs 0.71 in 2022
- Hydraulic reservoirs filling rate in France at 80% at end-December 2023: +17 points above historical average (63%)

Dec.

#### **RENEWABLES: INSTALLED CAPACITY AND CAPACITY UNDER CONSTRUCTION, AS OF 31 DECEMBER 2023**

(in MW)	Gross <sup>(1)</sup>		<b>Net</b> <sup>(2)</sup>	
	31/12/2022	31/12/2023	31/12/2022	31/12/2023
Wind	2,783	2,685	1,662	1,591
Solar	4,347	3,728	3,073	2,617
Capacity under construction	7,130	6,413	4,735	4,209
Onshore wind	13,141	13,244	9,066	9,342
Offshore wind	1,411	1,621	508	581
Solar	7,427	9,425	3,591	4,734
Wind & Solar installed capacity	21,979	24,289	13,165	14,657
Biomass and geothermal	-	-	232	440
Renewable (excl. hydro) installed capacity	-	-	13,397	15,097
Hydraulic	-	-	22,577	22,571
Renewable installed capacity	-	-	35,974	37,668

(1) Gross capacity: total capacity of the facilities in which EDF has a stake.

(2) Net capacity: capacity corresponding to EDF's stake.





# THANK YOU FOR YOUR ATTENTION