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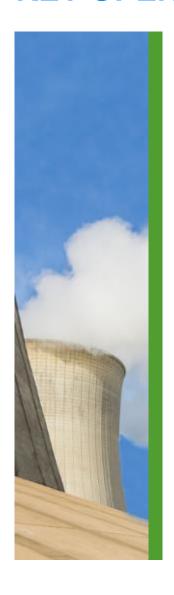
# **2022 ANNUAL RESULTS**

**Luc Rémont** 

Chairman and Chief Executive Officer



### **KEY OPERATIONAL INDICATORS - 2022**



Nuclear output France

279<sub>TWh</sub>

-23% vs 2021

Nuclear output United Kingdom

**43.6**TWh

+5% vs 2021

Group carbon intensity

 $\mathbf{50}_{\text{gCO}_2/\text{kWh}}$ 

vs 48gCO<sub>2</sub>/kWh in 2021

Hydro output mainland France

**32.4**TWh

-22% vs 2021

Group wind & solar output

**24.6**TWh

+18% vs 2021

Group portfolio of wind and solar projects

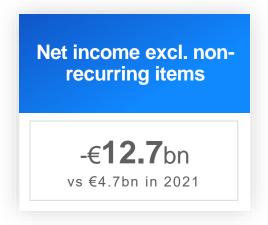
**85**GW gross

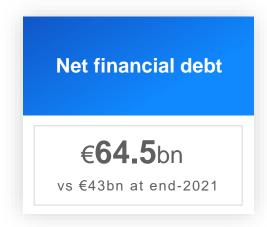
+12% vs end-2021

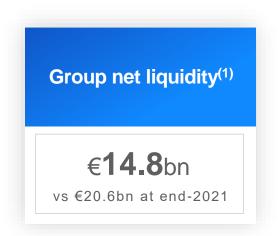
### **FINANCIAL RESULTS - 2022**











(1) Cash and cash equivalents €10.9bn, liquid assets €18.5bn, undrawn credit lines €14.1bn, and after deduction of the current portion of the borrowings and financial debts for -€28.7bn.
Of which €10.6bn of EDF SA net liquidity.



### SIMPLIFIED PUBLIC TENDER OFFER FOR EDF EQUITY SECURITIES



**Simplified public tender offer**<sup>(1)</sup> launched by the French State on 24 November 2022 to acquire the shares and OCEANE convertible bonds that it does not hold, at a price of €12/share and €15.52/OCEANE

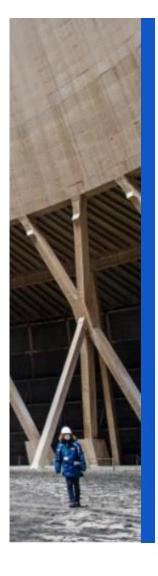
**Action** for annulment of the French Financial Markets Authority's clearance decision on the public tender offer, filed with the Paris Court of Appeal on 2 December 2022 by representatives of minority shareholders

Closing of the Offer<sup>(2)</sup> on 3 February 2023: French State's holding of 95.82% of the shares and 96.53% of the voting rights as well as 99.96% of the OCEANE, pending the decision of the Court of Appeal expected during the first semester of 2023

- (1) See the 23 November 2022 EDF press release.
- (2) Subject to its reopening in accordance with the State's undertakings described in the 25 January 2023 EDF press release, including the undertaking not to implement a squeeze-out procedure prior to the Court of Appeal's decision.



### **NUCLEAR: A CHALLENGING YEAR**



#### **EXISTING NUCLEAR**

43 of 56 reactors currently operational

#### Stress corrosion (SC)

Identification of the **16 reactors most sensitive to SC** phenomenon (the 4 N4-series 1,450MW reactors and the 12 P'4-series 1,300MW reactors)

- 10 of the 16 reactors were treated in 2022 or are undergoing treatment
- Systematic and preventive replacement by end-2023 of the pipes of the 6 P'4-series
   1,300MW reactors not yet treated and of Cattenom 1

#### **NEW NUCLEAR**

#### Sizewell C

British government's decision to take a 50%-stake in the company alongside EDF<sup>(1)</sup> by the FID, through an investment of c.£700m

Project eligible for the Regulated Asset Base (RAB) funding model<sup>(2)</sup>

#### Flamanville 3

Schedule and cost adjustment:

- New target of nuclear fuel loading in Q1 2024<sup>(3)</sup>
- Estimated cost at completion of €13.2bn<sup>(3)</sup>

**EXCELL PLAN**: perpetuation of actions taken to reach highest industrial standards (4)

#### **NUCLEAR ACTIVITIES INCLUDED IN THE EUROPEAN TAXONOMY**

#### BELFORT SPEECH (5): RESTARTING NUCLEAR POWER IN FRANCE

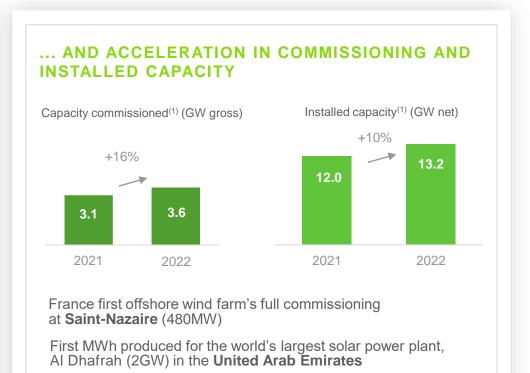
- (1) EDF's Final Investment Decision (FID) is subject to certain conditions, particularly the capacity to raise the required funding and deconsolidate the project with a stake of less than 20%.
- (2) 2022 NEFA act (Nuclear Energy Financing Act), in force as from end-May 2022.
- (3) Previous costs and schedule: €12.7bn<sub>2015</sub> and Q2 2023. In 2015 euros and excluding interim interests during the construction period.
- (4) See the  $\underline{\text{link}}$ . to the excell plan commitments.
- (5) Speech by the French President of the Republic on 10 February 2022.



### RENEWABLES: CONTINUED DEVELOPMENT







#### **HYDROPOWER**

Partnership agreements signed for development and construction of the **Mpatamanga hydropower plant** (350MW) in Malawi

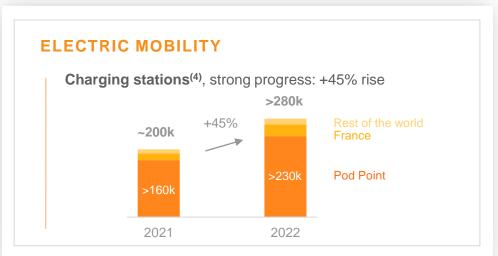
(1) Wind and solar. See appendix p28.

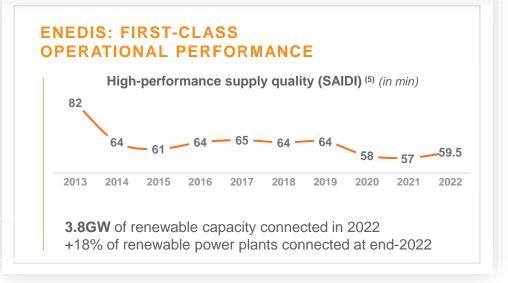


### **CUSTOMERS & ENEDIS**









- (1) Millions of customers, calculated by delivery point. A customer may have two delivery points. For France: Commercial department, ÉS and SEI
- (2) With a negative impact in EBITDA in 2022, due to a higher number of new customers at regulated tariff, leading to purchases of volumes on the market at very high prices
- (3) On volumes sold and to be delivered in 2023.
- (4) Installed and managed.
- (5) SAIDI: System Average Interruption Duration Index. Excluding exceptional events and transport grid incidents.



### WINTER PEAK & ENERGY SUFFICIENCY PLAN



#### **ENEDIS**

**2.4GW saved** during the 12pm-2pm peak by temporarily shifting hot water tank heating during the night

#### **RENEWABLES**

**Hydropower**: **actions carried out** to maximise available power: +2.3GW mobilizable capacity

#### **NUCLEAR**

Fuel economy, shifted outages and reorganised maintenance schedules

**18 nuclear reactors recommissioned** since 1 November

#### **CUSTOMER ENERGY SUFFICIENCY PLAN**

- +20% load-shedding capacity for industrial customers
- +30% subscription to Tempo offers (remunerating lower consumption during peak periods)

Large-scale **media campaign** to raise awareness about energy-saving actions

Connections to EDF consumption monitoring tools doubled

#### **EDF ENERGY SUFFICIENCY PLAN**

>10% reduction in energy consumption<sup>(1)</sup> in Q4 2022 by the Group's office sites

#### **CUSTOMER AWARENESS IN FRANCE**

- **-10% in electricity usage**<sup>(2)</sup> for residential customers in November and December 2022
- **-20% in public lighting electricity consumption** in December 2022 vs December 2021

- (1) Climate-adjusted percentage vs. Q4 2021.
- (2) Estimated average corrected for temperature differences (vs. November and December 2021).

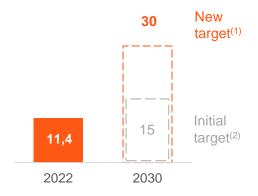


### **ENVIRONMENTAL, SOCIAL & GOVERNANCE COMMITMENTS**



#### DOWNSTREAM AVOIDED EMISSIONS

NEW TARGET in Mt of Co<sub>2</sub> avoided



#### **CLIMATE RESOLUTION**

**CLIMATE TRANSITION PLAN** 

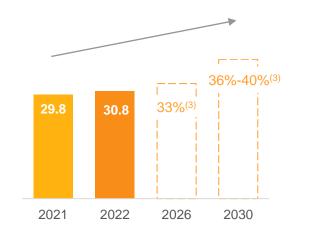
99.87% adopted

at the Shareholders' Meeting

#### **GENDER EQUALITY**

A TRAJECTORY ON TRACK FOR THE GROUP'S TARGETS

Percentage of women on Group's entity management committees



#### SUSTAINABLE FINANCING

€1.25bn GREEN BOND ISSUED IN OCTOBER 2022

Funds allocated to investments in electricity distribution

~€10bn GREEN BONDS ISSUED AT END-2022

- Calculation of emissions avoided annually thanks to the sales of innovative products and services. New target at G4 scope and integrating new products and services.
- (2) The initial target concerned the EDF and Dalkia scope.
- (3) These Group targets for 2026 and 2030 apply also to women employees and executives.



# **2022 ANNUAL RESULTS**

### **Xavier Girre**

Group Senior Executive Vice President - Finance



### **KEY FIGURES FOR 2022**

| In €m                                    | 2021   | 2022     | Δ %   | ∆ % Org.(1) |
|--|--------|----------|-------|-------------|
| Sales                                    | 84,461 | 143,476  | +69.9 | +69.4       |
| EBITDA                                   | 18,005 | (4,986)  | n.a   | n.a         |
|  |        |          |       |             |
| Net income excluding non-recurring items | 4,717  | (12,662) | n.a   |             |
| Net income – Group share                 | 5,113  | (17,940) | n.a   |             |

|                             | 31/12/2021 | 31/12/2022 |
|-----------------------------|------------|------------|
| Net financial debt (in €bn) | 43.0       | 64.5       |

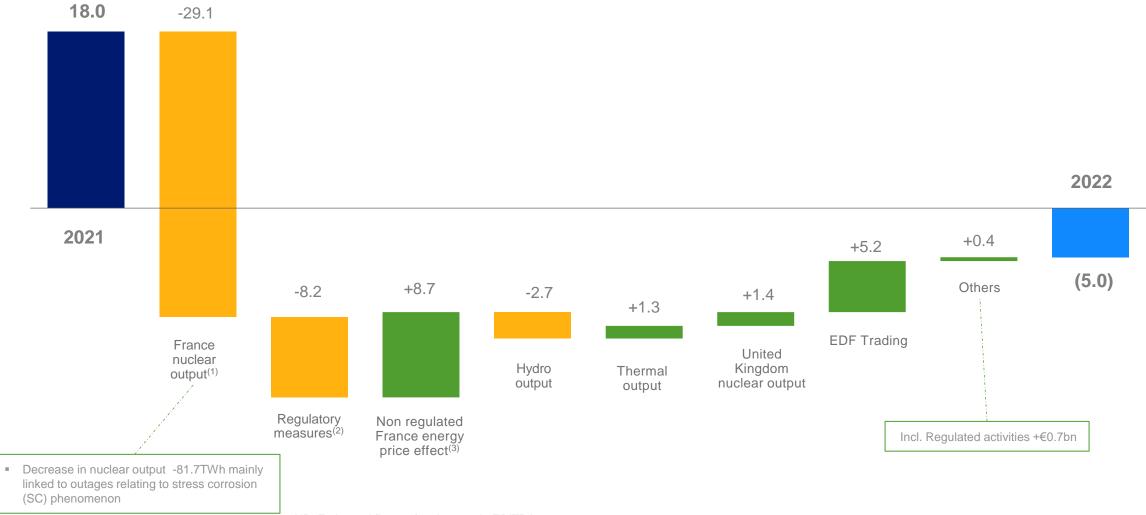
n.a.: not applicable

(1) Organic change at comparable scope, standards and exchange rates.



### **GROUP EBITDA - SYNTHESIS**

In €bn



NB: Estimated figures for changes in EBITDA.

- (1) Vs -€32bn published in the 27 October 2022 press release based on the forward prices of 7 October 2022 which have since fallen sharply.
- 2) Vs -€10bn published in the 27 July 2022 press release, the difference coming, notably, from the accounting in 2022 of the compensation of the tariff shield in CSPE.
- ) Vs +€8bn published in the 27 July 2022 press release, the difference is due to a climate effect and a price effect on open positions.



### **EBIT**

| In €m   | 2021     | 2022     | $\Delta$ |
|---|----------|----------|----------|
| EBITDA  | 18,005   | (4,986)  | (22,991) |
| Commodities volatility  | (215)    | (849)    | (634)    |
| Amortisation/depreciation expenses and provisions for renewal | (10,789) | (11,079) | (290)    |
| Impairments and other operating income and expenses           | (1,776)  | (2,449)  | (673)    |
| EBIT  | 5,225    | (19,363) | (24,588) |



### **NET INCOME – GROUP SHARE**

| In€m   | 2021    | 2022     | Δ        |
|--|---------|----------|----------|
| EBIT   | 5,225   | (19,363) | (24,588) |
| Financial result                                       | 360     | (3,553)  | (3,913)  |
| Income taxes   | (1,400) | 3,926    | +5,326   |
| Share of net income from associates and joint-ventures | 644     | 759      | +115     |
| Net income of discontinued operations                  | (1)     | 6        | 7        |
| (-) Deducting net income from minority interests       | 285     | 285      | -        |
| Net income – Group share                               | 5,113   | (17,940) | (23,053) |
| (-) Change in commodities fair value                   | (1,876) | 2,948    | +4,824   |
| (-) Impairments <sup>(2)</sup>                         | 608     | 1,295    | +687     |
| (-) Other items  | 872     | 1,035    | +163     |
| Neutralisation of non-recurring items net of tax       | (396)   | 5,278    | +5,674   |
| Net income excluding non-recurring items               | 4,717   | (12,662) | (17,379) |

## Change in financial result

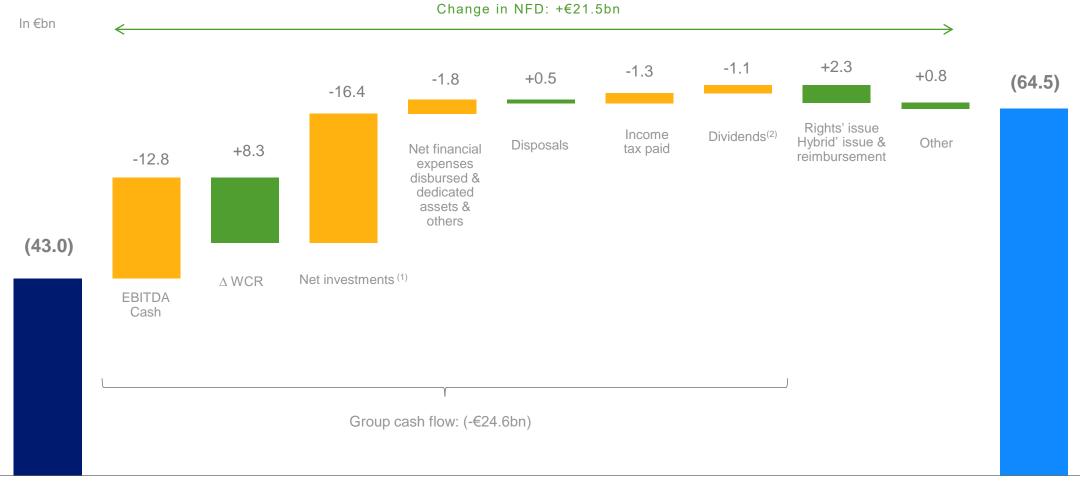
- ✓ Decrease in performance of dedicated asset portfolio: -8.5% vs. +11.9% in 2021 (-€5,835m)
- ✓ Positive effect of the increase in real discount rate of French nuclear provisions of +50 bps, to 2.5%<sup>(1)</sup> (+€3,260m)
  - **Coverage rate** of nuclear provisions by the Dedicated Assets: 107,1% at end-2022 vs. 109.3% at end-2021
- ✓ Increase in the cost of financial debt (-€271m)

<sup>(2)</sup> Including, in 2022, impairment in the United Kingdom for a total of €(0.9) billion net of tax o/w an impairment on the EDF Energy goodwill.



<sup>(1)</sup> In 2021, the decrease in the real discount rate for nuclear provisions in France was -10 bps to 2.0%.

### **NET FINANCIAL DEBT**



31 December 2021 31 December 2022

NB: figures rounded to the nearest whole number.

(1) Net investments excluding Group disposals.

(2) Dividends paid including hybrid bond remuneration.



## **OUTLOOK**

Luc Rémont

Chairman and Chief Executive Officer



### **2023 TARGETS**

2023 TARGETS (1) NET FINANCIAL DEBT / EBITDA ≤ 3x

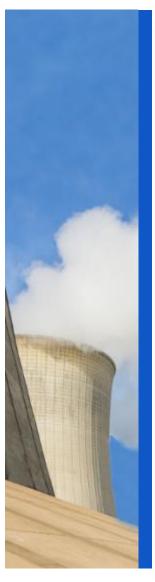
ADJUSTED ECONOMIC NET DEBT / ADJUSTED EBITDA(2)

≤ 4.5x

- (1) Based on scope and exchange rates at 01/01/2023. At stable regulatory and fiscal environment and considering the financing of the tariff cap at 15% by the CSPE, and an assumption of 2023 French nuclear output of 300-330TWh, and the generation schedule.
- (2) As per current S&P methodology.



### **OUTLOOK FOR 2023: RETURN TO PROFITABILITY & CONTINUED INVESTMENT PLAN**



Recovery of nuclear generation to 300-330TWh: gradual exit from the stress corrosion crisis

#### Customer support in a context of high prices

- Continuation of the energy sufficiency plan
- Decarbonisation of industry
- Electric mobility

#### **Industrial development**

- o Renewable:
  - in France, commissionings of Fécamp (500MW-off-shore wind), Provence Grand Large (floating off-shore wind), Lazer (floating solar)
  - internationally, watering of the Nachtigal dam (420MW), commissioning of Al Dhafrah solar farm (2GW)

#### o Nuclear:

- start-up tests for Flamanville 3 at the end of the year
- integration of GE Steam Power activities
- start of the electromechanical works at Hinkley Point C

#### O Distribution networks:

acceleration of connections of renewables and charging stations

#### LAUNCH OF 4 OPERATIONAL EXCELLENCE PROJECTS

- Increasing metal time
- Accelerating and industrialising digital
- Developing the skills required for group businesses
- Monitoring operational performance







# TABLE OF CONTENTS

P.23
STRATEGY AND
INVESTMENTS

P.28
RENEWABLES

P.31 FRANCE

P.41

FINANCIAL

CONSOLIDATED

STATEMENTS

P.48
FINANCING AND
CASH
MANAGEMENT

P.56
OPERATIONAL
DATA & MARKETS

# **2022 ANNUAL RESULTS**

STRATEGY AND INVESTMENTS



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### **FLAMANVILLE 3 EPR (1.6GW)**

UPGRADE ON THE MAIN SECONDARY CIRCUIT WELDS AND OTHER MATTERS OF ATTENTION All the welds concerned were upgraded as of 31 December 2022. Non-destructive inspections and stress-relieving heat treatments are ongoing

The most complex penetration welds on the reactor containment building are fully completed and compliant

Other technical matters have mobilised the teams and are currently being examined by the French Nuclear Safety Authority (ASN), in particular the filtration sumps SIS/CHRM <sup>(1)</sup>, the pressurizer safety release valves and the lesson-learnt from the technical issue at the Taishan No.1 reactor



SCHEDULE AND COSTS

In its press release on 16 December 2022, EDF has updated the fuel-loading date from Q2 2023 to Q1 2024 and the estimated completion cost was increased from €12.7bn to €13.2bn (2)

These elements take into account the difficulties encountered in modelling and carrying out the stress-relieving heat treatment operations on "complex geometry" welds (i.e located close to components that should not bear the temperatures caused by the stress-relieving heat treatment of the weld)

Costs arising from post-commissioning modifications are not included in the construction cost of the project

- (1) SIS = Safety injection system, CHRM = containment heat removal system.
- (2) In 2015 euros, excluding interim interest (see note 10.6 of the Consolidated financial statements as of 31 December 2022).



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### HINKLEY POINT C

#### SCHEDULE AND COSTS REVIEW

- The project's targets in terms of schedule and cost at completion from the last project review to date were announced on 19 May 2022 (1):
  - The start of electricity generation for Unit 1 is targeted for June 2027. The risk of further delay of the two units remains assessed at 15 months, assuming in particular the absence of additional effects of the war in Ukraine
  - The project completion cost was estimated, during this review, in a range of  $\pounds_{2015}25$ bn to  $\pounds_{2015}26$ bn  $^{(2)}$ , corresponding to £31bn to £32bn in current value based on the inflation indexes available at end-2021  $^{(3)}$
  - The schedule and cost of electromechanical works and of final testing were not reviewed at this stage of the project

#### **CONSTRUCTION PROGRESS**

- The Unit 1 Reactor Pressure Vessel was built and is ready to ship
- The final Liner Ring has been lifted onto Unit 1 Reactor Building
- The Lance Storage and Transfer Compartment Pools have been lifted into Unit 1 Reactor Building
- Despite achieving 20 out of 22 key milestones set for 2022, the main Civil and electromechanical works performance were less than expected in 2022.
   Mitigating actions to recover the impact of 3-6 months are underway

#### KEY DATA

- The agreements between EDF and CGN include a compensation mechanism between both shareholders in case of overrun of the initial budget or delays. This mechanism was triggered in January 2023. These arrangements are part of a Shareholder's agreement signed between EDF and CGN in September 2016 and is subject to a confidentiality clause
- As the project's total financing needs exceed the contractual commitment of the shareholders, shareholders will be asked to provide additional equity ("voluntary equity") in H2 2023 (estimation)
- The probability that CGN will not fund the project after it has reached its committed equity cap is high. In the event that CGN would not allocate voluntary equity, the EDF Group would be required to contribute in place of CGN, as soon as CGN has contributed its share of committed equity, on the basis of the estimated cost at completion
- (1) See EDF's press release of 19 May 2022 "Hinkley Point C Update". Previous target announced on 27 January 2021: start of electricity generation in June 2026, project completion cost estimated in a range of £<sub>2015</sub> 22-23 bn.
- (2) Net cost of operational action plans, in 2015 sterling, excluding interim interest and at a reference exchange rate for the project of  $\pounds_{2015}1 = \pounds 1.23$ .
- (3) Based on inflation indexes as of 30 June 2022, the estimated cost at completion in current value could reach £32.7bn. The real cost remains unchanged.



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### SIZEWELL C

#### MAIN ASPECTS

- Project of 2 UK European Pressurised Reactors (EPR) at Sizewell on the Suffolk coast for a total capacity of 3.26GW
- Power supply to 6 million households for around 60 years
- Second of a kind UK EPR following Hinkley Point C, replication as much as possible of the Hinkley Point C design and supply chain



#### MILESTONES REACHED IN 2022

#### **Support from UK Government**

- On 29 November 2022, the UK Government announced its decision to invest c. £700m to support the project's continued development and to increase its shareholding through 2023 until it reaches parity with EDF as a 50% ownership, in view of an expected FID in 2024.

  As at 31 December 2022, the UK Government held a 32% shareholding in the project, with EDF owning the remaining 68%
- CGN has exited the Sizewell C project and remains a shareholder in the Hinkley Point C project

#### **Financing**

- EDF intends to be a minority shareholder with no more than 19.99% stake and to provide the EPR design and key nuclear equipment
- The project is eligible for the RAB model, the terms of which and Government Support Package (GSP) are currently being discussed with the UK Government
- The financing terms of the project are not defined at this stage

#### **Organisation**

 Organisation and collaboration schemes with Hinkley Point C are being analysed to secure the benefits of the replicability of the Hinkley Point C project. Depending on the schemes, the risk of non-compatibility with the project's deconsolidation objective could increase

#### **Licenses and permits**

- The ONR (Office for Nuclear Regulation) confirmed in July 2022 that almost all the regulatory requirements were satisfied to grant a Nuclear Site License
- Development Consent Order (DCO) granted in July 2022. A request for judicial review has been launched in the UK

#### FINAL INVESTMENT DECISION (FID)

- The power plant's construction remains subject to EDF's FID
- The EDF's FID will depend on the fulfilment of some conditions including:
  - Securing project financing
  - A return on capital expected by EDF, as an investor of up to 19,99%, in line with its investment policy
  - The granting of the remaining required consents, in particular subsidy control clearance
  - The finalisation of the GSP (Government Support Package)
  - An agreement with the UK government on the base case estimate of costs at completion and schedule
  - The finalisation of the key EDF contracts to be signed at FID
  - The ability of EDF to deconsolidate the project in the Group's financial statements (including in the calculation of the economic indebtedness by the rating agencies)
- Failure to bring about these conditions could result in the Group not making a FID
- Should EDF decide not to take a FID, the UK Government would have a right to exercise an option over the land purchase or over EDF's shares in Sizewell C



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## STRESS CORROSION PHENOMENON (SC) (1)



#### **CURRENT SITUATION**

Stress corrosion detected on parts of the pipes of the auxiliary circuits of the main primary circuit of several nuclear reactors

Inspections, investigations and analyses carried out have enabled to classify the reactors according to their sensitivity to the SC phenomenon:

- Most sensitive reactors: 4 N4 series reactors of 1,450MW and 12 P'4 series reactors of 1,300MW
- Reactors with low or very low sensitivity:
  32 reactors of 900MW and 8 P4 series reactors of
  1,300MW

#### **ONGOING ACTIONS**

New processes developed to carry out enhanced nondestructive examinations

As of 16 December 2022, among the 16 most sensitive reactors:

- 10 reactors have been or are being treated in 2022
- 6 P'4 series reactors not yet treated and Cattenom 1 (2) reactor subject to the full, systematic and preventive replacement of the pipes of the safety injection lines by the end of 2023

The 40 less sensitive reactors will be inspected by the end of 2025 as part of the already scheduled outages

27

- (1) See <u>Information note on 16 December 2022</u>.
- (2) 6 reactors not treated (Belleville 1, Belleville 2, Cattenom 2, Golfech 2, Nogent 1, Nogent 2) and Cattenom 1 (partially treated).



# **2022 ANNUAL RESULTS**

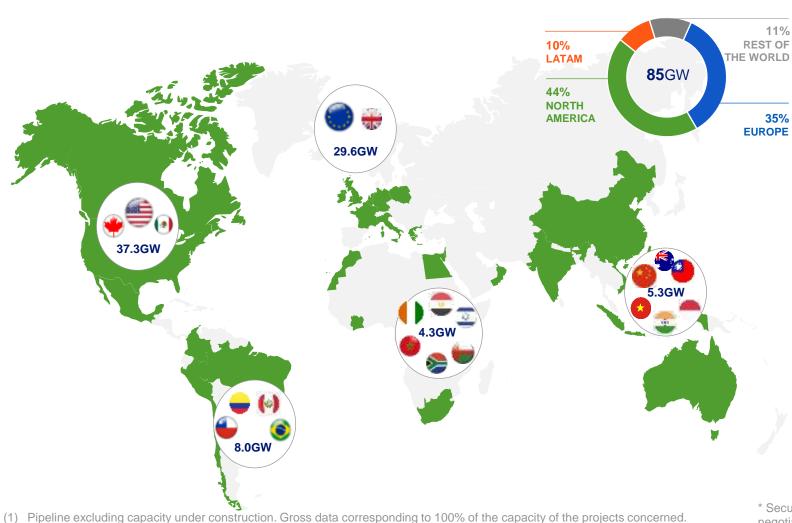
RENEWABLES



Renewables

### A PORTFOLIO OF WIND AND SOLAR PROJECTS OF ~85GW (1)

#### A PROJECT PORTFOLIO THAT IS **DIVERSIFIED GEOGRAPHICALLY...**

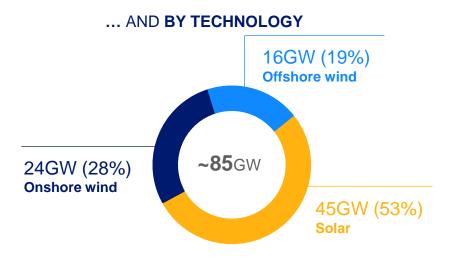


#### PORTFOLIO OF PROJECTS BREAKDOWN **BY DEVELOPMENT PHASE (IN GW)**



11%

35%



<sup>\*</sup> Securing a power purchase agreement (following a call for tenders, auction, OTC negotiation).

<sup>\*\*</sup> Sufficient land securisation and start of technical studies.

<sup>\*\*\*</sup> Start of land identification and preliminary studies.

# INSTALLED CAPACITY AND CAPACITY UNDER CONSTRUCTION, AS OF 31 DECEMBER 2022

| (in MW)                         | Gross (1)  |            | Net (2)    |            |
|---------------------------------|------------|------------|------------|------------|
|                                 | 31/12/2021 | 31/12/2022 | 31/12/2021 | 31/12/2022 |
| Wind under construction         | 3,391      | 2,783      | 2,169      | 1,662      |
| Solar under construction        | 4,495      | 4,347      | 2,350      | 3,073      |
| Capacity under construction     | 7,885      | 7,130      | 4,520      | 4,735      |
| Wind                            | 13,606     | 14,552     | 9,047      | 9,574      |
| Solar                           | 5,399      | 7,427      | 2,975      | 3,591      |
| Wind & Solar installed capacity | 19,005     | 21,979     | 12,021     | 13,165     |
| Hydraulic                       |            |            | 22,534     | 22,577     |
| Renewable installed capacity    |            |            | 34,555     | 35,914     |

### Growth of net installed capacity (wind and solar): +9.5%

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) Gross capacity: total capacity of the facilities in which EDF has a stake.
- (2) Net capacity: capacity corresponding to EDF's stake.



# **2022 ANNUAL RESULTS**

FRANCE



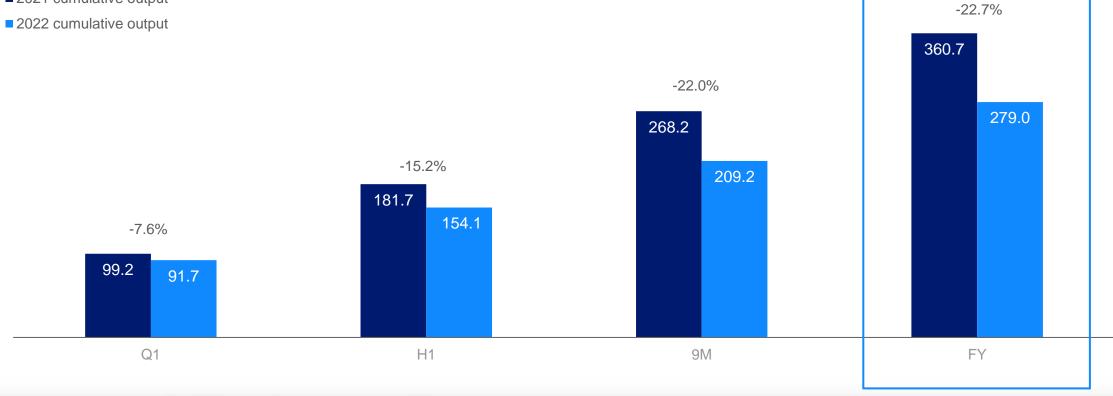
France

### FRANCE NUCLEAR OUTPUT









Nuclear output of 279.0TWh for 2022, down by 81.7TWh from 2021. The decrease is mainly explained by a lower availability of the nuclear fleet, mainly due to the control and repair programme on the pipes affected by the stress corrosion phenomenon, despite fewer unplanned outages and the optimisation of the generation schedule

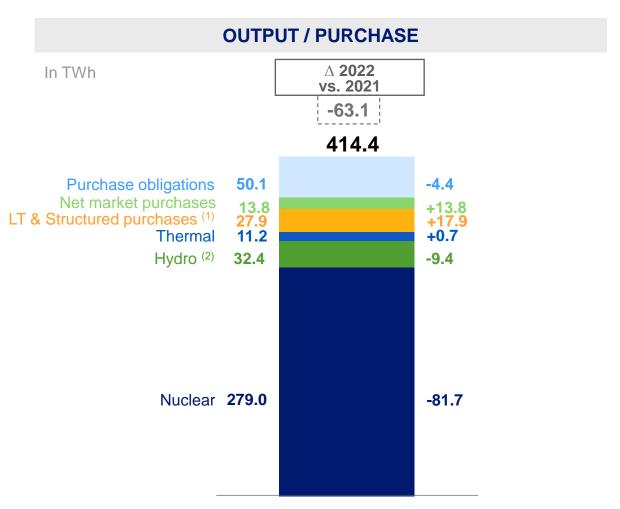


**2022 ANNUAL RESULTS** 

32

trategy and Renewables France Consolidated financial Financing & cash Operational data and markets

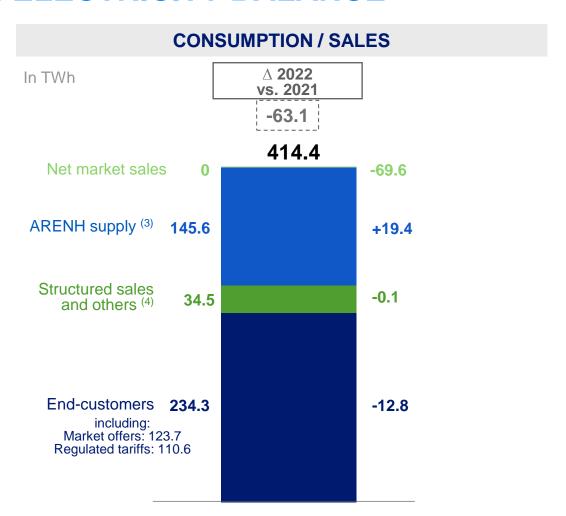
### FRANCE: UPSTREAM / DOWNSTREAM ELECTRICITY BALANCE





O/w required purchases from eligible suppliers within the frame of the specific additional ARENH mechanism.

(2) Hydro output after deduction of pumped volumes: 25TWh on 2022 / 35.9TWh on 2021.



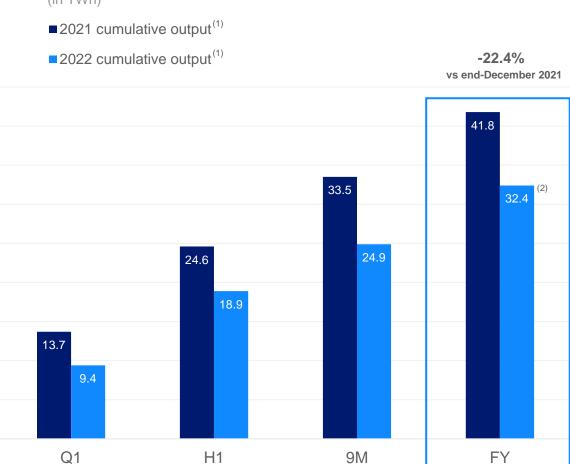
- (3) O/w 19.5TWh as for required sales of ARENH additional volumes to the alternative suppliers (see the decree of March 2022).
- (4) Including hydro pumped volumes of 7.4TWh on 2022 / 5.9TWh on 2021.



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### FRANCE HYDRO OUTPUT

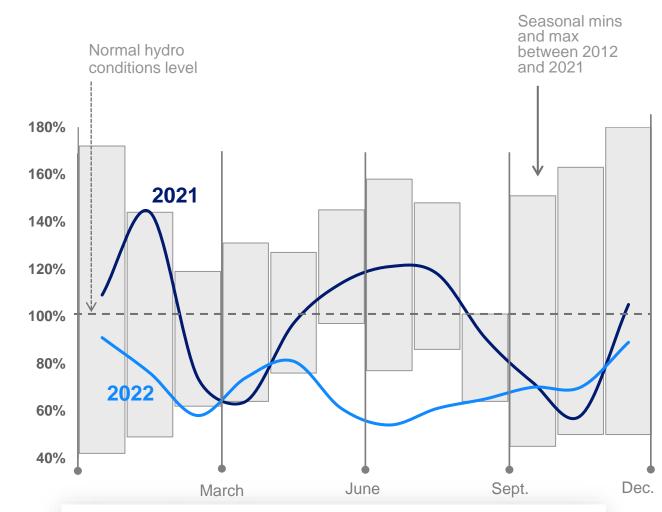
(in TWh)





(2) Production after deduction of pumped volume consumption: 35.9TWh in 2021, and 25.0TWh in 2022.





- Hydro conditions in 2022 far behind than 2021: hydraulic conditions index of 0.71 in 2022 vs 0.94 in 2021
- Hydraulic reservoirs filling rate in France at 66.1% at end-December 2022:
   +1.3 points below historical average (64.8%)

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### 10-YEAR INSPECTIONS OF THE NUCLEAR FLEET

Number of 10-year inspections



In 2029, Tricastin 1 would be the first 900MW series reactor to realise its 5th 10-year inspection



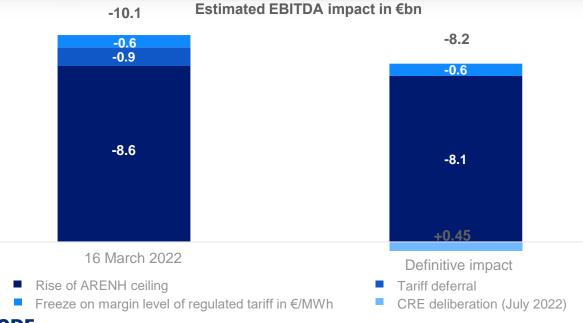
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### **IMPACT OF REGULATORY MEASURES ON 2022 EBITDA**

#### **GENERATION AND SUPPLY ACTIVITIES**

Impacts on EBITDA of regulatory measures after the decree published on 12 March 2022 and the tariff cap:

- 1. Increase or ARENH ceiling for -€8.1bn (vs. -€8.6bn\*):
  - An additional 19.5TWh of ARENH at €46.2/MWh to be delivered from April to December 2022 to alternative suppliers whose demand was capped during the end-2021 auction: impact estimated at around -€4.1bn. Additional volumes have been reduced from 20TWh to 19.5TWh due to the cessation of activity or the waiver of some suppliers
  - Impact of this additional allocation replicated in EDF offers (regulated tariffs and market offers) estimated at -€4bn (vs. -€4.5bn\*: the difference comes from a lower consumption from customers at the end of the year for +€0.2bn (sufficiency impact), and clarification of ARENH+ allowance rules to customers for +€0.3bn)
- 2. Margin level freeze in €/MWh for regulated tariffs: impact estimated at around -€0.6bn
- 3. Tariff deferral (€0bn vs -€0.9bn\*) compensated through the CSPE mechanism established by the 2023 finance law adopted on 31/12/2022 for +€1.4bn. The difference for +€0,45bn corresponds to the positive impact of the CRE deliberation of July 2022 (see below).
- 4. Positive impact of the CRE deliberation of July 2022 on the catch-up of the increase in TRV sourcing in January 2022 for +€0.45bn.



#### Allocation of an additional volume of 20TWh

On 3 February 2023, the *Conseil d'Etat* (the French administrative supreme court) rendered its **decision in the context of the appeal for annulment** filed by EDF on 9 August 2022: EDF's appeal was rejected. The decision of the *Conseil d'Etat* has been rendered in first and last instance and therefore not subject to appeal

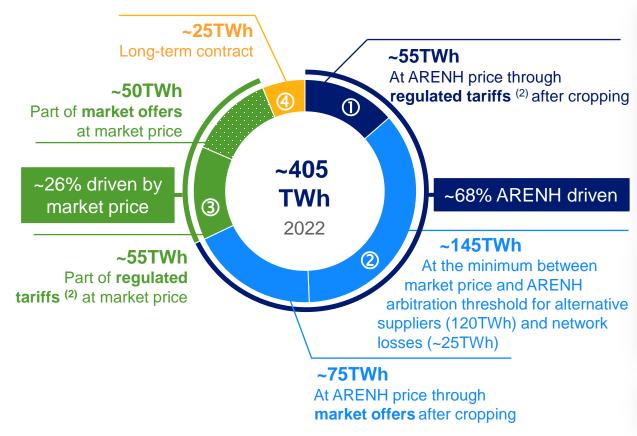
The **claim for indemnification** initiated by EDF before the Paris Administrative Court to obtain full compensation from the State for the damage suffered by EDF as a result of the Mechanism, estimated at the end of October 2022 to be €8.34bn <sup>(1)</sup>, as an independent proceeding and its investigation is continuing

(1) This amount of -€8.1bn includes customer consumption at the end of the year that is lower than estimated in October 2022 for approximately +€0.2bn (sufficiency effect).



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# DISTRIBUTION OF ELECTRICITY SALES (1) ACCORDING TO THEIR MARKET PRICE EXPOSURE



- (1) Sales excluding purchase obligations volumes and volumes under long-term supply contracts. Estimated distribution based on the situation in 2022, in particular in terms of EDF downstream market shares. In 2022, the level of cropping corresponding to ARENH over subscription (160TWh) by alternative suppliers has been applied to downstream offers.
- (2) Regulated sales tariffs.
- eDF

- Volumes sold at the ARENH price following the cost-stacking formula in the regulated sales tariffs (essentially blue residential and non-residential tariffs)
- 2 Volumes sold at the market price if this price is lower than ARENH arbitration threshold (ARENH price capacity price) and ARENH price otherwise (3), which include:
- 19.5TWh as for required sales of ARENH additional volumes to the alternative suppliers (decree of March 2022)
- The ARENH volumes that can be requested by alternative suppliers and network operators for their purchases of losses
- Part of the volumes (4) sold to EDF final customers under market-based contracts
- 3 Volumes sold at the market price, whatever the price, which include:
- Part of the volumes sold to EDF final customers: "market complement supply" in the regulated tariffs <sup>(5)</sup>, balance of the volumes sold to clients under market-based contracts
- Volumes sold on wholesale power markets
- Contracts at negotiated prices that do not follow a market-indexed structure
- (3) EDF is subjected to the arbitrage between the two prices and its date of exercise is variable depending on the volumes (it takes place at the latest at the time of the ARENH end of year subscription window for a delivery the following year).
- (4) Related to the replication of the sourcing cost structure of alternative suppliers: shares of the volumes corresponding to the "ARENH rights" including replication of additional volumes to the alternative suppliers.
- (5) Related to the replication of the sourcing cost structure of alternative suppliers: the balancing volumes sourced on the market which exceed the "ARENH rights".

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#### **REGULATED SALES TARIFFS IN FRANCE: CHANGE IN 2021-2023**

#### RESIDENTIAL BLUE TARIFF EXCLUDING TAXES (1) (2)

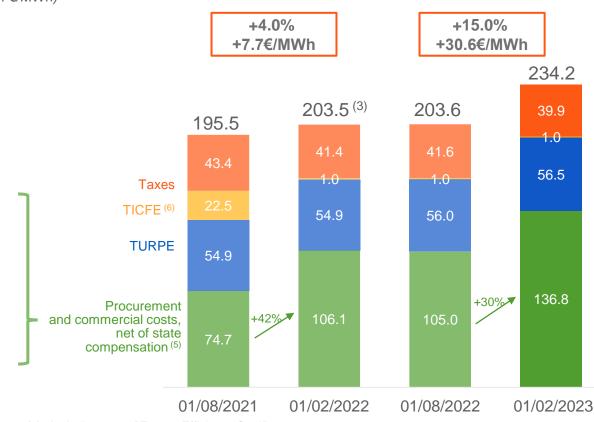
#### (in €/MWh) +24.3% +20.0% +31.3€/MWh +32.2€/MWh 193.3 161.1 <sup>(3)</sup> 161.1 <sup>(3)</sup> 56.5 TURPE 129.7<sup>(3)</sup> 54.9 56,0 Cost to serve (4) and margin 17.4 Capacity 9.0 54.9 15.2 15.2 5.0 5.0 Energy + fees (5) 15.9 +28% 94.0 6.0 73.3 86.1 **+74%▼** 49.5 16.4 Catch-up 11.5 01/08/2021 01/02/2022 01/08/2022 01/02/2023

- (1) Source: Journal Officiel.
- (2) The figures are based on an average calculation on customers portfolio at the Regulated Sales Tariffs at end-2021 (latest available database to date).
- (3) Due to rounding, the total is not strictly equal to the sum of the components.

## eDF

## AVERAGE BILL BREAKDOWN VAT INCLUDED (BLUE RESIDENTIAL CUSTOMER)





- (4) Including cost of Energy Efficiency Certificates.
- (5) For 2022 and 2023, this part takes into account the tariff cap for the current year. In February 2023, in particular, this part includes the catch-up under the 2022 cap and a discount of €143.2/MWh under the 2023 tariff cap. This discount is compensated by the CSPE under the finance law for 2023 and will therefore not be subject to a catch-up in 2024.

(6) Ex-CSPE. 38

Atrategy and Atrat

### **CSPE: CHARGES FOR EDF (1/2)**

Article L121-6 of the French Energy Code stipulates that the charges attributable to the public service tasks assigned to the electricity operators are fully compensated by the French State

| In millions of euros    | 202   | 0    | 2021  |      | 2022   |      |
|-------------------------|-------|------|-------|------|--------|------|
| Purchase obligation (1) | 6,158 | 76%  | 3,342 | 61%  | -3,097 | NC   |
| Other (2)               | 1,923 | 24%  | 2,130 | 39%  | 3,905  | NC   |
| Total EDF CSPE          | 8,081 | 100% | 5,472 | 100% | 808    | 100% |

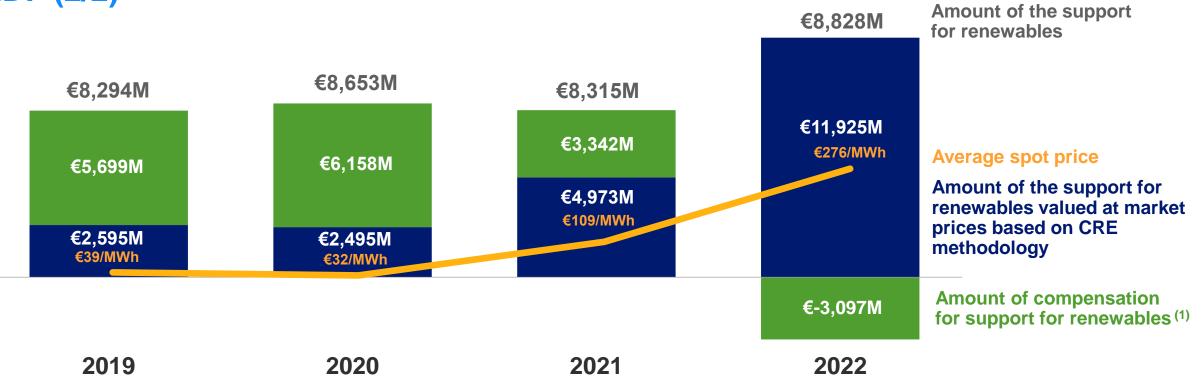
The trend in public service charges between 2021 and 2022 can be attributed to two opposing factors:

- Charges for renewable energy support in metropolitan France decreased by €6.4bn between 2021 and 2022, and became negative at end-December 2022. Indeed, the €167/MWh increase in spot prices observed between 2021 (€109/MWh) and 2022 (€276/MWh) meant that the average spot price exceeded the average bond price
  - This effect was amplified by the lifting of the cap on the additional remuneration adopted at the end of 2022, which generated accrued income of around €1.6bn (no corresponding item in 2021)
- ➤ The other charges increased by €1.8bn and include:
  - charges relating to the gas and electricity tariff cap representing €1.6bn in 2022 (no corresponding item in 2021)
  - charges relating to the ZNIs <sup>(3)</sup>, which increased by €0.2bn between 2021 and 2022 to take account of the development of renewable energies in these territories and the rise in commodity prices (fuel oil, coal, CO<sub>2</sub>)
- (1) The support schemes for renewable energies include the additional remuneration and purchase obligations covering electricity generated in metropolitan France from: hydropower (less than 12MW), biomass, onshore and offshore wind power, PV power, cogeneration, recovery of household waste and energy recovery, with the exception of ZNI (3).
- (2) Charges relating to the sales shortfall of the customer portfolio following the price freeze (electricity and gas) ruled on by the government, additional generation costs and purchase obligations in ZNI<sup>(3)</sup>, as well as the FSL (Housing Solidarity Fund) and certain services to vulnerable customers.
- (3) ZNI: Zones non interconnectées corresponding to overseas departments and Corsica and some of the Breton islands.



2022 ANNUAL RESULTS

# CSPE: CHANGE IN SUPPORT FOR RENEWABLES IN MAINLAND FRANCE FOR EDF (2/2)



**Principle:** The compensation mechanism of public energy services <sup>(2)</sup> charges offsets the difference between the cost of support for renewables in mainland France and market prices

<sup>(2)</sup> The compensation mechanism of public energy services charges also covers the tariff equalization costs in the ZNI (Zones Non Interconnectées), and the solidarity programmes.



2022 ANNUAL RESULTS

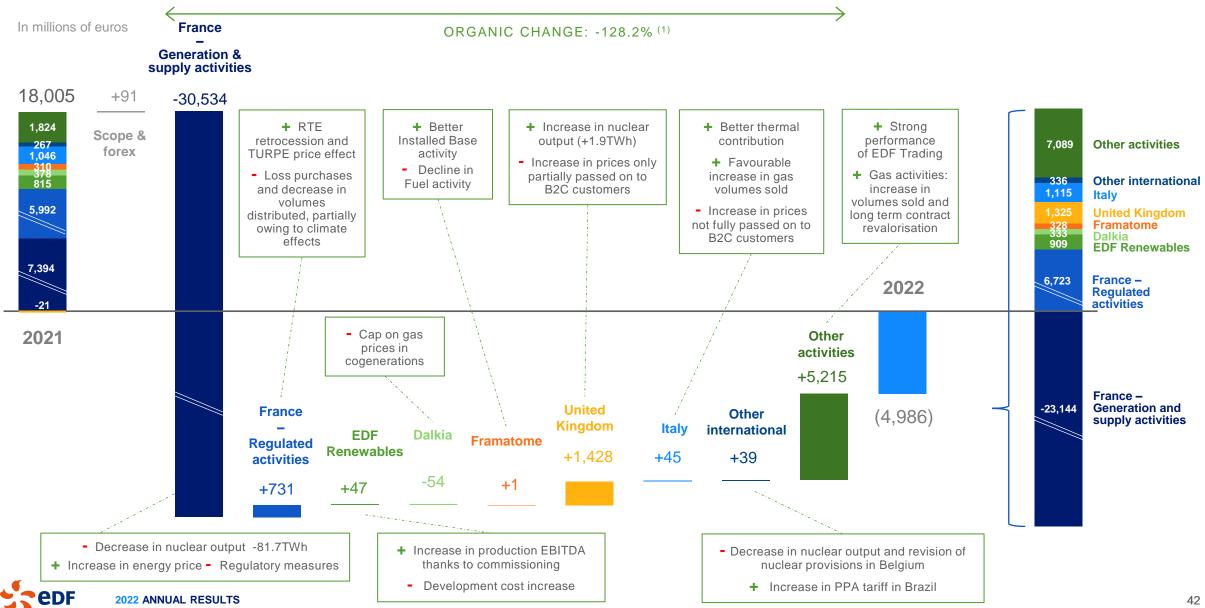
<sup>(1)</sup> EDF SA excluding island activities.

## **2022 ANNUAL RESULTS**

CONSOLIDATED FINANCIAL STATEMENTS



#### **GROUP EBITDA BY SEGMENT**



### **CHANGE IN FINANCIAL RESULT**

| In millions of euros  | 2021    | 2022    | Δ       |
|---|---------|---------|---------|
| Cost of gross financial debt  | (1,459) | 1,730   | (271)   |
| o/w interest expenses on financing operations   | (1,494) | (1,940) | (446)   |
| Discount expenses   | (2,670) | 174     | 2,844   |
| Other financial income and expenses   | 4,489   | (1,997) | (6,486) |
| o/w net change in fair value of debt and equity instruments of dedicated assets                 | 2,739   | (3,096) | (5,835) |
| Financial result  | 360     | (3,553) | (3,913) |
| Excluding non-recurring items before tax (change in IFRS 9 fair value of financial instruments) | (2,797) | 3,334   | 6,131   |
| Current Financial result  | (2,437) | (219)   | 2,218   |
|   |         |         |         |



2022 ANNUAL RESULTS

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### **CHANGE IN NET FINANCIAL DEBT**

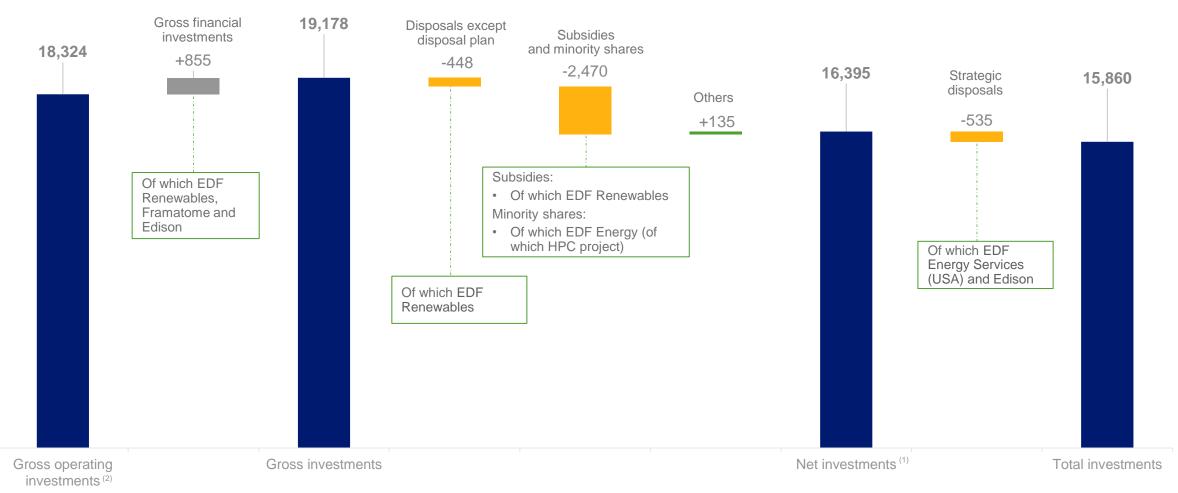
| In millions of euros                                    | 2021     | 2022     |
|---|----------|----------|
| EBITDA  | 18,005   | (4,986)  |
| Cancellation of non-monetary items included in EBITDA   | (869)    | (7,825)  |
| EBITDA Cash   | 17,136   | (12,811) |
| Change in net WCR                                       | (1,526)  | 8,301    |
| Net investments – excluding disposals (1)               | (15,725) | (16,395) |
| Dividends received from associates and joint ventures   | 467      | 590      |
| Other elements  | (565)    | (1,220)  |
| Operating Cash Flow                                     | (213)    | (21,535) |
| Assets disposals  | 2,847    | 535      |
| Income taxes paid                                       | (2,276)  | (1,282)  |
| Net financial expenses                                  | (588)    | (1,003)  |
| Dedicated assets  | (501)    | (233)    |
| Dividends paid in cash                                  | (794)    | (1,085)  |
| Group Cash Flow   | (1,525)  | (24,603) |
| Rights issue, hybrids and other monetary changes        | 192      | 2,498    |
| Change in net financial debt                            | (1,333)  | (22,105) |
| Effects of change and exchange rates                    | (515)    | 85       |
| Other non-monetary changes – IFRS 16                    | (712)    | (660)    |
| Other non-monetary changes                              | 1,862    | 1,168    |
| Change in net financial debt from continuing operations | (698)    | (21,512) |
| Net Financial Debt – Opening balance                    | 42,290   | 42,988   |
| Net Financial Debt – Closing balance                    | 42,988   | 64,500   |

(1) Including Linky and HPC.



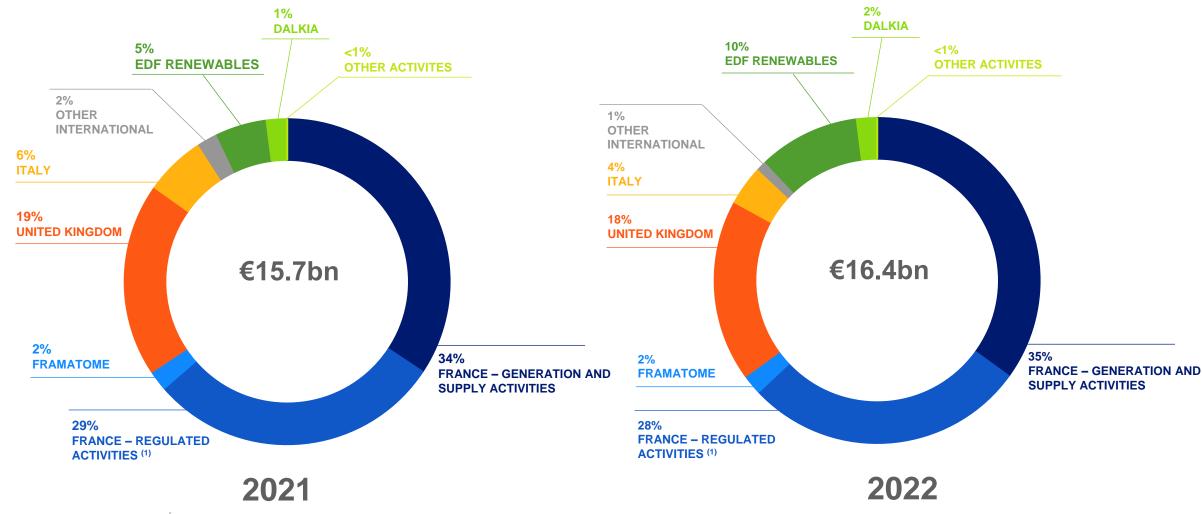
#### **INVESTMENTS: FROM GROSS TO NET** (1)

(in millions of euros)



- (1) Net investments in the Change in NFD statement including Linky, HPC and excluding disposal plan.
- (2) Investments in intangible assets and property, plant and equipment in consolidated cash flow statement.

# NET TOTAL INVESTMENTS INCLUDING ACQUISITIONS EXCLUDING DISPOSAL PLAN

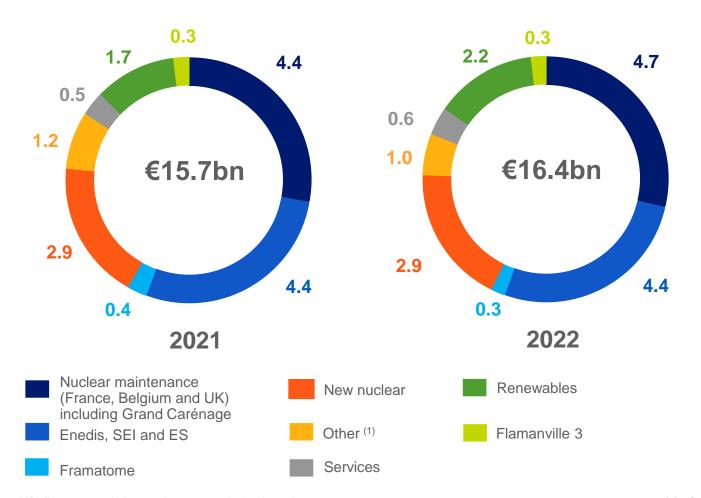


(1) Regulated activities: Enedis, ÉS and island activities; Enedis, an independent EDF subsidiary as defined in the French energy code.



#### NET INVESTMENTS INCLUDING ACQUISITIONS EXCLUDING DISPOSAL PLAN

In billions of euros



|  | Maintenance | Development | TOTAL |
|--|-------------|-------------|-------|
| Renewables   | 0.4         | 1.8         | 2.2   |
| Nuclear maintenance<br>(France, Belgium and UK)<br>including<br>Grand Carénage | 4.7         | 0.0         | 4.7   |
| Enedis, SEI and ES   | 1.7         | 2.7         | 4.4   |
| Framatome  | 0.0         | 0.3         | 0.3   |
| Flamanville 3 project  | 0.0         | 0.3         | 0.3   |
| Services   | 0.0         | 0.6         | 0.6   |
| New nuclear  | 0.0         | 2.9         | 2.9   |
| Others (1)   | 0.6         | 0.4         | 1.0   |
| TOTAL  | 7.5         | 8.9         | 16.4  |

- Net investments eligible according to the European taxonomy: 69% (2)
- Net investments aligned / eligible: 95.5%

NB: figures rounded up to the nearest decimal number.

(1) Mainly thermal maintenance, gas, property, central functions.





## **2022 ANNUAL RESULTS**

FINANCING AND CASH MANAGEMENT



### **DEBT AND LIQUIDITY**

| In billions of euros  | 31/12/2020 | 31/12/2021 | 31/12/2022     |
|---|------------|------------|----------------|
| Net financial debt  | 42.3       | 43.0       | 64.5           |
| Net financial debt/EBITDA                                     | 2.61x      | 2.39x      | n.a.           |
| Debt  |            |            |                |
| <ul><li>Bonds</li></ul>                                       | 50.2       | 49.2       | 45.2           |
| <ul> <li>Average maturity of gross debt (in years)</li> </ul> | 14.5       | 13.7       | 9.4            |
| Average coupon  | 2.32 %     | 2.06%      | 2.63%          |
| Gross liquidity (1)   | 32.4       | 35.7       | 43.5           |
| Financial debt – current part                                 | (11.5)     | (15.1)     | (28.7)<br>14.8 |
| Net liquidity   | 20.9       | 20.6       |                |

n.a. = not applicable.

 $<sup>(1) \</sup>quad \hbox{With cash and cash equivalents, liquid assets, and undrawn lines of credit.}$ 



2022 ANNUAL RESULTS

### **NET FINANCIAL DEBT**

| In millions of euros                         | 31/12/2020 | 31/12/2021 | 31/12/2022 |
|--|------------|------------|------------|
| Financial debt                               | 65,591     | 69,406     | 96,053     |
| Derivatives used to hedge debts              | (1,986)    | (3,762)    | (2,024)    |
| Cash and cash equivalents                    | (6,270)    | (9,919)    | (10,948)   |
| Debt and equity securities (liquid assets)   | (15,028)   | (12,737)   | (18,507)   |
| Asset coverage derivatives                   | -          | -          | (74)       |
| Net indebtedness of assets held for sale (1) | (17)       | -          | -          |
| Net financial debt (2)                       | 42,290     | 42,988     | 64,500     |

<sup>(2)</sup> After application of IFRS 16.



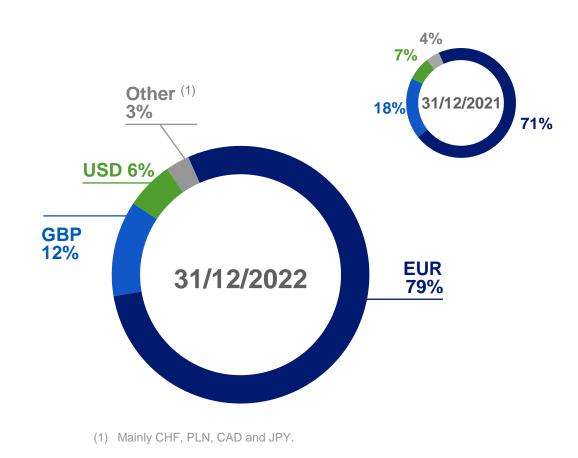
<sup>(1)</sup> After disposal of Edison's E&P.

#### **GROSS FINANCIAL DEBT AFTER SWAPS**

#### BREAKDOWN BY TYPE OF RATE



#### **BREAKDOWN BY CURRENCY**



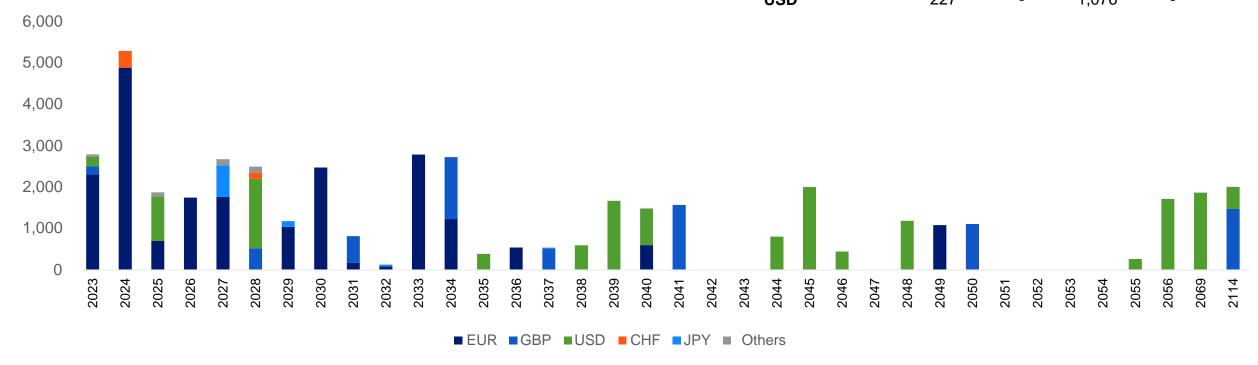
51



#### BREAKDOWN OF BOND DEBTS REPAYMENTS BY CURRENCY

In millions of euros, before swaps

| Including          | 2023  | 2024  | 2025  | 2026  |
|--------------------|-------|-------|-------|-------|
| (In €m equivalent) | 2023  | 2024  | 2023  | 2020  |
| EUR                | 2,303 | 4,883 | 701   | 1,747 |
| GBP                | 199   | -     | -     | -     |
| USD                | 227   | -     | 1,076 | -     |





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

#### Hybrid issue



Hybrid 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 €1bn emission paying 7.5% with a 6-year redemption option was issued at the end of 2022. Following the exercise of its redemption option, the 5.25% perpetual hybrid bond issued on 29 January 2013 was totally redeemed on 29 January 2023, for a residual amount of \$2,098m (i.e €1,538M (1) (2))

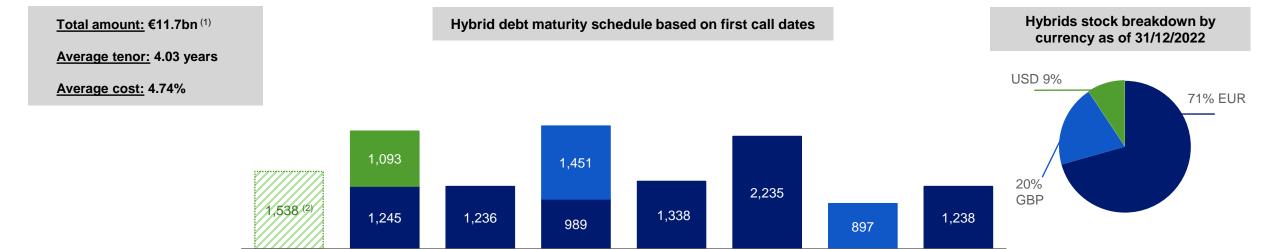
2028

2029

2030

53

#### Hybrid securities stock following new issues (in millions of euros) (1)



2026

(1) Exchange rate as of transaction time.

(2) Amount redeemed on 29/01/2023 and reclassified on 31/12/2022 as Other financial debt for €1,966M.

2024

2025

2023

2022 ANNUAL RESULTS

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



54

| Issue date | Fund<br>raised         | Funds allocated                                 | Projects financed by the Green Bond  | Part of the total<br>investments financed<br>by the Green Bond | Total net <sup>(1)</sup> capacity of<br>the project financed<br>(in MW) | Expected net (1) avoided CO2 emissions (in Mt/yr) |
|------------|------------------------|---|--|--|---|---|
| Nov. 2013  | 1.4Md€                 | 1.4Md€  | EDF Renewables projects  | 59%  | 976   | 1.55  |
| Oct. 2015  | 1.25Md\$               | 1.25Md\$  | EDF Renewables projects  | 58%  | 815   | 1.83  |
| Oct. 2016  | 1.75Md€ _              | 1,248M€   | EDF Renewables projects  | 54%  | 962   | 1.61  |
| Oct. 2010  |                        | 502M€   | EDF Hydro operations   | 100%   | 903   | 0.01  |
| lon 2047   | 2C 200MV               | 14,021 <b>M</b> ¥                               | Wind projects (EDF Renewables, Luminus)                                      | 15%  | 86  | 0.12  |
| Jan. 2017  | 2017 26,000M¥ 11,979M¥ | EDF Hydro operations + hydro<br>Luminus project | 87%  | 133  | 0.01  |   |
| Sept. 2020 | 2.4Md€                 | 2,246M€   | Projects & portfolio purchases by EDF Renewables, EDF ENR & Luminus projects | 78%  | 1,412   | 1.35  |
| ·          | _                      | 138M€   | EDF Hydro operations and biodiversity projects                               | 100%   | 123   | 0.001   |
| Nov. 2021  | 1.85Md€                | 1,139M€   | EDF Renewables projects EDF Hydro operations and biodiversity projects       | 60%<br>98%   | 895<br>422  | 0.88<br>0.001                                     |
|            |                        |   |  | Total  | 6,727   | 7.361   |

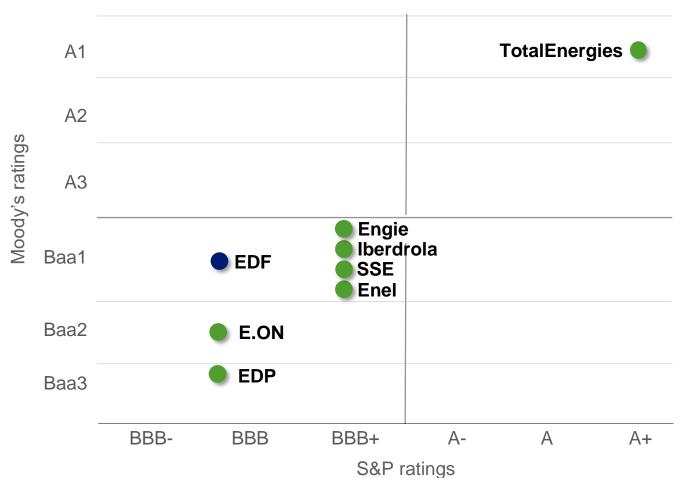
| Issue date | Fund<br>raised | Funds allocated | Projects financed by the Green Bond  | Part of the total<br>investments financed<br>by the Green Bond | Renewable capacity connected (in MW) | Number of smart meters | New grid lines<br>built (in km) |
|------------|----------------|-----------------|--------------------------------------|--|--------------------------------------|------------------------|---------------------------------|
| Oct. 2022  | 1.25Md€        | 1.25Md€         | Distribution of electricity projects | 100%   | 5,181                                | 5,488,000              | 2,950                           |

The detailed list of EDF Renewables projects and hydraulic investment operations by category will be published in EDF 2022 URD.

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



#### **COMPARATIVE CREDIT RATINGS**



|               | S&P<br>ratings               | Moody's ratings                 | Fitch ratings                 |
|---------------|------------------------------|---------------------------------|-------------------------------|
| EDF           | BBB<br>stable <sup>(1)</sup> | Baa1<br>negative <sup>(2)</sup> | BBB+<br>stable <sup>(3)</sup> |
| Engie         | BBB+ stable                  | Baa1 stable                     | A- stable                     |
| TotalEnergies | A+ stable                    | A1 stable                       | AA- stable                    |
| EDP           | BBB stable                   | Baa3 positive                   | BBB stable                    |
| SSE           | BBB+ positive                | Baa1 stable                     | BBB stable                    |
| Iberdrola     | BBB+ stable                  | Baa1 stable                     | BBB+ stable                   |
| Enel          | BBB+ negative                | Baa1 negative                   | BBB+ stable                   |
| E.ON          | BBB stable                   | Baa2 stable                     | BBB+ stable                   |
| RWE           | n.d.                         | Baa2 stable                     | BBB+ stable                   |

Sources: rating agencies as of 16/02/2023.

- (1) Update of the outlook of EDF SA by S&P on 14 December 2022.
- (2) Update of the rating and outlook of EDF SA by Moody's on 21 February 2022.
- (3) Update of the outlook of EDF SA by Fitch on 6 September 2022.



# **2022 ANNUAL RESULTS**

OPERATIONAL DATA & MARKETS



#### **INSTALLED CAPACITY AS OF 31 DECEMBER 2022**

| (in GW)     | Total net capacity of E<br>including shares in ass<br>joint venture | sociates and | Investments in associates and joint ventures | Consolidated ca<br>of EDF Gro |      |
|-------------|---|--------------|--|-------------------------------|------|
| Nuclear (1) | 67.8  | 55%          | -0.2   | 68.1                          | 58%  |
| Hydro (2)   | 22.6  | 18%          | 1.0  | 21.5                          | 18%  |
| ENR         | 13.4  | 11%          | 3.1  | 10.3                          | 9%   |
| Gas (3)     | 11.5  | 9%           | 0.1  | 11.4                          | 10%  |
| Fuel oil    | 3.7   | 3%           | 0.2  | 3.5                           | 3%   |
| Coal (4)    | 4.0   | 3%           | 1.8  | 2.2                           | 2%   |
| Total       | 123.0   | 100%         | 6.1  | 116.9                         | 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.

<sup>(4)</sup> Taking into consideration the transfer of Shiheng facilities to China Energy Group.



2022 ANNUAL RESULTS

<sup>(1)</sup> Taking into consideration the shutdown of Hunterston and Hinkley Point B in the UK.

<sup>(2)</sup> Including sea energy: 0.24GW in 2022.

<sup>(3)</sup> Taking into consideration the increase in capacity of Marghera Levante in Italy.

#### **ELECTRICITY OUTPUT**

#### Output from fully consolidated entities

| (in TWh)             | 2     | 2021 | 2022  |      |  |
|----------------------|-------|------|-------|------|--|
| Nuclear              | 409.8 | 78%  | 328.0 | 76%  |  |
| Total ENR            | 67.1  | 13%  | 60.2  | 14%  |  |
| Hydro <sup>(1)</sup> | 46.2  | 69%  | 35.6  | 59%  |  |
| Wind                 | 18.3  | 27%  | 21.2  | 35%  |  |
| Solar                | 1.8   | 3%   | 2.5   | 4%   |  |
| Biomass              | 0.8   | 1%   | 0.9   | 2%   |  |
| Gas                  | 38.0  | 7%   | 36.5  | 9%   |  |
| Fuel oil             | 5.1   | 1%   | 5.4   | 1%   |  |
| Coal                 | 3.5   | 1%   | 1.7   | 0.4% |  |
| Group                | 523.7 | 100% | 431.7 | 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.

<sup>(1)</sup> Hydro output includes tidal energy for 543GWh in 2021 and 549GWh in 2022 as well. Hydro output after deduction of pumped volumes is 40.3TWh in 2021 and 28.2Wh in 2022.



2022 ANNUAL RESULTS

### CO<sub>2</sub> EMISSIONS (1)

#### CO<sub>2</sub> emissions from fully consolidated entities

| Emissions from the heat and power generation by segment  France – Generation and supply activities | In kt  |      |        |      | In g/kWh <sup>(4)</sup> |      |
|--|--------|------|--------|------|-------------------------|------|
|  | 2021   |      | 2022   |      | 2021                    | 2022 |
|  | 5,708  | 21%  | 5,327  | 23%  | 14                      | 17   |
| France – Regulated activities (2)  | 3,285  | 12%  | 3,352  | 14%  | 515                     | 512  |
| Dalkia   | 5,077  | 19%  | 4,127  | 18%  | 186                     | 156  |
| United Kingdom   | 1,703  | 6%   | 149    | 1%   | 38                      | 3    |
| Italy  | 5,778  | 22%  | 6,842  | 30%  | 274                     | 301  |
| Other international  | 5,019  | 19%  | 3,251  | 14%  | 233                     | 216  |
| Group (3)  | 26,601 | 100% | 23,078 | 100% | 48                      | 50   |

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.

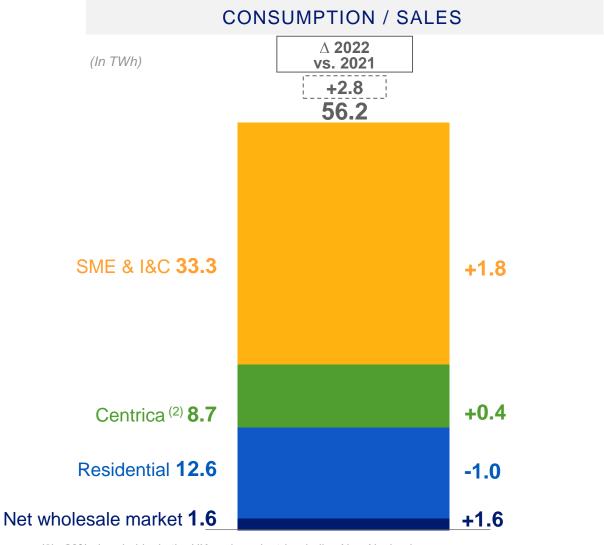
- (1) Including direct CO<sub>2</sub> emissions, excluding life cycle analysis (LCA) of fuel and production means.
- (2) Power generation in ZNI: « Zones non interconnectées » corresponding to overseas departments and Corsica (mainly island territories) and Electricité de Strasbourg (ES).
- (3) Framatome contributes to 31ktCO2 in 2021 and 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 26TWh in 2022 (vs 27.5TWh in 2021).



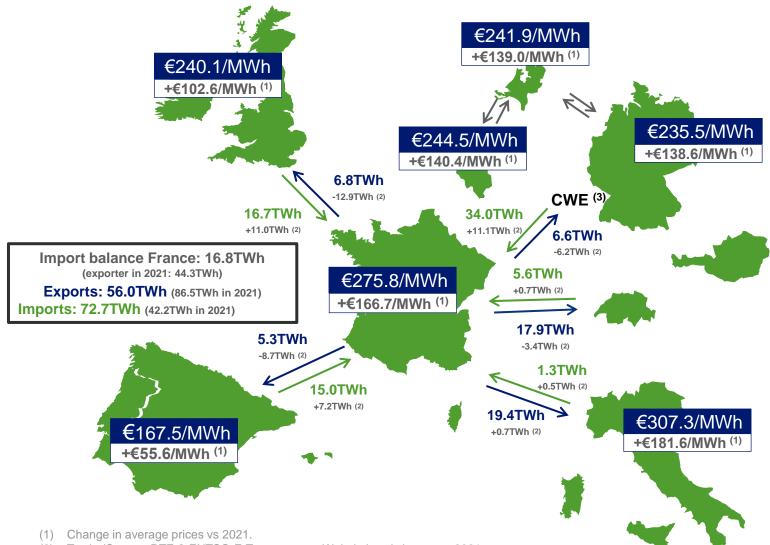
2022 ANNUAL RESULTS

#### UNITED KINGDOM: UPSTREAM / DOWNSTREAM ELECTRICITY BALANCE





#### **IMPORT BALANCE AND AVERAGE SPOT PRICES IN 2022**



- (2) Trade (Source: RTE & ENTSO-E Transparency Website) and change vs 2021.
- 3) Introduction of flow-based coupling mechanism from 21 May 2015 for the entire CWE (France, Benelux, Germany).

- The average increase in electricity spot prices of €166.7/MWh vs 2021 **in France** was attributable to the serious increase in commodity prices from mid-2021, and the further rises triggered by the war in Ukraine from February 2022, which peaked at the end of summer 2022
- This increase is also due to the decrease in generation of nuclear power (-81.7TWh vs 2021), impacted mainly by inspections and repairs needed to address stress corrosion. Thermal and renewable generation (solar and wind) increased by 9.5TWh and 6.0TWh respectively, while there was a significant fall in hydropower generation (-9.4TWh) owing to very poor hydropower conditions
- Consumption in France fell sharply (-20.9TWh) to 444.7TWh, amid milder temperatures (+1.6°C over the year), particularly during the winter. This decrease is also due to the high increase in prices and awareness of energy sufficiency

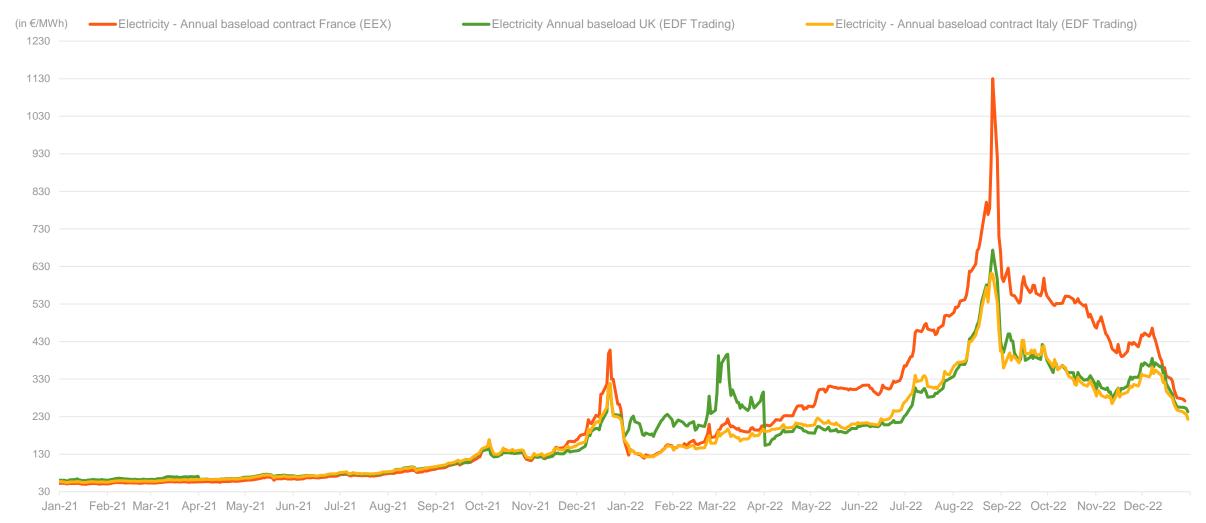
Average observed spot market price for 2022:

- EPEXSPOT: France & Germany
- N2EX: United-Kingdom
- OMIE: Spain
- GME: Italy (Prezzo Unico Nazionale)
- APX: Netherlands
- BELPEX: Belgium



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# FORWARD ELECTRICITY PRICES IN FRANCE, THE UK AND ITALY (Y+1) FROM 01/01/2021 TO 31/12/2022





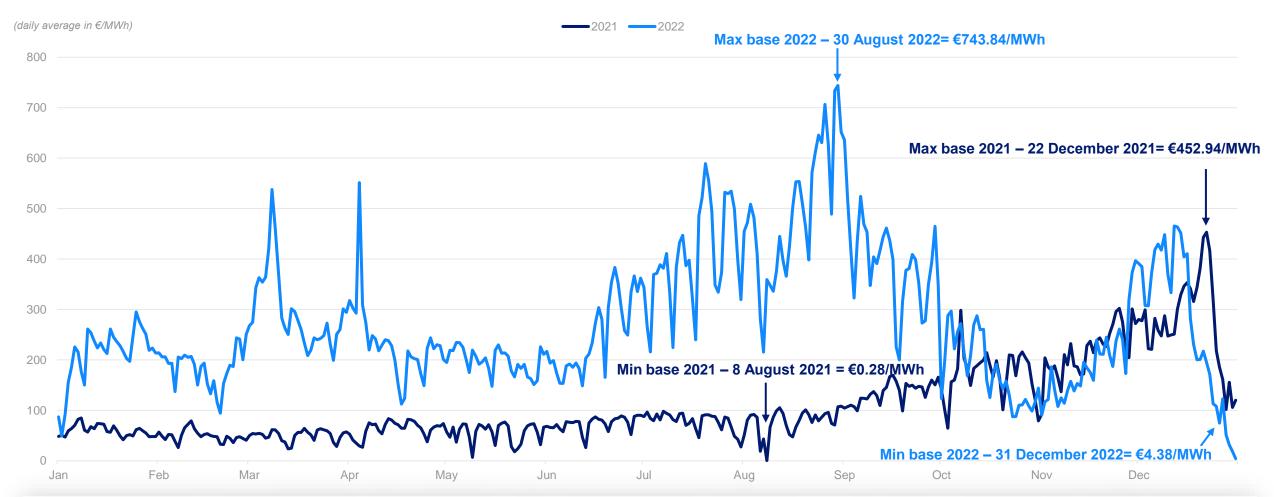
trategy and Renewables France Consolidated financial Financing & cash Operational data vestments statements management and markets

# FORWARD ELECTRICITY PRICES IN FRANCE, THE UK AND ITALY (Y+2) FROM 01/01/2021 TO 31/12/2022





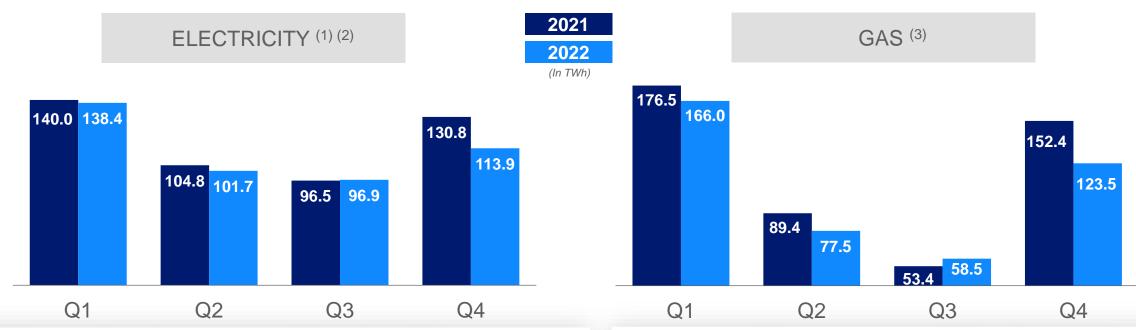
#### FRANCE: BASELOAD ELECTRICITY SPOT PRICES



Baseload electricity spot prices averaged €275.8/MWh in 2022 (+€166.7/MWh vs. 2021). This significant increase was attributable to the serious increase in commodity prices from mid-2021, and the further rises triggered by the war in Ukraine from February 2022, which peaked at the end of the summer before declining considerably. The decrease in generation of nuclear power (-81.7TWh vs 2021), which was due to repairs needed to address stress corrosion, also contributed to the price increases



#### FRANCE: ELECTRICITY AND GAS OUTPUT



Electricity consumption in France was down by 21TWh (-4.5%) from 2021 Milder temperatures during the winter of 2021-2022 resulted in a 8TWh decrease in consumption for heating, but in the summer, high temperatures drove consumption up by more than 3TWh, mainly for air conditioning use. Greater customer awareness of energy sufficiency, and significant price rises, led some businesses to scale back their activity, and this also contributed to the general downturn in consumption. Reductions in consumption hit more than 10% in December

Gas consumption in 2022 in France was down by 46.2TWh (-9.8%) for the year  $\,$ 

During the last quarter, consumption was down by 28.9TWh (-19.%) due to awareness of energy sufficiency and the reduction or temporary stop of certain activities

- (1) Data unadjusted from weather effect and 29 February, including Corsica.
- (2) Source 2021-2022: RTE monthly overview November 2022: ETR + Corsica consumption.
- (3) Source: energy monthly data, Service des données et études statistiques, Ministère de la Transition Écologique et Solidaire November and December 2022 GRT gas and TEREGA (ex: TIGF).



