

*The Draft Offer, the Draft Offer Document, and this Draft Response Document remain subject to review by the AMF*

## PROPOSED SIMPLIFIED TENDER OFFER

for the shares

and

bonds convertible into and/or exchangeable for  
new and/or existing shares

of



initiated by

**THE FRENCH GOVERNMENT**

## DRAFT RESPONSE DOCUMENT PREPARED BY EDF



This draft response document (the "**Draft Response Document**") was filed with the Autorité des marchés financiers (the "**AMF**") on October 27, 2022, in accordance with Article 231-26 of its general regulations. It was prepared in accordance with the provisions of Article 231-19 of the AMF's general regulations.

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### IMPORTANT NOTICE

Pursuant to Articles 231-19 and 261-1 *et seq.* of the AMF's General Regulation, the report of the independent appraiser, Finexsi, is included in the Draft Response Document.

The Draft Response Document is available on the EDF website ([www.edf.fr/finance](http://www.edf.fr/finance)) and on the AMF website ([www.amf-france.org](http://www.amf-france.org)) and may be consulted by the public free of charge at EDF's registered office, 22-30, avenue de Wagram 75008 Paris.

In accordance with Article 231-28 of the AMF's General Regulation, disclosure regarding EDF's legal, financial, accounting, and other characteristics will be filed with the AMF and made available to the public in the same manner as the Draft Response Document, no later than the day before the offer opens.

A press release will be issued no later than the day before the offer opens, to inform the public of how to obtain these documents.

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## 1. BACKGROUND AND DESCRIPTION OF THE OFFER

### 1.1. Summary of the Offer

Pursuant to Articles 233-1, 1<sup>o</sup> *et seq.* of the AMF General Regulation, the French government, acting through the Agence des participations de l'Etat (the agency tasked with representing the French government's interests in the companies of which it is a shareholder) located at 139 rue de Bercy, 75012 Paris, France (hereinafter, the "**French Government**" or the "**Offeror**") has irrevocably undertaken to offer to the shareholders of Electricité de France, a French corporation (*société anonyme*) with a board of directors and share capital of €1,943,290,542, having its registered office at 22-30 avenue de Wagram, 75008 Paris, France, registered in the Paris Trade and Companies Register under number 552 081 317 (the "**Company**" or "**EDF**") and to the holders of bonds maturing in 2024 and convertible and/or exchangeable into new and/or existing shares of EDF (the "**OCEANES**"), to acquire, for cash, (i) all of the Company's shares which are listed on the Euronext Paris regulated market under ISIN code FR0010242511, ticker symbol "EDF" (the "**Shares**"), and (ii) the OCEANES, which are admitted to trading on the Euronext Access multilateral trading facility ("**Euronext Access**") under ISIN code FR0013534518, that the Offeror does not already hold, directly or indirectly, alone or in concert, as of the date of the draft offer document prepared by the Offeror and filed with the AMF on October 4, 2022 (the "**Draft Offer Document**"), at a price of €12.00 per Share (the "**Offer Price per Share**") and €15.52 per OCEANE (based on the Offer opening on November 10, 2022, according to the provisional Offer timetable in Section **Erreur ! Source du renvoi introuvable.** of the Draft Offer Document<sup>1</sup>) (the "**Offer Price per OCEANE**"), by means of a simplified tender offer, the terms of which are set forth below and described in more detail in the Draft Offer Document (the "**Offer**"). The Offer may be followed, if the conditions are met, by a squeeze-out pursuant to Articles 237-1 to 237-10 of the AMF's General Regulation.

As of the date of the Draft Response Document, the Offeror holds (A) directly (i) 2,911,865,628 Shares representing 5,177,476,850 theoretical voting rights (or 74.92% of the share capital and 79.02% of the theoretical voting rights of the Company),<sup>2</sup> and (ii) 87,831,655 OCEANES; and (B) indirectly through EPIC Bpifrance, a public industrial and commercial establishment (*établissement public industriel et commercial*) that has its registered office at 27-31, avenue du Général Leclerc, 94710 Maisons-Alfort Cedex, France ("**EPIC Bpifrance**") (with which the French Government is acting in concert), 340,706,595 Shares representing 669,055,956 theoretical voting rights (or 8.77% of the share capital and 10.21% of the theoretical voting rights of the Company).<sup>3</sup> In total, the Offeror holds, directly or indirectly, alone or in concert, 3,252,572,223 Shares representing 5,846,532,806 theoretical voting rights (or 83.69% of the share capital and 89.23% of the theoretical voting rights of the Company).

The Offer is for:

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<sup>1</sup> The Offer Price per OCEANE is therefore subject to change depending on the opening date of the Offer declared compliant by the AMF. The Offer Price of €15.52 per OCEANE is indicated as an example based on the provisional Offer timetable provided in Section 2.9 of the Draft Offer Document.

<sup>2</sup> Based on a total number of 3,886,581,084 Shares and 6,551,993,609 theoretical voting rights of the Company (information as of September 30, 2022, published by the Company on its website in accordance with Article 223-16 of the AMF General Regulation) and following the allocation of 61,000,000 double voting rights to the Offeror on October 26, 2022. In accordance with Article 223-11 of the AMF General Regulation, the total number of voting rights is calculated on the basis of all the Shares to which voting rights are attached, including Shares without voting rights, such as treasury Shares.

<sup>3</sup> *Id.*

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- (i) all of the Shares not held by the Offeror directly or indirectly, alone or in concert, that either:
  - have already been issued (*i.e.*, as of the date of the Draft Response Document, a maximum of 633,120,350 Shares), it being noted that treasury shares held by the Company are not covered by the Offer,<sup>4</sup> or
  - may be issued before the Offer closes upon conversion of the OCEANEs (*i.e.*, as of the date of the Draft Response Document, a maximum of 170,349,496<sup>5</sup> new Shares),for a combined maximum of 803,469,846 Shares as of the date of the Draft Response Document; and
- (ii) all of the outstanding OCEANEs not held by the Offeror (*i.e.*, as of the date of the Draft Response Document, 131,747,484 OCEANEs).

There are no equity securities or other financial instruments issued by the Company or rights conferred by the Company that may give access, immediately or in the future, to the share capital or voting rights of the Company other than the existing Shares and the OCEANEs described in Section 1.3.5 of the Draft Response Document and Section 2.6 of the Draft Offer Document.

The Offer, which will be followed, if the conditions are met, by a squeeze-out pursuant to Articles L. 433-4 II and L. 433-4 III of the French Monetary and Financial Code and Articles 237-1 *et seq.* of the AMF's General Regulation, will be carried out under the simplified procedure described in Articles 233-1 *et seq.* of that Regulation. The Offer period will be twenty (20) Trading Days, a “**Trading Day**” for the purposes hereof being a trading day on Euronext Paris that is also a business day in the United States.

The Offer is presented by Goldman Sachs Bank Europe SE Succursale de Paris and Société Générale (together the “**Presenting Banks**”). However, Société Générale alone guarantees the tenor and the irrevocable nature of the Offeror's commitments within the meaning of Article 231-13 of the AMF's General Regulation.

## **1.2. Background and reasons for the Offer**

The Offer follows the announcement by the French Prime Minister, on July 6, 2022, of the French Government's intention to acquire all of EDF's share capital in order to enhance EDF's ability to rapidly carry out ambitious projects that are essential for France's energy future.

Following that announcement, the French Government issued a press release on July 19, 2022, announcing its plan to acquire the shares it did not already hold through a simplified tender offer to be filed with the AMF, subject to the enactment of an amendment to the 2022 finance law allocating the budgetary appropriations necessary for the Offer to the special appropriations account for “Government Financial Holdings.”

That law was passed by the Parliament on August 4, 2022, and entered into force on August 17, 2022 (Law No. 2022-1157 of August 16, 2022, amending the 2022 finances law).

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<sup>4</sup> The Shares held in treasury by the Company, representing 0.02% of the share capital of the Company (information as at September 30, 2022), which are similar to those held by the Offeror pursuant to Article L. 233-9, I, 2° of the French Commercial Code, are not covered by the Offer.

<sup>5</sup> Calculated on the basis of the adjusted Share allocation ratio, as determined in Section 2.6 of the Draft Offer Document.

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The reasons for the Offer are more fully described in Section 1.1.3 of the Draft Offer Document.

### **1.3. Terms of the Offer**

#### **1.3.1. Principal terms of the Offer**

Pursuant to Articles 231-13 and 231-18 of the AMF's General Regulation, on October 4, 2022, the Presenting Banks filed the draft Offer and the Draft Offer Document with the AMF in the name and on behalf of the Offeror. As noted above, only Société Générale is guaranteeing the tenor and the irrevocable nature of the undertakings made by the Offeror.

The Offer will be carried out using the simplified procedure provided for in Articles 233-1 et seq. of the AMF's General Regulation. The Company's shareholders and OCEANE holders should take note that because the Offer is being carried out according to the simplified procedure, it will not be reopened once the result of the Offer has been announced.

The Offeror irrevocably undertakes to acquire from the Company's shareholders and OCEANE holders, at the price of €12.00 per Share and €15.52 per OCEANE (based on the Offer opening on November 10, 2022, according to the provisional Offer timetable in Section **Erreur ! Source du renvoi introuvable.** of the Draft Offer Document), all Shares and OCEANES tendered to the Offer during an offering period of twenty (20) Trading Days.

#### **1.3.2. Offer procedures**

The draft Offer and the Draft Offer Document were filed with the AMF on October 4, 2022. The AMF published a notice of filing on its website ([www.amf-france.org](http://www.amf-france.org)) on the same day.

The Company filed the Draft Response Document with the AMF on October 27, 2022. The AMF published a notice of filing relating to the Draft Response Document on its website ([www.amf-france.org](http://www.amf-france.org)) on the same day.

The Draft Response Document is available to the public free of charge at EDF's registered office and will be posted on the AMF's website ([www.amf-france.org](http://www.amf-france.org)) and the Company's website ([www.edf.fr/finance](http://www.edf.fr/finance)).

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The AMF will declare the Offer compliant after verifying its compliance with applicable laws and regulations and will publish the declaration of compliance on its website ([www.amf-france.org](http://www.amf-france.org)). The declaration of compliance constitutes the AMF's approval of the Response Document.

In accordance with Articles 231-27 and 231-28 of the AMF's General Regulation, the Response Document as approved by the AMF and the document containing the "Other Information" relating to the legal, financial, accounting, and other characteristics of the Company will be made available to the public free of charge, no later than the day before the Offer opens, at EDF's registered office. These documents will also be posted on the AMF website ([www.amf-france.org](http://www.amf-france.org)) and the Company's website ([www.edf.fr/finance](http://www.edf.fr/finance)).

A press release explaining how to obtain these documents will be issued no later than the day before the Offer opens, in accordance with Articles 231-27 and 231-28 of the AMF's General Regulation.

Prior to the opening of the Offer, the AMF will publish a notice of opening and the timetable of the Offer, and Euronext Paris will publish a notice setting out the content of the Offer and specifying the timetable and terms for its completion.

### **1.3.3. Adjustment of the terms of the Offer**

The Offer Price per Share and the Offer Price per OCEANE have been determined by the Offeror on the basis of an assumption that no distribution (dividend, interim dividend or other) will be made before the Offer closes. In the event that on or before the Offer's settlement date, the Company carries out any (i) distribution of a dividend, an interim dividend, a reserve, a premium, or any other distribution (in cash or in kind), or (ii) capital redemption or capital decrease, in either case for which the ex-dividend date or the reference date on which one must be a shareholder to be entitled thereto is prior to the Offer's settlement date, then the Offer Price per Share and the Offer Price per OCEANE of the Company will be adjusted to reflect that transaction.

Similarly, in the event of a transaction affecting the Company's share capital (including a demerger, stock split or reverse split, or distribution of free shares in respect of existing shares by incorporation of reserves or profits) decided during the same period and for which the reference date on which the shareholder must be a shareholder in order to be entitled thereto is prior to the settlement date of the Offer, the Offer Price per Share and the Offer Price per OCEANE of the Company will be automatically adjusted to account for the impact of those transactions.

Any adjustment to the terms of the Offer will be announced by press release, which will be subject to the prior approval of the AMF.

### **1.3.4. Shareholders whose shares are held through the "Actions EDF," "EDF ORS," and "Actions ORS 2022" employee mutual funds**

As of the date of the Draft Response Document, 47,770,005 Shares are held by the "Actions EDF," "EDF ORS" and "Actions ORS 2022" employee investment funds (the "**EDF FCPEs**") (more fully described in Section 7.5 of the Draft Response Document) which are investment vehicles of the EDF group savings plan ("**PEG**") and the EDF international group savings plan ("**PEGI**"), the Shares of which are targeted by the Offer.

It will be up to the supervisory boards of the EDF FCPEs to decide whether to tender the Shares held by the EDF FCPEs to the Offer, subject to a prior amendment of the PEG and PEGI regulations.

### **1.3.5. OCEANE holders**

On September 14, 2020, EDF issued 219,579,139 OCEANES maturing on September 14, 2024. These OCEANES, which have a nominal value of €10.93 each, are convertible or exchangeable at any time by the delivery of 1.124 Shares per OCEANE,<sup>6</sup> subject to further adjustments as provided for in the terms and conditions of the OCEANES. To the best of the Company's knowledge, 219,579,139 OCEANES are outstanding as of the date of the Draft Response Document. The OCEANES are admitted to trading on Euronext Access.

#### **1.3.5.1. Tendering to the Offer**

Holders of OCEANES who wish to do so may tender their OCEANES to the Offer, in accordance with the terms and conditions set out in the Draft Offer Document.

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<sup>6</sup> According to the press release issued by the Company on May 18, 2022, mentioning the Share allocation ratio.

### 1.3.5.2. Rights of OCEANE holders in the event of a tender offer

#### Conversion or exchange of OCEANEs in the event of a tender offer

In accordance with the terms and conditions of the OCEANEs, in the event of an offer declared compliant by the AMF, the opening of the Offer will result in an adjustment of the EDF share allocation ratio during the Tender Offer Adjustment Period (as defined below) in accordance with the following formula (the result will be rounded off in accordance with the terms and conditions of the OCEANEs)

$$\text{NRAA} = \text{RAA} \times [1 + \text{Issue Premium of the OCEANEs} \times (J / JT)]$$

where:

- NRAA means the new share allocation ratio (*nouveau ratio d'attribution d'actions*) applicable during the Tender Offer Adjustment Period (as defined below);
- RAA means the share allocation ratio (*ratio d'attribution d'actions*) in effect prior to the Offer Opening Date (as defined below);
- Issue Premium of the OCEANEs means the premium, expressed as a percentage, which the nominal value of the OCEANEs reflects in relation to the reference price of the Share selected at the time of determination of the final terms of the OCEANEs, i.e., 32.50%;
- J means the exact number of days between the Offer Opening Date (included) and September 14, 2024, the maturity date of the OCEANEs (excluded); and
- JT means the exact number of days between September 14, 2020, the issue date of the OCEANEs (included) and September 14, 2024, the maturity date of the OCEANEs (excluded), i.e., 1,461 days.

As a result of the Offer, the new share allocation ratio (or NRAA) is 1.2930, based on an Offer Opening Date of November 10, 2022 (according to the provisional Offer timetable in Section **Erreur ! Source du renvoi introuvable.** of the Draft Offer Document). As the ratio depends on the Offer Opening Date, it could be modified in the event of a change in this date.

The adjustment of the share allocation ratio, as described above, will benefit only the holders of OCEANEs who exercise their right to the allocation of Shares, between (and through):

- the first day (included) on which Shares may be tendered to the Offer (the "**Offer Opening Date**"); and
- the earlier (included) of:
  - a. (x) the date that is 15 business days after the AMF's publication of the result of the Offer, or (y) if the Offeror of the Offer waives it, the date on which such waiver is published; and
  - b. the date that is the 7<sup>th</sup> business day, inclusive, before the date set for early redemption or before September 14, 2024.

This period will be referred to as the "**Tender Offer Adjustment Period.**"

If the right to the allocation of Shares is exercised during the Tender Offer Adjustment Period, the corresponding Shares will be delivered within a maximum of 3 business days from the date of exercise of the OCEANEs.



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In the event of an adjustment, the Company will inform the holders of the OCEANEs by means of a notice published on its website ([www.edf.fr/finance](http://www.edf.fr/finance)) after the adjustment takes effect. The adjustment will also be the subject of a notice published by Euronext Paris within the same timeframe to the extent required by applicable rules and regulations.

***Early redemption if the outstanding OCEANEs represent less than 20% of the total number of OCEANEs issued***

In accordance with the terms and conditions of the OCEANEs, the Company may, at its option and at any time but subject to a notice period of at least 30 calendar days (and no more than 60 calendar days), redeem at par all of the outstanding OCEANEs, if they represent less than 20% of the number of OCEANEs issued.

As indicated in Section 2.6.2.2. of the Draft Offer Document, in the event of a squeeze-out targeting the Shares only, the Agence des participations de l'Etat may request that EDF proceed with such early redemption, in due course. However, holders of OCEANEs would still be permitted to exercise their rights to the allocation of Shares up to and including the 7<sup>th</sup> business day before the date set for early redemption. The allocation ratio will then be equal to the NRAA if the allocation right is exercised during the Tender Offer Adjustment Period, or equal to the allocation ratio applicable outside the Tender Offer Adjustment Period and indicated above, subject to customary adjustments, including anti-dilution adjustments and adjustments related to the payment of a dividend, as described in the terms and conditions of the OCEANEs.

***Early redemption in the event that the Shares are delisted***

In accordance with the terms and conditions of the OCEANEs, the representative of the OCEANE bondholders may, pursuant to a decision of the bondholders' meeting voting pursuant to the quorum and majority provided for by law, by simple written notification to the Company and to BNP Paribas Securities Services, make all the OCEANEs payable at par if the Shares are no longer admitted to trading on Euronext Paris or any other regulated market.

This early redemption could be implemented as described above in the event of a squeeze-out targeting only the Shares, in particular in the absence of early redemption of the OCEANEs before that date.

**1.3.6. Intentions of the Offeror regarding the implementation of a squeeze-out and the maintenance of the Company's listing following the Offer**

The Draft Offer Document states that:

- if the number of Shares not tendered to the Offer by the minority shareholders of the Company (other than the treasury Shares held by the Company) does not represent, at the end of the Offer, more than 10% of EDF's share capital and voting rights, the French Government intends no later than within a period of three (3) months following the closing of the Offer, in accordance with articles L. 433-4 II of the French Monetary and Financial Code and 237-1 *et seq.* of the AMF General Regulation, to implement a squeeze-out in order to acquire the Shares not tendered to the Offer (other than the treasury Shares held by the Company) in consideration of a payment equal to the Offer Price per Share (*i.e.*, €12.00 per EDF share). The implementation of this procedure will result in the delisting of the Shares from the Euronext Paris regulated market;
- in addition, if, at the close of the Offer, the sum of (i) the number of Shares not tendered to the Offer by the Company's minority shareholders (other than the treasury Shares held by the Company) and (ii) the number of Shares that may be issued after conversion of the OCEANEs not tendered to the Offer does not, at the close of the Offer, represent more than 10% of the

sum of the existing Shares and the Shares likely to be created as a result of the conversion of the OCEANEs,<sup>7</sup> the French Government intends, within three (3) months following the close of the Offer, in accordance with Articles L. 433-4 III of the French Monetary and Financial Code and 237-1 *et seq.* of the AMF's General Regulation, to implement a squeeze-out in order to acquire the OCEANEs not tendered to the Offer in consideration for a payment equal to the Offer Price per OCEANE (i.e., €15.52 per OCEANE based on the Offer opening on November 10, 2022, according to the provisional Offer timetable in Section 2.9 of the Draft Offer Document). The implementation of this procedure will result in the delisting of the OCEANEs from Euronext Access;

- if the Offeror is not in a position, at the end of the Offer, to implement a squeeze-out under the conditions set forth above, it may file a draft squeeze-out offer with the AMF followed, as the case may be, by a squeeze-out targeting the Shares and/or OCEANEs that it does not hold directly or indirectly, alone or in concert, as of that date. In this context, the Offeror could increase its stake in the Company after the end of the Offer and prior to the filing of a new offer, in accordance with applicable laws and regulations. In that event, the squeeze-out will be subject to review by the AMF, which will rule on the squeeze-out's compliance in light of the report of the independent appraiser appointed pursuant to Article 261-1 I and II of the AMF's General Regulation.

#### **1.4. Procedures for tendering to the Offer**

The Offer will be open for a period of twenty (20) Trading Days. The Company's shareholders and holders of its OCEANEs should take note that, as the Offer will be carried out under the simplified procedure set forth in Articles 233-1 *et seq.* of the AMF's General Regulation, it will not be reopened following publication of the Offer's result.

The Shares and OCEANEs tendered to the Offer must be fully negotiable and free from any liens, pledges, security interests or other restrictions of any kind on the free transfer of ownership. The Offeror may, in its sole discretion, refuse to acquire any Shares or OCEANEs tendered to the Offer that do not comply with this condition.

The Company's shareholders or holders of its OCEANEs who would like to tender their securities to the Offer pursuant to the proposed terms must deliver to the financial intermediary serving as the depository of their Shares (such as a financial institution or investment firm) an irrevocable order to sell or tender, using the form provided to them by that intermediary, no later than on the closing date of the Offer, specifying whether they wish to (i) sell their Shares and/or OCEANEs on the market or to (ii) tender their Shares and/or OCEANEs to the semi-centralized Offer on Euronext Paris in order to benefit from the Offeror's assumption of brokerage fees as described below and in Section 2.10.3 of the Draft Offer Document. To ensure that they are able to tender their securities to the Offer no later than on the closing date of the Offer, shareholders and OCEANE holders should contact their financial intermediaries to obtain information regarding their procedures for executing orders and any relevant restrictions.

To tender their shares to the Offer, shareholders whose Shares are registered in the Company's books in "pure registered" form (*nominative pur*) must request that the Shares be registered in "administered registered" form (*nominative administré*) unless they have previously requested conversion to bearer

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<sup>7</sup> This conversion will be carried out on the basis of the adjusted Share allocation ratio, as defined in Section 2.6 of the Draft Offer Document.

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form (*au porteur*). It should be noted that the conversion of registered Shares into bearer Shares will cause these shareholders to lose the advantages associated with holding these Shares in registered form. Notwithstanding the foregoing, shareholders whose Shares are held in pure registered form will also be able to tender their shares to the semi-centralized Offer on Euronext Paris without first converting them to bearer or administered registered shares by going through BNP Paribas Securities Services, acting as registrar of the Shares. Orders to tender Shares or OCEANEs to the Offer will be irrevocable.

The Offer and all related agreements are governed by French law. Any dispute or litigation of any nature whatsoever relating to the Offer must be brought in the competent courts.

Transfer of ownership of the Shares and OCEANEs tendered to the Offer and all the rights attached thereto (including dividend rights) will occur on the date of registration in the Offeror's account, in accordance with Article L. 211-17 of the French Monetary and Financial Code. As a reminder, any amount due in connection with the tender of Shares and OCEANEs to the Offer will be paid on the settlement date and will not bear interest.

**Procedure for tendering to the Offer on the market**

The Company's shareholders and OCEANE holders wishing to tender their Shares and/or OCEANEs to the Offer by selling them on the market must deliver their sale orders no later than on the last day of the Offer; settlement will be carried out as and when the orders are executed, two (2) trading days after each execution, it being specified that the trading costs (including brokerage fees and the related value added tax ("**VAT**")) will be borne entirely by the selling shareholders and OCEANE holders.

Société Générale (member 4407), an investment services provider licensed as a buyer's intermediary, will acquire, on behalf of the Offeror, all of the Shares and OCEANEs tendered to the Offer.

**Procedure for the tendering to the semi-centralized Offer on Euronext Paris**

Shareholders and OCEANE holders wishing to tender their Shares and/or OCEANEs into the semi-centralized Offer on Euronext Paris must deliver their tender orders to the financial intermediary holding their Shares or OCEANEs no later than on the last day of the Offer (or on such earlier date as may be required by their financial intermediaries). Settlement will take place after the completion of the centralization transactions.

The Offeror will pay the brokerage fees for shareholders and the OCEANE holders who tender to the semi-centralized Offer. The terms of such payment are described below and in Section 2.10.3 of the Draft Offer Document.

Euronext Paris will pay the amounts due for the reimbursement of the expenses mentioned below directly to the financial intermediaries on or after the Semi-Centralized Offer's settlement date.

**Brokerage fees and remuneration of intermediaries**

As indicated in Section 2.10.3 of the Draft Offer Document, the Offeror will bear the brokerage fees and the related VAT paid by shareholders and OCEANE holders that tender their Shares and/or OCEANEs to the semi-centralized Offer, up to a maximum of 0.3% (excluding tax) of the price of the Shares and/or OCEANEs tendered to the Offer and subject to a maximum of €100 per file (including tax). Only shareholders and OCEANE holders whose Shares and/or OCEANEs are held in registered form on the day before the Offer opens and who tender their Shares and/or OCEANEs to the semi-centralized Offer will be eligible for reimbursement of their brokerage fees (and the related VAT) as described above. Shareholders and OCEANE holders who sell their Shares and/or OCEANEs on the market will not be entitled to such reimbursement.

## **1.5. Restrictions on the Offer Abroad**

Section 2.11 of the Draft Offer Document states that:

- No application for registration or approval of the Offer has been filed with any financial market authority outside of France, and no steps will be taken to obtain any such registration or approval. The Draft Offer Document and the other documents relating to the Offer do not constitute an offer to sell, exchange or purchase securities or a solicitation of such an offer in any jurisdiction in which such an offer or solicitation is unlawful or to any person to whom such an offer or solicitation may not validly be made or that would require the publication of a prospectus or the fulfilment of any other formality under local law;
- Shareholders of the Company located outside of France will not be able to participate in the Offer unless permitted by the foreign law to which they are subject. The Offer, participation in the Offer, the distribution of the Draft Offer Document, and delivery of the Shares and the OCEANEs may be subject to specific regulations or restrictions in certain jurisdictions; and
- The Offer is not directed at persons subject to such restrictions, either directly or indirectly, and is may not be accepted by anyone located in a jurisdiction where the Offer is subject to such restrictions.

The restrictions regarding the Offer abroad described in Section 2.11 of the Draft Offer Document also apply to the Draft Response Document.

Consequently, persons in possession of the Draft Offer Document and/or the Draft Response Document must familiarize themselves and comply with any restrictions that may apply to them. Failure to comply with such restrictions may constitute a violation of applicable securities and/or stock exchange laws and regulations in any such jurisdictions.

The Company may not be held liable for the violation, by any person or entity, of any applicable legal or regulatory restrictions.

### United States of America

The Offer will be made in the United States in accordance with Section 14(e) of the U.S. Securities Exchange Act of 1934, as amended (the "**Exchange Act**") and the regulations thereunder, including Regulation 14E, subject to the exemptions provided for in Rule 14d-1(d) under the Exchange Act (the "Tier II" exemption) and the requirements of French law. As a result, the Offer will be subject to certain procedural rules, including those relating to the timing of settlement and to the waiver of conditions and payment dates, which are different from the U.S. rules and procedures governing tender offers.

The receipt of cash in connection with the Offer by a U.S. shareholder or holder of EDF OCEANEs may be a taxable transaction for income tax purposes, including U.S. federal income tax purposes, and may be a taxable transaction under state or local tax laws, as well as foreign or other tax laws. It is strongly recommended that each U.S. holder of EDF shares and/or EDF OCEANEs immediately consult with an independent professional advisor regarding the tax consequences of accepting the Offer.

To the extent permitted by applicable laws and regulations, including Rule 14e-5 under the Exchange Act, and consistent with customary practice in France, the Offeror and its affiliates or its broker(s) (acting as agent or on behalf of the Offeror or its affiliates, as applicable) and EDF and its Affiliates or its broker(s) (acting as agent or on behalf of EDF or its affiliates, as applicable) may, before or

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after the date of the Draft Offer Document, directly or indirectly, purchase or arrange for the purchase of Shares or OCEANEs outside of the Offer. Such purchases may be made on the market, on the basis of an order at the Offer Price per Share or the Offer Price per OCEANE, or in off-market transactions at a price per Share equal to the Offer Price per Share or at a price per OCEANE equal to the Offer Price per OCEANE, in accordance with Article 231-39, II of the AMF's General Regulation. Under no circumstances may such purchases be made at a price per Share higher than the Offer Price per Share or at a price per OCEANE higher than the Offer Price per OCEANE. To the extent that any information regarding such purchases or arrangements becomes public in France, it will also be made public by way of press release or other means of informing EDF's U.S. shareholders and OCEANE holders, at [www.edf.fr/finance](http://www.edf.fr/finance). No purchases outside of the Offer will be made by or on behalf of the Offeror, EDF or their respective affiliates in the United States. Affiliates of the Offeror's and EDF's financial advisors may engage in ordinary trading activities in EDF securities, which may include making purchases or arranging for the purchase of such securities.

Neither the Draft Offer Document nor the Draft Response Document has been filed with or reviewed by any federal or state securities commission or other regulatory authority in the United States, nor have any such authorities issued an opinion on the accuracy or adequacy of the information contained in the Draft Offer Document or the Draft Response Document. Any representation to the contrary would be unlawful and may constitute a criminal offense.

## **2. REASONED OPINION OF THE EDF BOARD OF DIRECTORS**

### **2.1. Summary of the conditions under which the reasoned opinion of the Board of Directors regarding the Offer was obtained**

The Company's Board of Directors is currently composed of the following members:

*Directors appointed by the general shareholders' meeting*

- Jean-Bernard Lévy (Chairman and CEO);
- Nathalie Collin\*;
- Bruno Crémel\*;
- Colette Lewiner\*;
- Claire Pedini\*;
- Philippe Petitcolin\*;

*\* Independent directors*

*Directors appointed by the general shareholders' meeting on the proposal of the French Government*

- Gilles Denoyel;
- Delphine Gény-Stephann;
- Marie-Christine Lepetit;
- Michèle Rousseau;

*Director representing the French Government*

- Alexis Zajdenweber;

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*Directors elected by employees*

- Claire Bordenave;
- Karine Granger;
- Sandrine Lhenry;
- Jean-Paul Rignac;
- Vincent Rodet; and
- Christian Taxil.

In accordance with Article 261-1, III of the AMF's General Regulation ("**AMFGR**"), the Board of Directors, at its meeting of July 19, 2022, decided to set up an *ad hoc* committee composed of Bruno Crémel as Chairman (independent director), Colette Lewiner (independent director), Philippe Petitcolin (independent director), and Christian Taxil (director elected by the employees). This committee is responsible for proposing an independent appraiser to be appointed by the Company's Board of Directors, for monitoring the appraiser's work, and for preparing a draft opinion.

On the proposal of the *ad hoc* committee, at its meeting of July 27, 2022, pursuant to articles 261-1-I 1° and 5° and 261-1-II of the AMFGR, the Board of Directors appointed Finexsi, represented by Olivier Péronnet and Olivier Courau, as independent appraiser to draw up a report on the financial terms of the Offer followed, if applicable, by a squeeze-out.

The Draft Offer Document filed by the Offeror with the AMF on October 4, 2022, contains, among other things, the background and reasons for the Offer, the intentions of the Offeror, the characteristics of the Offer, and the criteria for assessing the Offer Price.

## **2.2. Reasoned opinion of the Board of Directors**

In accordance with Article 231-19 of the AMFGR, the directors of the Company met on October 27, 2022, under the chairmanship of Jean-Bernard Lévy, Chairman and Chief Executive Officer, in order to review the draft Offer and give a reasoned opinion on its advantages and consequences for the Company, its shareholders, and its employees. All the members of the Board of Directors were present in person or by videoconference or represented.

Prior to the meeting, the directors were informed of:

- the Draft Offer Document filed by the Offeror with the AMF on October 4, 2022, as well as the Offeror's draft final version of the offer document dated October 21, 2022, containing, in particular, the context and the reasons for the Offer, the intentions of the Offeror, the characteristics of the Offer, and the criteria for assessing the Offer Price;
- the draft reasoned opinion prepared by the *ad hoc* committee in accordance with Article 261-1, III of the AMFGR;
- the report of Finexsi, the independent appraiser;

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- the financial opinion prepared by Morgan Stanley Bank dated October 25, 2022, addressed to the members of the *ad hoc* committee<sup>8</sup>; and
- the Company's Draft Response Document, prepared in accordance with article 231-19 of the AMFGR.

After deliberating, the Board of Directors has thus issued the following reasoned opinion by a majority of its members, including its independent members, it being specified that the directors appointed by the general shareholders' meeting on the proposal of the French Government and the director representing the French Government did not take part in the vote. The statements made by the directors elected by the employees, which the employees wished to have reproduced, are reproduced in Appendix 1.

*"As a reminder, it is the responsibility of the Board of Directors, pursuant to Article 231-19, 4° of the AMF's General Regulation ("**AMFGR**"), to issue a reasoned opinion on the Offer's advantages and consequences for the Company, its shareholders, and its employees.*

*In accordance with Article 261-1 of the AMFGR, the Board of Directors, at its meeting of July 19, 2022, set up an ad hoc committee (the "**Committee**") comprising the following directors: Bruno Crémel as Chairman (independent director), Colette Lewiner (independent director), Philippe Petitcolin (independent director) and Christian Taxil (director elected by the employees). The Committee was responsible for proposing the appointment of an independent appraiser to the Company's Board of Directors, for monitoring the work of that appraiser, and for preparing a draft opinion.*

*As Bruno Crémel, Colette Lewiner, and Philippe Petitcolin are independent directors, the Committee is constituted in accordance with Article 261-1, III of the AMFGR.*

*Prior to today's meeting, the following documents were made available to the members of the Board of Directors:*

- *the Draft Offer Document filed by the Offeror with the AMF on October 4, 2022, as well as the Offeror's draft final version of the offer document dated October 21, 2022, containing, in particular, the context and reasons for the Offer, the intentions of the Offeror, the characteristics of the Offer, and the criteria for assessing the Offer Price;*
- *the draft reasoned opinion prepared by the Committee in accordance with Article 261-1, III of the AMFGR;*
- *the report of Finexsi, the independent appraiser;*
- *the financial opinion provided on October 25, 2022, by Morgan Stanley<sup>1</sup> to the members of the Committee; and*
- *the Company's Draft Response Document, prepared in accordance with Article 231-19 of the AMFGR.*

***i. Procedure and basis for the appointment of the independent appraiser***

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<sup>8</sup> The financial opinion relating to the fairness of the Offer Price is based on and subject to the various assumptions, caveats, and other limitations contained therein. That financial opinion does not constitute, and is not intended to constitute, a "fairness opinion" within the meaning of the AMFGR and does not constitute in any way a recommendation to the shareholders and holders of OCEANES as to whether or not they should tender their securities to the Offer. That financial opinion is intended solely for the use and benefit of the members of the Ad Hoc Committee and is brought to the attention of the Board of Directors, and no other person may rely on it.

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*The Committee met on July 22, 2022 and interviewed Finexsi, represented by Olivier Péronnet and Olivier Courau. Finexsi could act as an independent appraiser for the purposes of Article 261-1 of the AMFGR given, in particular (i) the lack of any past or present ties with the Company, (ii) its recent experience in the context of tender offers followed by a squeeze-out, and (iii) more generally, its professional reputation and human and material resources.*

*The members of the Committee, after deliberation and provided their decision is approved and there are no conflicts of interest, decided to propose that the Board of Directors appoint Finexsi as independent appraiser, given this firm's experience with similar assignments, the composition and qualifications of its members, and its material resources.*

*At the end of July 2022, the Committee also decided to appoint Morgan Stanley as financial advisor and Darrois Villey Maillot Brochier AARPI as legal advisor to assist the Committee in the context of the Offer.*

*On July 27, 2022, on the Committee's recommendation, the Company's Board of Directors decided to appoint Finexsi as independent appraiser to prepare a report on the financial terms of the Offer followed, if necessary, by a squeeze-out pursuant to Article 261-1, I, 1° and 5° and II of the AMFGR.*

***ii. Work of the Committee and interaction with the independent appraiser***

*Between July 22, 2022 and October 26, 2022, the Committee met thirteen times for the purposes of its assignment and, except for the meeting of July 26, 2022, the independent appraiser was in attendance each time. The Committee met at the Company's registered office or by videoconference:*

- on July 22, 2022, in order, firstly, to discuss the principal terms of the proposed Offer and the provisional timetable for the Offer, and secondly, to interview Finexsi, the prospective independent appraiser, with a view to its potential preliminary selection before recommending that the Board of Directors appoint it as independent appraiser in connection with the Offer. At the same meeting, Morgan Stanley was retained to assist the Committee with its work;*
- July 26, 2022, to appoint Darrois Villey Maillot Brochier AARPI the Committee's legal advisor to assist it with its duties in connection with the Offer;*
- August 3, 2022, with the independent appraiser, Morgan Stanley and Darrois Villey Maillot Brochier AARPI, to make an initial progress report on the work of the independent appraiser in connection with the Offer and on the roles and tasks assigned to the Committee members, the Committee's advisors, and the independent appraiser;*
- August 12, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, to discuss the exchanges with the banks presenting the Offer. The various valuation methods to be used to assess the Offer Price were then discussed. The legal action filed by the Company on August 9, 2022 with the Conseil d'État seeking the invalidation of Decree no. 2022-342 of March 11, 2022 and the decrees of March 11, March 12 and March 25, 2022 was also discussed, as was the preliminary claim for compensation filed by the Offeror, alleging losses estimated to date at €8.34 billion (the "**Preliminary Claim**");*
- August 25, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, to review the independent appraiser's work in connection with the Offer and to discuss the new exchanges with the banks presenting the Offer. In particular, the independent appraiser informed the Committee members of its preliminary observations on the valuation work to date. It also gave an update on the interviews to be carried out and on the documentation received or to be received for the purposes of its assignment. The Committee members also discussed the Offeror's reasons and intentions, as well as its provisional timetable, in light of a preliminary draft offer document the Offeror had sent to the Committee through its advisors;*



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- *on September 1, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, so the independent appraiser could give a progress report on its work. At this meeting, the Committee members discussed the potential the Preliminary Claim's financial impact on the Offer Price;*
- *September 8, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, to discuss the exchanges that took place since the meeting of September 1, 2022, and to discuss future exchanges, in particular on aspects relating to the Offer Price;*
- *on September 29, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, to allow the independent appraiser to make a progress report on the valuation of the Company following the exchanges that took place during the month of September. At this stage, in light of the documents and information in its possession and based on its work to date, the independent appraiser has provided indications on EDF's central case value and has noted that the difference between the Offer Price and the central case value should be sufficient to hedge the maximum amount to be received, if any, under the Preliminary Claim;*
- *October 4, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, to review the principal terms of the offer, following the filing of the offer by the French Government on the same day. The provisional timetable for the offer was also discussed;*
- *October 12, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, to review the work of the independent appraiser and the valuation assumptions used. A first draft of a reasoned opinion was also sent to the Committee members for review, pending the appraiser's findings;*
- *October 18, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, to allow the Committee members to assess the status of the responses to the various questions raised by the minority shareholders. The next steps between now and delivery of the reasoned opinion were also discussed;*
- *October 24, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, in particular to discuss, with the independent appraiser and the Committee's legal adviser, the minority shareholders' various questions and the answers provided. The independent appraiser also reported on the progress of the valuation work. A new draft reasoned opinion was sent to the Committee members for review, pending the independent appraiser's final findings;*
- *October 26, 2022, with the independent appraiser, Morgan Stanley, and Darrois Villey Maillot Brochier AARPI, to receive the findings of Finexsi and Morgan Stanley. At the end of this meeting, the Committee members also approved the draft reasoned opinion to be submitted to the Board of Directors.*

*During these meetings, the Committee ensured that the independent appraiser had in its possession all the information it needed to carry out its tasks and that it had been able to do its work under satisfactory conditions. In particular, the appraiser has received an update of the 2022 outlook, the operational and regulatory scenarios for 2023 and 2024, and the Group's related financial trajectory, which were examined by the Audit Committee of the Board of Directors on October 4, 2022 and by the Board of Directors on October 5, 2022. The appraiser also confirmed that it received the letters of representation from the Company and from the French Government, the terms of which are acceptable to it, as well as a modified version of the criteria for assessing the Offer price dated October 21, which will be included in the final version of the offer document.*

*Details of the interactions between the Committee members and the independent appraiser are set out in full in the report prepared by Finexsi.*

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*The Committee also states that it has not been informed of or noted any factors that prevent the smooth performance of the independent appraiser's work.*

***iii. Findings of the independent appraiser***

*Following the exchanges between the Committee and the independent appraiser, as indicated above, Finexsi submitted its report on October 26, 2022. The characteristics of the Offer are set forth below and were taken into account by the independent appraiser in preparing its report, and by the Committee in preparing its recommendation:*

- as of September 30, 2022, the Offeror holds (A) directly (i) 2,911,865,628 shares representing 5,116,476,850 theoretical voting rights (or 74.92% of the share capital and 78.82% of the theoretical voting rights of the Company) and (ii) 87,831.655 OCEANEs and (B) indirectly through EPIC Bpifrance, a public industrial and commercial establishment (with which the French Government acts in concert), 340,706,595 shares representing 669,055,956 theoretical voting rights (or 8.77% of the share capital and 10.31% of the theoretical voting rights of the Company). In total, the Offeror holds, directly or indirectly, alone or in concert, 3,252,572,223 shares representing 5,785,532,806 theoretical voting rights (or 83.69% of the share capital and 89.13% of the theoretical voting rights of the Company);*
- the Offer is voluntary and will be carried out according to the simplified procedure in accordance with articles 233-1 et seq. of the AMFGR. The Offer period will be set at twenty (20) trading days;*
- the Offer concerns (i) all the shares not held by the Offeror directly or indirectly, alone or in concert, (a) which are already issued, for a maximum 633,120,350 shares (it being specified that the treasury shares held by the Company are not covered by the Offer) and (b) which are likely to be issued before the Offer closes upon conversion of the OCEANEs (or a maximum number of 170,349,496 new shares),<sup>9</sup> for a maximum number of shares covered by the Offer equal to 803,469,846; and (ii) all of the outstanding OCEANEs not held by the Offeror (or 131,747,484 OCEANEs);*
- in connection with the Offer, the Offeror is offering (i) to acquire the Company shares held by the shareholders in consideration, for each Company share, of a cash amount of €12.00 per share, and (ii) to acquire OCEANEs from OCEANE holders at a price of €15.52 per OCEANE;*
- the Offeror has indicated that (i) the theoretical analysis of the Preliminary Claim indicates a maximum impact of €1.48 per share on the Company's intrinsic value, (ii) discounting this amount over 5 years at the risk-free rate would result in a maximum impact on the Company's intrinsic value of €1.29 per share, and (iii) according to the Offeror, the difference between the price offered per share of the Company and the intrinsic value of the Company hedges the maximum amount associated with the Preliminary Claim;*
- the Offeror has indicated that if, when the Offer closes, the conditions required for a squeeze-out are met, the Offer will be followed by a squeeze-out pursuant to articles L. 433-4, II of the French Monetary and Financial Code and 237-1 et seq. of the AMFGR;*
- the Offeror makes its intentions known to the members of the Board of Directors.*

*The independent appraiser presents a summary of its work and its findings.*

***With respect to the Company's shares***

- "We conducted a multi-criteria approach, which resulted in the following findings:*

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<sup>9</sup> Based on an adjusted allocation ratio of 1.2930.

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*The diversity of the EDF Group's business activities led us to use the sum-of-the-parts method as the main method for assessing the positioning of the Offer price. This method, based on the valuation of each of the Group's businesses according to the discounted cash flow method, appears to be the most relevant and enables us to value each of the Group's assets, taking into account its development prospects, as well as its specific profile and risks, assessed according to the nature of the business and its location.*

*It should be noted that this method has been applied on the basis of the Group's current structure, i.e., without assuming any asset disposals beyond the €3bn disposal plan announced at the beginning of 2022. The values that emerge from our work therefore do not correspond to the sale prices that include control premiums and any synergies that could be paid by a buyer in the context of an organized sale process, which is not currently a scenario pursued by the EDF Group or its controlling shareholder.*

*The central scenario that we have chosen is based on a large number of assumptions of different kinds and that incorporate a certain level of uncertainty, all of which constitute a coherent scenario. In this context, we have given priority to sensitivity analyses of the fundamental assumptions of our central scenario, in order to simulate other scenarios incorporating the operational, regulatory, or financial (market) risks or opportunities to which the Company is exposed.*

*On this sum-of-the-parts criterion, the Offer Price shows a premium of between +13.3% and +67.4%, it being specified, by way of reminder, that the cash flow approach is representative of a control value since it assumes the free disposal of all cash flows.*

*However, in this context, we must assess the extent to which the claim for compensation mentioned above has been taken into account. In this respect, with the Company and its legal advisors, we have reviewed the terms of the litigation before the Conseil d'Etat and the claim for compensation of €8.34 billion against the French Government. In view of the uncertainties inherent in such proceedings, we have included the full amount of the claim in our sensitivity analysis, which appears to be favorable to the minority shareholder. The maximum amount of this claim represents €1.50 per EDF share after taxes, and €1.36 after taking into account the time effect over a period of 5 years, before compensatory interest.*

*The premium observed on the Offer Price covers the entire present value of the claim for compensation (€1.36 per share), but the premium then expressed is in a range of +0.4% to +40.6%.*

*With regard to the reference to the stock market price, which is also the main criterion used, the Offer Price represents a premium of 53.0% over the last unaffected stock market price (on July 5, 2022), and a premium of 43.9% over the weighted average stock market price for the 60 days preceding that date.*

*With regard to the claim for compensation referred to above, it should be noted that its announcement on August 9, 2022 did not cause the share price to rise above the Offer Price.*

*With regard to the reference to price targets, a criterion used as a secondary criterion, the Offer Price shows a premium of 20.00% over the median target price of financial analysts published between May 19 and July 5, 2022.*

*The litigation and the claim for compensation announced on August 9, 2022, did not lead to any change in the analysts' price objectives.*

*On the valuation approach according to the EDF global DCF, used as an indication, the Offer Price shows premiums of respectively 18.6% and 158.6% on the low and high terminals that cover 100% of the present value of the claim compensation (€1.36 per share), but the premium then expressed is in a range of +4.5% to +99.8%.*

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*The other methods do not call for any particular remark on our part."*

### **Concerning the OCEANEs**

- *"The Offer Price of the OCEANEs corresponds to the adjusted contractual conversion value of the OCEANEs in the event of a tender offer at €12.00 per share,<sup>10</sup> which is the main valuation criterion.*

*The financial terms of the Offer therefore do not result in unequal treatment of shareholders on the one hand, and OCEANE holders, on the other, as the OCEANE Offer Price is obtained by taking Offer Price for the shares into account using the conversion formula provided for in the event of a tender offer.*

*We further note that the proposed OCEANE buyback price represents a premium of 37.6% over the last unaffected trading price as of July 5, 2022, and a premium of 39.9% over the intrinsic value of the OCEANEs (according to the principal approach), taking into account the calculation parameters as of July 5, 2022.*

### **With respect to related agreements**

- *"The review of the only agreement communicated in the Draft Offer Document that may have a material effect on the assessment or outcome of the Offer, namely the share allocation agreement between the French Government and EPIC BPIFRANCE of January 15, 2018, did not reveal any financial provision that could, in our opinion, call into question the fairness of the Offer from a financial point of view."*

*The independent appraiser also notes, that it has responded to the comments of the minority shareholders, specifying, in particular that the various points raised by the minority shareholders have not led it to modify its assessment of the Offer Price.*

*The Committee therefore notes that, according to the report prepared by Finexsi, the Offer Price of €12.00 per share and €15.52 per OCEANE is fair from a financial point of view for EDF shareholders, including in the event of a squeeze-out.*

### **iv. Committee's Recommendation**

*On October 26, 2022, the Committee finalized its recommendation to the Board of Directors in light of the independent appraiser's report and the correspondence received from certain shareholders following the public announcement of the Offer.*

*In general, and in order to prepare its report, the Committee drew the attention of the independent appraiser to the following information, specific to the context and to the Offer, which appeared to it to be of particular importance and which it also took into account in its recommendation:*

### **Concerning the advantages of the Offer for the Company (Strategy and industrial, commercial, and financial policy)**

*The Committee notes that:*

- *in accordance with Article L. 311-5-7 of the French Energy Code, the Company, as an operator generating more than one-third of the country's electricity, has drawn up a strategic plan setting out the actions that the Company is committed to taking in order to meet the objectives of supply security and a diverse electricity mix set out in the multi-year energy plan. The Company has thus presented the strategy it is pursuing to secure*

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<sup>10</sup> *"Offer price of €15.52 per OCEANE based on an Offer opening of November 10, 2022, in accordance with the provisional Offer timetable set out in the Draft Offer Document of October 21, 2022."*

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*supplies and diversify the electricity mix, as well as its strategy for energy consumption and use. On October 8, 2020, the Company's Board of Directors approved the transmission of this strategic business plan to the minister in charge of energy for approval by the administrative authority. The Company's previous strategic plan was submitted to the Company's Board of Directors in 2017;*

- the Offer is being made in a sensitive political and environmental context, particularly with regard to the very high volatility of prices on the wholesale energy markets. On September 14, 2022, the French Prime Minister announced that the energy price shield would be extended to 2023, with electricity price increases limited to 15% (whereas the increase should have been 120%, according to her);*
- under the circumstances recalled by the Offeror in its intentions, the Offeror indicated its intention to undertake long-term projects (including, in particular, the construction of new nuclear reactors, which requires particularly heavy investments). As mentioned by President Macron in his speech in Belfort on 10 February 2022, the French government wants EDF to complete the construction and operation of the new EPRs, a project “of a scope not seen for 40 years”. “From a financial and regulatory point of view, massive public funding of several tens of billions of euros will be allocated to finance this new program, which will preserve EDF's financial position and develop the entire industry.” The Government affirmed that it will “assume responsibility for securing EDF's financial position and financing capacity in the short and medium term, and enabling it to pursue its profitable development strategy in the context of the energy transition;”*
- the Offeror already controls the Company, directly or indirectly holding 83.69% of the capital and 89.13% of the theoretical voting rights;*
- the Offer concerns (i) all the shares not held by the Offeror directly or indirectly, alone or in concert, (a) that have already been issued, for a maximum number of 633,120,350 shares (it being specified that the treasury shares held by the Company are not covered by the Offer) and (b) that are likely to be issued before the Offer closes upon conversion of the OCEANEs (for a maximum number of 170,349,496 new shares),<sup>11</sup> for a maximum number of shares covered by the Offer equal to 803,469,846; and (ii) all of the outstanding OCEANEs not held by the Offeror (or 131,747,484 OCEANEs);*
- the Offeror intends to implement a squeeze-out pursuant to articles L. 433-4, II of the French Monetary and Financial Code and 237-1 et seq. of the AMFGR if, when the Offer closes, the conditions required for a squeeze-out are met,*
- on August 9, 2022, the Company filed the Preliminary Claim (as this term is defined above) with respect to the damages incurred as a result of the Government's decision to allocate additional ARENH volumes for 2022, it being specified that the Company's Board of Directors, and in particular the independent directors, paid particular attention to have the Preliminary Claim taken into account in the financial work.*

*The Committee also notes that the Offeror's intentions, as described in the Draft Offer Document, are as follows:*

- with respect to the Company's industrial, commercial, and financial strategy and policy, the Offeror has indicated that the Offer is taking place in a context of a climate emergency and at a time when the geopolitical situation requires tough decisions to be made to ensure France's energy independence and sovereignty. In this new context, with the French Government as the sole shareholder, EDF would be in a position to accelerate several decisive projects that in his speech in Belfort, President Macron announced his intention to launch, in particular the program to build six EPR2 technology reactors by 2050. These projects will engage the company for decades to come, during which time EDF will continue to play a critical role in France's energy supply. The Offeror has*

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<sup>11</sup> Based on an adjusted allocation ratio of 1.2930.

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*also indicated that no decisions have been made at this stage regarding changing the Group's business model or with respect to its new nuclear program or organization;*

- if the Offer is followed by a squeeze-out, it will result in the delisting of the Company's shares from the Euronext Paris regulated market; in this context, changes in the composition of the Company's corporate bodies could be considered and will depend on the Offer's outcome;*
- the Offeror has not identified any synergies specifically in the context of the Offer, and the potential savings in listing costs associated with delisting the Company's shares from the Euronext Paris regulated market after the squeeze-out, if any, is not significant relative to the amount of the transaction; and*
- with respect to dividends, the Offeror has indicated that the Company's dividend policy will continue to be determined by its corporate bodies based on the Company's distributive capacity, financial position and financial needs, in compliance with applicable regulatory requirements and taking into account the constraints of the current economic environment.*

***Regarding the price of the Offer and the advantages of the Offer for the minority shareholders and the OCEANE holders***

*The Offeror is offering (i) to acquire the Company Shares held by the shareholders in consideration, for each Company Share, of a cash amount of €12.00 per share, and (ii) to acquire the OCEANES held by OCEANE holders at a price of €15.52 per OCEANE.*

*The Offeror has indicated that (i) the theoretical analysis of the Preliminary Claim indicates a maximum impact of €1.48 per share on the Company's intrinsic value, (ii) discounting this amount over 5 years at the risk-free rate would result in a maximum impact on the Company's intrinsic value of €1.29 per share, and (iii) according to the Offeror, the difference between the price offered per share of the Company and the intrinsic value of the Company hedges the maximum amount associated with the Preliminary Claim.*

*The Committee has reviewed the criteria for assessing the Offer Price established by the institutions presenting the Offer, of the independent appraiser's report, of the correspondence received from certain minority shareholders following the public announcement of the Offer, and of the financial opinion obtained from Morgan Stanley bank,<sup>1</sup> which concludes that from a financial point of view, the Offer Price is fair for the shareholders and the OCEANE holders.*

*The Committee notes that the independent appraiser has analyzed the criteria for assessing price mentioned in the Draft Offer Document and that this analysis appears in the independent appraiser's report.*

*The Committee further notes that the multi-criteria analysis conducted for the valuation of the Company shows that the Offer Price includes a premium of (i) 53% based on the closing price of the Company on July 5, 2022 immediately prior to the announcement of the draft Offer, (ii) 45.7% based on the volume weighted average share price over the two months preceding the announcement of the draft Offer, and (iii) 49.8% based on the volume weighted average share price over the four months preceding the announcement of the draft Offer, and hedges the amount that may be received pursuant to the Preliminary Claim.*

*It also notes that the Offeror is offering Company shareholders that tender their shares to the Offer the opportunity to obtain immediate liquidity on their entire shareholding at a price per share that the independent appraiser considers fair.*

*With respect to OCEANE holders, the Committee notes that the price of €15.52 per OCEANE offered in connection with the Offer represents a premium of (i) 34.1% based on the OCEANE price on July 5, 2022 immediately prior to the announcement of the draft Offer, (ii) 29.4% relative to the mathematical average over 1 month,*

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(iii) 28.1% relative to the mathematical average over 2 months and, (iv) 14.7% relative to the mathematical average over 12 months.

The Committee further notes, in accordance with the terms and conditions of the OCEANES, (i) that the Company may, at its option and at any time but subject to prior notice of at least 30 calendar days (and no more than 60 calendar days), redeem at par all of the outstanding OCEANES if they constitute less than 20% of the number of OCEANES issued, and (ii) that the OCEANE holders' representative may, on a decision of the meeting of OCEANE holders acting in accordance with the quorum and majority requirements provided for by law, by simple written notice to the Company and to BNP Paribas Securities Services, make all of the OCEANES due and payable at par in the event that the EDF shares are no longer listed for trading on Euronext Paris or any other regulated market.

In the event of a squeeze-out concerning the OCEANES, the OCEANE holders that did not tender their OCEANES to the Offer will receive cash compensation equal to the Offer Price per OCEANE (€15.52 per OCEANE).

Finally, the Company or the Committee members have received letters or emails from minority shareholders concerning the Offer. The Committee has reviewed this correspondence and has ensured that they received special review by the independent appraiser, who discussed them with the Company and the Offeror. The independent appraiser's exchanges with the minority shareholders and the replies to their comments appear in section 12 of the appraiser's report.

***Regarding the advantages of the Offer for the employees***

The Committee further notes that, with respect to employment, the Offeror has indicated that it does not intend to change the Company's employment policy.

The Committee also notes that the Offeror has indicated that the Offer will not have any consequences on the Company's legal organization, but reserves the right to subsequently make, in conjunction with all the stakeholders, any changes in the organization of the Group, the Company, or the Group's other entities that are necessary to implement the intentions expressed in terms of strategy and industrial, commercial, and financial policies.

The Committee notes, in addition, that (i) the Company met with its French Works Council within two days of the Offeror's filing of the Draft Offer Document with the AMF, that is, on October 5, 2022, (ii) the French Works Council, accompanied by the accounting firm 3E Consultants, held a hearing with the Offeror on October 10, 2022, and (iii) the Company voluntarily convened its Central Social and Economic Committee (CSEC) for an information meeting on October 19, 2022.

Finally, the Committee notes that as indicated in the Company's Draft Response Document, it will be up to the supervisory boards of the FCPEs to decide to tender, or not to tender, the shares held by the FCPEs to the Offer, subject to a prior amendment of the regulations of the group savings plan and the international group savings plan.

In light of the foregoing, the Committee considers that the Offer as described in the Draft Offer Document is in the interests of the Company's employees, as the French Government has indicated that it does not intend to change the Company's employment policy.

At the end of its assignment, having taken into account the work of its advisors, of the independent appraiser, and of all the information above, and given the industrial risks and stakes for the Company, the Committee recommends, by a majority of its members, that the Board of Directors conclude that the Offer, insofar as it gives the shareholders the opportunity to sell their shares at a price deemed fair by the independent appraiser, is in the interests of the Company, of its shareholders, and of its employees.

***v. Opinion of the Board of Directors***

***The Draft Offer, the Draft Offer Document, and this Draft Response Document remain subject to review by the AMF***

*The Board of Directors notes (i) the terms of the Offer and the criteria for assessing the Offer Price stated in the Draft Offer Document, (ii) the reasons and intentions of the Offeror and the valuation information prepared by the Presenting Institutions as indicated in the Draft Offer Document and in the draft final offer document dated October 21, (iii) the work and recommendations of the Committee and its favorable opinion on the Offer, (iv) the findings of the independent appraiser, and (v) the findings of the Committee's financial advisor.*

*After exchanging views on the draft Offer and in light of the foregoing and the industrial risks and stakes for the Company, the Board of Directors decides by a majority, with the directors appointed by the general shareholders' meeting on the proposal of the French Government and the director representing the French Government not having taken part in the vote, to endorse the work and recommendations of the Committee, and therefore considers that the Offer, because it gives shareholders the opportunity to sell their shares at a price deemed fair by the independent appraiser, is in the best interests:*

- of the Company, insofar as it will enable it, already controlled by the Offeror, to pursue its development strategy in connection with the energy transition;*
- of its shareholders, because the price offered by the Offeror of €12.00 per EDF share is deemed by the independent appraiser to be fair and to constitute a fair valuation of the shares held by the Company's shareholders, including in the event of a squeeze-out and in light of the amount that may be received as a result of the Preliminary Claim;*
- of OCEANE holders, because the price offered by the Offeror of €15.52 per OCEANE is deemed by the independent appraiser to be fair and to constitute a fair valuation of the OCEANES held by the Company's OCEANE holders, including in event of a squeeze-out and in light of the amount that may be received as a result of the Preliminary Claim;*
- of its employees, because the Offeror has indicated that it does not intend to modify the Company's employment policy;*

***recommends*** to the shareholders and OCEANE holders to tender their securities to the Offer.”

### **3. INTENTIONS OF THE MEMBERS OF THE EDF BOARD OF DIRECTORS**

The members of the Company's Board of Directors who attended the meeting at which the Board of Directors issued its reasoned opinion reproduced in Section 2 stated their intentions as follows:

Name	Position	Shares held on the date of the reasoned opinion	Intention
Karine Granger	Director	25	Has no intent to tender her Shares to the Offer
Colette Lewiner	Director	1,348	Will tender all of her Shares to the Offer
Sandrine Lhenry	Director	32	Has no intent to tender her Shares to the Offer



Philippe Petitcolin	Director	10	Will tender all of his Shares to the Offer
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#### 4. INTENTIONS OF THE COMPANY WITH RESPECT TO THE TREASURY SHARES

As of the date of the Draft Response Document, the Company holds 888,511 of its own Shares.

As the Treasury Shares are deemed to be Shares held by the Offeror pursuant to Article L. 233-9, I, 2° of the French Commercial Code, they are not covered by the Offer and may therefore not be tendered to it.

#### 5. AGREEMENTS THAT MAY HAVE A MATERIAL EFFECT ON THE OFFER'S ASSESSMENT OR OUTCOME

On January 15, 2018, the French Government entered into a grant agreement with EPIC Bpifrance pursuant to which (i) the French Government undertook to grant EDF Shares to EPIC Bpifrance (the “**Grant Agreement**”) and (ii) the French Government and EPIC Bpifrance declared that they were acting as a consortium vis-à-vis the Company.<sup>12</sup> The main provisions of the Grant Agreement include the following:

- **Non-transferability of the grant:** the Shares transferred by the French Government to EPIC Bpifrance are non-transferable. Consequently, EPIC Bpifrance undertakes not to transfer them, pledge them as security, or otherwise dispose of them. EPIC Bpifrance may, however, use the dividends and other income derived from the EDF Shares that are paid out.
- **Representation on the EDF Board of Directors:** EPIC Bpifrance will not be represented on the EDF Board of Directors.
- **Consortium:** in the Grant Agreement, the French Government and EPIC Bpifrance state that they will act in concert vis-à-vis EDF. The French Government and EPIC Bpifrance will consult with each other before each EDF shareholders' meeting with a view to adopting, if possible, a joint position on the resolutions put to a shareholder vote. If it is impossible to reach a joint position, EPIC Bpifrance will make best efforts to align its vote with the French Government's. The French Government may terminate the consortium if it disagrees with EPIC Bpifrance on the Group's strategy, in particular if EPIC Bpifrance does not vote the same way the French Government does at one or more of EDF's shareholders' meetings.
- **Undertakings of EPIC Bpifrance:** EPIC Bpifrance undertakes not to acquire, directly or indirectly, any EDF Shares and not to act in concert with a third party vis-à-vis EDF.
- **Recovery of the Shares granted:** the French Government may repossess the Shares at any time, including if EPIC Bpifrance does not comply with the Grant Agreement. The French Government may also repossess the Shares in event of disagreement with EPIC Bpifrance on

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<sup>12</sup> AMF Notice No. 218C0136 of January 16, 2018.

the Group's strategy, in particular if EPIC Bpifrance does not vote the same way the French Government does at one or more EDF general meetings.

With the exception of the Allocation Agreement, the Company is not aware of any agreement and is not a party to any agreement related to the Offer or which would have a material effect on the valuation or the outcome of the Offer.

## **6. ACTIONS BROUGHT BY EDF AGAINST THE FRENCH GOVERNMENT**

Following the French government's announcement on January 13, 2022, of a system for allocating an additional volume not exceeding 20 TWh of electricity to be sold at a regulated price from April to December 2022, the Company announced that it was considering its options for protecting its interests.<sup>13</sup> In that regard, the Company's Chairman and CEO indicated at its annual shareholders' meeting that he had sent the French government an administrative appeal requesting the withdrawal of the decree<sup>14</sup> and the orders of March 2022 relating to that system.<sup>15</sup>

After an in-depth legal analysis, and in light of the damages suffered as a result of the decree and the orders dated March 11, 12 and 25, 2022, on August 9, 2022 the Company filed a legal action (currently under review) with the French Conseil d'Etat (highest administrative court) to have the decree and orders invalidated, and a preliminary claim ("*demande indemnitaire préalable*," a claim that must be filed with an administrative body before commencing action in the administrative courts) for compensation with the French Government, which the Government implicitly denied on October 9, 2022.<sup>16</sup>

In line with its press releases of January 13, 2022 and August 9, 2022, the Company filed an action with the Administrative Court of Paris on October 27, 2022 to obtain compensation from the Government of the losses, estimated at €8.34 billion in principal, it has incurred as a direct result of

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<sup>13</sup> See the Company's press release, "Exceptional measures announced by the French government," issued on January 13, 2022.

<sup>14</sup> Decree No. 2022-342 of March 11, 2022, setting forth the specific terms and conditions for the allocation of an additional volume of electricity that may be allocated in 2022, on an exceptional basis, in connection with the regulated access to historical nuclear electricity (ARENH).

<sup>15</sup> The order of March 11, 2022, issued in application of Article L. 337-16 of the French Energy Code and setting the price of additional electricity volumes sold in the exceptional delivery period introduced by Decree No. 2022-342 of March 11, 2022, setting forth the specific terms and conditions for the allocation of an additional volume of electricity that may be allocated in 2022, on an exceptional basis, as part of the regulated access to historical nuclear electricity (ARENH).

The order of March 11, 2022, setting the maximum overall volume of electricity to be sold by Electricité de France based on the regulated access to historical nuclear electricity, issued in application of Article L. 336-2 of the French Energy Code.

The order of March 12, 2022, on the terms and conditions for the sale of additional capacity guarantees linked to the supplemental ARENH delivery period starting on April 1, 2022, issued in application of Article R. 335-69 of the French Energy Code.

The order of March 25, 2022, amending the order of April 28, 2011, issued in application of II of Article 4-1 of Law No. 2000-108 of February 10, 2000, on the modernization and development of the public electricity service.

<sup>16</sup> See the Company's press release, "Action relating to the allocation of additional ARENH volumes for 2022," published on August 9, 2022.

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the institution of the system for allocating an additional volume not exceeding 20 TWH of electricity to be sold at regulated prices from April to December 2022.<sup>17</sup>

## 7. INFORMATION LIKELY TO HAVE A MATERIAL EFFECT IN THE EVENT OF A TENDER OFFER

### 7.1. Company's share capital structure and ownership

#### EDF share capital

As of the date of the Draft Response Document, the Company's share capital was €1,943,290,542, divided into 3,886,581,084 Ordinary Shares with par value of €0.50 per Share, fully paid up and all of the same class.

#### Composition of EDF's shareholder base as of September 30, 2022

As of September 30, 2022, the Company's share capital and voting rights were allocated as follows<sup>18</sup>:

Shareholder	Number of shares	% of capital	Number of theoretical voting rights	% of theoretical voting rights
French Government-EPIC Bpifrance Consortium	3,252,572,223	83.69%	5,785,532,806	89.13%
<i>of which French Government</i>	<i>2,911,865,628</i>	<i>74.92%</i>	<i>5,116,476,850</i>	<i>78.82%</i>
<i>of which EPIC Bpifrance</i>	<i>340,706,595</i>	<i>8.77%</i>	<i>669,055,956</i>	<i>10.31%</i>
Employee ownership	51,699,738	1.33%	86,108,959	1.33%
Treasury shares	888,511	0.02%	888,511	0.01
Public	581,420,612	14.96%	618,463,333	9.53%
Total	3,886,581,084	100%	6,490,993,609	100%

### 7.2. Restrictions on the exercise of voting rights and share transfers; agreements made known to the Company in accordance with Article L. 233-11 of the French Commercial Code

#### 7.2.1. Restrictions set by law or the bylaws on the exercise of voting rights and transfers of EDF shares

##### Minimum held by the French Government

Pursuant to Article L. 111-67 of the French Energy Code and Article 6 of the Company's bylaws, the French Government is required to hold more than 70% of the Company's share capital.

##### Disclosure requirements for the crossing of thresholds

The legal obligations set forth in Article L. 233-7 of the French Commercial Code are applicable.

<sup>17</sup> See the Company's press release, "Update on the claims relating to the allocation of additional 20TWh of electricity for 2022," issued on October 27, 2022.

<sup>18</sup> On the basis of a total number of 3,886,581,084 Company Shares representing, as of September 30, 2022, 6,490,993,609 theoretical voting rights in accordance with Article 223-11 of the AMF's General Regulation.

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In addition to the applicable legal and regulatory thresholds, Article 10 of the Company's bylaws provides that any individual or legal entity, acting alone or in concert, that comes to hold directly or indirectly a number of shares corresponding to 0.5% of the Company's capital or voting rights is required, no later than the close of trading on the fourth trading day following the date on which that threshold is crossed, to declare to the Company, by registered letter with acknowledgement of receipt, the total number of shares, voting rights, and securities giving access to the capital that it holds. The rules governing the calculation and reporting of the crossing of legislative and regulatory thresholds also apply to the calculation and reporting of the crossing of the bylaw threshold.

An additional declaration must be filed whenever a new threshold of 0.5% is reached or crossed, whether upwards or downwards, for whatever reason, including beyond the 5% threshold provided for in Article L. 233-7 of the French Commercial Code.

In the event of non-compliance with the above provisions, the shareholder(s) concerned shall be deprived, in accordance with and subject to the limits set by law, of the voting rights attached to the shares exceeding the thresholds subject to declaration.

**Transfer of the Company's shares**

The shares are freely negotiable, subject to legal and regulatory provisions. They are registered in an account and are transferred from account to account. These provisions also apply to other securities of any kind issued by the Company.

**Double voting rights**

Pursuant to Article L. 22-10-46 of the French Commercial Code, double voting rights are automatically granted to all fully paid-up shares registered in the name of the same shareholder for at least two years.

In accordance with Article L. 225-124 of the French Commercial Code, this double voting right automatically ceases for any share converted into a bearer share or the ownership of which is transferred. However, transfer by inheritance, liquidation of community property between spouses, or *inter vivos* gift to a spouse or a relative in the line of succession does not interrupt the two-year period or preserve the right acquired. The merger or demerger of the Company has no effect on the double voting right, which may be exercised vis-à-vis the successor company or companies, to the extent permitted by their bylaws.

**7.2.2. Agreements brought to the attention of the Company pursuant to Article L. 233-11 of the Commercial Code**

With the exception of the Allocation Agreement described in Section 5 of the Draft Response Document, the Company has not been informed pursuant to article L. 233-11 of the French Commercial Code of any agreement containing preferential terms for the transfer or acquisition of Shares and relating to at least 0.5% of the Company's share capital or voting rights.

**7.3. Direct and indirect shareholdings in the Company's capital that have been reported in accordance with Articles L. 233-7 and L. 233-12 of the French Commercial Code**

As of the date of the Draft Response Document and to the best of the Company knowledge, the share capital is allocated as indicated in Section 7.1 of the Draft Response Document.

Over the past twelve months, the Company has received the following declarations that thresholds set by law or the bylaws have been crossed:

Shareholder	Date threshold crossed	Number of shares	% of share capital	% of voting rights	Threshold crossed upward or downward
<b>I. Declarations of crossing legal thresholds</b>					
EPIC Bpifrance	April 7, 2022	328,349,361	8.79%	5.46%	Downward of the legal threshold of 10% of the capital
EPIC Bpifrance <sup>19</sup>	April 20, 2022	328,349,361	8.79%	10.35%	Upward of the legal threshold of 10% of the voting rights
<b>II. Declarations of crossing thresholds set in the bylaws</b>					
BlackRock, Inc	September 1, 2021	31,969,015	1.01%	0.59%	Upward of the bylaw threshold of 1% of the capital
BlackRock, Inc	September 7, 2021	31,055,925	0.98%	0.58%	Downward of the bylaw threshold of 1% of the capital
BlackRock, Inc	September 13, 2021	31,655,264	1.00%	0.59%	Upward of the bylaw threshold of 1% of the capital
BlackRock, Inc	September 14, 2021	31,473,786	0.99%	0.58%	Downward of the bylaw threshold of 1% of the capital
BlackRock, Inc	September 15, 2021	34,083,406	1.08%	0.63%	Upward of the bylaw threshold of 1% of the capital
BlackRock, Inc	September 16, 2021	31,245,708	0.99%	0.58%	Downward of the bylaw threshold of 1% of the capital
BlackRock, Inc	September 17, 2021	32,138,310	1.02%	0.60%	Upward of the bylaw threshold of 1% of the capital
French Government	March 16, 2022	2,388,201,380	73.740%	83.250%	Upward of the bylaw thresholds of 73.5% of the capital and 83% of the voting rights
BlackRock, Inc	March 18, 2022	54,619,081	1.69%	0.99%	Upward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	April 7, 2022	55,929,532	1.73%	1.01%	Upward of the bylaw threshold of 1% of voting rights

<sup>19</sup> The consortium formed by the Offeror and EPIC Bpifrance has specified that it held, as of June 8, 2022, 3,134,481,623 Shares representing 5,667,442,206 voting rights, i.e., 83.88% of the Company's share capital and 89.37% of the voting rights (AMF Document No. 222C1425 of June 9, 2022).

Shareholder	Date threshold crossed	Number of shares	% of share capital	% of voting rights	Threshold crossed upward or downward
French Government <sup>20</sup>	April 7, 2022	2,806,132,262	75.092%	83.332%	Upward of the bylaw thresholds of 74%, 74.5% and 75% of the capital
French Government <sup>21</sup>	April 20, 2022	2,806,132,262	75.092%	79.010%	Downward of the bylaw thresholds of 0.5% between 83% and 79.5% of voting rights
BlackRock, Inc	May 6, 2022	62,471,819	1.67%	0.99%	Downward of the bylaw threshold of 1% of voting rights
BlackRock, Inc	May 12, 2022	54,964,829	1.47%	0.87%	Downward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	May 25, 2022	59,314,929	1.59%	0.94%	Upward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	May 26, 2022	55,414,641	1.48%	0.87%	Downward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	May 27, 2022	58,646,233	1.57%	0.92%	Upward of the bylaw threshold of 1.5% of the capital
Concert between the French Government and EPIC Bpifrance	June 13, 2022	3,252,572,223	84.079%	89.374%	Upward of the bylaw threshold of 84% of the capital
BlackRock, Inc	June 14, 2022	56,006,040	1.49%	0.88%	Downward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	June 15, 2022	56,151,497	1.50%	0.89%	Upward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	June 16, 2022	67,238,670	1.80%	1.06%	Upward of the bylaw threshold of 1% of voting rights

<sup>20</sup> According to the declaration of crossing of bylaw thresholds filed the same day, the consortium formed by the Offeror and EPIC Bpifrance specified that it held, as of April 8, 2022, 3,134,481,623 Shares representing 5,339,092,845 voting rights, i.e., 83.878% of the Company's capital and 88.793% of the voting rights.

<sup>21</sup> According to the declaration that the bylaw thresholds had been crossed that same day, the consortium formed by the Offeror and EPIC Bpifrance specified that it held, as of May 4, 2022, 3,134,481,623 Shares representing 5,667,442,206 voting rights, i.e., 83.878% of the Company's capital and 89.365% of the voting rights.

Shareholder	Date threshold crossed	Number of shares	% of share capital	% of voting rights	Threshold crossed upward or downward
BlackRock, Inc	June 30, 2022	52,130,348	1.40%	0.82%	Downward of the bylaw threshold of 1.5% of the share capital and 1% of the voting rights
BlackRock, Inc	July 20, 2022	58,844,440	1.52%	0.91%	Upward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	July 21, 2022	57,679,726	1.49%	0.89%	Downward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	July 22, 2022	58,783,055	1.52%	0.91%	Upward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	July 26, 2022	57,785,959	1.49%	0.89%	Downward of the bylaw threshold of 1.5% of the capital
French Government <sup>22</sup>	July 27, 2022	2,911,865,628	74.921%	78.820%	Downward of the bylaw threshold of 75% of the capital and 79% of the voting rights
BlackRock, Inc	July 28, 2022	59,240,691	1.52%	0.91%	Upward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	1 <sup>er</sup> August 2022	58,215,708	1.49%	0.89%	Downward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	August 2, 2022	63,093,878	1.62%	0.97%	Upward of the bylaw threshold of 1.5% of the capital
BlackRock, Inc	August 16, 2022	65,001,540	1.67%	1.00%	Upward of the bylaw threshold of 1% of voting rights
BlackRock, Inc	September 29, 2022	78,470,396	2.02%	1.21%	Upward of the bylaw threshold of 2% of the capital
BlackRock, Inc	September 30, 2022	76,879,150	1.98%	1.18%	Downward of the bylaw threshold of 2% of the capital
BlackRock, Inc	October 6, 2022	78,592,290	2.02%	1.21%	Upward of the bylaw threshold of 2% of the capital

<sup>22</sup> According to the declaration that the statutory thresholds had been crossed that day, the consortium formed by the Offeror and EPIC Bpifrance specified that it held, as of July 27, 2022, 3,252,572,223 Shares representing 5,785,532,806 voting rights, i.e., 83.687% of the Company's capital and 89.127% of the voting rights.

Shareholder	Date threshold crossed	Number of shares	% of share capital	% of voting rights	Threshold crossed upward or downward
BlackRock, Inc	October 7, 2022	76,810,276	1.98%	1.18%	Downward of the bylaw threshold of 2% of the capital
BlackRock, Inc	October 12, 2022	77,749,393	2.00%	1.20%	Upward of the bylaw threshold of 2% of the capital
BlackRock, Inc	October 13, 2022	74,950,786	1.93%	1.15%	Downward of the bylaw threshold of 2% of the capital

**7.4. List of holders of EDF securities with special control rights and description of those rights**

As indicated in Section 7.2.1 of the Draft Response Document, a double voting right is automatically granted to all fully paid-up Shares for which proof of registration in the name of the same shareholder for at least two years is provided, pursuant to Articles L. 225-123 and L. 22-10-46 of the French Commercial Code.

**7.5. Control mechanisms provided for in a possible employee shareholding plan, when control rights are not exercised by the plan**

As of the date of the Draft Response Document, 47,770,005 Company Shares, representing 78,418,160 theoretical voting rights (or 1.23% of the share capital and 1.21% of the theoretical voting rights of the Company),<sup>23</sup> are held by employees and former employees of EDF through the EDF FCPEs.

In addition, as of the date of the Draft Response Document, 3,929,733 Company Shares, representing 7,690,799 theoretical voting rights (or 0.10% of the share capital and 0.12% of the theoretical voting rights of the Company),<sup>24</sup> are held in pure or administered registered form by employee or former employee shareholders and either are not subject to a lock-up period or the lock-up period has ended.

The EDF FCPEs holding Shares are the following:

- the "EDF Shares" FCPE, in the amount of 34,405,342 Shares;
- the "EDF ORS 2019" FCPE, in the amount of 12,380,328 Shares; and
- the "EDF ORS 2022" FCPE, in the amount of 984,335 Shares.

The EDF FCPEs are each managed by a supervisory board.

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<sup>23</sup> Based on a total number of 3,886,581,084 Shares, representing as of September 30, 2022, 6,490,993,609 theoretical voting rights of the Company pursuant to Article 223-11 of the AMF's General Regulation.

<sup>24</sup> Based on a total number of 3,886,581,084 Shares, representing as of September 30, 2022, 6,490,993,609 theoretical voting rights of the Company pursuant to Article 223-11 of the AMF's General Regulation.



The voting rights attached to the Shares held by the employees through the EDF FCPEs are exercised by a representative appointed by the supervisory board of each EDF FCPE to represent it at the shareholders' meeting.

It will be up to the supervisory boards of the EDF FCPEs to decide whether to tender the Shares held by the EDF FCPEs to the Offer, subject to a prior amendment of the PEG and PEGI regulations.

**7.6. Agreements between shareholders of which the Company is aware and which may result in restrictions on the transfer of shares and the exercise of voting rights**

With the exception of the Allocation Agreement described in Section 5 of the Draft Response Document, to the best of the Company's knowledge, there are no agreements between shareholders that could restrict the transfer of securities or the exercise of voting rights in the Company.

**7.7. Rules applicable to the appointment and replacement of members of the board of directors and to the amendment of EDF's Bylaws**

**7.7.1. Rules applicable to the appointment and replacement of members of the board of directors**

*Members of the Board of Directors*

In accordance with Article 13 of the Company's bylaws and Title II of Order No. 2014-948 of August 20, 2014, on the governance and transactions in the capital of state-owned companies (the "**2014 Order**"), the Company is administered by a board of directors composed of between three and eighteen members in accordance with

The board of directors includes (i) members appointed by the general shareholders' meeting (if applicable in accordance with Article 6 II of the 2014 Order); (ii) one representative of the French government; and (iii) employee representatives. In accordance with Chapter 2 of Title II of Law No. 83-675 of July 26, 1983, on the democratization of the public sector, employee representatives make up one-third of the board of directors.

The term of office for members of the board of directors is four years.

The board of directors, excluding the directors elected by the employees and the government representative appointed by decree, is renewed on a staggered basis. Every two years, the terms of one-half (or the nearest whole number) of the directors elected by the general meeting expire, such that the renewal of the Board of Directors is complete (with respect to the directors elected by the general shareholders' meeting) at the end of each four-year period.

To establish the rotation, or to preserve it in the event a new director is appointed outside the staggered renewal dates, the general shareholders' meeting may set the directors' term of office at less than four years to allow for staggered renewal. The order of retirement is determined by the board of directors by unanimous vote or, failing that, by drawing lots during the meeting.

In the event of a vacancy caused by the death or resignation of one or more members elected by the general shareholders' meeting, the board of directors may make provisional appointments pursuant to Article L. 225-24 of the French Commercial Code. Any director thus appointed will hold office for the remainder of their predecessor's term.

The general shareholders' meeting may remove any director it elects.

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In a press release dated September 2, 2022, the Company announced that the board of directors, meeting on August 31, 2022, took note of the resignation of François Delattre, a director appointed on the proposal of the government pursuant to Article 6. II of the 2014 Order, following his appointment as French Ambassador to Germany. The Company also notes that, under the terms of the Draft Offer Document, the French Government is considering potential replacements for Mr. Delattre, pursuant to the 2014 Order.

***Chairmanship of the Board of Directors and Senior Management***

In accordance with Article 19 of the 2014 Order, the chairman of the Company's board of directors is appointed by decree from among the directors, on the proposal of the board of directors. The Chairman's term of office may not exceed his or her term as a director, which may be renewed in the same manner as the appointment. The Chairman may be dismissed by decree. The Chairman of the board of directors must not be older than 68 years of age and will be deemed to have resigned automatically once that age is exceeded.

The Chairman of the board of directors, who bears the title of Chairman and Chief Executive Officer, is responsible for management of the Company and is subject to the legal and regulatory provisions relating to the Chief Executive Officer.

In a press release dated July 7, 2022, the Company stated that Jean-Bernard Lévy's term of office as Chairman and Chief Executive Officer of EDF would end on March 18, 2023, at the latest, in view of the age limit set by the Company's bylaws, and indicated that the board of directors had taken note of the joint decision of the French Government and Jean-Bernard Lévy to launch the process of succession to the position of Chairman and Chief Executive Officer of EDF as of that date.

In a press release dated September 29, 2022, the French president's office announced that as proposed by the prime minister, the president of France intends to appoint Luc Rémont as Chairman and Chief Executive Officer of the Company. The president of the National Assembly and the president of the Senate have been informed of the proposed appointment so that the relevant committee of each of house of the French Parliament can give its opinion as provided for in the fifth paragraph of Article 13 of the French Constitution.

**7.7.2. Rules applicable to the amendment of EDF's bylaws**

In accordance with Article 20.4 of the Company's bylaws, only the extraordinary shareholders' meeting may amend the bylaws. It may not, however, increase shareholder commitments other than by means of a properly conducted reverse stock split.

Subject to the legal provisions applicable to capital increases carried out by incorporation of reserves, profits, or share premiums, the meeting may validly deliberate only if the shareholders present, represented or voting remotely hold at least one-quarter of the shares with voting rights on the first call, or one-fifth on the second call. If the latter quorum is not reached, the second meeting may be postponed to a date not more than two months after the date for which the second meeting was called.

Subject to the same reservation, it will decide by a two-thirds majority of the votes cast in accordance with the applicable legal provisions.

Without prejudice to Article L. 111-67 of the Energy Code, Article 6 of the Company's bylaws (pursuant to which more than 70% of the Company's share capital must be held by the French Government), or to the provisions of the 2014 Order, there are no provisions in the bylaws that differ from those provided for by law with respect to amending the bylaws.

**7.8. Powers of the board of directors, in particular with respect to the issuance or buyback of shares**

In accordance with Article L. 225-35 of the French Commercial Code and Article 16 of the Company's bylaws, the board of directors determines the Company's strategy and oversees its implementation, in accordance with the Company's corporate interests and taking into account the social, environmental, cultural and sports-related aspects of its business.

It also takes into consideration the Company's corporate purpose as defined pursuant to Article 1835 of the French Civil Code. As stated in Article 2 of the Company's bylaws, its corporate purpose is "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."

Subject to the powers expressly granted to the shareholders' meeting and within the limits of the Company's corporate purpose, the board of directors may consider any matter concerning the Company's operation. It settles such matters by vote.

The board of directors may decide to form specialized advisory committees, including an audit committee, a strategy committee and a compensation committee. It determines the powers of these committees and their composition, which must include *at least* one employee director. The committees report to the board on the performance of their duties.

The board of directors' internal regulations specify the committees' responsibilities and operating procedures.

In addition to the general powers provided for by law and the specific powers provided for by the bylaws and the board's internal regulations, the board of directors has been granted the following authorizations and delegations of power to issue or buy back securities:

Nature of the authorization or delegation	Date of the shareholders' meeting (resolution concerned)	Maximum nominal amount or percentage of share capital	Duration	Use during the year
Authorization to trade in the Company's Shares	May 12, 2022 (14 <sup>th</sup> resolution)	10% of the Company's share capital, <sup>25</sup> not to exceed €2 billion	18 months	No
Delegation of authority to increase the share capital while maintaining shareholders' preferential subscription rights ( <i>droits préférentiel de souscription</i> , "DPS")	May 12, 2022 (15 <sup>th</sup> resolution)	<i>Capital:</i> €935 million <i>Debt securities:</i> €5 billion	26 months	No
Delegation of authority to increase the share capital by way of a public offering, with cancellation of DPS	May 12, 2022 (16 <sup>th</sup> resolution)	<i>Capital:</i> 375 €million <sup>(a)</sup> <i>Debt securities:</i> €5 billion <sup>(b)</sup>	26 months	No
Delegation of authority to make public offerings by private	May 12, 2022 (17 <sup>th</sup> resolution)	<i>Capital:</i> 20% of the share capital	26 months	No

<sup>25</sup> Or 5% in the case of Shares acquired by the Company with a view to their subsequent delivery in connection with a merger, spin-off or contribution.

Nature of the authorization or delegation	Date of the shareholders' meeting (resolution concerned)	Maximum nominal amount or percentage of share capital	Duration	Use during the year
investment <sup>26</sup> with cancellation of DPS		per year up to €375 million <sup>(a)(c)</sup>  <u>Debt securities</u> : €5 billion <sup>(b)</sup>		
Authorization to increase the number of shares to be issued in the event of a capital increase, with or without DPS	May 12, 2022 (18 <sup>th</sup> resolution)	15% of the amount of the initial issue <sup>(d)</sup>	26 months	No
Delegation of authority to increase the capital by incorporation of reserves, profits, premiums, etc.	May 12, 2022 (19 <sup>th</sup> resolution)	€1 billion	26 months	No
Delegation of authority to increase the share capital in consideration of a public exchange offer initiated by the Company	May 12, 2022 (20 <sup>th</sup> resolution)	<u>Capital</u> : €185 million <sup>(a)(c)</sup>  <u>Debt securities</u> : €5 billion <sup>(b)</sup>	26 months	No
Delegation of authority to increase the capital in order to remunerate contributions in kind <sup>27</sup>	May 12, 2022 (21 <sup>st</sup> resolution)	<u>Capital</u> : 10% of the Company's capital, not to exceed €115 million <sup>(a)(c)</sup>  <u>Debt securities</u> : €5 billion <sup>(b)</sup>	26 months	No
Delegation of authority to increase the share capital in favor of members of savings plans, with cancellation of DPS in favor of such members	May 12, 2022 (22 <sup>nd</sup> resolution)	€15 million <sup>(a)(c)</sup>	26 months	18,100,741 Shares issued on July 25, 2022, representing a capital increase of €9,050,370.50
Delegation of authority to carry out capital increases reserved for a category of beneficiaries with cancellation of DPS (issuances reserved for employees)	May 12, 2022 (23 <sup>rd</sup> resolution)	€10 million <sup>(a)(c)</sup>	18 months	No
Authorization to reduce the share capital by cancelling treasury Shares	May 12, 2022 (24 <sup>th</sup> resolution)	10% of the share capital per 24-month period	18 months	No

(a) This amount is to be deducted from the overall cap set for equity securities in the 15<sup>th</sup> resolution of the General Meeting of May 12, 2022 (€935 million).

<sup>26</sup> Public offerings as referred to in Article L. 411-2 of the French Monetary and Financial Code.

<sup>27</sup> Article L. 22-10-53 of the French Commercial Code.

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- (b) *This amount is to be deducted from the overall cap set for debt securities in the 15<sup>th</sup> resolution of the General Meeting of May 12, 2022 (€5 billion).*
- (c) *This amount is to be deducted from the overall cap set for equity securities in the 16<sup>th</sup> resolution of the General Meeting of May 12, 2022 (€375 million).*
- (d) *Amount to be deducted (i) from the overall cap set for equity securities in the 15<sup>th</sup> resolution of the General Meeting of May 12, 2022 (€935 million) and (ii) in the event of a capital increase with cancellation of DPS, from the overall cap set for equity securities in the 16<sup>th</sup> resolution of the General Meeting of May 12, 2022 (€375 million). For each issuance, the cap is equal to the limit provided for by the regulations applicable on the date of issuance (currently 15% of the initial issuance).*

**7.9. Agreements entered into by EDF that will be modified or terminated in the event of a change of control of the Company**

To the Company's knowledge, no agreement entered into by the Company will be terminated as a result of the completion of the Offer, which will not result in a change of control of the Company, since the Company was already controlled by the Offeror on the date the Draft Offer Document was filed.

In addition, in accordance with Article L. 111-67 of the French Energy Code and Article 6 of the Company's bylaws, the French Government holds more than 70% of the Company's share capital.

It is specified that the opening of the Offer would result in an adjustment of the EDF Share allocation ratio for OCEANE holders that exercise their right to the allocation of Shares pursuant to paragraph 1.3.5 of the Draft Offer Document.

**7.10. Agreements providing for severance payments for members of the board of directors or employees if they resign or are dismissed without real and serious cause or if their employment is terminated as a result of a tender or exchange offer**

To the best of the Company's knowledge, there are no agreements providing for severance payments for members of the board of directors or employees of the Company if, as a result of a tender or exchange offer, they resign or are dismissed without real and serious cause or if their employment is terminated.

**8. MEASURES THAT THE COMPANY HAS TAKEN OR INTENDS TO TAKE TO BLOCK THE OFFER**

The Company has not taken any measures to block the Offer and does not intend to take any such measures.

**9. INDEPENDENT APPRAISER'S REPORT**

In accordance with Articles 261-1-I 1° and 5° and 261-1-II of the AMF General Regulation, the Company's board of directors, by resolution dated July 27, 2022, and on the proposal of the *ad hoc* committee (formed on July 19, 2022, in accordance with Article 261-1-III of the AMF General Regulation) appointed Finexsi, represented by Olivier Péronnet and Olivier Courau, as an independent appraiser to prepare a report on the financial terms of the Offer, in accordance with AMF Instruction No. 2006-08 and AMF Recommendation No. 2006-15.

That report, dated October 26, 2022, is reproduced in full in **Appendix 2** and is an integral part of the Draft Response Document.

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**10. AVAILABILITY OF ADDITIONAL INFORMATION RELATING TO THE COMPANY'S LEGAL, FINANCIAL AND ACCOUNTING CHARACTERISTICS**

In accordance with Article 231-28 of the AMF's General Regulation, additional information relating to the Company's legal, financial and accounting characteristics will be included in a separate document filed with the AMF and made available to the public, no later than the day before the Offer opens, on the AMF website ([www.amf-france.org](http://www.amf-france.org)) and on EDF's website ([www.edf.fr/finance](http://www.edf.fr/finance)) at EDF's registered office: 22-30, avenue de Wagram 75008 Paris.

**11. STATEMENT OF THE PERSON RESPONSIBLE FOR THE DRAFT RESPONSE DOCUMENT**

*"To the best of my knowledge, the information in the draft response document is accurate and does not contain any omissions that would alter its meaning."*

Paris, October 27, 2022

Jean-Bernard Lévy,

acting in his capacity as Chairman and Chief Executive Officer of EDF

## **Appendix 1**

### **Statements made by the directors elected by the employees**

#### **Statement - Sandrine LHENRY – Employee-elected Director sponsored by FO**

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*'I am very surprised that we value are valuing based ONLY on 2022: the worst year in the history of EDF.*

*This overlooks EDF's potential and all the challenges that the company and its employees have been able to meet.*

*The transaction, which aims to buy back from shareholders the 16% of the share capital that the Government does not hold, comes at a crucial time in the company's history, a time when the company is recording a record debt of nearly €60 billion.*

*Faced with a large accumulated debt and massive investment needs in order to meet the needs of the energy transition and carry out necessary maintenance on the generation tools that are manageable and essential to the nation, I do not see how the simplified tender offer will solve, on its own and in the current situation, this difficult equation: massive investments and debt reduction.*

*For nearly 17 years, the Government has been making wrongheaded decisions for the EDF group, with:*

- *Regulatory measures that are very costly for EDF*
  - *Successive governments have consistently refused to accede to EDF's demands for a significant increase in regulated electricity price (TRVE) to restore the company's finances*
  - *It was the same with the Government's refusal to adjust the Contribution to the Public Electricity Service (CSPE) to meet the financing needs of the public policies covered. (Even if it is refunded, it remains prejudicial).*
- *EDF, which had to:*
  - *Rescue Areva, whose 2005 merger announcement had already caused the share price to fall by 5.7 pts*
  - *Close Fessenheim to satisfy purely political demands*
  - *Finance HPC with up to €17 billion of its own funds*

*Last but not least: the obligation for EDF to sell to its competitors nearly 25% of its nuclear electricity output at a price of €42 per MWh, with all the windfall profits the alternative companies were given by the market:*

- *By retracting their purchase intentions in 2016*
- *By buying and putting pressure on the French Energy Regulatory Commission (CRE) and the Government when market prices soar and, for some of them, not even bothering to pass this low-cost rate on to their customers, but moreover, by offloading them to EDF, which had to supply their customers by buying from the market at abysmal prices*

*The ARENH mechanism has contributed to weakening EDF's finances and therefore its stock market valuation.*

*An additional ARENH mechanism, requested in January 2022, when the company was already facing major industrial maintenance issues post COVID and CSC.*

*This decision is incomprehensible because in December 2021, EDF had already sold all its output for 2022 and no longer had any electricity reserves!*

*An incomprehensible decision, especially since alternative suppliers are far from having fulfilled their part of the bargain: in the space of 10 years, they still do not produce energy and thus do not contribute to the war effort!*

*All these decisions have contributed to the result we know today: a constant fall in the share price to its all-time low of €7.84 before the French Prime Minister, E. Borne, announced "nationalization."*

*Furthermore, and concerning the dividend policy to which my predecessor and I were opposed: In its 2015 report, the Court of Auditors (Cour des comptes) summarized the situation as follows: "the major concern of the Government*

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*shareholder was that the group continue to pay a substantial dividend, despite a delicate financial situation and even at the cost of additional debt" (special report S 2015-1442 from November 2015).*

*If the company's recent past has been difficult, the future is still uncertain. It is even unclear how the business model or the organization of the group will be reformed. Several long-term projects are certainly mentioned and, hopefully, allow us to see the end of the nuclear bashing period.*

*However, major questions remain unanswered, in particular in the context of the valuation of the share price which should be, according to stock exchange rules, fair.*

*How can we really be fair about the valuation of the company's shares to date when we lack visions and business prospects? How can we position ourselves favorably when no financial trajectory is presented?*

*However, the refined business and financial outlooks could provide a more accurate picture of the company's valuation. It would not be a matter of sticking to a very small period in the history of the EDF group and especially not to the year 2022 alone! **If the outlook is encouraging and clear, the valuation could be much higher than what is being presented today.***

*In view of all these facts and given the worrying situation of EDF, a zero-sum operation, at least, should be carried out taking into consideration the dividends received (thus a result of around €16/share).*

*Moreover, while this meeting was scheduled to take place this morning at 9:00 a.m., all of the elements that were to be the subject of our decisions - the draft response document, the draft reasoned opinion prepared by the ad hoc committee and, even more importantly, the draft report of the independent appraiser - were only communicated to us the previous evening at more than 11:00 p.m.*

*I challenge anyone on this Board to be able to thoroughly review such dense and structuring documents in such a short period of time. Consequently, I consider that the directors did not have a reasonable amount of time to review and question the documents necessary to decide on a recommendation to the tender offer.*

*Therefore, under the conditions currently proposed, I cannot vote in favor.*

*I would also like this statement to be made public."*



**Statement by Vincent RODET – Employee-elected director sponsored by the CFDT**

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*"Before expressing myself on the merits of the case and thus motivating my vote, I will begin by noting the extremely late communication of the documents, including the report of the appraiser for whom I voted for the mandate exactly 3 months ago.*

*I note that the French government has taken its time on this file since the formal announcement of the start of operations by the French Prime Minister before the national representation, as well as the appraiser. The originality and complexity of the file is not lost on anyone and certainly motivates this long sequence of work.*

*But we have to admit that unfortunately the only ones who are forced to work in extreme urgency in very poor conditions are the directors who discover the report and the hundreds of pages of related documents, including two of specialized financial expertise not translated into French, a few hours before our Board of Directors meeting.*

*Concerning my capacity to participate in the debates and the vote, I certify the absence of any link with the legal and physical persons involved in the offer likely to affect the objectivity of my opinion.*

*My analysis focuses on two dimensions, that of the significant and globally detrimental impact of the decisions of the government as main shareholder and regulator since the opening of the capital in 2005, and that of the method used to qualify the buy-back price of €12 as fair, which would be transformed into an expropriation indemnity if approximately 6% of the current floating shares are brought in at that price.*

*I am surprised that the independent appraiser did not consider it relevant to go back in time beyond the very narrow observation of the last act of EDF's stock market performance. This approach is doubly regrettable because, on the one hand, the sequence studied can hardly be put into perspective if it is disconnected from previous sequences, and on the other hand, an inequitable expropriation of the popular shareholders would have serious repercussions in reducing the acceptability of civil nuclear energy, because the popular shareholders who subscribed in 2005 are certainly part of the citizens who find the place of nuclear power in the national electricity mix relevant, and would also harm its financing spectrum, including the leverage of the call for popular savings, and therefore ultimately EDF's social interest.*

*I was an employee of the company in 2005 when the capital was opened and I remember perfectly the intense internal and external publicity that was carried out to guarantee the success of the IPO. Internally, ambassadors were assigned to promote the operation, bordering on the ethics that forbid them to act as financial advisors, and externally, French Prime Minister Villepin, with his particular emphasis, declared that "the opening of EDF's capital would be a fine example of popular shareholding in France. It will also be an opportunity to involve EDF employees in the success of their company (...)."*

*The associated prospectus approved by the AMF on October 28, 2005 referred to a public service contract, which was signed just before the launch of the capital opening, but the guarantees promised to minority shareholders were not honored.*

*Thus, common sense stipulating that the regulated electricity price should cover costs has been trampled on many times since 2005, the paroxysm of small-time political interference being illustrated by the unilateral announcement by Minister Royal, on June 19, 2014, during an interview on BFMTV of her decision to cancel a 5% increase in the regulated electricity price on August 1<sup>st</sup>. The share price then immediately fell by 10%, and then the EDF stock market UFO sank inexorably. In its report of January 25, 2017 "The Government as shareholder", the Court of Auditors noted: "the policies of the Government in terms of tariffs and dividends have often been contrary to the social interest of the company and have been able to negatively affect both their development capabilities and their valuation. Thus, the Government has generally sought to limit the price of electricity for the benefit of consumers, without sufficiently considering the future needs for the renewal of the fleet, and has even gone so far as to derogate from the rules for setting tariffs provided for by law."*

*The 2005 prospectus evoked an investment policy valued at €26 billion over the period 2006-2008, to be financed by cash flow, a program of disposals, and debt in line with the objective of stabilizing net financial debt at the level reached at the end of 2005 after the capital increase and the acquisition of joint control of Edison. But the French Prime*

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*Minister, on the occasion of the signing of the Public Service Contract, revealed that he had asked EDF to intensify its investments, with a target of €40 billion.*

*This change of direction will result in a rise in net financial debt to 24.5 billion at the end of 2008, compared with €16.3 billion at the end of 2007. The promise made to minority shareholders to stabilize debt at €18.5 billion will thus be objectively and definitively violated.*

*From 2008 onwards, EDF will no longer be able to generate an EBITDA cash flow to cover net investments before asset disposals. This will not prevent the Government from demanding from the company an inappropriate dividend policy, for example a bleeding of €2.3 billion in cash for the year 2008, including 2 for the Government. This hemorrhage will only end with the arrival of the current CEO, who declared in 2014 his "astonishment" at paying a dividend by increasing its debt.*

*This policy of requiring EDF to pay cash dividends has led to a dangerous increase in debt and to the sale of regulated assets, such as 49.9% of RTE, the British networks, which is all the more regrettable as these assets limited the group's exposure to market risks.*

*EDF had to issue expensive hybrid bonds, without having the capacity to pay them off quickly, and their management over time is proving complex.*

*The Government shareholder thus excessively withdrew cash dividends during a first phase, then when it decided to take it in new shares significantly diluted the small minority shareholders who were counting on a cash income from their so-called "popular shareholding" investment.*

*In addition to its questionable dividend policy after the opening of the capital, the Government has multiplied decisions harmful to EDF with the Tartam and then ARENH mechanism regulations, the political closure of Fessenheim, and injunctions to buy out companies in difficulty.*

*The effects of some of them are heavily prolonged with an impact on the work of the appraiser and I am astonished by some of his hypotheses on the future of the ARENH mechanism for example. He does not mention the possibility opened by the energy code to suspend the ARENH mechanism in case of exceptional circumstances, he does not mention the only certainty known to date, namely the current ARENH mechanism system will simply expire at the end of 2025, he dismisses the potential technical and legitimate revaluation of the ARENH mechanism blocked at €42 by at least the inflation without asking for the European Commission's approval. And finally, it conceals the procedure initiated at the Council of State well before that of the company, by the 6 employee-elected directors, the Supervisory Board of the share fund and the energy trade union federations, which will be judged soon since the last briefs have just been completed and transmitted in recent days. In short, my feeling is that on the regulatory perspectives you have aligned yourselves with the regulatory vision of the Government, which has a lot of difficulty in admitting that the ruinous infusion of competition is a failure and that it is now necessary to let the parasites installed on the value chain disappear.*

*Still on the subject of regulation, I find it difficult to understand why the appraiser has retained the assumptions mentioned during the tripartite Government-Commission-EDF instruction of the Hercule project 2-3 years ago, whereas the offeror's note indicates that the Hercule project is no longer relevant, that the national, European and global energy context has radically evolved and requires a complete rethink of energy policies.*

*Still on the subject of Hercules adhesions, for example, why integrate deoptimization costs into the valuation when no project that would affect the integrated nature of the project is currently being examined or announced?*

*With regard to the method used to qualify the price proposed by the offeror as fair, I note that the post-2025 price assumptions seem to me to be lower than those used as medians in recent work by the Council and that, overall, EDF is still considered to be structurally constrained in terms of income, since heavy regulation would inevitably follow the ARENH mechanism.*

*At the current stage of the energy crisis, when all certainties are wavering, a completely different competitive framework could open up. Currently, EDF is a structurally constrained company, prevented from prospering in the name of a*

***The Draft Offer, the Draft Offer Document, and this Draft Response Document remain subject to review by the AMF***

*sacrificial public service obligation. There is no reason to prolong this outdated framework in the assumptions of valuation. A healthier framework, freed from the ARENH mechanism, where EDF would generate EBITDA and important results, legitimately taken over in part by the Government shareholder to finance the nation's accounts, while leaving EDF the means to reduce its debt and self-finance its investments, is possible, probable and desirable.*

*As regards energy generating facilities, I find your approach pessimistic because it overweighs the current, admittedly difficult, sequence of managing corrosion hazards under stress, but which must be put into perspective and smoothed out in relation to the long output period of the extended and reinforced units following the major refurbishment.*

*To illustrate, I feel that you are excessively discounting the value of a car with a broken clutch. It is a painful episode, disruptive during the repair time, expensive, but it does not affect the value of the asset.*

*Reading the SWOT matrix on page 99 of the report, I find that it makes one want to invest rather than sell. I am convinced that the majority of minority shareholders would be more inclined to stay on the train than to get off at the €12 terminal.*

*Regarding the choice of valuation methods and especially the rejected valuation methods, I find, as do the A, B, C, D, and E shareholders, that you have rejected many valuation methods likely to objectify a price significantly higher than €12.*

*For example, the comparables method is discarded because of the wide dispersion of valuations, but eliminating the extreme values and averaging the median values, which would result in values between €15 and €18, does not seem so exotic to me as to be rejected. Especially since the EDF Group regularly sells and buys assets and uses this approach in its valuation methods.*

*Concerning potential disposals, the framework retained is that already known from the current 3 billion sale plan. No disposals in Italy or Brazil, the offeror confirms to your request that these are only rumors, which we will follow up in 2023.*

*The appraiser's report takes care to show the percentage that the premium would represent according to the envisaged valuations, its best valuation hypotheses leave a small part to the premium, less than 20%, whereas the average premium noted by the takeover journal in 2021, on a basis of 41 tender offers, calculates an average premium of 38.4%.*

*The value of the compensation for the premature shutdown of Fessenheim seems very low, whereas the output lost, even if only for a year, would have significantly limited the loss of EBITDA.*

*Finally, concerning the interest of the employees in the offer, the offeror does not sufficiently reveal its strategic, industrial, commercial and social project for EDF, which is 100% owned, to reassure them. Worse, the expression "maintaining the employment policy" can be read negatively, because it is not a maintenance that is hoped for, but a dynamization, a reinforcement of the professions in charge of accelerating the energy transition, and a re-internalisation of subcontracted activities.*

*As far as the interest for the company is concerned, the process would not bring a penny into EDF's coffers and the questions of reinforcing the equity capital, managing the debt and financing investments remain unanswered. I also believe that small shareholders who are loyal over the long term should not be expropriated at a price that does not correctly value the immobilization of their savings, including dividends and inflation, and this is particularly true at the very moment when the public debate on electro-nuclear production is opening in the country.*

*With regard to the minority shareholders' interest, you will have understood that I consider that the proposed price of €12 is insufficient and does not reflect the value and the potential of EDF in a healthy market, and that it is too much based on a stock market price collapsed by bad decisions of the Government since 2005 and very clearly again last winter.*

*In conclusion, I vote against the proposed deliberation."*

**Statement by Christian TAXIL – Employee-elected director sponsored by CFE-CGC**

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*“By participating in the ad hoc committee, I was able to appreciate the commitment and the seriousness of the various stakeholders to be able to formulate a recommendation to the Board. The independent appraiser worked with the concern to have an overall coherence based on the most documented elements. I was able to express my remarks and ask my questions in order to fully understand the valuation used as a framework for our decision.*

*By choosing as a central scenario for the valuation, a hypothesis of post-ARENH mechanism regulation provided by the Government, the offeror, I felt uncomfortable in several ways.*

*Indeed, for several years, the regulation that weighs on EDF, in particular through the ARENH mechanism, has prevented the company from benefiting from a fair remuneration to cover the reality of its costs and investments. As this system will end in 2025, we have worked in the Council with price scenarios post 2025 of several levels, with a median scenario much higher than the one given by the Government, offeror of the Expert. It is not this median scenario that was retained, although it was used to calculate the IRR of the Grand Carénage, for example, in our file of 31 March 2022.*

*Thus, by retaining the scenario of the Government, offeror, not known to the Council and not public, coming from the work on the Hercule project yet officially abandoned by the Government, this results in a lower valuation.*

*In addition, based on elements of the Hercule project, very substantial deoptimization costs are also retained, which also weigh on the valuation.*

*This scenario of the offeror dates from before the European energy crisis and does not reflect the evolution of this context, but rather the increasing costs for EDF with CCS.*

*However, in the future output assumptions, these constraints have been well integrated into the Expert's work. Also, if we take a future regulation hypothesis, we should have a higher production price because of both the increased maintenance costs (integrated into the hypotheses) and a lower production volume (integrated into the hypotheses), but this is not the case if we take work that has not been validated by the institutions and that dates back a few years to set the regulation price.*

*Finally, the consequence of this regulatory choice, which will not allow EDF to cover its costs, is a decrease in the expected valuation of the Fessenheim indemnity since it includes future prices.*

*The regulation scenario, provided by the Government, the offeror, makes it possible to justify the price offered, but this is a real problem of conflict of interest. In addition, it perpetuates the under-remuneration of EDF and a new undermining of its value and therefore of the interest of minority shareholders.*

*As regards the interest for the Company, this offer, as such, does not solve the problem of EDF's under-remuneration and under-capitalization. The offeror has not expressed itself on this fundamental point.*

*Concerning the interest for the employees, we do not have enough elements provided by the offeror.*

*Indeed, as the offeror does not indicate how he intends to act to resolve EDF's structural difficulties caused in particular by inadequate regulation, this creates considerable uncertainty.*

*What decisions will be taken that could have a major impact on the EDF Group, its integrated model, its various divisions or subsidiaries?*

*The members of the EDF Group Committee have interviewed the offeror and have expressed their lack of visibility.*

*In conclusion, I vote against the proposed deliberation.”*

**Statement of the employee-elected directors sponsored by the CGT**

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*"EDF's employee-elected directors have always condemned the liberalization of the electricity sector and the listing of EDF on the stock exchange. As early as 2000, EDF's operations and employees were affected so that the company could present accounts "in line with the expectations" of the rating agencies.*

*The employee directors sponsored by the CGT will therefore unsurprisingly vote **against** the deliberation linked to the offer launched by the Government that is submitted to us on the grounds that, whatever the value that will ultimately be proposed as compensation for the shares held by the minority shareholders, the employees, in particular, will be penalized by the numerous bad decisions that have been imposed by the Government as legislator, regulator and majority shareholder.*

*Indeed, the deregulation of the electricity sector was carried out under disastrous conditions for EDF, whose business model and very long-term investments are incompatible with the short-term financial systems of the electricity markets. All the more so since the role assigned to EDF is often to its disadvantage and in any case asymmetrical by the NOME Law. The negative consequences of the ARENH mechanism on the company's accounts can be counted in billions of euros.*

*Among the decisions that have also weakened the company is the inconsistent payment of excessive dividends (more than €20 billion in cash since the IPO), accompanied by widespread plans to reduce expenses and staffing levels in order to maximize profits in the short term, with no regard for the medium- and long-term maintenance requirements of the nuclear and hydroelectric sectors, which are severely affected by the operating regimes dictated by the markets.*

*We also regret the launch of the Hinkley Point C project and the aberrant closure of Fessenheim, both of which came at the worst possible time. Just as we note the colossal loss on numerous acquisitions/concessions carried out by the group.*

*The various employee-elected directors sponsored by the FNME-CGT have systematically voted against these deliberations in recent years.*

*Given this record, we would have greatly preferred a Nationalization Law to the proposed takeover bid, which would have allowed EDF's public service objectives and missions to be monitored by the representatives of the Nation, while meeting the needs of the general interest, thus opening a public debate based on a real assessment of the catastrophic deregulation of the sector.*

*The crisis we are going through is the source of major inflation in all areas of the economy with disastrous consequences, especially social and environmental. The crisis has been accompanied by temporary measures such as a price shield, of which EDF has a large part, and which, overall, continues to burden the Government budget and the accounts of the historical operator. The crisis is deep and long-lasting, and the takeover bid does not respond to it with the few lines on strategic intent that the initiating Government evokes."*

*The Draft Offer, the Draft Offer Document, and this Draft Response Document remain subject to review by the AMF*

**Appendix 2**

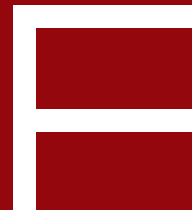
**Independent Appraiser's Report**



## **Fairness Opinion**

**Simplified Tender Offer initiated by the French Government for the shares and OCEANES of EDF**

**October 26, 2022**



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In the context of the proposed Simplified Tender Offer (the "Offer" or the "Tender Offer") initiated by the French Government (the "Government" or the "Offeror"), acting through the intermediary of the Agence des participations de l'État (the "APE," the agency tasked with representing the French Government's interests in the companies of which it is a shareholder) for the shares and the OCEANES<sup>1</sup> of EDF ("EDF", "the Company", or "the Group"), we have been appointed as Independent Appraiser by EDF's Board of Directors to assess the fairness of the Offer's financial terms.

This Offer follows the French Prime Minister's announcement of July 6, 2022, that the French Government intends to hold all of EDF's share capital and the press release of July 19, 2022, by which the French Government announced its intention to file a simplified tender offer for EDF's shares and OCEANES.

This Offer, at a price of €12.00 per EDF share and €15.52 per OCEANE, (together, the "Offer Price"), concerns:

- All EDF shares already issued and not held, directly or indirectly, by the Offeror as of the date of the draft offer document,<sup>2</sup> excluding the 888,511 treasury shares held as of September 30, 2022, i.e., a maximum total of 633,120,350 shares;
- All the shares that may be issued before the Offer closes, upon conversion of the OCEANES, i.e., a maximum of 170,349,496 new shares;
- All the outstanding OCEANES not held by the Offeror, or 131,747,484 OCEANES.

If the conditions are met, the French Government is also considering implementing a squeeze-out for all the shares and OCEANES that it does not hold at the close of the Offer.

Our appointment was made on July 27, 2022, by EDF's Board of Directors of EDF pursuant to articles 261-1 I and II of the General Regulation of the Autorité des Marchés Financiers ("AMF") because (i) the Company was already controlled by the French Government before the Offer was launched (Article 261-1 I 1°); (ii) the Offer concerns financial instruments of different categories (Article 261-1 I 5°); and (iii) the Offeror intends to request, if the conditions are met, the implementation of a squeeze-out at the close of the Offer (Article 261-1 II).

To carry out our assignment, we have used public documents and familiarized ourselves with accounting and financial information (financial statements, press releases, etc.) that has been published or transmitted to us by EDF, its advisors, or the APE, as well as by Goldman Sachs and Société Générale in their capacity as presenting institutions of the Offer (the "Presenting Institutions"). We deemed these documents and information accurate and exhaustive and have not verified them independently. We did not seek to validate the historical and forecast data used,

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<sup>1</sup> Bonds convertible into and/or exchangeable for shares of the Company.

<sup>2</sup> Draft offer document dated October 21, 2022

which we only checked for reasonableness and consistency. Our assignment did not include an audit of the financial statements, contracts, litigation, or any other documents provided to us.

We cannot be held liable for the accuracy or completeness of the information collected in the course of our assignment.

## **1. Description of the transaction**

### **1.1 Companies involved in the transaction**

#### **1.1.1 Description of the Offeror**

The Offer is being made by the French Government, acting through the APE.

Created in 2004, the APE is tasked with representing the French Government's interests in the companies of which it is a shareholder in a manner consistent with its strategy. Under the authority of the Minister of the Economy, Finance and Industrial and Digital Sovereignty, the APE's task is to manage the Government's portfolio of equity investments in companies deemed strategic, in order to stabilize their capital and support their development and transformation.

With a team of 53 employees, mostly civil servants, the APE has 83 companies in its portfolio. The total value of that portfolio is estimated at €124.8 billion as of June 30, 2021.

The APE holds stakes in the following companies: EDF, Engie, Eramet, ADP, Air France-KLM, Airbus, Safran, Thales, Renault, Orange, and Française des Jeux (FDJ).

On September 30, 2022, the French Government held, directly or indirectly, alone or in concert, 3,252,572,223 EDF shares, representing 5,785,532,806<sup>3</sup> theoretical voting rights (or 83.69% of the share capital and 89.13% of the theoretical voting rights of EDF). On that same date, the French Government held 87,831,655 OCEANES.

#### **1.1.2 The company that is the target of the Offer**

EDF is the parent company of the eponymous group, which has nearly 167,000 employees in more than 20 countries and is an energy industry leader in Europe and worldwide.

EDF is a French corporation (*société anonyme*) with a Board of Directors. It is registered in the Paris Trade and Companies Register under number 552 081 317 and has its registered office at 22-30, avenue de Wagram, Paris (75008).

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<sup>3</sup> 5,177,476,850 theoretical voting rights as of October 26, 2022 after the allocation of 61,000,000 double voting rights to the Offeror

As of June 30, 2022, the date of the last half-yearly closing, EDF's share capital amounted to €1,934,240,171.50 and was made up of 3,868,480,343 shares with a par value of €0.50, listed on Euronext Paris (compartment A) under ISIN code FR0010242511.

The breakdown of EDF's share capital and exercisable voting rights as of September 30, 2022 is as follows:

**Table 1 - EDF shareholding structure as of September 30, 2022**

Shareholders	Number of shares	% of share capital	Number of theoretical voting rights	% of theoretical voting rights
French Government-EPIC Bpifrance Cor	3,252,572,223	83.69 %	5,785,532,806	89.13 %
<i>of which French Government</i>	2,911,865,628	74.92 %	5,116,476,850	78.82 %
<i>of which EPIC Bpifrance</i>	340,706,595	8.77 %	669,055,956	10.31 %
Employee shareholding	51,699,738	1.33 %	86,108,959	1.33 %
Treasury shares	888,511	0.02 %	888,511	0.01 %
Public	581,420,612	14.96 %	618,463,333	9.53 %
<b>Total</b>	<b>3,886,581,084</b>	<b>100 %</b>	<b>6,490,993,609</b>	<b>100 %</b>

Source: Draft Offer Document of October 21, 2022

Treasury shares do not have voting right that can be exercised at the General Shareholder's Meeting.

On April 7, 2022, EDF carried out a capital increase in cash with preferential subscription rights for shareholders. The capital increase (including issue premium), for a gross amount of €3.2 billion, resulted in the issuance of 498,257,960 new shares at an issue price of €6.35 per share. The French Government subscribed for €2.7 billion, or approximately 83.88% of the capital increase.

In June 2022, the payment in shares of part of the dividend balance for fiscal 2021 resulted in a share capital increase of €66 million and a share premium of €913 million, after the issuance of 131,545,635 new shares.

In addition, the ORS 2022<sup>4</sup> resulted in a €9 million share capital increase and a €94 million share premium with the issuance of 18,100,741 new EDF shares on July 25, 2022.

## 1.2 Background and reasons for the Offer

The reasons for the Offer are set forth in the draft offer document dated October 21, 2022, prepared by the Offeror, as follows:

*“EDF, a company majority-owned by the French Government and a major player in the energy transition, is an integrated energy company present in all businesses: generation, transmission, distribution, trading, energy sales and energy services. As the world leader in low-carbon energy, the Group has developed a diversified production mix based mainly on nuclear and renewable energy (including hydropower) and is investing in new technologies to support the energy transition. EDF's raison d'être is 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.*

*The climate emergency and the geopolitical situation require tough decisions to be made to ensure France's energy independence and sovereignty, including the ability to plan and invest in the very long term in electricity generation, transmission, and distribution.*

*In this context, on July 6, 2022, the French Prime Minister announced the French Government's intention to hold all of EDF's capital. This change will enable EDF to strengthen its capacity to rapidly carry out ambitious projects that are essential for France's energy future.*

*Following this announcement, in a press release issued on July 19, 2022, the French Government indicated its intention to acquire the shares it did not already hold, through a simplified tender offer to be filed with the AMF, subject to the enactment of an Amending Finance Act for 2022 allocating the budget appropriations necessary for the Offer to the special appropriations account for "Government Financial Holdings."*

*The Parliament passed this law on August 4, 2022, and it entered into force on August 17, 2022 (Law No. 2022-1157 of August 16, 2022, amending the Finance Act for 2022).*

*The Offer is being made in the context of a climate emergency and at a time when the geopolitical situation requires tough decisions to be made to ensure France's independence and energy sovereignty, including the ability to plan and invest in the very long term in the generation, transport, and distribution of electricity.*

*In this new context, with the French Government as the sole shareholder, EDF would be able to accelerate several of the decisive projects announced by President Macron in his Belfort speech, in particular the program to build six reactors with European pressurized reactor technology*

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<sup>4</sup> Offer restricted to employees.

*("EPR2s) by 2050. These projects will engage the company for decades to come, during which time EDF will continue to play a critical role in France's energy supply.*

*In addition, with the Government as EDF's sole shareholder, it would be possible to:*

*(i) fully establish the sovereign and crucial nature of the quintessentially governmental function of producing decarbonized electricity (in particular nuclear-powered electricity, which represents approximately 70% of the current national electricity mix). In particular, the Company would be able to invest in long-term projects that sometimes do not meet the shorter-term expectations of private investors, without being exposed to the volatility of the stock markets; and*

*(ii) facilitate the Company's decision-making and strategic management.*

*Consequently, if the minority shareholders do not represent more than 10% of the share capital and voting rights of EDF at the end of the Offer, the French Government intends to ask the AMF to approve its implementation of a squeeze-out . . . . In addition, if the number of Shares not tendered to the Offer by EDF's minority shareholders and the number of Shares that would have been issued upon conversion of the OCEANEs not tendered to the Offer do not represent more than 10% of the sum of the existing Shares plus the Shares to be created upon conversion of the OCEANEs, the French Government intends to ask the AMF to include in the squeeze-out the OCEANEs that the French Government does not yet hold."*

### **1.3 Intentions of the Offeror for the next twelve months**

#### **1.3.1 Industrial, commercial, and financial strategy and policies of the Company**

*"The Offeror's intentions with respect to industrial, commercial, and financial strategy and policies are described in the reasons for the Offer . . . ."*

*No decision has been made at this stage regarding reforms to the Group's business model or organization. In particular, as the Minister of the Economy, Finance, and Industrial and Digital Sovereignty reminded the Senate on July 20, 2022, the Hercule project, which focused on EDF's structure, is no longer relevant.*

*However, several long-term projects are under review, including:*

- reforming the European electricity market to provide the necessary long-term price signals to all investors and a decarbonized and competitive energy supply for all consumers, in line with the European ambition to electrify the entire economy;*
- implementing a new regulation to govern existing nuclear power, because the regulated access to historic nuclear electricity ("ARENH") mechanism will end on December 31, 2025. As a reminder, discussions between the French government and the European Commission on a future regulation applicable to the sale of the Group's nuclear-generated*



*electricity in France were halted in the summer of 2021. Those discussions concerned, among other things, the remuneration obtained by the existing nuclear plants, the scope of the regulation, and any counterbalancing of this new regulation;*

- organizing, financing, and regulating the new French nuclear power program. As a reminder, on February 10, 2022, the French President announced the launch of a program to build six EPR2s and studies for eight additional EPR2s by 2050. No investment decision has been made at this stage, and the program may be subject to discussions with the European Commission;*
- the future of the hydroelectric concessions operated by the Company.*

*In addition, the Offeror intends to pursue the plan to dispose of assets of approximately €3 billion between 2022 and 2024 that was announced by the Company on February 18, 2022.*

*If the squeeze-out of the Shares and the OCEANEs is completed . . . , the French Government intends to convert the OCEANEs into shares that it will hold following the Offer."*

### **1.3.2 Intentions with regard to employment**

*"The Offeror does not intend to change the Company's employment policy."*

### **1.3.3 Merger and legal reorganization**

*"The Offer will have no impact on the Company's legal organization. However, the Offeror may, in the future and in conjunction with all stakeholders, make any changes in the organization of the Group, the Company, or other entities of the Group, in particular those that are necessary to implement the strategy described in section 1.2.1, "Strategy and industrial, commercial and financial policies of the Company (of the Draft Offer Document)."*

### **1.3.4 Intentions regarding squeeze-out and delisting**

*"If the number of Shares not tendered to the Offer by the Company's minority shareholders (other than the treasury Shares held by the Company) does not represent, at the close of the Offer, more than 10% of EDF's share capital and voting rights, the French Government intends to implement a squeeze-out no later than within three (3) months of the close of the Offer, in accordance with articles L. 433-4 II of the French Monetary and Financial Code and 237-1 et seq. of the AMF General Regulation, in order to have the Shares not tendered to the Offer (other than the Shares held by the Company) transferred to it in consideration for a payment equal to the Offer Price per Share (i.e., €12.00 per EDF share). As a result of the squeeze-out, the Shares will be delisted from the regulated market of Euronext Paris.*

*In addition, if, at the close of the Offer, the number of Shares not tendered to the Offer by the Company's minority shareholders (other than the treasury Shares held by the Company) and the number of Shares that would have been issued upon conversion of the OCEANEs not tendered to the Offer do not represent more than 10% of the sum of the existing Shares plus the Shares to be created upon conversion of the OCEANEs this conversion being carried out on the basis of the adjusted share allocation ratio as determined in section 2.6 of the draft offer document, the French Government intends to implement a squeeze-out within three (3) months of the close of the Offer, in accordance with articles L. 433-4 III of the French Monetary and Financial Code and 237-1 et seq. of the AMF General Regulation, in order to have the OCEANEs not tendered to the Offer transferred to it in consideration for a payment equal to the Offer Price per OCEANE (i.e., €15,52 per OCEANE). As a result of the squeeze-out, the OCEANEs will be delisted from Euronext Access.*

*If, at the close of the Offer, the Offeror is not in a position to implement a squeeze-out as described above, it may file a draft squeeze-out offer with the AMF, followed, if necessary, by a squeeze-out of the Shares and/or the OCEANEs that it does not hold directly or indirectly, alone or in concert, as of that date. In these circumstances, the Offeror does not exclude increasing its shareholding in the Company after the close of the Offer and before filing a new offer, subject to review by the AMF, which will rule on its compliance based, in particular, on the report of the independent appraiser to be appointed pursuant to articles 261-1 I and II of the AMF's General Regulation.*

### **1.3.5 Synergies - Economic gains**

*"No synergies have been specifically identified in the context of the Offer.*

*The potential savings in listing costs that would be gained if the Company's Shares are delisted from the Euronext Paris regulated market following a squeeze-out is not significant compared to the amount of the transaction."*

### **1.3.6 Dividend distribution policy**

*"After the Offer, the Company's dividend policy will continue to be determined by its corporate bodies based on the Company's distributive capacities, financial position, and financial needs, in compliance with any applicable regulatory requirements."*

## **1.4 Agreements that may have a material effect on the Offer's assessment or outcome**

*"On January 15, 2018, the French Government entered into a grant agreement with EPIC Bpifrance pursuant to which (i) the French Government undertook to grant EDF Shares to EPIC Bpifrance (the "Grant Agreement") and (ii) the French Government and EPIC Bpifrance declared that they were acting as a consortium vis-à-vis the Company.<sup>5</sup> The main provisions of the Grant Agreement include the following:*

- Non-transferability of the grant: the Shares transferred by the French Government to EPIC Bpifrance are non-transferable. Consequently, EPIC Bpifrance undertakes not to transfer them, pledge them as security, or otherwise dispose of them. EPIC Bpifrance may, however, use the dividends and other income derived from the EDF Shares that are paid out.*
- Representation on the EDF Board of Directors: EPIC Bpifrance will not be represented on the EDF Board of Directors.*
- Consortium: in the Grant Agreement, the French Government and EPIC Bpifrance state that they will act in concert vis-à-vis EDF. The French Government and EPIC Bpifrance will consult with each other before each EDF shareholders' meeting with a view to adopting, if possible, a joint position on the resolutions put to a shareholder vote. If it is impossible to reach a joint position, EPIC Bpifrance will make best efforts to align its vote with the French Government's. The French Government may terminate the consortium if it disagrees with EPIC Bpifrance on the Group's strategy, in particular if EPIC Bpifrance does not vote the same way the French Government does at one or more of EDF's shareholders' meetings.*
- Undertakings of EPIC Bpifrance: EPIC Bpifrance undertakes not to acquire, directly or indirectly, any EDF Shares and not to act in concert with a third party vis-à-vis EDF.*
- Recovery of the Shares granted: the French Government may repossess the Shares at any time, including if EPIC Bpifrance does not comply with the Grant Agreement. The French Government may also repossess the Shares in event of disagreement with EPIC Bpifrance on the Group's strategy, in particular if EPIC Bpifrance does not vote the same way the French Government does at one or more EDF general meetings.*

*With the exception of the Allocation Agreement, the Company is not aware of any agreement and is not a party to any agreement related to the Offer or which would have a material effect on the valuation or the outcome of the Offer.*

## **1.5 Actions brought against the Offeror by EDF**

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<sup>5</sup> AMF Notice No. 218C0136 of January 16, 2018.

*"Following the French government's announcement on January 13, 2022 of an additional allocation of 20 TWh of electricity sold at regulated prices for 2022 under the ARENH mechanism, the Company announced that it was considering its options for protecting its interests. In that regard, the Chairman and CEO of the Company indicated on May 12, 2022, at the combined general shareholders' meeting, that he had sent the French Government an administrative appeal requesting the withdrawal of the decree.*

*On August 9, 2022, the Company filed (i) an appeal with the Conseil d'Etat (highest administrative court) seeking the annulment of Decree 2022-342 of March 11, 2022, and the decrees of March 11, March 12 and March 25, 2022; and (ii) a claim against the Offeror for compensation in an estimated amount, as of that date, of €8.34 billion.*

*The French Government is defending itself against these appeals, in particular before the Conseil d'Etat which noted, in summary proceedings in July 2022, that this decision is of public interest. In addition, together with all the measures that have been taken to shield consumers from rising prices, the ARENH mechanism has made it possible to significantly reduce the bills of all French consumers. In particular, the increase in household bills in France has been limited to an average of +4% (including tax) over the past few months, whereas all other European countries are experiencing very significant increases in their energy bills. Without these measures, which include the additional allocation of ARENH volumes, household bills would have risen by nearly 35% (including tax) in February 2022."*

## **2. Statement of Independence**

We confirm that Finexsi and its partners:

- Are independent within the meaning of articles 261-1 *et seq.* of the AMF General Regulation and may therefore draw up the statement of independence provided for in Article 261-4 of that Regulation. They are not in any of the situations of conflict of interest referred to in Article 1 of AMF Instruction 2006-08 and do not have any legal or capital ties with the companies targeted by the Offer, or their advisors, that could affect their independence;
- Have the necessary human and material resources to carry out their assignment, as well as sufficient insurance or financial resources to cover the potential liability associated with this assignment;
- Are members of the Association Professionnelle des Experts Indépendants (APEI), a professional independent appraisers' association recognized by the AMF pursuant to articles 263-1 *et seq.* of its General Regulation.

### 3. Due diligence

Details of our due diligence work are provided in **Appendix 1**.

Our work consisted mainly of:

- Understanding the context of the proposed transaction and the terms of the Offer;
- Analyzing the risks and opportunities that have been identified and that may affect EDF's valuation, summarized in the form of a strengths, weaknesses, opportunities, and threats (SWOT) matrix;
- Analyzing the EDF Group's financial statements and business plans with operational management, including identifying the key assumptions that were made and assessing their suitability;
- Reviewing previous transactions involving the Company's share capital, including the capital increase completed in April 2022;
- Carrying out a multicriteria evaluation of the EDF Group and sensitivity analyses of the valuation's underlying assumptions;
- Critically reviewing the valuation report prepared by the Offer's Presenting Institutions;
- Analyzing the agreements and related transactions that may have a material effect on the price, namely the allocation agreement with EPIC Bpifrance;
- Preparing a report in the form of a fairness opinion describing the work done to value the EDF Shares and our opinion as to the fairness of the price offered.

In carrying out our assignment, we reviewed the accounting and financial information (financial statements, press releases, etc.) published by the Company for the past few fiscal years.

We performed due diligence on the legal documentation made available to us, solely to the extent necessary and for the sole purpose of gathering information relevant to our assignment.

We met with the Company's management on several occasions to understand the Offer's context, the business outlook, and the resulting financial trajectories.

We assessed the economic assumptions underlying the forecast data in the Company's financial forecasts (overall financial trajectories and financial trajectories for the various business activities)

and, based on these forecasts, modeled the cash flows in order to implement a discounted cash-flow approach according to an overall approach and a sum-of-the-parts approach.

For the comparables valuation method (stock market and transactional), we studied publicly available information on comparable companies and transactions from our financial databases.

Finally, we reviewed the work of the Presenting Institutions, Goldman Sachs and Société Générale, as presented in the Offer-price valuation report and summarized in the draft offer document. In that regard, we held several meetings with the representatives of the Presenting Institutions and of the Offeror.

We also held periodic meetings with the ad hoc committee appointed by the Board of Directors to oversee our work.

A quality review was carried out by Lucas Robin, a Finexsi partner who did not otherwise work on this fairness opinion.

## **4. EDF's economic and competitive environment**

Below we describe the economic and competitive environment of the main markets in which EDF operates, namely the generation, sale, transmission, and distribution of electricity in France and in Europe. We also describe the market for electricity from nuclear facilities.

### **4.1 The main energy sources**

As an introduction, we describe the main characteristics of the different energy sources, particularly in terms of energy efficiency<sup>6</sup> and environmental impacts.

The table below shows efficiency by energy source, it being specified that the data is general rather than from a specific project.

**Figure 1 - Average efficiency by type of installation**

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<sup>6</sup> The ratio between the energy received by the system (the input) and the usable output.

Type of Installation	Efficiency
Thermal power plant	35% to 40%, up to 50% with cogeneration, and up to 60% foreseen for new gas-fired power plants
Nuclear Power Plant	Between 30% and 35% for EPRs
Hydro power plant	Approx. 80%
Onshore & Offshore Wind	20% to 25% for onshore & 30% to 35% for offshore (for winds of 10 to 25 m/s)
Solar	10% if amorphous & 15% to 20% if crystalline
Hydrogen fuel cell	Approx. 60%

Sources: IRDEME - Quantitative assessment of electric energy generation methods

On this basis, the average efficiency of solar and wind infrastructures is about half that of thermal infrastructures. While EPR-type nuclear power plants provide about 35% efficiency, they are less efficient than new gas-fired plants, which can reach 60%. Only hydroelectric dams and hydrogen fuel cells achieve comparable levels of efficiency, with very little energy loss. Hydrogen, still in its infancy, is the subject of various ongoing studies.

The principal potential environmental impacts of these generation methods are listed below:

- Fossil fuel power plants (coal, oil, and natural gas) emit the most carbon dioxide (CO<sub>2</sub>). In particular, these infrastructures require raw materials the extraction, transport, and combustion of which may have harmful effects on the environment (water and land pollution, waste management, deterioration of biodiversity, etc.);
- Nuclear infrastructures emit few greenhouse gases (such as CO<sub>2</sub>). The problems principally associated with them concern nuclear safety issues and the management and storage of radioactive waste, which could have serious health consequences in the event of an accident;
- Hydropower also emits little CO<sub>2</sub>, but can be the source of conflicts regarding use. In particular, upstream of dams, these infrastructures may affect areas of more than several thousand km<sup>2</sup> and may be installed in highly populated areas, to the detriment of the environment (loss of local biodiversity, lack of irrigation of agricultural land, changes in water distribution systems, etc.);

- Generating electricity from renewable sources (solar panels, wind turbines) requires the use of rare raw materials (lithium, platinum, nickel, cadmium, chromium, etc.), the extraction of which sometimes generates geopolitical tensions between Governments (as in the case of cobalt, for example, in the Democratic Republic of Congo), and may affect the environment.

Onshore wind turbines are mostly built on agricultural land and are in some cases the source of conflict between locals (such as regarding visual impacts and acoustic disturbances). As for offshore wind turbines, they can affect shipping, fishing, tourism activities, and biodiversity in general.

## 4.2 The European electricity industry

The following presentation is based on the Company's 2020 and 2021 Universal Registration Documents, as well as on the Xerfi studies entitled "The European Electricity and Gas Industry," "The Electricity Market and Industry in France," and "EDF - Dynamics of the Group and its Activities/Competitive Environment and Strategic Outlook," published in May 2021, February 2022, and June 2022, respectively.

### 4.2.1 The European electricity industry's value chain

Electricity output from thermal power plants (gas, oil, and coal), nuclear power plants, or renewable energy sources (hydro, wind, and solar) is the key link in the European electricity industry's value chain.

Figure 2 - Value chain of the European electricity industry



Source: Xerfi, "The European Electricity and Gas Industry," May 2021

Once it has been produced, electricity can be transported through high voltage networks such as (i) large transmission networks that transmit electricity over long distances, and (ii) regional networks that transmit electricity to distribution networks for end customers.



Electricity can also be stored in another form so that it can be transformed and redistributed as needed. The most widespread system is hydroelectric energy storage, which consists of pumping water to store it at a height then releasing it to produce energy. Electrical energy is also stored by means of batteries, which store this energy when they are charged, then release it throughout the discharge phase. Storing energy makes it possible ensure that electrical networks are properly supplied in periods of high demand.

Electricity is then sold at retail level to the various electricity suppliers before being distributed to end users. In this last stage, electricity is also transmitted by the industry's transmission providers.

#### **4.2.2 The European electricity industry's energy mix**

We present below the energy mix of the European electricity industry by type of installation in 2020, distinguishing output (in TWh<sup>7</sup>) in the European Union<sup>8</sup> from the installed capacity<sup>9</sup> (in TW).

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<sup>7</sup> 1,000 gigawatts (GW) equal one terawatt (TW) and 1,000,000 megawatts (MW). The Watt (W) is the unit of measurement for electrical power. One watt-hour (Wh) is a unit of energy, that is, the amount of work done.

<sup>8</sup> Including the United Kingdom (27 countries).

<sup>9</sup> Or installed power, that is, the amount of electricity that a facility or power system can supply at a given time.

Figure 3 - Installed generation capacity in the European Union by type of installation in 2020 (in GW)

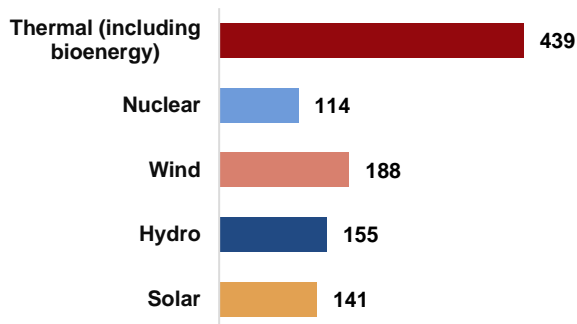
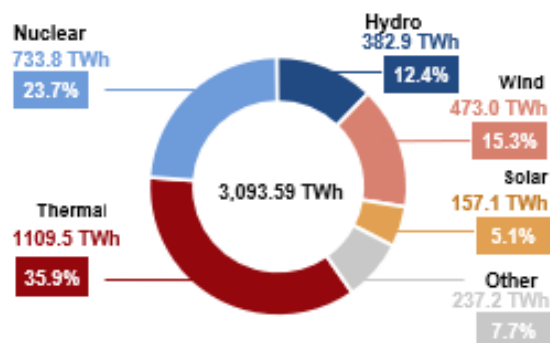


Figure 4 - Electricity generated in the European Union by type of installation in 2020 (in TWh)



Sources: Eurostat Database & European Commission, 2020 data

Despite the development of renewable energies<sup>10</sup>, thermal power plants were the leading source of electricity in the European Union in 2020, both in terms of installed capacity and volume produced. In fact, the installed capacity and the volume of electricity produced by thermal plants were, respectively, 438.7 GW and 1,109.5 TWh, compared to 483.4 GW and 1,013.0 TWh for renewable energies.<sup>11</sup>

Installed capacity from nuclear sources in Europe was 114.1 GW in 2020, which is less than wind (187.5 GW), hydro (155.1 GW) and solar (140.8 GW). Although the installed capacity of nuclear power plants appears to be declining, they were nevertheless the second largest source of electricity in terms of volume generated in 2020 (23.7%), behind thermal power plants (35.9%). This asymmetry<sup>12</sup> is a result of the intermittent nature of renewable energies, the generation capacity of which is highly dependent on climate and weather conditions. Nuclear power plants in good working order can generate energy continuously, however, and therefore have a better capacity factor.

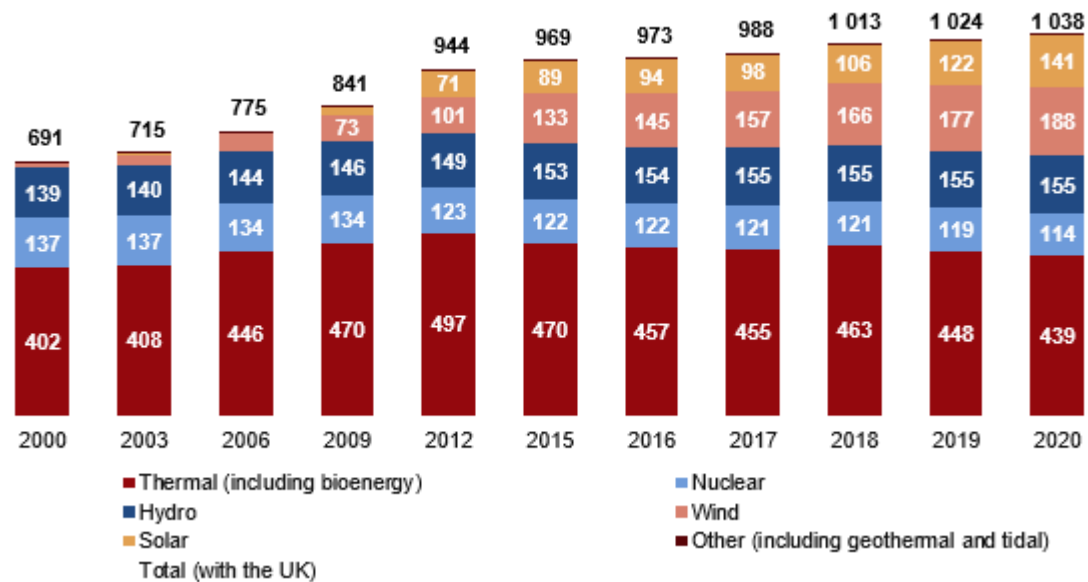
Moreover, electricity is generated in keeping with changes in consumption, and energy companies are adapting to demand. Below we present changes in the European energy mix between 2000 and 2020:

<sup>10</sup> Including hydro, wind, and solar energy.

<sup>11</sup> Other electricity production infrastructures in Europe, including the "other" category, which includes other non-renewables (such as waste and biomass), other renewables (such as tidal geothermal) and bioenergy (such as biofuels), account for 7.7% of energy production.

<sup>12</sup> Nuclear power represents 11% of the installed capacity but provides 23.7% of the electricity production.

**Figure 5 – Changes in the installed electricity generation capacity in the European Union by type of installation between 2000 and 2020 (in GW)**



Sources: European Commission - Electricity and Heat Statistics 2000 - 2020

The installed electrical capacity in the European Union (EU) increased by 50.2% between 2000 and 2020, with an average annual growth rate of 2.1% over the period. The energy structure in the EU has also changed considerably over this period. In 2000, the largest share of installed capacity was represented by fossil fuels (58.1%), followed by hydro (20.1%), nuclear (19.9%), and wind (1.8%), with other sectors accounting for less than 2.0%. In 2020, the share of installed capacity of fossil fuels (thermal) had decreased to 42.3%, hydro to 14.9%, and nuclear to 11.0%. However, the share of wind power had increased to 18.1% and that of solar power to 13.6%, while geothermal and other infrastructures (such as tides) remained marginal.

### 4.2.3 Electricity consumption in Europe

#### 4.2.3.1 The impact of European Union energy law on electricity consumption in Europe

##### 4.2.3.1.1 European energy law

Ratified in 1958, the Rome Treaty makes sustainable development and the energy transition one of the key challenges of European integration. Article 194 of the Treaty stipulates that "in the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between

Member States, to: . . . promote energy efficiency and energy saving and the development of new and renewable energy.”

This policy has resulted in a set of directives, regulations, and decisions setting precise objectives to be achieved according to well-defined timetables. These decisions are referred to below as "energy packages."

Thus, in 2007, the "2020 energy package" set the following objectives for 2020:

- A 20% reduction in the European Union's greenhouse gas emissions compared to 1990;
- A 20% reduction in European energy consumption compared to the consumption expected in 2020; and
- A 20% share of renewable energy in total energy consumption.

In addition, in anticipation of the global climate agreement to be approved at the COP 21 held in Paris in 2015, in October 2014 the European Council approved the "2030 energy package," which sets the following targets for 2030<sup>13</sup>:

- A 40% reduction in domestic greenhouse gas emissions in the European Union compared to 1990;
- A 32.5% reduction in European energy consumption compared to the 2030 energy consumption scenario established in 2007; and
- A 32% share of renewable energy in total energy consumption.

All of these measures and the resulting regulations, particularly those containing energy efficiency objectives aimed at reducing energy consumption, have driven down medium- and long-term electricity consumption in European countries.

#### **4.2.4 The price of electricity in Europe**

##### **4.2.4.1 The liberalization of the European electricity industry**

In connection with the “free movement” objective set by the Treaty of Rome of 1957<sup>14</sup>, in 1996 the European Commission initiated the liberalization of the European electricity market with Directive

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<sup>13</sup> *Source:* Belgian federal site.

<sup>14</sup> The Treaty of Rome establishes the objective of free movement of people, goods, services and capital within the European Community.

96/92/EC, which institutionalized the desire for consumers to be able to freely choose their electricity supplier.

Since July 2007, all consumers, both companies and individuals, have been able to purchase electricity from the supplier of their choice, including foreign suppliers. Competition between energy companies (producers and suppliers) thus started to increase in the European electricity industry.

Liberalizing the European Union electricity market has also led to electricity transmission networks being deployed throughout France to facilitate exchanges. It should be noted, however, that the rise of competition among energy providers does not affect the transmission and distribution of energy, which continue to be regulated.

As for the French market, it has been progressively opened to competition, in accordance with European directives of 1996 ("energy package"), 2003, and 2009, which recommend that the European Union unify the internal electricity market. In addition, the French law of February 10, 2000 created an energy regulation commission (*Commission de Régulation de l'Energie*, or "CRE"), which is an independent administrative authority responsible, in particular, for ensuring the proper functioning of the energy market (gas and electricity). Its dispute resolution body (Cordis) is responsible for resolving disputes concerning access to the public electricity and gas networks between users and operators of those networks.

#### 4.2.4.2 Regulated electricity prices

Regulated electricity prices were introduced following the Second World War in order to support households and keep electricity prices stable. They have been applied since that time by some European countries such as France, Hungary, Portugal, and Romania. Regulated prices are approved by the public authorities of the countries concerned and periodically reviewed<sup>15</sup>.

In France, the regulated prices are set by the ministers in charge of energy and the economy, and since 2016 have been subject to periodic revision on the CRE's recommendation. Only EDF charges regulated prices (also called the "Blue Tariff"), which cover two types of users: residential customers, who represent 90.8%<sup>16</sup> of end consumption at the regulated rate (in TWh), and non-residential customers (local authorities, businesses, and professionals with needs below 36 kVA and annual revenues not exceeding €2 million), which represent 9.2% of consumption at the regulated rate (in TWh)<sup>17</sup>. Thus, in order to set an electricity price that is fair for all, CRE uses the following calculation method, with annual variations:

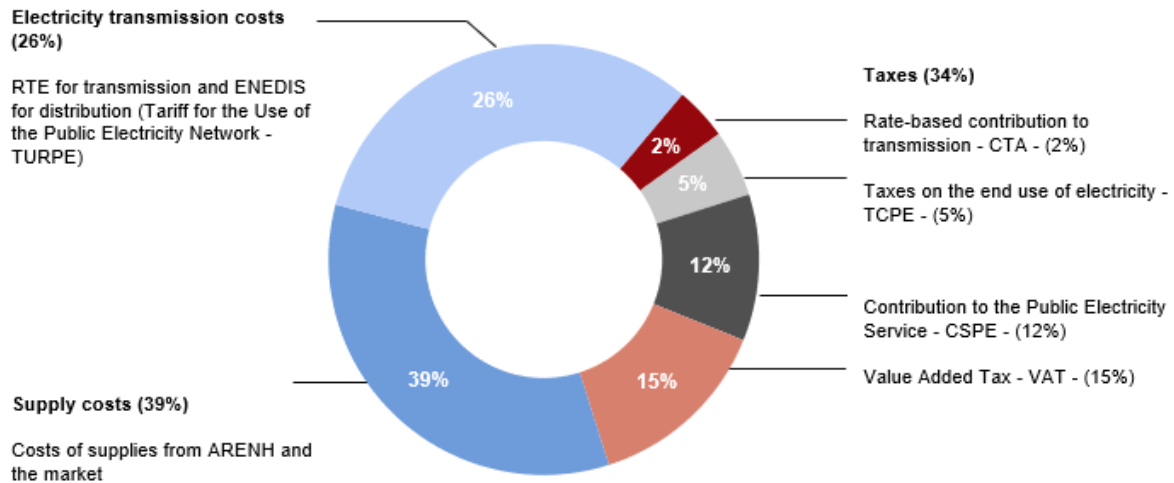
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<sup>15</sup> Source: ENGIE, the regulated electricity tariff in the European Union.

<sup>16</sup> Source: CRE – Observatory, "Les marchés de détail de l'électricité" (The Retail Electricity Markets) (Q1 2022).

<sup>17</sup> Households and companies with low energy consumption may also subscribe to other offers on the electricity market (fixed rates, rates indexed to changes in regulated prices, or market prices) if they wish.

Figure 6 - Regulated costs covered by a residential electricity bill as of March 31, 2021



Source: CRE - Observatoire détail électricité (Retail Electricity Observatory) Q1 2021

Various taxes and contributions to the public electricity service are included in the bill (about 34% of the total amount), namely value added tax (VAT), the tax on electricity end use (TCFE), the domestic tax on electricity end use or, formerly, the contribution to the public electricity service (TICFE or, formerly, CSPE), and the rate-based contribution to transmission (CTA). The purpose of these taxes is to enable the Government to ensure even coverage of the country by distributing among all consumers the heavier costs incurred in regions where access is more difficult.

At the same time, energy suppliers can offer electricity supply contracts with a basic option or an off-peak/peak-time option, and they are free to set their rates. Electricity prices change at least twice a year and include the following two items on the electricity bill:

- The subscription price: the fixed part of the energy bill;
- The price of the kWh of electricity: the variable part of the bill, which changes with electricity consumption.

In the European Union in general, the consumer price of electricity is a result of:

- Costs incurred by electricity suppliers to generate (or purchase) electricity, which mainly include “fuel” purchases, generation, shipping and processing costs, and costs related to building, operating, and (potentially) dismantling power plants;
- The cost of transmitting energy to consumers (TURPE);

- Costs associated with deploying and maintaining transmission networks;
- Costs related to ancillary services ensuring transmission network stability;
- Taxes and levies such as excise taxes and any other levies instituted to support energy or climate policies.

#### 4.2.4.2.1 Methods for determining the Blue Tariff

The methods used by the CRE to determine this tariff include the costs below<sup>18</sup>:

- The cost of supply at the ARENH price;<sup>19</sup>
- The cost of additional supply to the market linked to the volumes not eligible for the ARENH mechanism;
- The cost of additional supply to the market linked to cap on ARENH eligibility given the ARENH cap;
- The cost of electricity transmission, which is based on the price to use the medium and low voltage public electricity networks (referred to as "TURPE HTA-BT");
- EDF's cost to market electricity;<sup>20</sup>
- Various taxes, including the rate-based contribution to transmission (CTA), the domestic tax on electricity end use (TICFE), the tax on end electricity consumption (TCFE), and value added tax (VAT).

In the context of a significant increase in market supply costs due to the economic recovery in the second half of 2021 and the Russia-Ukraine conflict that began in early 2022, CRE proposed to the ministers of Energy and Economy in its decision of January 18, 2022, that the regulated price be increased by 44.5% (excluding VAT) for residential customers, and 44.7% (excluding VAT) for non-residential customers eligible for this price.

To protect consumers from price increases, the Government has taken several measures to limit the increase in the regulated price, including lowering the TICFE (or CSPE) to its minimum and increasing the ARENH volume for alternative suppliers for 2022.<sup>21</sup> It also decided to postpone 2022 rate increases until 2023 and was thus able to limit the increase in the regulated price to an average of +4% (including tax) as of February 1, 2022, as well as increases in bills for business customers (to whom the TRVE does not apply). It also announced a price shield of 15% including tax for regulated price changes as of February 1, 2023, but it has not yet been determined how that will be financed.

<sup>18</sup> Source: CRE, "Méthodologie de construction des tarifs réglementés de vente d'électricité" (Method for determining regulated prices for the sale of electricity), January 2021

<sup>19</sup> ARENH is the system of regulated access to historical nuclear electricity described in section 4.4.2.5.4.4.2.4.

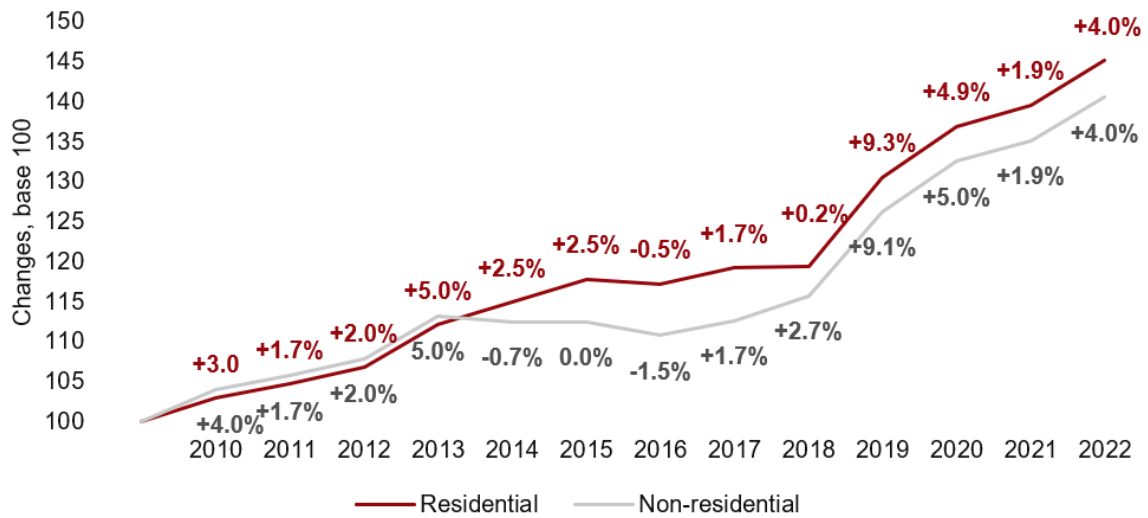
<sup>20</sup> CRE uses EDF's cost to market electricity as a proxy for the "marketing costs of an electricity supplier that is at least as efficient as EDF in supplying customers who have opted for the regulated rate," that is, the cost of marketing to be used to determine the regulated rate in accordance with articles L.337-6 and R.337-19 of the French Energy Code.

<sup>21</sup> This system is the subject of a detailed presentation in section 4.4.2.4.

Below we show the average change of the Blue Tariff prices marketed by EDF between 2010 and 2022 (base 100):



Figure 7 - Average change in EDF's Blue Tariff over the period 2010 to 2022



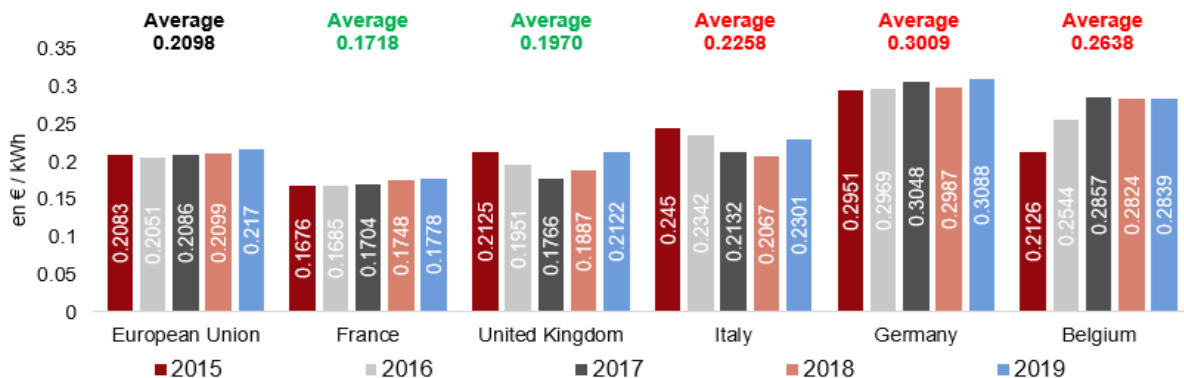
Source: CRE - Observatoire détail électricité (Retail Electricity Observatory) Q1 2021

Since 2010, the price has followed an upward trend for both residential and non-residential customers. Over the period analyzed, the average annual growth rate is 2.9% for residential customers and 2.5% for non-residential customers, bearing in mind that in 2022 the Government introduced a price shield limiting the price increase to +4% on average.

#### 4.2.4.2.2 Changes in regulated prices on the main European markets

Below we show the changes in the average annual regulated electricity sales prices in the main European markets between 2015 and 2019.

Figure 8 – Changes in the average annual regulated prices of the main European markets between 2015 and 2019



Source: Eurostat

Over the period observed, the regulated prices in Germany and Belgium appear to be higher than the European average, while France's regulated prices over this period are lower than those offered by the other EU member states. Over the period, the Blue Tariff offered by EDF increased at an average annual rate of 1.5%. French regulated prices are mainly linked to the costs of producing energy from nuclear facilities and the costs of electricity transmission. France has the lowest regulated price of any of its neighbors, which is a result of the low cost of producing nuclear electricity.

#### 4.2.4.2.3 Definition and determination of the TURPE

Network managers develop, operate, and maintain the public transmission and distribution networks. To fund this work, network users pay them a tariff for using the public electricity networks ("TURPE"). The TURPE finances the transmission networks of Enedis, Réseau de Transport d'Electricité ("RTE"), and local distribution companies<sup>22</sup> ("LDCs"). Two categories of TURPE can be distinguished:

- The TURPE HTB, which concerns users connected to high voltage B lines;
- The TURPE HTA-BT, which concerns users connected to medium and low voltage lines.

The following annual TURPE components are taken into account in determining the regulated prices:

- administration, which covers the costs incurred by the public network operators, particularly with regard to the management of user files, physical and telephone support, invoicing, etc.;
- metering (for electric meters); and
- withdrawal, depending on the rate option and the power subscribed by the user.

The overall method for calculating the TURPE is revised every four years. The TURPE 6 HTA-BT was thus the subject of a CRE decision issued January 21, 2021. The TURPE takes the change in the CPI<sup>23</sup> into account to reflect inflation. As a result, on August 1, 2021, the TURPE HTA-BT increased by 0.91%. In addition, the sharp increase in inflation observed since the second half of 2021, accentuated by the Russia-Ukraine conflict, led the Government, on the proposal of the CRE, to increase this tariff again, by 2.26%, as of August 1, 2022.

#### 4.2.4.3 Wholesale markets and spot and forward electricity prices

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<sup>22</sup> LDCs are companies that have a monopoly over 5% of French territory, in areas not served by ENEDIS. They are responsible for maintaining and managing these networks and for supplying electricity at the regulated rate.

<sup>23</sup> Consumer Price Index.

In the context of the liberalization of the European electricity industry, the interconnection of the electricity transmission networks across the territories of the member states, and the resulting competition between the various energy companies, electricity can be traded between energy providers on a country's market (the "wholesale market") before being sold to end users (*i.e.*, individuals and businesses). Wholesale markets thus play a key role in the functioning of the European electricity industry.<sup>24</sup>

Trading on wholesale markets is possible on intermediated over-the-counter (OTC) exchanges or directly over the counter between the various market players, such as:

- Electricity suppliers that trade and sell the electricity they generate;
- Electricity suppliers who trade and source electricity for resale to end users or for their own electricity needs;
- Traders who buy electricity for resale; and
- Demand-response operators who sell the electricity that has not been used by their customers.

The products traded on these markets can be spot products or forward products.

The price of a spot product reflects the balance of supply and demand in the market. The price of electricity on the spot market is therefore meaningful for energy companies and can be influenced by electricity consumption within a member state.

On the forward electricity market, or futures market, electricity may be purchased for deferred delivery, with the price set on the day of the contract.

Two power exchanges operate on the French electricity market: "EPEX Spot" and "Nord Pool Spot". Transactions on EPEX are carried out at spot prices established on day D for the following day. In 2020, the volume of electricity traded on the EPEX Spot markets amounted to 615 TWh, or approximately 20% of the electricity generated in Europe.

On "Nord Pool Spot", which is the largest electricity market in Europe, serving the Baltic countries (Norway, Denmark, Sweden, Finland, Estonia, Latvia, and Lithuania) as well as Germany and the United Kingdom, the volume of electricity traded in 2020 was 995 TWh, or approximately 32% of the electricity generated in Europe.

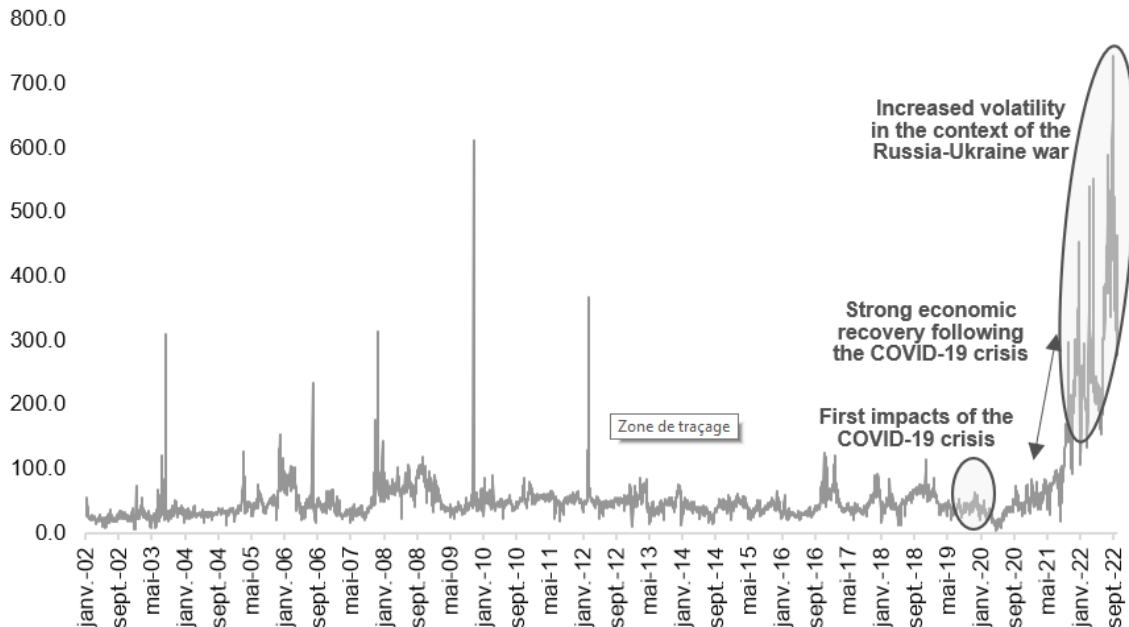
#### 4.2.4.3.1 Spot electricity prices

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<sup>24</sup> Source: CRE, "Présentation du marché de gros de l'électricité".

Below we show changes in wholesale spot prices for France over the period 2002–2022.

**Figure 9 - Wholesale spot electricity prices in France from January 2002 to September 2022 (in €/MWh)**



Source: EDF

In 2020, the European electricity industry was strongly affected by the COVID-19 crisis. The slowdown in world trade, the near-total shutdown of industrial generating facilities and construction, and the measures to restrict travel in Europe led to a sharp drop in consumption and therefore in output. In addition, the relatively warm weather had an unfavorable impact on household consumption (less use of heating).

The drop in demand from February to May 2020 naturally led to a drop in spot electricity prices in France, which fell from €26.4/MWh to €16.8/MWh, or around 36.4%, and reached a low of €4.2/MWh in April 2020.

In 2021, electricity producers benefited from the economic recovery, which boosted demand for electricity which, in turn, led to a sharp increase in wholesale electricity prices. The economic recovery was in fact strong enough to significantly increase the price of raw materials, particularly gas and oil, to which the price of electricity is very sensitive. Demand for electricity was then sustained in 2021 by favorable weather, such that electricity consumption in 2021 rose almost to its pre-crisis level.

At the beginning of 2022, the war in Ukraine caused a further sharp rise in the price of raw materials (oil and gas) and electricity in Europe, in a context of high volatility.

Under these circumstances, the average spot price of electricity on the wholesale markets in France rose from €53.2/MWh in December 2020 to €236.2/MWh in January 2022, then to €420.7/MWh in September 2022. The average spot price of electricity in France in the first half of 2022 and in the first nine months of the year (until September 30, 2022) was thus €246.1/MWh and €320.5/MWh, respectively. The price of electricity peaked at €743.8/MWh on August 30, 2022 (see **Erreur ! Source du renvoi introuvable.**), compared to an average of €46.1/MWh between January 2002 and January 2020.

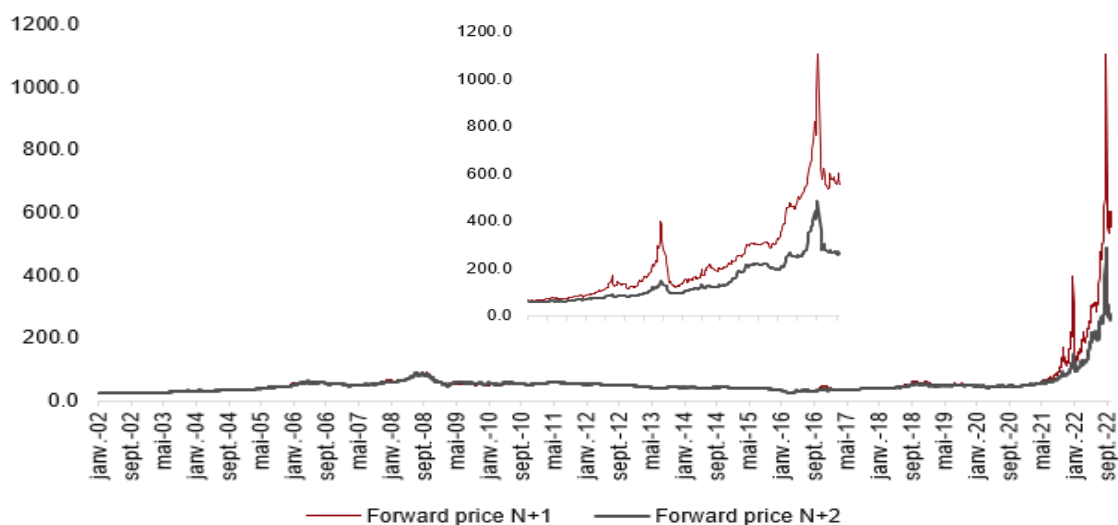
This inflationary effect should be compared with:

- The ability of European power plants to generate and supply enough electricity despite the cessation of Russian gas imports and the limitations on generation capacity;
- The fact that market players (traders and suppliers) foresee a lack of supply for the coming winter;
- Future needs, which would exceed the amount generated by nuclear and renewable energies and require using infrastructures powered by fossil fuels (coal, gas and oil), which are traded on the market at high prices.

#### 4.2.4.3.2 Forward electricity prices

Below we show the changes in wholesale forward prices at one year (N+1) and two years (N+2) for France over the period 2002–2022.

**Figure 10 - N+1 and N+2 forward wholesale electricity prices in France from January 2002 to September 2022 (in €/MWh)**



Source: EDF

Forward prices N+1 and N+2 remained the same from January 2002 to April 2021.

Thereafter, the spread between these two forward prices gradually increased. The N+1 forward electricity price increased from €60.5/MWh on April 30, 2021, to €556.2/MWh on September 30, 2022. On the same dates, the N+2 forward price reached €55.4/MWh and €262.5/MWh, respectively. The forward price N+1 reached its highest level for the period on August 26, 2022, at €1,107.0/MWh (see **Erreur ! Source du renvoi introuvable.**).

### 4.3 Competition in the European electricity industry

#### 4.3.1 The main European electricity producing countries and their electricity mix

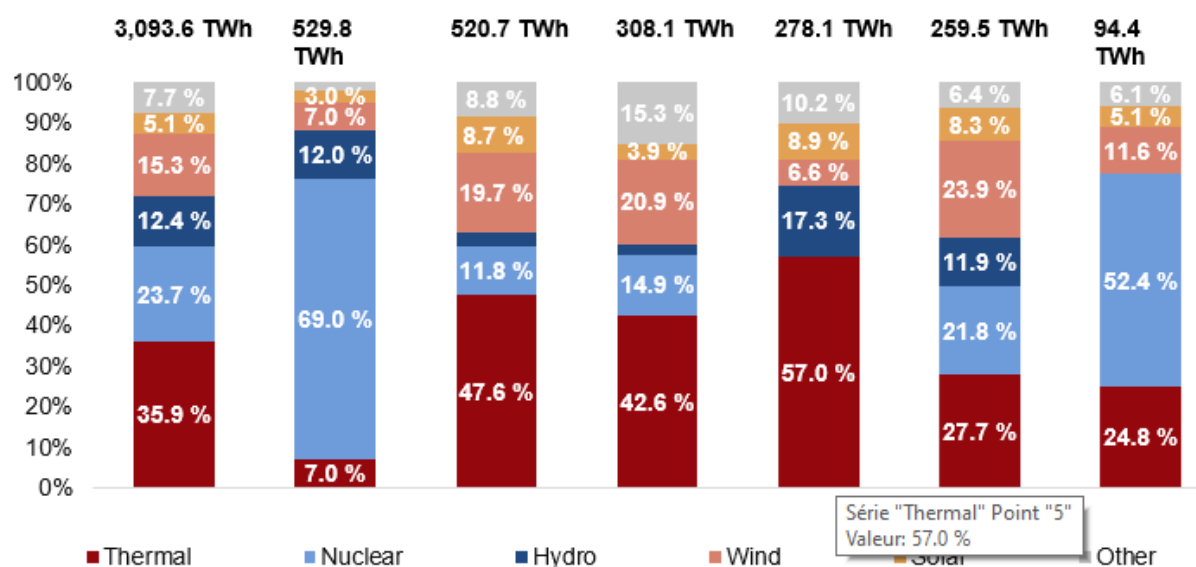
Taking into account the latest developments in the European electricity industry, electricity generated in the European Union<sup>25</sup> reached 3,093.6 TWh in 2020.

A very large proportion of the European Union's electricity is generated in a small number of countries, including France (529.8 TWh), Germany (520.7 TWh), the United Kingdom (308.1 TWh), Italy (278.1 TWh) and Spain (259.5 TWh). Belgium generated 94.4 TWh of electricity.

Below we present the electricity mixes of Europe's principal electricity-producing countries.

Figure 11 - Electricity mix of Europe's principal electricity producers in 2021

<sup>25</sup> Including the United Kingdom (27 countries).



(\*) The European Union of 27 countries including the United Kingdom, as presented by Eurostat and UK Government

(\*\*) The electricity mixes for the European Union and Italy presented above are dated 2020.

Sources: International Energy Agency, Elia Group, Planète Energie, RTE, Germany Energies, Connaissances des Energies, Red Electrica de espana, Eurostat, and EMBER

With the exception of France and Belgium, the electricity generated by the main European producer countries comes largely from thermal installations (gas, coal, and fuel oil), particularly in Germany and Italy, where these installations account for 47.6% and 57.0% of production, respectively.

In France and Belgium, electricity is produced primarily from nuclear power plants, which account for respectively 69.0% and 52.4% of these countries' electricity generation.

On average, renewable energies produced 30% of the electricity produced by the main producing countries as shown above. The share of renewables in the Belgian and French electricity mix is relatively low compared to their peers, at 16.7% and 22.5%, respectively. Spain has the highest share of renewables in its electricity mix, at 44.1%.

#### 4.3.2 The electrical trade balance of European countries

Most electricity exports and imports are carried out between energy companies in border countries, mainly because of the difficulty of transporting electricity over large distances, despite the existence of an interconnected transmission network across Europe.

French energy companies benefit from the fact that the price of the electricity they produce at their nuclear facilities (EDF in France and Engie in Belgium, for example) is highly competitive. Because nuclear facilities produce electricity at a lower cost than other facilities do, France had the most positive electricity trade balance of any European Union member state between 2019 and 2021. France is followed by Germany, which is also responsible for generating a significant share of

Europe's energy. Conversely, Italy, Finland, and the United Kingdom are heavily dependent on imports for their electricity supply, and thus have the largest electricity trade deficits.

### 4.3.3 EDF's competitors in the European industry

EDF is an integrated energy company operating in all the business lines: transmission, through RTE<sup>26</sup>; distribution, through Enedis; and trading and selling energy and providing energy services. As a reminder, the Company generates electricity principally using nuclear facilities, and to a lesser extent renewable energy sources and coal-fired thermal facilities (see Figure 14).

Below we show EDF's main competitors on all its markets in Europe.

Figure 3 - EDF's main competitors on its markets in Europe



Sources: EDF 2021 URD, Xerfi studies, Finexsi analyses

#### 4.3.3.1 The main characteristics of the industry leaders

The European industry leaders are EDF and Engie (France), E-On and EnBW (Germany), Iberdrola and Naturgy (Spain), Enel (Italy), and Vattenfall (Sweden).

For the most part, Europe's leading energy companies were State-owned companies that enjoyed a monopoly in their market before the industry was opened up to competition in 1996. Today, a large share of their revenue still comes from their domestic markets.

<sup>26</sup> RTE, an independent transmission network operator on the Independent Transmission Operator model under European Community law, and ENEDIS are shareholdings and subsidiaries managed according to independent management rules, within the meaning of the French Energy Code.



These players are also integrated across the entire energy value chain, both vertically (from generation to distribution) and horizontally (presence in the gas and electricity industries).

Although they are largely integrated State-owned companies, Europe's energy industry leaders generally have an international presence and are broadening their operations to include activities such as investing in electric mobility and developing energy storage activities and tools.

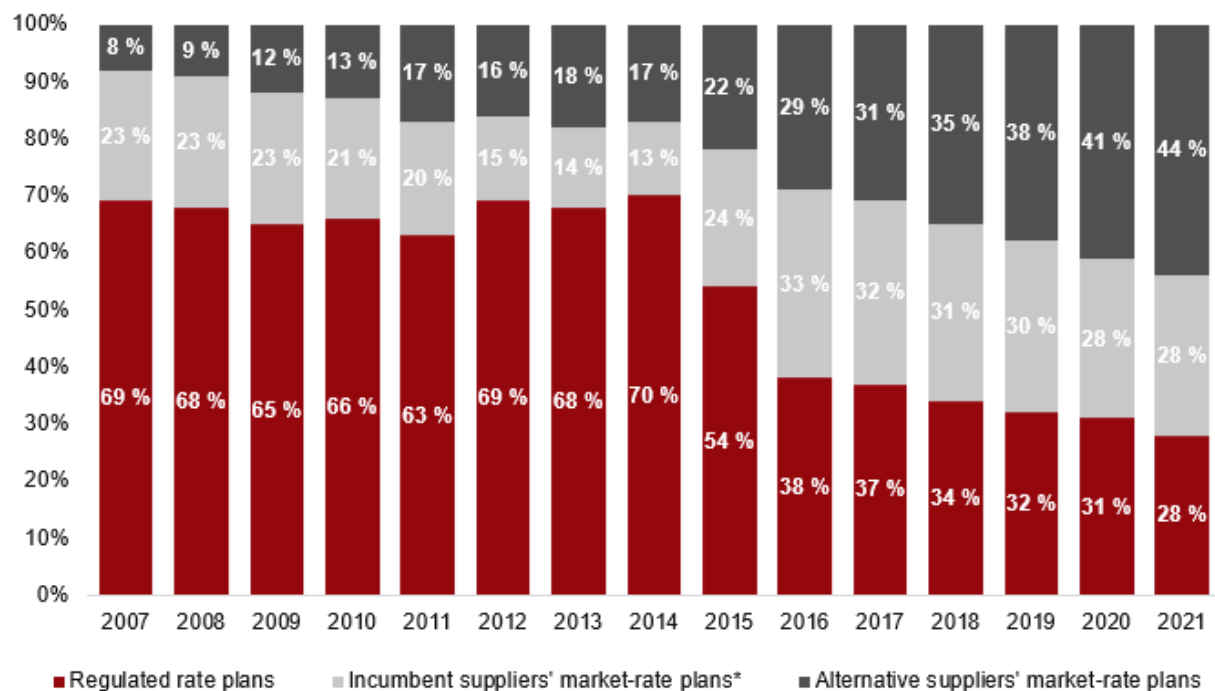
The French energy companies EDF and Engie are among the largest industry players in terms of revenues generated worldwide and in Europe, alongside Enel, E-On, and Uniper.

#### 4.3.3.2 The impact of liberalization and the emergence of alternative suppliers

The industry's liberalization has led to more intense competition with the large-scale arrival of new entrants, in particular energy suppliers that offer consumers an alternative to the incumbent suppliers. For example, new players such as Total Energies, Eni, EkWateur, E. Leclerc Energies, and Cdiscount Energies have entered the French electricity supply market. The arrival of alternative suppliers on the national markets has shrunk the incumbent suppliers' customer portfolios, as well as their margins.

To illustrate the growth of alternative suppliers following the opening up of the retail market, we present below the change in electricity consumption in France by the types of offer that have existed since 2007.

Figure 43 – Change in electricity consumption in France by type of offer since 2007



\*Incumbent suppliers are mainly EDF and, to a lesser extent, the LDCs

Sources: CRE Observatory, "The retail electricity and natural gas markets" from 2007 to 2021

The share in electricity consumption of market-rate plans led by alternative suppliers in France increased by 36 points between 2007 and 2021. This increase accelerated sharply in 2015 due to the elimination of access to regulated rate plans for sites with a subscribed power greater than 36 kVA.

The growth of alternative suppliers' offers naturally reduced the incumbent suppliers' market share, whose market-rate plans accounted for 56% of electricity consumption in 2021, compared to 92% in 2007. The share associated with regulated rate plans decreased from 69% in 2007 to 28% in 2021.

However, this trend could be reversed, with customers returning to incumbent suppliers offering regulated rate plans so they are less exposed to the volatility of market-rate plans.

#### 4.3.3.3 The energy transition and the rise of renewable energy players

The intensification of competition on the electricity-generation market is also linked to the growth of renewable energy and the entry of specialized players on this market. The recent emergence of these players is due to the energy transition encouraged by the national and supranational authorities responsible for the industry (see section 4.2.3.2) and the introduction of large-scale subsidies designed to increase the share of green energy in the European energy mix.

For example, at the end of 2019 the European Commission announced that it would provide €1 trillion over the next ten years as part of the Green Deal<sup>27</sup> in order to make the European Union carbon neutral by 2050. These players began entering the market in even greater numbers after the COVID-19 crisis with the implementation in May 2020 of the European Recovery Plan, amounting to €1,100 billion between 2021 and 2047, the priority of which is to invest in renewable energies, energy storage, and hydrogen.

#### 4.3.3.4 European players in the field of electricity transmission, storage, and distribution

Operations related to energy transmission and distribution are still regulated activities for which the incumbent companies have a monopoly:

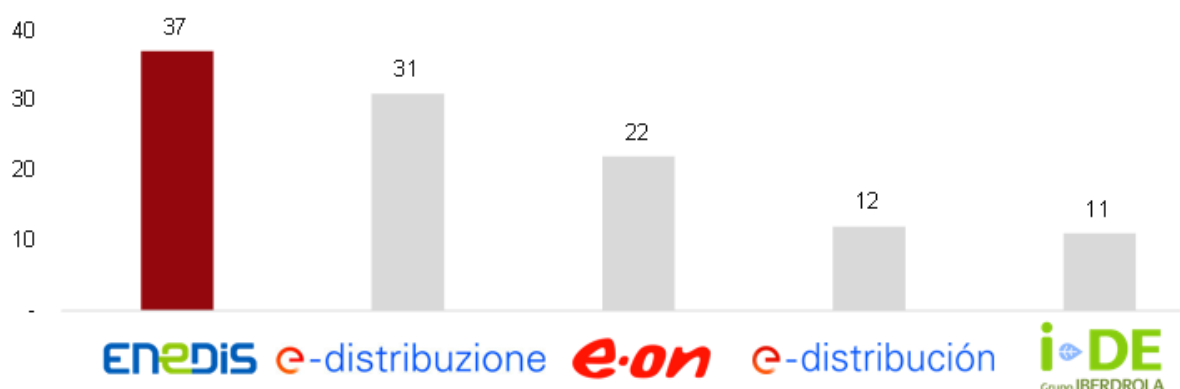
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<sup>27</sup> The Green Deal aims to achieve carbon neutrality in the European Union by 2050 by improving the energy efficiency of buildings and facilities, encouraging the private sector to invest in the green transition, and identifying, organizing, and carrying out sustainable projects.

- In France, these activities are carried out by EDF's shareholdings and subsidiaries RTE<sup>28</sup> (transmission) and Enedis (distribution to customers), and to a lesser extent by the LDCs;
- In Germany, these regulated activities are carried out by the E-On Group, but also, for example, by Tennet, Amprion, TransnetBW, and 50Hertz;
- In Italy, electricity transmission and storage are provided by Terna, and distribution, in particular, by E-Distribuzione (ENEL GROUP);
- In Spain, electricity transmission and storage is provided by RED ELECTRICA DE ESPANA (RED), while distribution is provided by IBERDROLA and E-DISTRIBUCION.

ENEDIS has the largest network of all these distributors in terms of the number of delivery points.

Figure 5 - Number of delivery points by electricity distributor in Europe (in millions)



Source: EDF's Supplementary Report on 2021 Annual Results

## 4.4 The market for electricity from nuclear facilities

Given the main geographical areas in which EDF operates, the main characteristics and trends of the nuclear power market in Europe, France, the United Kingdom, and Belgium are outlined below.

### 4.4.1 Nuclear power plants in Europe

In 2020, electricity from nuclear facilities represented 24.8% of the European electricity mix. In 2020, the European Union will have 126 nuclear reactors, 103 of which will be in operation. These

<sup>28</sup> Indirectly held at 50.1% by EDF via COENTREPRISE DE TRANSPORT D'ÉLECTRICITE (CTE).

103 operating reactors represent an installed capacity of approximately 100 GW<sup>29</sup> and are located in 13 countries, as shown below.

**Table 2 - Breakdown by country of nuclear reactors in operation in the European Union<sup>30</sup> in 2020**

Country	Number of operational reactors	Installed capacity (in GW)	Share in the national energy mix
France	56	61.4	67.1 %
Spain	7	7.1	22.2 %
Belgium	7	5.9	39.1 %
Sweden	6	6.9	29.8 %
Czech Republic	6	3.9	37.3 %
Finland	4	2.8	33.9 %
Hungary	4	1.9	48.0 %
Slovakia	4	1.8	53.1 %
Germany	3	4.1	11.3 %
Bulgaria	2	2.0	40.8 %
Romania	2	1.3	19.9 %
Slovenia	1	0.7	37.8 %
Netherlands	1	0.5	3.3 %
<b>Total</b>	<b>103</b>	<b>100.3</b>	

Sources: CONNAISSANCE DES ENERGIES, INTERNATIONAL ATOMIC ENERGY AGENCY

The United Kingdom, which is no longer part of the European Union, had 9 nuclear reactors in operation as of August 31, 2022, with a total installed capacity of 5.9 GW, and 2 reactors under construction (HINKLEY POINT). Switzerland, which has never been a member of the European Union, has 4 nuclear reactors with a total installed capacity of approximately 3.0 GW.

Among European countries, France is by far the one that produces the largest share of its electricity with nuclear facilities.

## 4.4.2 The nuclear energy market in France

### 4.4.2.1 The construction of the French nuclear power plants

#### 4.4.2.1.1 History of the French nuclear power plants

<sup>29</sup> The difference from the installed capacity shown in Figure 3 (114 GW) is due, in particular, to the inclusion, in Table 2, of only the installed capacity currently operating, and the exclusion of the United Kingdom's installed capacity.

<sup>30</sup> Excluding the United Kingdom.

France's first nuclear reactors (known as "first-generation" reactors) began to be built in the 1950s, with the Marcoule plant being commissioned in 1956 and operated by EDF. These first-generation plants have now been shut down or dismantled.

The power plants in France today reflect the policies implemented by governments in the 1970s in response to the oil crisis of 1973. To guarantee the country's energy independence, vast programs were undertaken to build 58 pressurized water nuclear reactors over 25 years. The first reactor of that generation to be commissioned was FESSENHEIM 1 (1977), while the last was CIVAUX 2 (1999).

In 2021, France had 56 reactors, divided into 3 power levels, on 18 sites around the country, making it the second in the world, behind the United States, in terms of nuclear power. These reactors are entirely owned and operated by EDF. It should be noted that some reactors are also operated by the French Atomic Energy and Alternative Energies Commission (CEA) for experimental purposes.

In addition, the Group is currently building the first third-generation EPR reactor in Flamanville (Flamanville 3 EPR project). This reactor will have a capacity of 1,650 MW and improved safety features. Fuel is expected to be loaded into the Flamanville 3 EPR in the second quarter of 2023.

The locations of French nuclear sites are determined mainly by regional electricity needs and, due to the reactors' need for cold water, are located near the ocean or rivers. Other factors such as subsoil geology, seismic risks, and the presence of high-risk industrial sites are also taken into account when choosing where to locate nuclear power plants.

#### 4.4.2.1.2 French nuclear regulatory bodies

The two main regulatory bodies in the nuclear energy sector in France are:

- The French Nuclear Safety Authority (Autorité de Sûreté Nucléaire, or "ASN"), an independent administrative authority that helps draft regulations and oversees the safety and security of nuclear facilities;
- The Radiation Protection and Nuclear Safety Institute (Institut de Radioprotection et de Sûreté Nucléaire, or "IRSN"), a public body that conducts expert assessments and research in the areas of nuclear safety, safe transport of radioactive and fissile materials, and protection and control of nuclear materials; and
- EDF, which also acts as a regulatory agent insofar as it is responsible for maintaining its reactors and regularly reviewing the safety of its facilities, which is the subject of a report sent to the ASN and the relevant ministries. Power plant maintenance and reviews are generally carried out when the reactors in question are shut down.

#### 4.4.2.1.3 Operation of French nuclear power plants

France's nuclear reactors had an installed capacity of 61.4 GW in 2021 (see Figure 154). However, due to maintenance and inspection operations, the 56 reactors do not all operate continuously.

### Scheduled outages of nuclear facilities

Due to the seasonal nature of generating electricity and the challenges related to using the fuel efficiently in the reactors and to resource availability, EDF conducts maintenance and nuclear fuel reloading operations (see section 43) at the end of each generation cycle.<sup>31</sup> To carry out these operations, the power plants are shut down for periods ranging from roughly 40 to roughly 85 days, depending on the type of scheduled outage.

### Ten-year inspections

In accordance with Article L.593-19 of the French Environmental Code, ten-year inspections are carried out for which the plant being inspected must be shut down for 180 days, on average. At the end of the inspection, during which EDF performs maintenance and carries out safety and security checks on the installation, the reactor may be restarted only after ASN approval, which may be accompanied by technical recommendations.

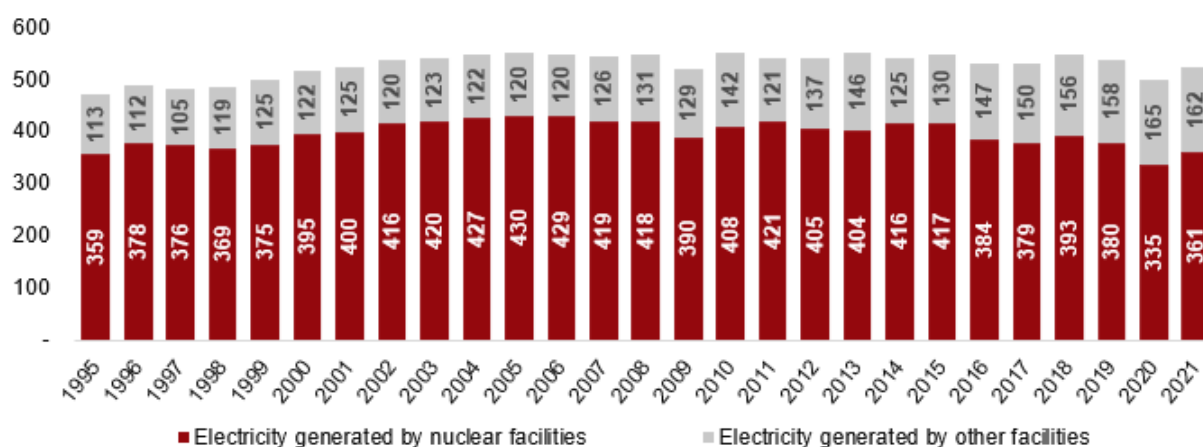
#### 4.4.2.2 The share of nuclear power in the electricity generated in France

The Government's determination to make nuclear power the main source of electricity in France and EDF's efforts to develop its nuclear facilities have made nuclear power predominant in the French electricity mix, as shown in the graph below.

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<sup>31</sup> Generation cycles of roughly 12 and 18 months.

Figure 6 – Change in total electricity generated in France by type of installation since 1995 (in TWh)



Source: RTE

A decrease in the electricity output from nuclear facilities can be observed from 2020 onwards (-54 TWh produced), due in particular to (i) the COVID-19 crisis, which has caused both scheduled shutdowns and 10-year-inspection outages to last longer, and thus a drop in efficiency; and to a lesser extent (ii) the shutdown of the Fessenheim power plant in 2020.<sup>32</sup>

The latest estimates for nuclear power output in France, published by the EDF Group on September 15, 2022, were for output in the bottom of the 280–300 TWh range for 2022, in the 300–330 TWh range for 2023, and in the 315–345 TWh range for 2024. These levels are lower than those observed over the historical period of 1995–2021 presented above due to (i) the impact of unscheduled outages related, in particular, to stress corrosion, and (ii) a heavier outage schedule due to the Grand Carénage program's longer ten-year inspections.

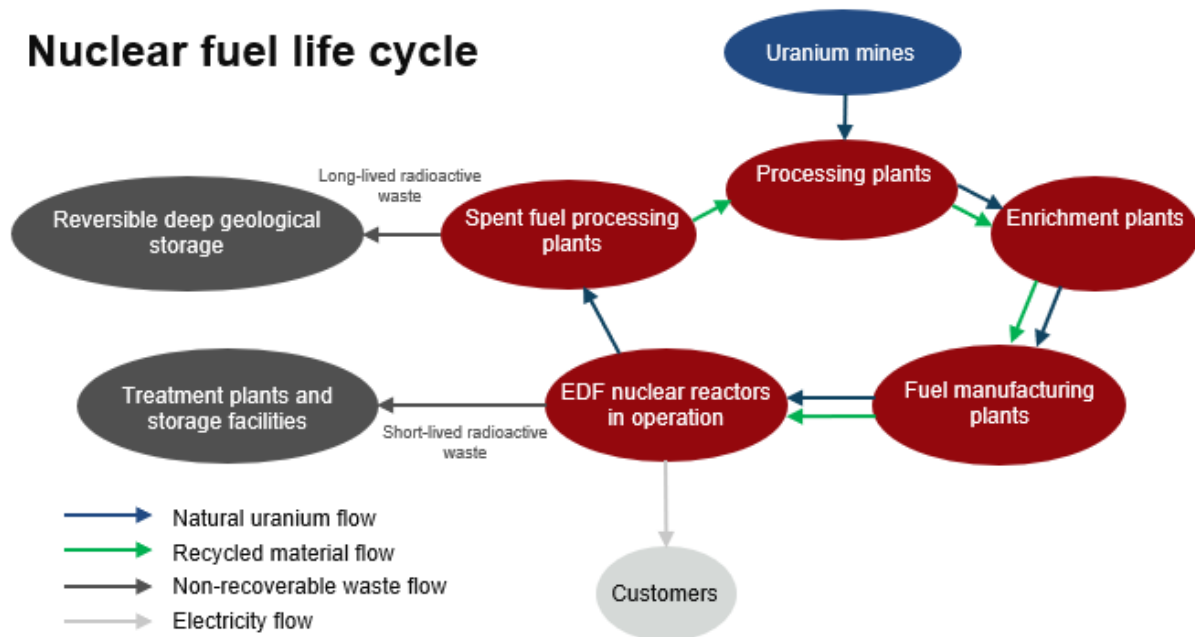
#### 4.4.2.3 The nuclear energy value chain and the nuclear fuel life cycle

The electricity generated by nuclear facilities is the result of a combustion process called "fission" of enriched uranium, a fuel obtained by processing natural uranium, as shown below:

<sup>32</sup> An indemnification agreement was signed between the Government and EDF on September 27, 2019, for the early closure of the FESSENHEIM plant. That agreement gave rise to a payment of €370 million to EDF (on December 14, 2020) and will give rise to subsequent payments.

Figure 7 - The nuclear fuel life cycle in France

## Nuclear fuel life cycle



Source: EDF 2021 URD

Natural uranium is a mineral that comes from deposits mined in underground or open-pit mines. It is composed of uranium 238 and uranium 235, but only uranium 235 can be used as fuel in current and latest generation reactors (such as the one under construction in FLAMANVILLE). For these reasons, natural uranium must undergo a conversion process followed by enrichment to increase its proportion of uranium 235.

The enriched uranium is then transformed into pellets. The pellets are placed into sealed, zirconium alloy tubes called "rods," which are "assembled" in batches of 264 to form a fuel assembly. The fuel assembly is designed to withstand very high mechanical, hydraulic, thermal, and neutronic stress inside the reactor core.<sup>33</sup>

To carry out this process, EDF uses various service providers to ensure its uranium supply and obtain specialized services, namely uranium conversion and enrichment, and the manufacture of fuel assemblies for its reactors. Some of these services are provided by FRAMATOME, a Group subsidiary.

The assemblies stay in the reactor core for four to five years before being unloaded. They are then stored for one to two years in an on-site deactivation pool, where their radioactivity decreases naturally. Once cooled, the spent fuel is transported to an ORANO processing plant in The Hague, where it is stored in the plant's pools. The reusable materials (plutonium and depleted uranium) and the final waste are then separated.

<sup>33</sup> Source: EDF website



#### 4.4.2.4 Marketing of nuclear energy: the ARENH mechanism

##### 4.4.2.4.1 Implementation of the ARENH mechanism

The Group owns and operates all of the nuclear reactors in France. Alternative suppliers may obtain electricity from EDF under the European Union's Regulated Access to Historic Nuclear Energy (ARENH) system.

As part of the liberalization of the European electricity industry, on December 7, 2010, the French Council of Ministers approved Law No. 2010-1488 (known as the "NOME Act"), providing for a New Organization of the Electricity Market and introducing the ARENH mechanism.

The objectives of this law, effective July 1, 2011, were to:

- Preserve, for all consumers, the benefit of the investments made to develop nuclear power through prices and tariffs that consistently reflect the industrial reality of the generation facilities, as guaranteed until now by the regulated sales tariffs, and guarantee that this benefit is accessible to each consumer, regardless of electricity supplier;
- To ensure that existing generating facilities are funded and to promote investment by making suppliers accountable by encouraging them to develop offers to manage the demand for electricity, particularly during peak consumption times, and to invest in the necessary means of generation;
- Enable competition, especially where it can most stimulate innovation, so that improvements can be made to consumption that benefit all.

This law is based on 5 principles:

- To ensure that other electricity suppliers ("alternative suppliers") have regulated access to EDF's base load electricity on the same economic terms as EDF;
- To thus give consumers a choice between different suppliers' competitive and innovative offers, especially in terms of demand management and services;
- To make France's supply more secure by requiring each supplier to have, directly or indirectly, sufficient generation or curtailment capacity to supply its customers at all times;
- To avoid windfall effects by ensuring, through a price supplement clause, that the basic electricity acquired by alternative suppliers is strictly proportionate to their needs;
- To improve regulated prices for small consumers, but allow them to be phased out for large consumers, as soon as regulated access to basic electricity enables suppliers to propose offers that reflect the economic conditions of the French generating facilities.

In concrete terms, the ARENH mechanism set up under the NOME Act enables alternative suppliers to purchase electricity from EDF through framework agreements, at regulated rates and for volumes defined by the CRE in accordance with the French Energy Code, in order to ensure

effective competition within the industry and to secure the supply of electricity to end users at competitive prices.

Since January 2012, the ARENH mechanism has required EDF to supply alternative suppliers who make such a request to the CRE with electricity in an amount initially capped at 100 TWh per year. The NOME Act provides that the ARENH price must reflect the economic conditions of producing electricity with EDF's nuclear power plants. The price, set in 2012 at €42.0/MWh, has not been updated, but since a market for capacity was introduced in 2017, it has included a capacity value<sup>34</sup>.

France's Energy and Climate Law of November 8, 2019, raised the cap on electricity supply volumes for alternative suppliers under the ARENH mechanism from 100 TWh to 150 TWh as of January 1, 2020. It also provided for an upward revision of the sale price per MWh under the mechanism during a transitional period, specifying that the ARENH price-revision factors include changes in the CPI and in the transferrable ARENH volume.

If the total demand from alternative suppliers under the ARENH mechanism exceeds the volume of electricity that can be sold (currently set at 100 TWh), the surplus must be capped in proportion to the alternative suppliers' commitments to their customers, pursuant to the French Energy Code. The CRE's decision also provides for a total cap on demand from EDF subsidiaries, which are nevertheless authorized to enter into framework agreements with the Group on the same terms as under the ARENH mechanism.

#### 4.4.2.4.2 No protection under the ARENH mechanism in the event of low prices (2016/2017)

ARENH is an asymmetrical mechanism: it protects consumers in the event of high market prices but offers no protection to EDF in the event of low market prices. If market prices fall below the ARENH price, alternative suppliers are not required to obtain ARENH supplies from EDF. In a situation of low market prices, the Group's exposure to market prices increases significantly, and downwards. The ARENH asymmetry was highlighted when market prices dropped sharply in 2016/2017 and led EDF and the French Government to consider a new regulation for existing nuclear power that would protect both EDF and consumers from market price volatility by guaranteeing a sales price that covered the full cost of the nuclear facilities.

For example, EDF must supply nuclear electricity (up to the cap set by the Government) at €42.0/MWh when market prices are higher than that, thus protecting alternative suppliers—but not EDF—from market price increases (except on volumes not subject to the ARENH mechanism). At the same time, EDF is fully exposed to drops in market prices, because alternative suppliers will buy directly on the wholesale markets, thus forcing EDF to sell its output that is subject to ARENH on the markets at a price lower than €42.0/MWh.

#### 4.4.2.4.3 The ARENH mechanism's consequences during the COVID-19 crisis

Not only is the ARENH mechanism asymmetrical, it also carries a risk concerning the volume sold under it, to which EDF was exposed in the context of the health crisis.

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<sup>34</sup> The CRE decision of May 6, 2015, set forth the terms for transferring the ARENH-related capacity guarantees.

Because the price of electricity on the wholesale market was higher than the ARENH price at the end of 2019, many alternative suppliers entered into framework agreements with EDF in order to obtain electricity through this mechanism, and thus obtain electricity at a competitive price. However, due to the contraction in demand during the COVID-19 crisis and the resulting drop in prices, alternative suppliers found themselves in a situation of greatly reduced consumption, such that they could not sell the volumes of electricity delivered by EDF under the mechanism.

In this context, several alternative suppliers invoked the *force majeure* clause and asked the President of the Commercial Court of Paris to suspend all or part of the ARENH mechanism, which EDF contested, deeming that the conditions of *force majeure* had not been met. On first instance, the court ruled in favor of the alternative suppliers in summary proceedings. EDF has brought a number of appeals, obtaining one appellate decision in its favor. Numerous legal actions are still pending.

#### 4.4.2.4.4 The increase in electricity prices and the institution of additional ARENH volumes for 2022

Following the French Government's announcement on January 13, 2022, of an additional allocation of up to 20 TWh of electricity sold at regulated rates for 2022, the Company announced that it would consider all options to protect its interests<sup>35</sup>. In that context, the Chairman and CEO indicated at the Company's annual shareholders' meeting that he had sent the French Government a preliminary administrative appeal requesting the withdrawal of the decree<sup>36</sup> and the orders of March 2022 relating to this allocation<sup>37</sup>.

This exceptional mechanism requires EDF to supply alternative suppliers who request it with up to 20 TWh of additional electricity at a price of €46.2/MWh. The mechanism also requires EDF to purchase a volume of electricity from alternative suppliers that is equivalent to the volume to be delivered to them as part of the additional allocation of up to 20 TWh of electricity to be sold at regulated prices in 2022 under the ARENH mechanism, at a price equal to the average of the French wholesale market prices recorded between December 2 and 23, 2021, pursuant to the Decree of March 11, 2022, which set forth the conditions for allocating these additional ARENH volumes.

After an in-depth legal analysis, and in view of the losses it believes it has incurred under the decree and the orders dated March 11, 12 and 25, 2022, the Company filed a legal action with the Conseil

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<sup>35</sup> See the Company's press release "Exceptional measures announced by the French Government" published on January 13, 2022.

<sup>36</sup> Decree No. 2022-342 of March 11, 2022, setting forth the specific terms and conditions for allocating an additional volume of electricity that may be allocated in 2022, on an exceptional basis, as part of regulated access to historical nuclear electricity (ARENH).

<sup>37</sup> The order of March 11, 2022, issued pursuant to Article L. 337-16 of the French Energy Code and setting the price of additional electricity volumes sold under the exceptional delivery period introduced by Decree No. 2022-342 of March 11, 2022, setting forth the specific terms and conditions for allocating an additional volume of electricity that may be allocated in 2022, on an exceptional basis, as part of regulated access to historical nuclear electricity (ARENH).

d'Etat on August 9, 2022, and a claim for compensation, for an amount estimated at that date of €8.34 billion<sup>38</sup>, with the French Government<sup>39</sup>, as described below.

First, the Company filed an action with the Conseil d'Etat seeking to invalidate the regulatory provisions requiring it to purchase/resell to alternative suppliers and their end users up to 20 TWh of electricity sold at regulated rates for 2022 (Decree of March 11, 2022 and its implementing orders), on the grounds that they exceeded the French Government's authority.

The Conseil d'Etat is currently reviewing the case but has not yet set a hearing date.

Second, on the same day that it filed the action described above, the Company submitted a claim for compensation to the French Government in connection with the above-mentioned 20-TWh electricity purchase/resale system, for a total amount of €8.34 billion<sup>40</sup>.

#### 4.4.2.4.5 Changes in the ARENH mechanism

French law No. 2022-1158 of August 16, 2022, concerning emergency measures to protect purchasing power, modified the cap on the ARENH volume that can be sold, which decreased from at most 150 TWh per year to at most 120 TWh per year, while providing that the ARENH price cannot be less than €49.5/MWh, subject to confirmation by the European Commission that this provision complies with European Union law. In this context, the Government could decide to increase the ARENH volume and price (currently 100 TWh at €42.0/MWh, excluding the additional allocation of up to 20 TWh of electricity to be sold at regulated prices in 2022 under the ARENH mechanism) for the 2023–2025 period, subject to Commission approval. As of the date of this report, no decision has been announced.

It should be noted that all changes to the ARENH mechanism are subject to the agreement of the European Commission.

It should also be noted that the ARENH mechanism will end on December 31, 2025.

In this context, the French Government indicated its intention to start work to ensure that a new regulatory framework, the details of which have not yet been determined but about which the Government has given initial indications,<sup>41</sup> is put in place as of January 1, 2026. According to the draft offer document of October 21, 2022, this new regulation would replace the ARENH mechanism and guarantee that the full cost of EDF's existing nuclear facilities is covered. The Government had already expressed its intention to adopt a new electricity price regulation, when work was being carried out in connection with the "Hercule" and "Grand EDF" projects. Moreover, in their discussions with stakeholders, the French authorities have indicated that covering EDF's

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<sup>38</sup> Excluding compensatory interest.

<sup>39</sup> See the Company's press release, " Legal claim concerning the allocation of additional electricity volumes at a regulated price for 2022," published on August 9, 2022.

<sup>40</sup> Excluding compensatory interest.

<sup>41</sup> In his speech in Belfort on February 10, 2022, President Macron said that "with the European Commission," France would implement "a new nuclear electricity regulation (to replace the ARENH mechanism) so that French consumers, both households and businesses, can benefit from stable prices, close to the production costs of electricity in France."

full costs for its existing nuclear facilities, based on an objective assessment of those costs by the regulator, is one of its priorities.

In accordance with the wish expressed by the French Government and EDF<sup>42</sup> in 2019 following the low price episode observed in 2016/2017, a fixed-price regulation that would (i) protect EDF against the market price volatility and give it visibility as to its future revenues given the significant investments that will have to be made on the existing facilities; and (ii) protect consumers against rising market prices was discussed with the European Commission. Other regulatory mechanisms with similar effects could also be considered. Regardless of the methods used, any new regulation must be approved by the European Commission before it is implemented.

#### 4.4.2.5 Prospects for the nuclear industry in France

##### 4.4.2.5.1 Changes in nuclear facilities and electricity output

The Company is carrying out various projects and plans to extend the operating life of and expand its nuclear facilities:

- The "Grand Carénage" (major overhaul): France's nuclear power plants have an initial operating life of 40 years and are now 36 years old on average. In this context, through the GRAND CARÉNAGE (2014) and the EXCELL plan (2019), EDF has embarked on a vast plan to renovate all of its nuclear facilities, with the aim of extending their operating life to 60 years (see Figure 10).

By the end of 2021, 150 of the 174 main transformer poles covered by the plan have already been renovated, enabling the facilities to operate at least until their fifth ten-year inspection.

As of June 30, 2022, the Group had not yet met the technical, economic, or governance conditions or obtained the approval from the safety authorities needed, from an accounting standpoint, to extend the life of its nuclear power plants to 60 years.

The accounting depreciation period for the 900 MWe units was extended from 40 years to 50 years in 2016 (with the exception of the FESSENHEIM plant, both units of which were definitively shut down in the first half of 2020), the technical, economic, and governance conditions having been met. On February 23, 2021, the ASN ruled on the terms for continuing to operate EDF's 900 MWe reactors beyond their fourth periodic review (VD4). The Authority found that "all the measures planned by EDF and those it recommends open up the prospect of continuing to operate these reactors for ten years after their fourth periodic review." The ASN's decision closes the so-called "generic" phase of the review, which concerns studies and modifications of installations common to all 900 MWe reactors, which have a similar design. After the TRICASTIN 1 reactor in December 2019, BUGEY 2, BUGEY 4 and TRICASTIN 2 passed the 40-year mark of operation and were restarted after

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<sup>42</sup> EDF has historically expressed a desire for price regulation in order to cover nuclear power production in the context of the sharp fall in electricity prices in 2016/2017.

their fourth 10-year-inspection outage (VD4) in 2021. Three 10-year-inspection outages (VD4: DAMPIERRE 1, BUGEY 5, and GRAVELINES 1) were in progress on December 31, 2021. The fourth ten-year-inspection outage at DAMPIERRE 1 was completed on February 5, 2022.

For fiscal year 2021, as the technical, economic and governance conditions for extending the accounting depreciation period for the 1,300 MWe plants from 40 to 50 years were met, EDF changed this estimate as of January 1, 2021, for all 1,300 MWe plants.

The four N4 reactors (1,450 MWe) still have an accounting life of 40 years.

- Building third-generation EPR reactors: EDF is building the first third-generation EPR reactor in FLAMANVILLE. It will have a capacity of 1,650 MW and improved safety features. In particular, it will incorporate the recent advances in nuclear safety, environmental impact reduction, and technical and economic performance to provide safe, competitive and low-carbon electricity. Although initially planned for 2012, fuel is not expected to be loaded into the reactor until the second quarter of 2023. Problems encountered during the reactor's construction have also led to a significant increase in the project's cost, from the initial figure of €3.4 billion to the latest estimate of €12.7 billion<sup>43</sup>.
- Developing new EPR 2 nuclear reactors: The Government has asked EDF to work with the nuclear industry to prepare a plan to renew all of France's nuclear facilities. The plan is based on the EPR 2 technology, which is an optimized version of the EPR.

In his speech in Belfort on February 10, 2022, the French President announced his intention to build six EPR 2 nuclear reactors by 2050, with the first being commissioned around 2035. He also mentioned the possibility of building 8 additional EPR 2 reactors. The Cour des Comptes (French Audit Office) has emphasized the "major" financial challenge that this program would represent.

- Developing NUWARD products (small modular reactors or "SMRs"): As part of the France 2030 plan initiated by the Government at the end of 2021, EDF has started developing new 340 MW modular, pressurized-water reactors consisting of two 170 MW modules. These products are designed to be widely marketable for export and to thus contribute to the widespread replacement of fossil fuel power plants in the coming decades. These reactors will be marketed using a power plant in France as a model, on which construction is expected to start by 2030.

French nuclear facilities are also encountering problems related to the stress corrosion that has been detected and which constitutes a major threat to France's ability to generate nuclear power. After signs of stress corrosion were discovered in the safety injection system of reactor No. 1 at CIVAUX (Vienne) during its ten-year inspection, the CIVAUX 2, CHOOZ 1, and CHOOZ 2 reactors were shut down at the end of 2021 so the Group could carry out preventive inspections. These revealed similar indications of stress corrosion, leading to an extension of their shutdown. This is also the

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<sup>43</sup> In €<sub>2015</sub> and excluding interim interest. Source: Press release of January 12, 2022

case for PENLY 1, for which the shutdown was extended after signs of stress corrosion were discovered.

Given the results of the inspections carried out on the above-mentioned reactors, EDF has decided to initiate a vast preventive inspection program on all of its nuclear facilities.

This preventive inspection program, coupled with the extension of the shutdown of the reactors subject to stress corrosion and the planned outage of 44 reactors for maintenance and inspection (including six 10-year-inspection outages), has led to several downward revisions of nuclear power estimates during 2022.

For the year 2022, the output estimates thus decreased from 330-360 TWh on July 5, 2021, to 300-330 TWh on January 13, 2022, to 295-315 TWh on February 7, 2022, to 280-300 TWh on May 18, 2022, then to the bottom of the range, namely 280-300 TWh, on September 15, 2022.

For the year 2023, those estimates were reduced from 340-370 TWh on February 7, 2022, to 300-330 TWh on February 11, 2022 (estimate maintained in the last press release, issued on September 15, 2022).

For the year 2024, the estimate was 315-345 TWh as of September 15, 2022.

#### **4.4.3 The nuclear energy market in the UK**

##### **4.4.3.1 British nuclear facilities**

The United Kingdom currently has 9 nuclear reactors in 5 power stations,<sup>44</sup> with an installed capacity of 5.9 GW. All of the UK's nuclear facilities are operated by EDF ENERGY, a subsidiary of the EDF Group (see section 5.2.3.6.1).

##### **4.4.3.2 The regulatory framework for nuclear power operations in the United Kingdom**

The law governing nuclear activities in the United Kingdom differs little from the French regulatory framework. Open-ended nuclear site licenses are granted by the Office for Nuclear Regulation (ONR) provided the applicant meets the eligibility criteria set forth by ONR in its *Licence Condition Handbook* published on February 17, 2017.

The operation of nuclear facilities is also subject to obtaining licenses and permits from the economic regulator, the Office of Gas and Electricity Markets (OFGEM), and an environmental permit from the Environment Agency.

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<sup>44</sup> HARTLEPOOL, HEYSHAM 1, HEYSHAM 2, TORNESS, and SIZEWELL B, following the closure of DUNGENESS B, HUNTERSTON B and HINKLEY POINT B in 2021 and 2022.



#### 4.4.3.3 Recent developments in the UK's nuclear market

In 2021, nuclear facilities generated 41.7 TWh of electricity, compared to 45.7 TWh in 2020.

The share of nuclear power in the UK's electricity mix is primarily a result of the UK government's energy strategy, adopted in light of (i) the current dependence on gas in a context of significant price increases, and (ii) the acceleration of coal plant closures supported by the energy transition.

#### 4.4.3.4 The outlook for the UK's nuclear market

The UK's energy mix is likely to change in favor of nuclear power. In its statement of April 7, 2022, the UK government announced a set of objectives placing nuclear power at the heart of its energy strategy<sup>45</sup>:

- The desire to increase the installed capacity of nuclear power to 24 GW by 2050, which is three times more than the current capacity;
- The development of eight new third-generation nuclear reactors, including the EDF ENERGY reactor currently under construction on the HINKLEY POINT C site (see section 5.2.3.6.2), as well as the EDF ENERGY SIZEWELL C project;
- The government's allocation of a £210 million budget to the small modular reactor (SMR) program of a consortium led by ROLLS-ROYCE<sup>46</sup>. The consortium plans to complete its first 470 MW plant by the early 2030s and estimates that at least 16 SMRs could be installed on operational nuclear sites.

### 4.4.4 The nuclear energy market in Belgium

#### 4.4.4.1 Belgian nuclear facilities

Belgium has two nuclear installations, DOEL (in the province of East Flanders) and TIHANGE (in the province of Liege), with a combined total of 7 pressurized water reactors. The installations are operated by ENGIE ELECTRABEL. However, the TIHANGE 1 installation is owned in equal parts by ENGIE ELECTRABEL and EDF BELGIUM.

#### 4.4.4.2 The regulatory framework for nuclear power operations in Belgium

The operation of nuclear plants in Belgium is supervised by the Federal Agency for Nuclear Control, which oversees, monitors, and inspects nuclear installations.

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<sup>45</sup> Source: Policy Paper, "British Energy Security Strategy," April 7, 2022.

<sup>46</sup> In consortium with the American energy company EXELON and the investment fund BNF RESOURCES, affiliated with the Franco-British family Perredo.



#### 4.4.4.3 Recent developments in the Belgian nuclear market

In 2021, nuclear facilities generated 48.1 TWh of electricity (52.4% of the electricity mix), an increase of 47% over the previous year.

In addition, following the outbreak of the Russia-Ukraine conflict in February 2022, the Belgian government decided to extend the life of DOEL 4 and TIHANGE 3 for 10 years after 2025. The relevant law has therefore been amended, but an agreement on extending operations has yet to be reached with ENGIE.

#### 4.4.4.4 Prospects for the Belgian nuclear market

Despite the importance of nuclear power in the Belgian electricity mix and the decision to extend the operating life of the DOEL 4 and TIHANGE 3 nuclear sites, Belgium is expected to phase out nuclear power by 2035, provided there are no further extensions<sup>47</sup>.

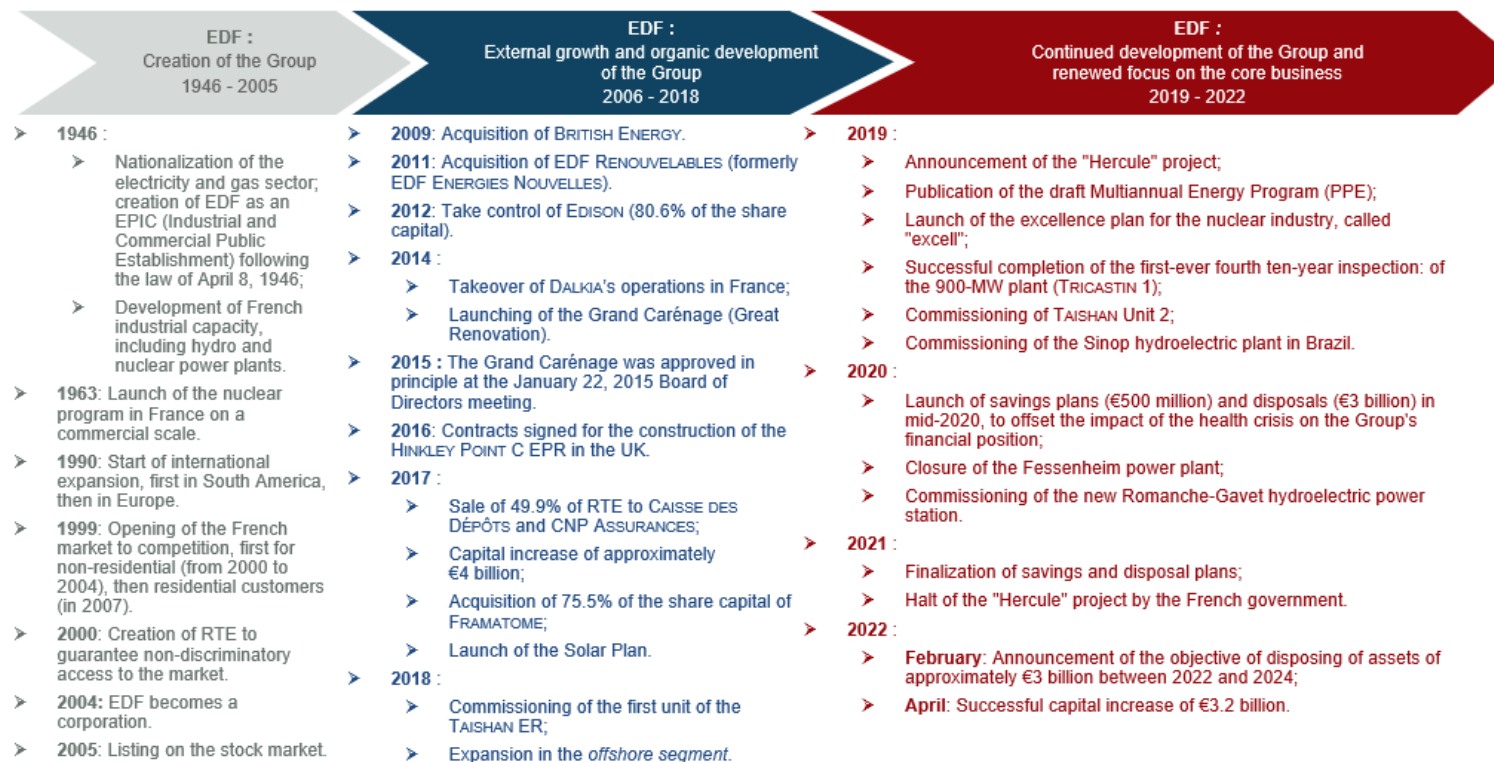
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<sup>47</sup> Source: FPS Economy, Legal basis for nuclear phase-out in Belgium.

## 5. The EDF Group and its business activities

### 5.1 History

Figure 8 - History of the Group



Sources: EDF 2021 Universal Registration Document and EDF website



EDF was created in 1946, following nationalization of the electricity and gas industry.

In 1963, EDF launched the commercial nuclear program in France.

In 1990, the Group began expanding internationally, first to South America, then Europe.

Since 1999, the French electricity and natural gas market has gradually opened up to competition, first for non-residential customers (from 2000 to 2004), then residential customers (2007).

In 2005, the Group listed part of its share capital on Euronext Paris, with different pricing terms depending on the type of investor:

- General public (France): €32.00;
- Institutional investors both in and outside France, and the general public in Japan: €33.00;
- Employees: (i) €25.60 for the formula with a 20% discount,<sup>48</sup> and (ii) €32.00 for the formula without a discount.

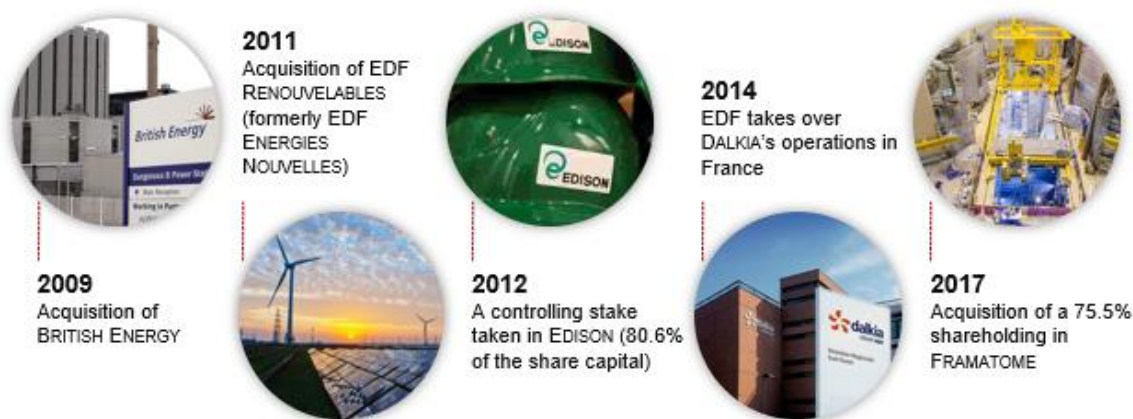
At the end of the IPO, the French Government owned 87.3% of EDF's share capital, the public held 10.8%, and employees held 1.9%.

In addition, RTE, the owner and operator of the French electricity transmission network, was transformed into a corporation (*société anonyme*) in 2005 to guarantee non-discriminatory access to the market.

In 2008, an ORS at €66.0 per EDF share was proposed to EDF employees and former employees.

The Group subsequently carried out several external growth transactions to support its expansion.

**Figure 9 - The main external growth transactions carried out by the EDF Group between 2009 and 2017**



Source: 2021 URD

In early 2015, EDF launched the Grand Carénage, an industrial program to renovate and modernize existing nuclear power plants. The aim of this program is to improve safety and ensure

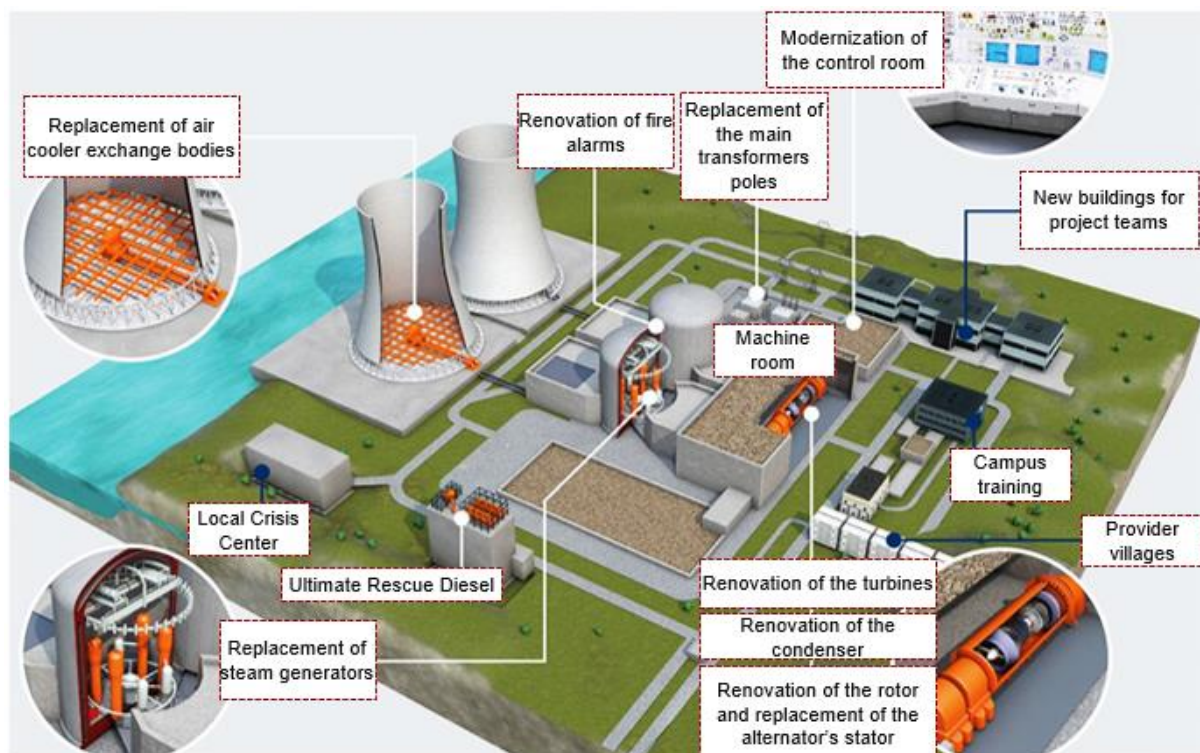
<sup>48</sup> The Shares sold in connection with the offer restricted to employees are subject to a lock-up period of two years after acquisition if acquired at a discount.



that the reactors continue to operate beyond the age of 40. The work is carried out mainly during maintenance outages, but also, for some reactors, while the facilities are operating.

At year-end 2021, the estimated cost of the program for the period 2014–2025 was €50.2 billion. This estimate factors in new work, studies, and inspections to be carried out, as well as the reevaluation of certain costs. On March 31, 2022, EDF launched the second phase of the Grand Carénage, covering the period 2022–2028, at an estimated cost of around €33 billion.

Figure 10 - Main projects of the Grand Carénage (major renovation program), 2014–2025



Source: EDF

In 2016, the Group signed the construction contracts for the third-generation<sup>49</sup> HINKLEY POINT C ("HPC") EPR project in the United Kingdom.

In 2017, the sale of 49.9% of RTE to CAISSE DES DÉPÔTS and CNP ASSURANCES was carried out on the basis of a valuation of €8.2 billion for all of the share capital (excluding earn-out). This transaction, which was part of €10-billion disposal plan to be carried out between 2015 and 2018, enabled the Company to reduce its net financial debt by around €4 billion.

On March 30, 2017, EDF carried out a cash capital increase of approximately €4 billion with shareholders' preferential subscription rights ("PSR") (*droits préférentiels de souscription* or *DPS*)<sup>50</sup>, based on a ratio of 3 new shares for 10 existing shares. This resulted in the issuance of 632,741,004 new shares at an issue price of €6.35 each, or a discount of 34.5%<sup>51</sup> over the closing price of the EDF share (€9.69) on March 3, 2017. It should be noted that the French Government

<sup>49</sup> European pressurized reactor.

<sup>50</sup> Based on the closing price of the EDF share on Euronext Paris on March 3, 2017, the theoretical value of the PSR was €0.77.

<sup>51</sup> Source: EDF press release, March 7, 2017



participated in the amount of approximately €3 billion, or about 75% of the total amount of the transaction.

In 2018, EDF commissioned the first unit of the TAISHAN nuclear power plant in China, consisting of two EPR reactors of 1,750 MW each.

In April 2019, the Group's management announced the launch of the "Hercule" project, consisting of (i) the institution of a symmetrical, balanced regulation for existing nuclear power in France that would cover the full cost of generating nuclear power and protect both EDF and its customers against the volatility of market prices, and (ii) an internal reorganization of the EDF Group, with EDF SA supported by three components:

- EDF BLEU, the Group's lead company, which is wholly state-owned entity and is responsible for all nuclear operations;
- EDF VERT, a subsidiary controlled by EDF BLEU (by a strong majority) and is responsible for the distributor ENEDIS, the sale of electricity, and renewable energy;
- EDF AZUR, a company wholly owned by EDF BLEU that is responsible for hydroelectric operations.

Also in 2019, TAISHAN Unit 2 and the Sinop hydroelectric plant in Brazil were commissioned and the fourth ten-year inspection of the TRICASTIN 1 900 MW facility—the first to reach this milestone—was completed successfully.

To address the impact of the COVID-19 crisis on its financial position, EDF launched savings and divestment plans in mid-2020. The Group's objectives were set at €500 million<sup>52</sup> in operating cost reductions in 2022 compared with 2019, and around €3 billion in disposals between 2020 and 2022. At the end of December 2021, the cost reduction was estimated at €545 million (relative to 2019) and the asset disposals signed or completed at the same date had a favorable impact of around €3.0 billion on net financial debt, thus exceeding the target by a year. These disposals have enabled the Group to focus on its core businesses and to exit certain carbon-based activities.

In addition, in 2020 the Romanche-Gavet hydroelectric power plant (Isère) was commissioned and the two reactors at the Fessenheim nuclear power plant were definitively shut down.

After more than two years of negotiations with the European Commission, the French Government decided to end the "Hercule" project in July 2021.

In February 2022, the EDF Group announced it wanted to sell assets worth approximately €3 billion between 2022 and 2024.

In April 2022, the Group announced the success of its €3.2 billion capital increase, with preferential subscription rights<sup>53</sup> (based on a ratio of 2 new shares for 13 existing shares), subscribed to by the French Government in proportion to its stake (83.88%, for approximately €2.7 billion). This

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<sup>52</sup> Reduction in operating expenses between 2019 and 2021, *i.e.*, the sum of personnel expenses and other external consumption, at constant scope, exchange rates, standards, and pension discount rate, excluding inflation and excluding the cost of sales of energy services activities, and FRAMATOME's nuclear engineering services and specific projects such as JAIPUR.

<sup>53</sup> Based on the closing price of the EDF share on Euronext Paris on March 16, 2022, the theoretical value of the PSR was €0.34.



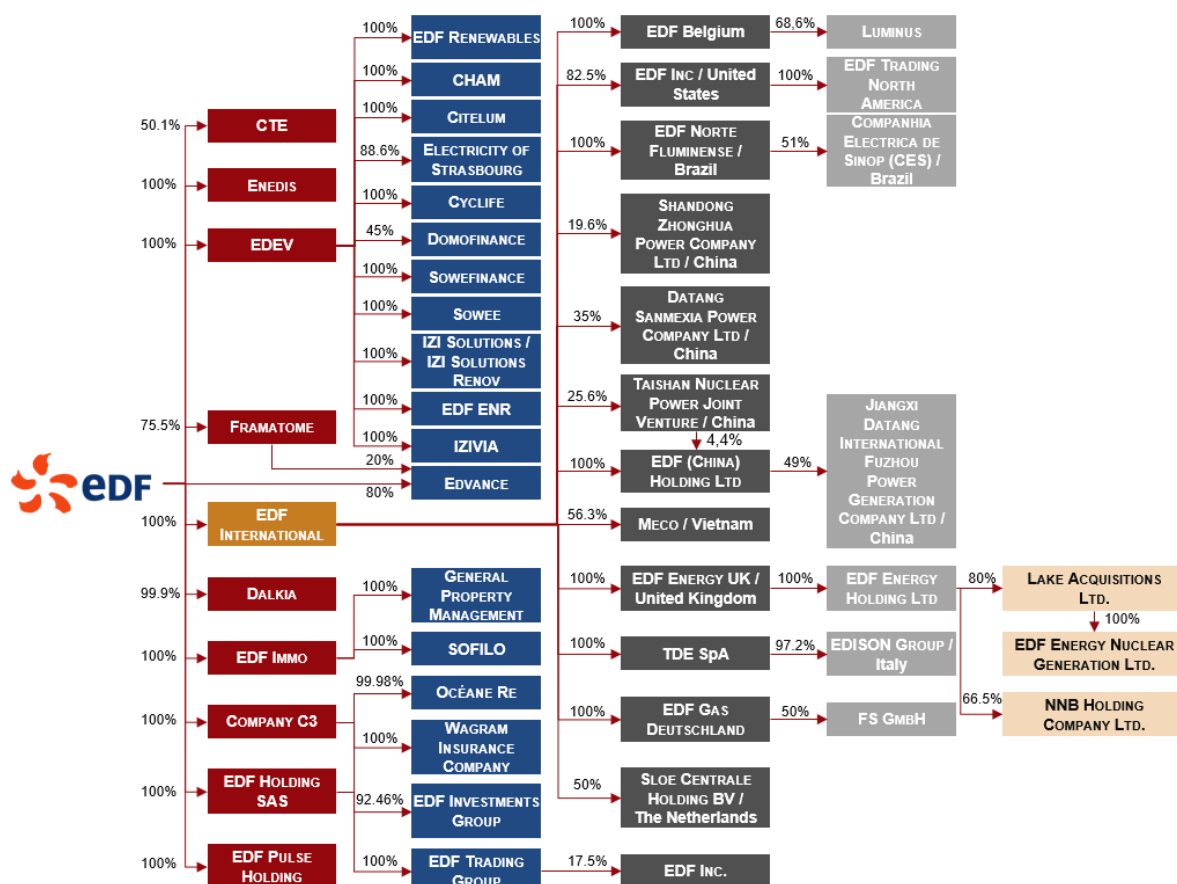
operation resulted in the issuance of 498,257,960 new shares at €6.35 each, or a 28.4% discount<sup>54</sup> over the closing price of the EDF share (€8.86) on March 16, 2022.

## 5.2 The Group's business activities

### 5.2.1 Group organizational chart

The Group's legal organization chart is presented below:

Figure 11 - Group organization chart as of December 31, 2021



Source: 2021 URD

### 5.2.2 Geographical presence

EDF supplies electricity and gas to approximately 38.5 million customers worldwide (individuals, business markets, local authorities).

Although France is by far its largest market (the Marketing and Production France and Regulated France segments represented 60.1%<sup>55</sup> of revenues as of December 31, 2021, bearing in mind that

<sup>54</sup> Source: EDF press release, March 18, 2022.

<sup>55</sup> Taking into account the "Intersegment eliminations."



there are other activities in France, notably within DALKIA, FRAMATOME and EDF RENEWABLES), the Group also has a significant presence abroad, mainly through its nuclear and hydro activities:

- EDF plays a leading and growing role in the United Kingdom (12.0%<sup>56</sup> of revenue as of December 31, 2021) through its wholly owned subsidiary, EDF ENERGY, which operates in particular in the nuclear power industry;
- Its presence in Italy, via EDISON, enables it, in particular, to diversify into gas in order to secure its supplies and reduce its costs;
- The Group also benefits from a strong position in Belgium, in particular the fields of (i) generating electricity from nuclear sources and gas, and (ii) renewable energy (hydroelectricity and wind power);
- EDF is also seeking to strengthen its position in regions with high growth potential (North America, India, and the Near and Middle East).

The EDF Group had approximately 167,000 employees at the end of 2021, 96% of whom were in Europe, with the remainder mainly in the Americas (5,448).

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<sup>56</sup> Taking into account the line "Intersegment eliminations"

### 5.2.3 EDF Group activities

The various activities of the Group are detailed below:

Figure 12 - Overview of the Group's activities



Source: 2021 URD

The Group had 117.3 GW of installed capacity worldwide at the end of 2021 and generated 523.7 TWh of electricity in 2021, 78.2% of which was nuclear powered.

The breakdown of EDF's installed capacity and electricity output worldwide in 2021 is shown below:

Figure 13 - EDF's installed capacity worldwide in 2021 (in GW)

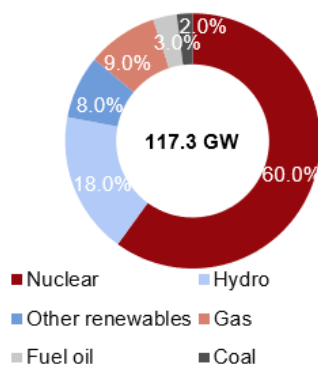
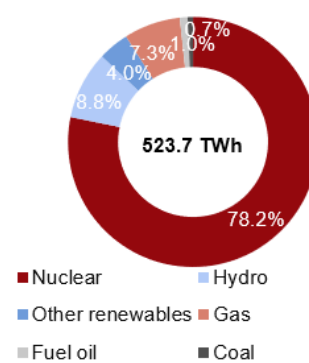


Figure 14 - EDF's electricity output worldwide in 2021 (in TWh)



Source: 2021 URD





### 5.2.3.1 Generation and marketing operations in France

**As a reminder, EDF is tasked with providing a public service, in particular in connection with its business of generating and selling electricity in France.**

#### 5.2.3.1.1 Generation operations in France

EDF is France's leading electricity producer. It owns and operates France's 56 nuclear reactors, is active in hydroelectric power generation (427 plants), and owns thermal power plants that run on gas, fuel oil, and coal (19 units).

Its numerous and diverse facilities make the Group one of the world's largest electricity producers, yet its CO<sub>2</sub> emissions are among the lowest thanks to the share of nuclear and renewable energy in its energy mix.

The Group's generating facilities have important advantages:

- 56 nuclear reactors in France;
- Control over the entire life cycle of nuclear generating facilities (design, operation, and decommissioning);
- Generation resources enabling it to meet the needs of its downstream portfolio (end users, sales to alternative suppliers, sales on wholesale markets, etc.);
- The implementation of actions to improve the technical performance of the plants and to continue their operation;
- Electricity generation that is 91% CO<sub>2</sub>-free thanks to the preponderance of nuclear and hydroelectric power.

At the end of 2021, the Group's facilities in continental France consisted mainly of:

- 56 pressurized water reactors (PWRs) with electrical power ranging from 900 MW to 1,500 MW;
- 19 thermal units in operation;
- 427 hydroelectric power plants.<sup>57</sup>

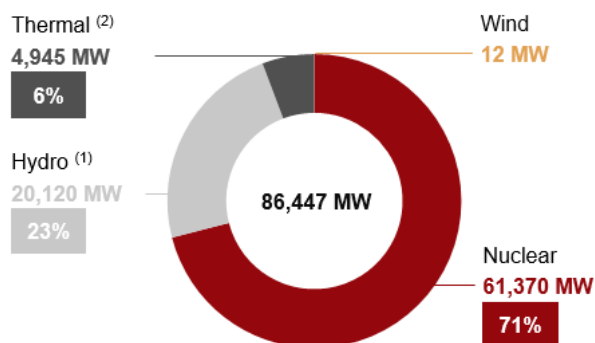
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<sup>57</sup> The Group also owns other hydropower plants through some of its subsidiaries: ELECTRICITÉ DE STRASBOURG ("ÉS"), SHEMA Group, CERGA et RKL, and the Franco-Swiss entities of Chatelôt and Emosson.

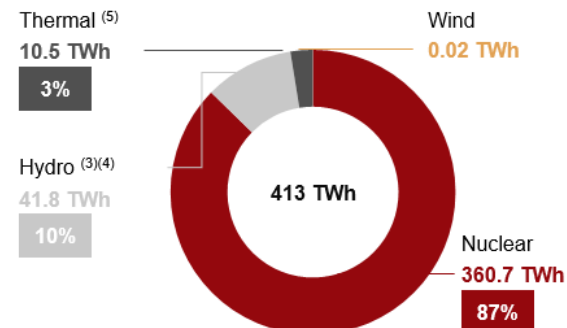


EDF's installed capacity and electricity output in mainland France at the end of 2021 are presented below:

**Figure 15 - EDF's installed capacity in mainland France at the end of 2021**



**Figure 16 - EDF's electricity output in mainland France in 2021**



Expressed in megawatts of maximum power coupled to the grid.

(1) Excluding Corsica and overseas France, or 439 MW in 2021, including marine energy: 240 MW.

(2) Excluding Corsica and overseas France, or 1,567 MW in 2021.

(3) Excluding Corsica and overseas France, or 1.3 TWh in 2021.

(4) Including pumped storage.

(5) Excluding Corsica and overseas France, or 4.8 TWh in 2021.

Source: 2021 URD

## ■ Nuclear electricity generation

Electricity from nuclear sources accounted for 87.3%<sup>58</sup> of all electricity generated by the Group in France in 2021.

EDF categorizes its operating nuclear reactors according to electrical power levels:

- The 900 MW level, composed of 32 units in operation (for a total capacity of 29,010 MW), with an average age of 39 years;
- The 1,300 MW level, composed of 20 units in operation (for a total capacity of 26,370 MW), with an average age of 33 years;
- The 1450 MW N4 level, the most recent, consisting of 4 units in operation (a total capacity of 5,990 MW) with an average age of 21 years.

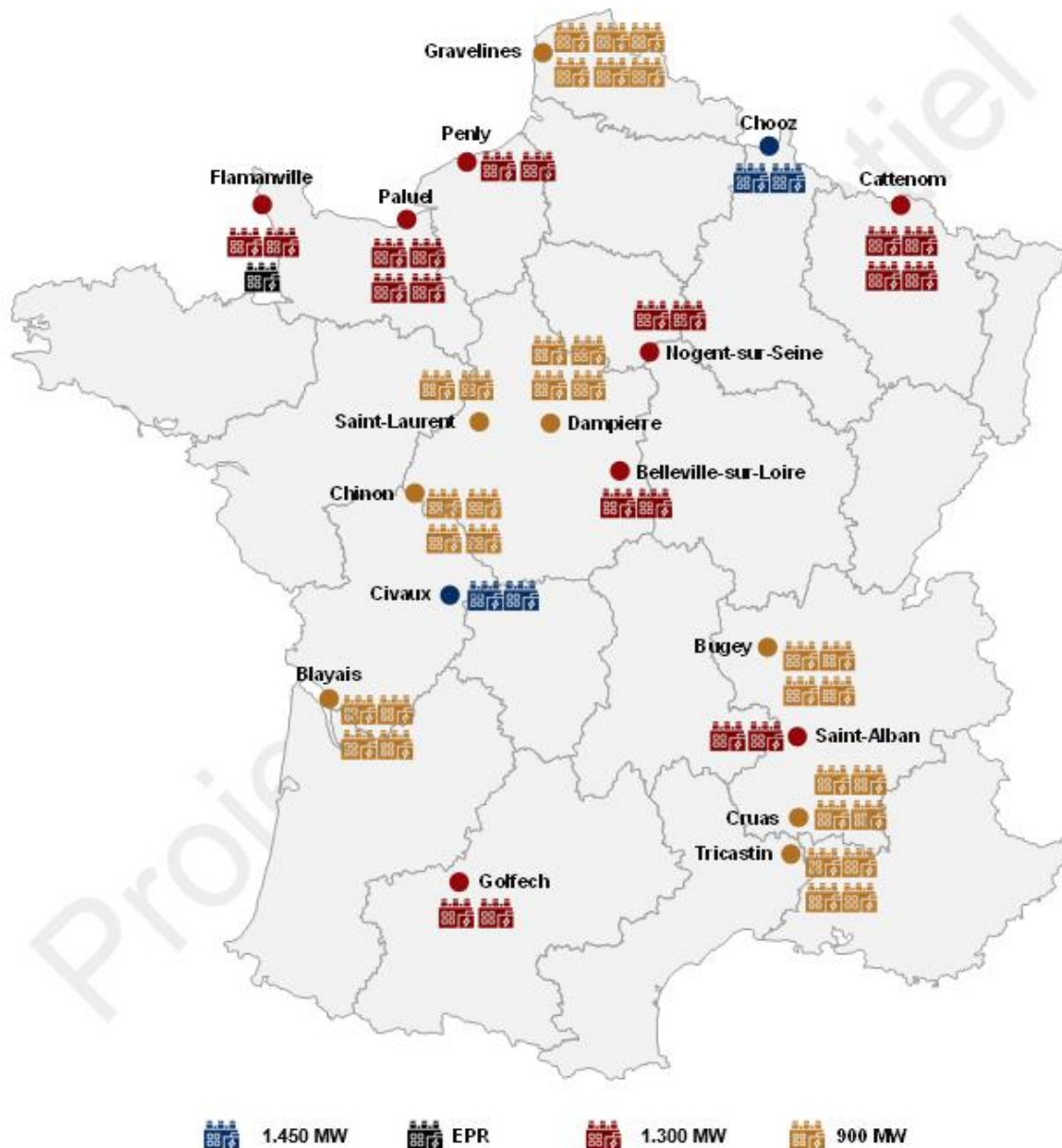
The Group has 56 units in operation at 18 sites throughout France, representing a total authorized capacity of 61,370 MW by the end of 2021.

The Group is also involved in the construction of the FLAMANVILLE 3 EPR reactor (1,650 MW) in the Manche department. The commissioning of the EPR, initially scheduled for 2012, has been postponed, and the fuel loading date is now expected to be in the second half of 2023. The FLAMANVILLE plant also has two reactors in operation with a capacity of 1,300 MW.

<sup>58</sup> Pumping included.



Figure 17 - The Group's nuclear facilities in France



Source: 2021 URD

## ■ “New Nuclear” projects

### New EPR 2 reactor program

On November 9, 2021, President Macron expressed the Government's intention to build new nuclear reactors in France. He confirmed this intention in Belfort on February 10, 2022, in his speech detailing the country's strategy to achieve "carbon-free energy by 2050."

He indicated his intention to launch a new nuclear reactor construction program involving the construction of three pairs of EPR2s, and studies for the construction of eight additional EPR2s.



With a power of around 1,670 MW, this new type of reactor is an optimized version of the EPR that incorporates feedback from the EPR construction sites and operating plants.

The President also indicated the need to aim for the first reactor to be commissioned "by 2035" and specified that EDF would build and operate these new EPR2s. Appropriate financing and regulations will have to be put in place to carry out this program.

Despite these announcements, no investment decision has yet been made. Work is under way to firm up the project's technical and economic details in order to reach a higher level of maturity.

### Small Modular Reactors

On September 17, 2019, EDF, CEA, NAVAL GROUP, and TECHNICATOME unveiled NUWARD™, a small modular reactor ("SMR") project under joint development. Based on pressurized water reactor technology, SMRs are designed to meet the growing needs of the worldwide decarbonized, safe, and competitive electricity market in the 300-400 MW power segment.

NUWARD™ is a 340 MW pressurized-water power plant consisting of two 170 MW modules. In this power range, the product is designed to be widely marketable for export and thus to contribute to the widespread replacement of fossil fuel power plants in the coming decades. To offer a competitive product to the world market at the end of the next decade, these reactors will be marketed using a power plant in France as a model, on which construction is expected to start by 2030. The commissioning of this SMR is expected to take place around 2035.

As part of the "France Relance" (French recovery) plan, the French Government has allocated public funds to support the conceptual design phase. In addition, on February 10, 2022, President Macron announced additional government aid of €500 million for the NUWARD™ project.

### ■ **Thermal generation**

In 2021, electricity generated by thermal power plants represented approximately 2.55% of all electricity generated by EDF in mainland France.

The Group's coal facilities have undergone several changes, in particular (i) the permanent shutdown, between 2013 and 2015, of ten generating units, (ii) the refurbishment, between 2014 and 2016, of three generating units of more recent technology in order to improve their reliability and efficiency, and (iii) the permanent shutdown of the Le Havre power plant as of April 1, 2021.

The EDF Group's ambition is to end coal-fired power generation activities worldwide by 2030.

### ■ **Generation from renewable sources, and storage**

The Group is the European leader in renewable energy, and in particular the largest supplier of hydroelectric power in the European Union. Hydropower is the Group's most important renewable energy source, representing nearly a quarter of the installed capacity in mainland France.

EDF is also leading the development of competitive industrial sectors, mainly in wind and solar power.

Excluding hydropower, the Group's renewable energy business is largely carried out by its subsidiary EDF RENEWABLES (see section 5.2.3.3), which employed 4,382 people at the end of 2021.



#### 5.2.3.1.2 Marketing operations in France

In addition to supplying electricity and gas, EDF offers a wide range of energy services and solutions.

In this context, the Group's Marketing Department is responsible for:

- all activities related to the sale of electricity, gas and related services in mainland France;
- all customer management activities (management of customer requests and complaints, billing, collection, etc.) for all customer segments (individuals, professionals, businesses, and communities);

For the largest customers (industrial and tertiary), the Group markets and provides energy services primarily through its subsidiary, DALKIA.

#### ■ Residential customers

EDF supplies electricity at the regulated sale rate and according to the following market-rate plans:

- "My Zen Days" (*Mes Jours Zen*);
- "My Zen Days Plus" (*Mes Jours Zen Plus*);
- "Green Electric" (*Vert Électrique*);
- "Green Electric Weekend" (*Vert Électrique Weekend*);
- "Green Electric Car" (*Vert Électrique Auto*);
- "Regional Green Electric" (*Vert Électrique Régional*); and
- "Digiwatt."

In addition, EDF offers a wide range of market-rate plans for gas:

- "Gas Advantage" (*Avantage Gaz*) has a fixed price per kWh (excluding VAT) for a period of four years;
- "Sustainable Gas Advantage" (*Avantage Gaz Durable*) combines the features of the "Gas Advantage" offer with a carbon offset linked to the estimated gas consumption;
- "Smart Gas Advantage" (*Avantage Gaz Connecté*) enables customers to control their heating remotely with a smart thermostat;
- "Optimized Gas Advantage" (*Avantage Gaz Optimisé*) is indexed at 2% below the price per kWh (excluding VAT) of the regulated gas price.

In addition, EDF enables its residential customers to monitor their energy use and, through its local services platform IZI BY EDF, markets emergency breakdown and interior renovation services, as well as turnkey energy renovation services for heating (heat pumps and boilers), insulation, ventilation, and window installation.

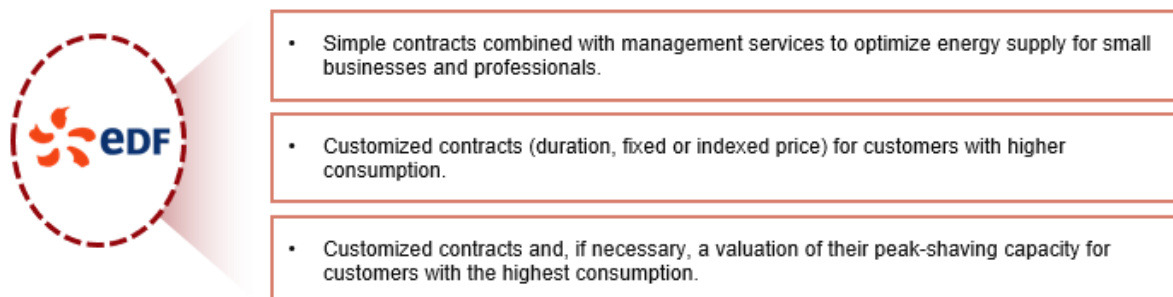
#### ■ Non-residential customers





EDF markets various electricity and gas supply and service packages to businesses and local authorities. The packages differ according to the size of the customer:

**Figure 18 – Types of contracts offered to business customers**



Source: 2021 URD

In addition, the Group encourages its customers to optimize their energy use by offering, for example, a rate differential between peak and off-peak hours or between summer and winter rates, or through work on industrial processes and insulating collective and tertiary buildings.

In addition, EDF offers a wide range of solutions and services for all corporate electricity and gas customers, whether large or small: online monitoring of use, electronic invoices, breakdown assistance, advice (e.g., optimization of subscribed power and energy audits and advice), etc.

Finally, EDF meets the needs of local authorities and public institutions with decentralized decision-making<sup>59</sup> by:

- Supplying electricity and gas at market prices within the framework of calls for bids;
- Developing offers and services in the field of energy transition (Territorial Climate Air Energy Plan, eco-districts, local generation, public lighting, etc.); and
- As part of its public service missions, EDF (i) enters into concession contracts for the supply of electricity at the regulated sales rate, (ii) supplies electricity at the regulated sales rate, and (iii) combats fuel poverty.

#### 5.2.3.1.3 Other Marketing and Generation France operations

Marketing and Generation France also combines the businesses providing services (in particular IZY CONFORT AND IZY BY EDF), electric mobility (IZIVIA), local energy management (in particular AGRÉGIO and E2M), innovation (EDF PULSE HOLDING), and renewable energy throughout France (e.g., rooftop solar, through EDF ENR).

#### 5.2.3.2 Regulated transmission and distribution in France

Electricity transmission and distribution in mainland France are the responsibility of (i) the transmission system operator (RTE) for high and very high voltage, and (ii) the distribution system operators (ENEDIS and local distribution companies (LDCs) in their respective exclusive service

<sup>59</sup> Hospitals, universities and colleges, chambers of commerce and industry, CROUS (regional providers of student services), ports, and airports.



areas) for medium and low voltage. These operations are part of the Company's public service mission.

#### 5.2.3.2.1 Transmission – RESEAU DE TRANSPORT D'ÉLECTRICITÉ (RTE)

Created on July 1, 2000, RTE is the owner and manager of the French electricity transmission network, which it operates, maintains, and develops. This network is the largest in continental Europe.

EDF indirectly owned RTE at the end of 2021, holding a 50.1% stake through COENTREPRISE DE TRANSPORT D'ÉLECTRICITÉ (CTE).

RTE has multiple responsibilities:

- It manages transmission infrastructure, guarantees access to the transmission network, and manages energy flows;
- It manages the transmission network's assets by maintaining, restoring, or replacing structures and making emergency repairs;
- It manages transport network flows in real time and maintains a balance between supply and demand;
- In cooperation with neighboring European transmission system operators, it manages access to the international interconnections that enable market players to buy and sell energy in other European countries.

#### 5.2.3.2.2 Distribution – ENEDIS

The distribution network operator, ENEDIS, operates and develops the public electricity distribution network, guaranteeing its safety and security by maintaining balanced electricity flows.

ENEDIS serves approximately 95% of the population of mainland France, with the remaining 5% served by local distribution companies.

At the end of 2021, the distribution network for which ENEDIS is the concessionaire will consist of approximately:

- 658,836 kms of high voltage A (HVA) lines (20,000 volts);
- 732,881 kms of low voltage (LV) lines (400 volts);
- 2,243 HVB/HVA source stations;
- 801,385 HVA/LV transformer stations.

#### 5.2.3.2.3 Systèmes Énergétiques Insulaires

SYSTÈMES ÉNERGÉTIQUES INSULAIRES (SEI) includes electricity systems operated by EDF that are not interconnected to the mainland network: Corsica, the French overseas departments (excluding Mayotte), the overseas collectivities of Saint-Barthélemy, Saint-Martin, and Saint-Pierre-et-Miquelon, as well as several of the Ponant islands.

EDF's organization in these territories is based on two structures:





- The SEI Department, which ensures the daily balance between supply and demand, manages all the networks, and markets electricity at the regulated rate;
- EDF PRODUCTION ÉLECTRIQUE INSULAIRE (EDF PEI), an EDF subsidiary that builds and operates new generating facilities.

The additional costs of generating power in these territories, compared to the equivalent costs in continental France, are considered a public service charge and are offset by the Government's budget.

#### 5.2.3.2.4 ELECTRICITY OF Strasbourg

ELECTRICITÉ DE STRASBOURG ("ES") is an Alsatian energy company with four business lines: (i) electricity distribution, (ii) energy supply, (iii) energy services, and (iv) renewable electricity generation. ES also provides services to local distribution companies (LDCs), mainly in eastern France.

In the renewable energy field, ES is one of the main players in deep geothermal energy in France, operating the first-ever deep geothermal power plant for industrial use, in Rittershoffen, and the geothermal power plant in Soultz-sous-Forêts.

ES, the shares of which have been listed on Euronext Paris since 1927, is 88.6% owned by EDF Développement Environnement ("EDEV"), with the balance held by the public and by employees. The market capitalization of ES was €806.6 million as of December 31, 2021.

#### 5.2.3.3 EDF RENEWABLES

With a presence in more than 20 countries and 4,382 employees at the end of 2021, EDF RENEWABLES is one of the leaders in developing and generating electricity from renewable sources.

Operating principally in North America (United States, Canada, and Mexico) and Europe (in particular France and the United Kingdom), it is also expanding further in other high-potential countries such as South Africa, Brazil, China, India, the United Arab Emirates, Saudi Arabia, Morocco, and Egypt.

EDF RENEWABLES has a strong presence in onshore and offshore wind energy and is developing its photovoltaic business, particularly in the Americas.

It is also active in the distributed renewable energy sector (rooftop solar), including in the United States, China, the United Kingdom, Vietnam, and Israel.

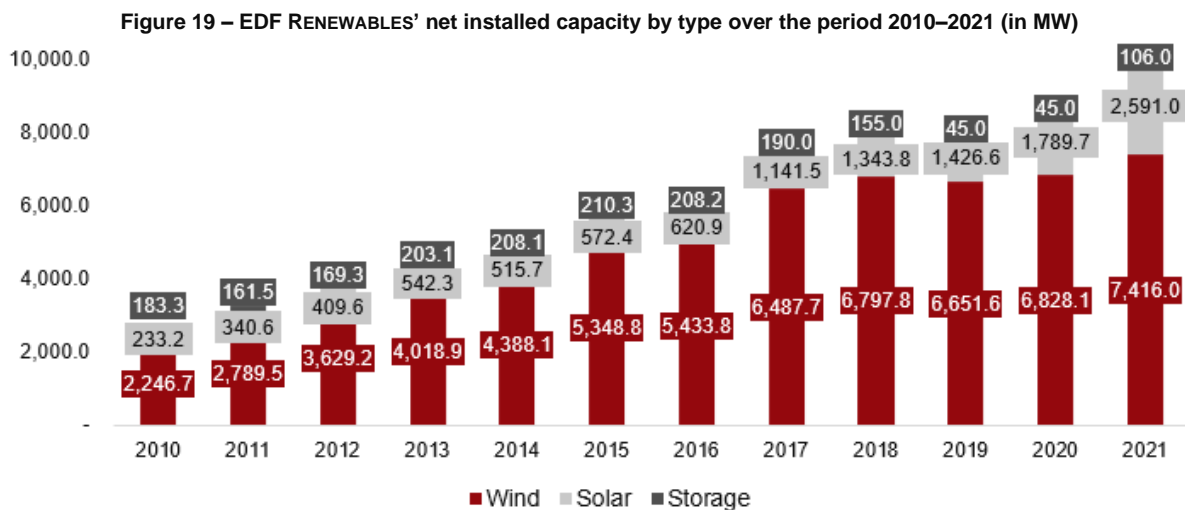
An integrated player in this sector, it is active upstream, in project development and engineering during the power plant construction, and downstream, in operating and maintaining the facilities once built.

At the end of 2021, EDF RENEWABLES' facilities had a net installed capacity of 10.1 GW, of which 73% is wind, 26% solar, and 1% storage.





The breakdown of EDF RENEWABLES' net installed capacity over the 2010–2021 period is shown below:



Source: XERFI study, "The European Electricity and Gas Industry," May 2021

#### 5.2.3.4 DALKIA

A 99.9%-owned subsidiary of the Group since July 2014, DALKIA is a leading player in the European energy services market. DALKIA provides a full range of services, has a strong commercial presence in France, and is expanding internationally in five geographical areas (United Kingdom, Ireland, the United States, Poland, and Middle East).

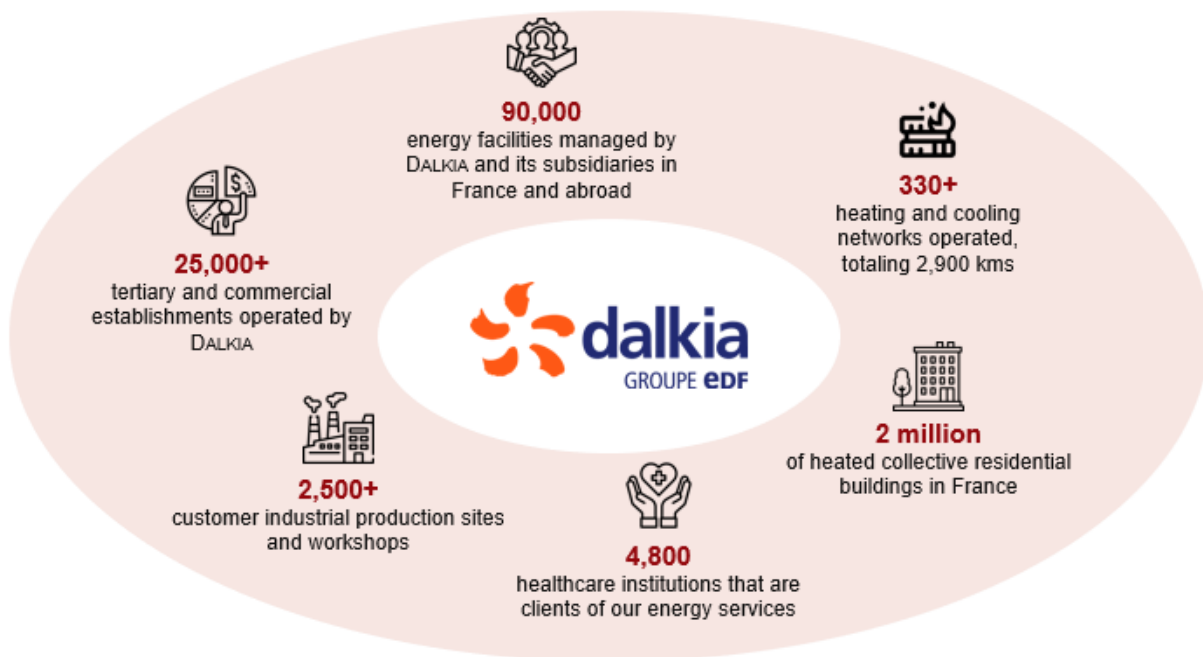
Thanks to its expertise in heating and cooling network management, industrial optimization, building energy performance improvement, and alternative and renewable energy development, DALKIA offers solutions to reduce energy consumption and improve the environmental and economic performance of its facilities.

DALKIA operates its 90,000 energy facilities through the following subsidiaries in France:

- DALKIA SMART BUILDING (design and implementation of solutions for building renovation);
- DALKIA FROID SOLUTIONS (energy use optimization and environmental preservation);
- DALKIA AIR SOLUTIONS (power plant auditing, design, installation and maintenance);
- DALKIA EN (ÉNERGIE NUCLÉAIRE), which specializes in (i) maintaining the means to generate emergency power and the cooling and ventilation systems for nuclear power plants, and (ii) managing contractors and building maintenance for nuclear and thermal power plants;
- DALKIA ELECTROTECHNICS (design, installation, operation, and maintenance of electrical installations);
- DALKIA BIOGAZ (production, treatment, and recovery of biogas);
- CRAM (operation-maintenance, management, and construction of thermal and climatic facilities).



Figure 20 – DALKIA's key figures



Source: EDF

#### 5.2.3.5 FRAMATOME

FRAMATOME is a nuclear energy player that employs 14,000 people and is owned by EDF (75.5%), MITSUBISHI HEAVY INDUSTRIES (19.5%) and ASSYSTEM (5%).

It has a significant industrial presence in France, Germany, the United States and China. It also has operations in Argentina, Brazil, Bulgaria, Canada, the Czech Republic, Finland, Hungary, Japan, Russia, Slovakia, South Africa, South Korea, Spain, Sweden, Ukraine, and the United Kingdom.

Having participated in more than 90 nuclear power plant projects and worked on more than 300 reactors, FRAMATOME specializes in designing the main components for nuclear boilers, metallurgy and mechanics, neutronics, scientific calculations, fluid mechanics, and risk and safety analyses. Its engineering services include major projects for the construction of new EPR-type reactors.

In addition, FRAMATOME designs, produces, and installs nuclear instrumentation and control systems for power plants in operation or under construction.

FRAMATOME also designs, develops, and manufactures fuel assemblies for reactors (pressurized water, boiling water, and research). More than 226,000 FRAMATOME fuel assemblies have been loaded into more than 100 operating reactors.

FRAMATOME supports reactor operators in their relations with safety authorities and in complying with regulations. It also gives its international customers access to technical centers where components are tested.



It also offers solutions and services to maintain and modernize nuclear power plants and extend their operating life, supplying fuel assemblies and related services, managing components and spare parts, upgrading control systems and instrumentation, and providing chemistry and radiochemistry services.

Moreover, FRAMATOME is involved in nuclear reactor construction projects, from design to procurement and commissioning. For example, FRAMATOME is participating alongside EDF in the construction, commissioning, and maintenance of five EPR reactors: in France (FLAMANVILLE 3), in China (TAISHAN 1 & 2), and in the United Kingdom (HPC 1 & 2).

Finally, in 2017 EDF and FRAMATOME created a joint engineering subsidiary, EDVANCE, which focuses on new nuclear power plant construction projects in France and around the world.

Figure 21 – Illustrations of FRAMATOME plants



Source: Press

#### 5.2.3.6 United Kingdom

The EDF Group's business in the United Kingdom is conducted through its main subsidiaries, EDF ENERGY and EDF TRADING, and other Group companies (IMTECH, EDF RENEWABLES UK, and POD POINT).

As the UK's largest low-carbon electricity producer, EDF is leading the transition to a decarbonized system in its seven business areas:

- Generating electricity and providing dismantling services;
- Supplying electricity, gas, and energy services to residential and non-residential customers;
- Building a new nuclear power plant at the HINKLEY POINT site;
- Developing other new nuclear power plants;
- Renewable energy, through EDF RENEWABLES UK, a joint venture between EDF ENERGY and EDF RENEWABLES;

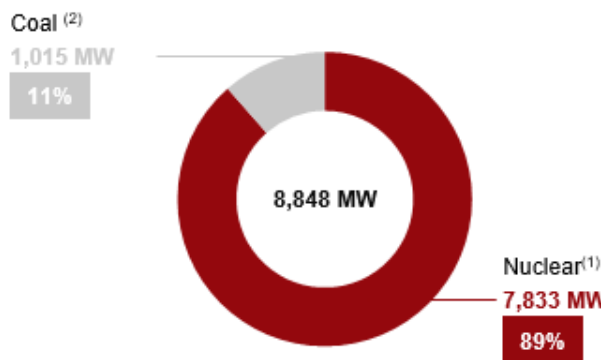
- Providing technical services and energy and low-carbon solutions at customer sites via IMTECH, a joint venture between EDF and DALKIA;
- Electric mobility.

#### 5.2.3.6.1 EDF ENERGY

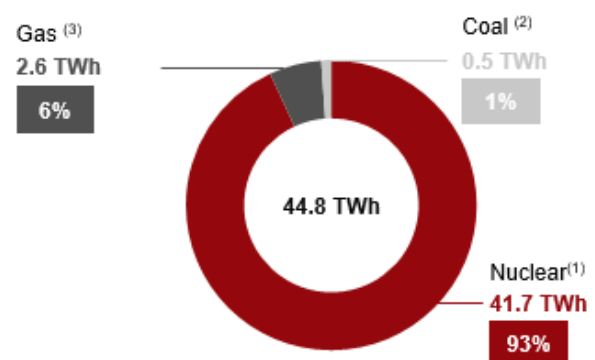
EDF ENERGY is one of the UK's leading energy companies. With 11,141 employees at the end of 2021, it generates around 14% of the country's electricity and supplies gas and electricity to roughly 6 million residential and business customers.

EDF ENERGY's installed capacity and the electricity it generated in the United Kingdom, as of year-end 2021, are shown below:

**Figure 22 – EDF ENERGY's installed capacity in the UK at year-end 2021 (in MW)**



**Figure 23 – Electricity generated by EDF ENERGY in the UK in 2021 (TWh)**



(1) The figures shown represent all nuclear capacity and nuclear-generated electricity, split 80%/20% between EDF ENERGY and CENTRICA.

(2) Coal capacity represents "connection input capacity."

(3) Gas capacity includes 1.35 MW of BARKANTINE CHP.

Source: 2021 URD

EDF ENERGY's business lines are described below:

#### ■ Nuclear power

At year-end 2021, EDF ENERGY owned and operated 7 nuclear power plants (13 reactors) with a total capacity of 7.8 GW. Six of those seven plants are composed of advanced gas-cooled reactors (AGR). SIZEWELL B is a pressurized water reactor.

CENTRICA holds a 20% interest in LAKE ACQUISITIONS LIMITED, the parent company that owns the existing nuclear generating facilities.

Since it was permanently shut down in 2006, SIZEWELL A has been undergoing a long nuclear decommissioning process that could last 100 years. The NUCLEAR DECOMMISSIONING AUTHORITY (NDA), a national authority, is responsible for that process.

#### ■ Thermal generation and gas storage



The Group had 2 power plants that generated a total of 3.1 TWh of electricity in 2021. Proactive in decarbonizing its power generation, EDF is aiming to reduce its activity in this segment. At year-end 2021, only the WEST BURTON A coal-fired power plant was in operation.

### ■ The customer division

This division is responsible for (i) supplying gas and electricity to residential and business customers in the United Kingdom, and (ii) optimizing EDF ENERGY's generation and customer assets on the wholesale market.

Business customers vary in size from small private companies to large public service contractors.

### ■ New nuclear

Following the final investment decision by EDF's Board of Directors on July 28, 2016, EDF and CHINA GENERAL NUCLEAR POWER CORPORATION ("CGN") signed contracts with the UK government for the construction and operation of two EPR reactors at the HINKLEY POINT site (the "HPC project"). EDF owns 66.5% of the HPC project and CGN owns 33.5%.

The two nuclear reactors, each with a capacity of 1,650 MW, are intended to supply around 7% of the UK's electricity needs.

The HPC project has been subject to several delivery delays and cost overruns. In May 2022, a review of the schedule and cost of construction of the two HPC nuclear reactors led to the following conclusions:

- Unit 1 is now scheduled to start generating electricity in June 2027 (originally scheduled to open in 2025);
- The potential delivery delay for the two units is estimated at 15 months;
- The estimated cost to complete the project is between £25 billion<sub>2015</sub> and £26 billion<sub>2015</sub> (compared to the £18 billion<sub>2015</sub> estimated in 2016).

At the same time, agreements have been signed for the development of two other nuclear power plants in the UK:

- The "SIZEWELL C" project, based on EPR technology, which is being led by EDF (80% ownership vs. 20% for CGN at year-end 2021); and
- The "BRADWELL B" project, based on UK HPR1000 technology, with development being led by a joint venture owned 66.5% by CGN and 33.5% by EDF.





Figure 24 – Selected nuclear projects in progress



Source: EDF

#### 5.2.3.6.2 Other operations in the United Kingdom

In addition to EDF ENERGY, the Group has other entities that operate in the United Kingdom:

- EDF TRADING (“EDFT”) (see section 5.2.3.9.1);
- IMTECH, one of the UK’s leading engineering and technical service providers, offering engineering and contracting, technical facilities management, systems integration and digital solutions, energy services, and energy performance contracting;
- EDF RENEWABLES UK, which develops and implements renewable energy generation and storage projects in the United Kingdom and Ireland;
- POD POINT, majority owned by EDF and one of the largest electric-vehicle charging station installation companies in the UK.

#### 5.2.3.7 Italy

Italy is one of the Group’s key markets in Europe (along with France, United Kingdom and Belgium). EDF maintains a presence there primarily through its 97.2% stake in EDISON, a major electricity and gas player.

##### 5.2.3.7.1 Power generation operations

EDISON is the third largest electricity producer in Italy, generating approximately 6.3% of the country’s net production. Excluding FENICE, it owns 98 hydroelectric plants, 14 thermal plants, 50 wind farms, and 64 photovoltaic plants. Of the electricity generated, 73% comes from CCGTs,<sup>60</sup> 15% from hydroelectricity, and 12% from wind and other renewable energy.

<sup>60</sup> Combined cycle gas turbines.



EDISON is also present internationally in this segment:

Figure 25 – EDISON's international presence

Greece	Brazil	Switzerland
<ul style="list-style-type: none"> <li>EDISON owns 50% of ELPEDISON SA, one of the country's leading electricity operators and owner of two CCGTs.</li> </ul>	<ul style="list-style-type: none"> <li>EDISON owns a 50% stake in IBIRITERMO in Brazil, which operates a 226 MW CCGT.</li> </ul>	<ul style="list-style-type: none"> <li>EDISON holds a 20% stake in the hydroelectric power company KRAFTWERKE HINTERRHEIN AG.</li> </ul>
 	 	 

Source: 2021 URD

The EDF Group's installed capacity and electricity generated in Italy in 2021 are shown below:

Figure 26 – EDF's installed capacity in Italy at year-end 2021 (in MW)

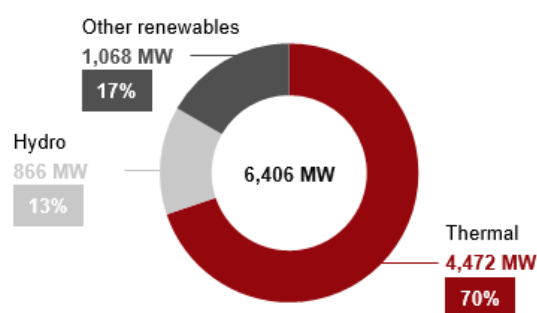
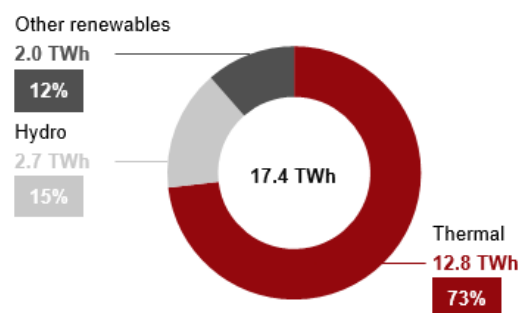


Figure 27 – Electricity generated in Italy by EDF at year-end 2021 (in TWh)



Source: 2021 URD

#### 5.2.3.7.2 Gas sector operations

In 2021, total gas sales in Italy amounted to 18.9 billion cubic meters, delivered to the industrial (5.8 billion), residential (2.0 billion) and thermoelectric (5.0 billion) sectors, to the wholesale market (6.0 billion), and abroad (0.1 billion).

EDISON's Italian gas supply portfolio is mainly composed of long-term contracts.

In September 2021, EDISON signed a memorandum of understanding with other operators for the joint development of the PUGLIA GREEN HYDROGEN VALLEY project, one of the first large-scale green hydrogen production and transportation projects in Italy.

#### 5.2.3.7.3 Sales and marketing

At year-end 2021, EDISON supplied approximately 1.59 million sites with electricity and/or gas in the business and consumer segments.

Present in Italy through 674 sales outlets, EDISON has also developed its digital sales channels to adapt to the constraints of the COVID-19 crisis.



It offers a full range of services for the homes of its residential customers: appliance maintenance, homeowners'/renters' insurance, residential photovoltaics, and electric mobility services.

EDISON also provides energy consulting services and innovative offers to the businesses. Like residential customers, B2B customers can enjoy the benefits of an offer combining solar power, batteries, and the use of electric vehicles.

#### 5.2.3.7.4 Energy services

EDISON is active in the services market, developing, selling, and managing energy and environmental services. In this segment, EDISON targets large industrial customers (such as STELLANTIS, whose contracts make up a large part of EDISON's business), tertiary sector customers, and government customers.

Designed to promote energy efficiency projects, its solutions are supplemented by the environmental services of the subsidiary, SERSYS AMBIENTE (consulting, sanitation, sampling and analysis of environmental matrices, waste, and industrial cleaning).

In addition, EDISON designs, builds, and manages assets such as co- and trigeneration plants, solar installations, electrical substations, thermal power plants for industrial use, cooling plants, compressed air production units, fluid distribution networks<sup>61</sup>, and industrial water treatment plants.

EDISON also provides energy consulting, emission quota management, and training.

#### 5.2.3.7.5 Regulated activities

EDISON owns 100% of EDISON STOCAGGIO, an entity in the regulated gas storage business. It also maintains three storage sites in depleted gas fields, with a volume of one billion cubic meters operated by these three sites.

#### 5.2.3.8 Other international

##### 5.2.3.8.1 Belgium

The EDF Group is present in Belgium through its subsidiaries EDF BELGIUM, LUMINUS, and CITELUM.

##### ■ EDF BELGIUM

As part of its long-standing cooperation with ELECTRABEL, EDF is a 50% joint owner of the TIHANGE 1 nuclear power plant, through its subsidiary EDF BELGIUM. The capacity owned by EDF represents 481 MW (or 2% of the Belgian generation capacity).

The electricity generated by TIHANGE 1 that belongs to EDF BELGIUM is sold to EDF, which in turn sells the electricity to LUMINUS at market price.

To extend operations at TIHANGE 1 until 2025, significant investments were required between 2011 and 2021 (EDF's share was approximately €320 million).

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<sup>61</sup> Electricity, gas, hot or refrigerated air, compressed air, industrial gases, and water.





Figure 28 – Overview of the TIHANGE nuclear power plant



Source: Press

## ■ LUMINUS

At the end of 2021, EDF held 68.6% of LUMINUS through EDF BELGIUM, with the remainder held by minority shareholders.

LUMINUS is the number two company in the Belgian energy market. With a market share of roughly 25%, it holds about 10% of Belgian generation capacity and employs about 2,400 people. LUMINUS supplies electricity and gas to approximately 2.1 million residential and business customers in Belgium.

In addition, LUMINUS is active in the field of renewable energy. At year-end 2021, it operated 7 hydropower plants and owned 82 onshore wind farms in Wallonia and Flanders.

### 5.2.3.8.2 Rest of Europe

In Europe, the Group is also present:

- In the Netherlands: EDF and PZEM own, through a joint venture called SLOE CENTRALE BV (50% each), an 870 MW CCGT plant in the southwest of the country. This asset is currently being sold;
- In Germany: with around 3,800 employees, EDF is particularly active in the fields of renewable energy and energy services, and through its subsidiary FRAMATOME (see Section 5.2.3.5);
- In Spain: EDF is present through the companies ELCOGAS, EDF FENICE IBÉRICA, CITELUM, EDF TRADING, FRAMATOME, and EDF PENINSULA IBERICA;
- In Russia.<sup>62</sup>

### 5.2.3.8.3 Rest of the world

<sup>62</sup> Given the region's unstable geopolitical context linked to the war in Ukraine, in May 2022 DALKIA announced the sale of all its assets in Russia to local management and the Group's Moscow office suspended operations.



EDF operates throughout North America, with a strong presence in the United States. Its activities in North America mainly include:

- Renewable energy, mainly in the United States via EDF RENEWABLES NORTH AMERICA;
- Trading via EDF TRADING NORTH AMERICA, and supplying energy management products in the United States and Canada via EDF ENERGY SERVICES (EDF ENERGY SERVICES is being sold);
- Energy services, local management of energy and energy efficiency, and public lighting via DALKIA;
- The subsidiary, FRAMATOME (see Section 5.2.3.5);
- R&D via EDF INNOVATION LAB.

In South America, EDF is present on the Brazilian, Chilean, Peruvian, and Colombian markets.

The Group is also active (i) in Asia-Pacific, particularly in China and in fast-developing countries, (ii) in Southeast and South Asia, (iii) in Vietnam, Laos, India, Myanmar, Indonesia, and Singapore.

In China, EDF is involved in the TAISHAN nuclear power plant, the largest Sino-French cooperative project in the energy sector:

- The asset is held by TNPJVC, a joint venture founded by CGN (51%), EDF (30%) and the provincial Chinese electricity company GUANGDONG ENERGY GROUP (19%);
- The nuclear power plant, composed of two EPR reactors of 1,750 MW each, was designed to supply the Chinese electricity grid with up to 24 TWh of CO<sub>2</sub>-free electricity per year, equivalent to the annual consumption of 5 million Chinese people;
- The TAISHAN 1 reactor entered commercial operation on December 13, 2018, and the TAISHAN 2 reactor entered commercial operation on September 7, 2019.

EDF is present on the African continent, in particular in South Africa, Mozambique, Morocco, Senegal, Cameroon, Egypt, Ivory Coast, Ghana, Togo, and Kenya.

EDF is also present in the Middle East (United Arab Emirates, Qatar, Saudi Arabia, Lebanon, Bahrain), where it engages in project development and monitoring activities.

#### 5.2.3.9 Other business lines

Other business lines include, in particular, EDF TRADING and gas supply and services.

##### 5.2.3.9.1 EDF TRADING

Based in London, EDF TRADING (“EDFT”) serves as an interface between the Group and the wholesale energy markets. EDFT provides optimization and risk management services to the Group and to third parties in Europe, North America, and Asia.

EDFT is one of the main players in the European wholesale electricity market, with a trading volume of about 2,000 TWh every year.



EDFT is also one of the main players in the European wholesale gas market, with a trading volume of 590 Bm<sup>63</sup> per year. On the wholesale markets, EDFT optimizes the physical gas assets of the Group's entities, including production, transit capacity, long-term supply contracts, and regasification and storage capacity.

In addition, as a leader in the North American wholesale energy markets, where it has an extensive geographic presence, EDF TRADING NORTH AMERICA offers solutions throughout the North American energy value chain.

EDFT also has a wide range of multi-commodity hedging products that meet EDF's and third parties' decarbonization objectives.

Finally, EDFT holds a 33% stake in JERA GLOBAL MARKETS, a leading marine energy trader.

#### 5.2.3.9.2 Gas operations

The Group's gas strategy is designed to secure the gas supplies of more than 5.99 million customers, its cogeneration plants, and its gas-fired power plants.

EDF is active in the natural gas market in France and Europe, mainly through EDISON, EDF ENERGY, and LUMINUS. Since August 2017, EDISON has been the Group's gas-company platform for asset management, and has sold its upstream businesses (Exploration and Production).

The Group also relies on EDFT for its short-term operations on the continental wholesale markets and in the United Kingdom, as well as on DALKIA (notably for cogeneration plants).

Finally, EDF operates outside Europe, in particular in the United States, where EDF ENERGY SERVICES (currently being sold) is a major supplier of natural gas to large industrial customers and distributors.

### 5.3 Group strategy

Presented on September 22, 2015, the Cap 2030 strategy reflects the Group's strategic vision and implements its mission statement as enshrined in the Company's bylaws since May 7, 2020: "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."

In 2020, the Group made new commitments to reduce its greenhouse gas emissions by 2030. It should be noted that EDF has obtained certification from Science Based Targets<sup>64</sup> for enhanced efforts to reduce CO<sub>2</sub> emissions and keep warming well below the 2°C target set in the Paris Agreement. EDF's 2030 target is thus a 50% reduction (relative to 2017) in direct and indirect emissions (scope 1 and 2), and a 28% reduction (relative to 2019) in scope 3 emissions.

As outlined in Cap 2030, the Group's strategy focuses on three areas:

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<sup>63</sup> Billion cubic meters.

<sup>64</sup> Science Based Targets is a joint initiative launched in 2015 following the Paris Agreement by CDP, UN GLOBAL COMPACT, WORLD RESOURCES INSTITUTE, and WORLD WILDLIFE FUND.



Figure 29 – Cap 2030 strategic areas

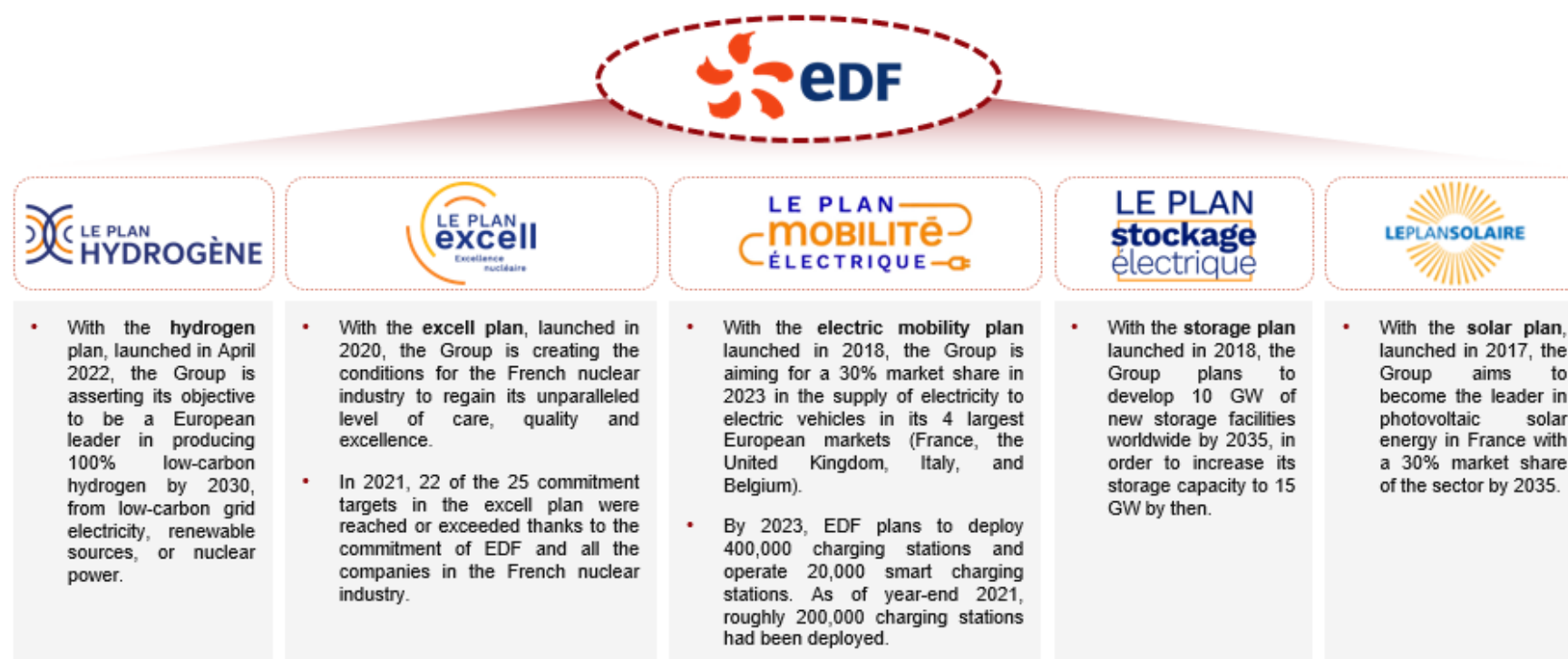


Source: 2021 URD



To reach its Cap 2030 targets, the Group launched the programs shown in Figure 39.

Figure 30 – Programs launched by the EDF Group



Source: 2021 URD



## **6. Financial analysis of the EDF Group**

EDF's consolidated financial statements, as presented in the 2017 to 2021 Registration Documents and Universal Registration Documents, are summarized below.

The consolidated financial statements summarized below for the years 2017 to 2021 were the subject of an unqualified audit opinion issued by EDF's statutory auditors, KPMG S.A. and DELOITTE & ASSOCIÉS.

Note that EDF closes its fiscal year on December 31 of each year and that the data for fiscal years 2019 to 2021 apply IFRS standards, in particular IFRS 16, which took effect on January 1, 2019.

## 6.1 Consolidated income statement from 2017 to 2021

Table 3 – Group consolidated income statement from 2017 to 2021

In millions of euros - As of December 31	Pre-IFRS 16		Post-IFRS 16		
	2017 restated <sup>1)</sup>	2018 restated <sup>2)</sup>	2019	2020	2021
<b>Revenues</b>	<b>64,892</b>	<b>68,546</b>	<b>71,347</b>	<b>69,031</b>	<b>84,461</b>
% growth	(8.9)%	5.6 %	4.1 %	(3.2)%	22.4 %
Fuel and energy purchases	(32,901)	(33,056)	(35,091)	(32,425)	(44,299)
Other external consumption	(8,739)	(9,262)	(8,625)	(8,461)	(8,595)
Personnel costs	(12,456)	(13,642)	(13,797)	(13,957)	(14,494)
Taxes	(3,541)	(3,690)	(3,798)	(3,797)	(3,330)
Other operating income and expenses	6,487	6,002	6,687	5,783	4,262
<b>Gross operating profit (EBITDA)</b>	<b>13,742</b>	<b>14,898</b>	<b>16,723</b>	<b>16,174</b>	<b>18,005</b>
% growth	(16.3)%	8.4 %	12.2 %	(3.3)%	11.3 %
% of revenues	21.2 %	21.7 %	23.4 %	23.4 %	21.3 %
Change in energy & commodity derivatives, excluding trading activities	(355)	(224)	642	(175)	(215)
Depreciation and amortization	(8,537)	(8,775)	(10,020)	(10,838)	(10,789)
Net allocations to provisions for renewal of assets under concession	(58)	(50)	-	-	-
(Impairment)/reversals	(518)	(290)	(403)	(799)	(653)
Other operating income and expenses	1,363	(105)	(185)	(487)	(1,123)
<b>Operating result</b>	<b>5,637</b>	<b>5,454</b>	<b>6,757</b>	<b>3,875</b>	<b>5,225</b>
% growth	(25.0)%	(3.2)%	23.9 %	(42.7)%	34.8 %
% of revenues	8.7 %	8.0 %	9.5 %	5.6 %	6.2 %
Cost of gross financial debt	(1,778)	(1,712)	(1,806)	(1,610)	(1,459)
Effect of discounting	(2,959)	(3,464)	(3,161)	(3,733)	(2,670)
Other financial income and expenses	2,501	378	4,603	2,761	4,489
<b>Financial result</b>	<b>(2,236)</b>	<b>(4,798)</b>	<b>(364)</b>	<b>(2,582)</b>	<b>360</b>
<b>Income before tax of consolidated companies</b>	<b>3,401</b>	<b>656</b>	<b>6,393</b>	<b>1,293</b>	<b>5,585</b>
Income taxes	(147)	178	(1,532)	(945)	(1,400)
Share of net income of associates and joint ventures	35	569	818	425	644
Net income from discontinued operations	-	(212)	(497)	(158)	(1)
<b>Consolidated net income</b>	<b>3,289</b>	<b>1,191</b>	<b>5,182</b>	<b>615</b>	<b>4,828</b>
% of growth	9.2 %	(63.8)%	335.1 %	(88.1)%	685.0 %
% of revenues	5.1 %	1.7 %	7.3 %	0.9 %	5.7 %
of which Group share	3,173	1,177	5,155	650	5,113
of which minority interests	116	14	27	(35)	(285)

(1) Restatement due to IFRS 15 impacts.

(2) Restatement of the impact of presenting EDISON's E&P business as a business in the process of being sold.

Sources: 2019, 2020 and 2021 URDs, EDF's 2017 and 2018 Reference Documents

Over the period under review, the Group's income statement was affected, in particular, by changes in electricity prices, the continued deployment of the Cap 2030 strategy, and the consequences of the COVID-19 crisis.

Below we analyze changes in the main income statement aggregates over the period 2017–2021.

### ■ Revenues<sup>65</sup>

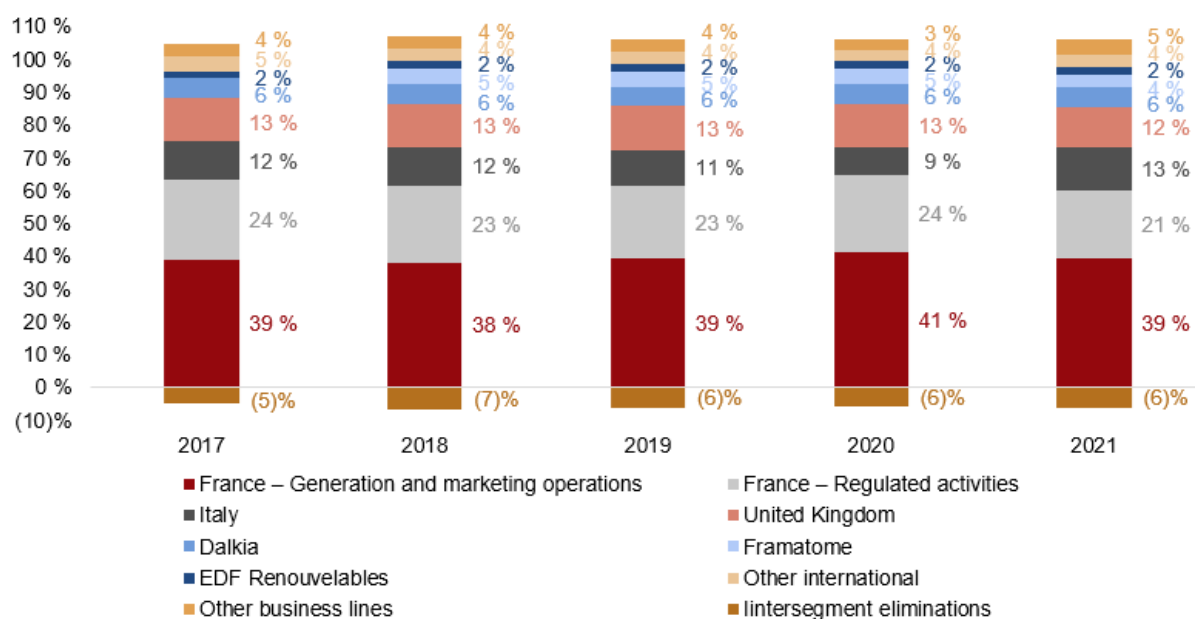
The breakdown of the Group's revenues by segment for the period under review is presented below:

<sup>65</sup> It should be noted that revenues do not necessarily represent the Group's operations due, in particular, to the methods for recording energy sales on the wholesale markets and its marketing and services operations.





Figure 31 – Breakdown of Group revenues by segment since 2017, in percentages



Sources: EDF's 2019 and 2021 URDs and 2018 Reference Document

EDF breaks its business down into ten segments<sup>66</sup> (see Figure 31), with the integration of the FRAMATOME business<sup>67</sup> occurring as of December 31, 2017, following the acquisition of that company from AREVA as of December 31, 2017.

The breakdown of the Group's revenues was relatively stable over the period under review, in particular:

- Together, production and marketing activities and regulated activities in France accounted for between 60.1% and 64.6% of total revenues between 2017 and 2021, reflecting the Group's strong national roots;
- The Group's international activities<sup>68</sup> represented 29.2% of total revenues in 2021, compared with 30.2% in 2017.

EDF's revenues amounted to €68.5 billion in 2018, an increase of +5.6% over the previous year. That increase can be attributed mainly to:

- Growth in its generation and marketing operations in France (€1.0 billion), resulting in particular from (i) the +15.0% growth in renewable electricity output, (ii) the increase in market prices<sup>69</sup> (+€606 million), and (iii) growth linked to gas marketing (+€220 million);
- The acquisition of FRAMATOME from AREVA, reporting revenues of €3.3 billion in 2018. As a reminder, EDF owns 75.5% of FRAMATOME.

The Group's growth in 2019 (€71.3 billion, or +4.1% increase in revenues) is due in particular to:

<sup>66</sup> Including "Inter-segment eliminations."

<sup>67</sup> Formerly NEW NP.

<sup>68</sup> United Kingdom, Italy, and Other International.

<sup>69</sup> In France, electricity spot prices averaged €50.2/MWh base load and €59.1/MWh peak load in 2018, up €5.2/MWh and €5.4/MWh, respectively, over 2017.





- Strong generation and marketing in France (€1.8 billion), linked to (i) the favorable change in regulated electricity sales rates<sup>70</sup> (+€588 million), and (ii) the growth of gas marketing;
- A positive contribution from the United Kingdom (+€604 million), linked to increases in (i) capacity revenues (+€309 million), (ii) sale prices of nuclear energy (around +£4/MWh), and (iii) residential and business rates.

Revenues amounted to €69.0 billion in 2020, down organically by -3.4% due to the COVID-19 crisis, which had an estimated unfavorable effect of €2.3 billion (lower gas and electricity prices and lower volumes sold).

Driven by all its activities, the Group's revenues rebounded strongly in 2021 (+22.4%), reflecting in particular:

- Its strong generation and marketing efforts in France (+€4.8 billion), including (i) the resale of electricity from purchase obligations<sup>71</sup> (+€2.7 billion, linked to the increase in spot and forward market prices<sup>72</sup>), and (ii) strong marketing and aggregator activities, and gas sales (+1.5 billion);
- The upturn in business in Italy (+€5.3 billion), linked essentially to (i) the rise in gas prices (gas represented 42% of the country's total energy consumption in 2020), (ii) the post-health crisis rebound in volumes sold to business customers, and (iii) the rise in electricity prices (+223.1% average increase in base prices and +216.4% average increase in peak spot prices between the beginning and end of 2021).

Nuclear power output in France reached 360.7 TWh in 2021 (+25.3 TWh compared to 2020), namely due to more reactors being available and to decreased modulation<sup>73</sup>, 2020 having been marked by lower demand in connection with the COVID-19 crisis.

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<sup>70</sup> Increase in regulated sales rates (i) on June 1, 2019, by +7.7% excluding VAT for residential and non-residential blue tariffs, and (ii) on August 1, 2019, by +1.47% excluding VAT for residential blue tariffs and +1.34% excluding VAT for non-residential blue tariffs.

<sup>71</sup> Legislative and regulatory framework requiring EDF to purchase electricity generated by certain entirely renewable sources and to sell it to customers on the same terms as it sells the electricity it generates.

<sup>72</sup> Electricity prices in France rose by an average of +239.0% in base load and +227.0% in peak load.

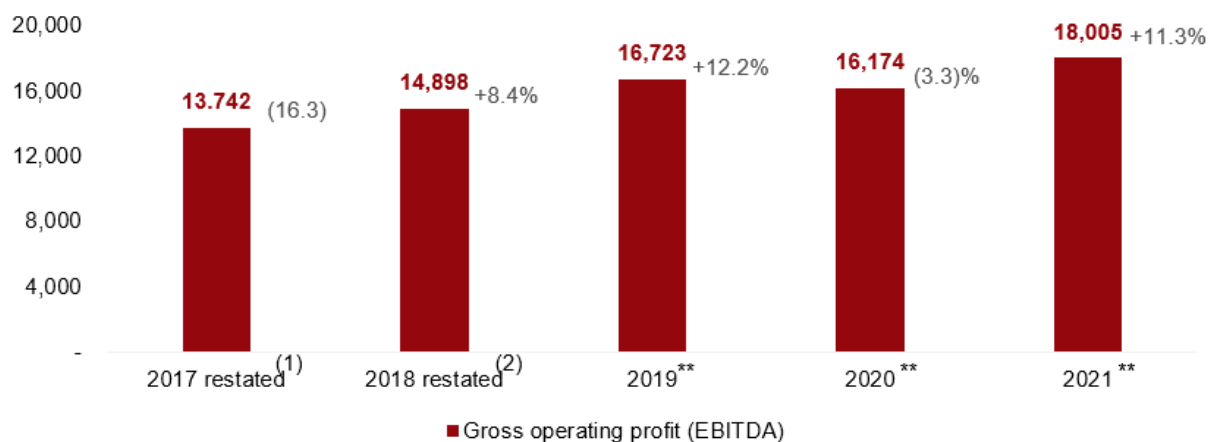
<sup>73</sup> A system for adjusting nuclear electricity generation according to the quantity of available renewable energy, depending on short-term generation conditions.



## ■ Gross operating profit (EBITDA)

The Group uses the EBITDA indicator to measure its operating performance and for external communication. The change in the Group's EBITDA during the period under review is presented below:

Figure 32 – Change in the Group's EBITDA since 2017 (in m€)



(1) Restatement due to IFRS 15 impacts.

(2) Restatement of the impact of the presentation of EDISON's E&P business as a business in the process of being sold.

\*\* After application of IFRS 16.

Sources: EDF's 2019 and 2021 URDs and 2017 Reference Document

Between 2017 and 2021, EBITDA increased at an average annual rate of +7.0%.

The -16.3% contraction in Group EBITDA in 2017 should be viewed in light of the decline in nuclear (-1.3%) and hydro (-12.5%) generation in France, as well as the drop in prices in almost all geographical areas where EDF operates. In particular, EBITDA for the "France – Generation and Marketing Operations" segment was impacted by the decline in nuclear<sup>74</sup> and hydro<sup>75</sup> generation and the purchase of volumes needed to cover ARENH subscriptions at high prices in a tight market.

The improvement in the Group's EBITDA in 2018 (+8.4%) was mainly due to:

- The strong showing in generation and marketing in France (€1.4 billion), mainly due to (i) the increase in hydroelectric output (+25.4%<sup>76</sup>) and nuclear output (+3.7%<sup>77</sup>), and (ii) the better conditions on the wholesale markets (+€413 million);
- The positive effect of integrating FRAMATOME, acquired in 2017 (€202 million in EBITDA after elimination of the margin for services and work done for the Group's large projects and for the nuclear installed capacity in France).

In 2019, EBITDA increased by +12.2% over 2018, mainly due to the organic growth in generation and marketing operations in France (€1.3 billion). That growth was the result of favorable energy

<sup>74</sup> Nuclear production was affected by technical unavailability (notably with the long-term outages of FLAMANVILLE 1 and CATTENOM 1, and the temporary outage of the four TRICASTIN reactors) and by extended maintenance outages on several reactors.

<sup>75</sup> Particularly unfavorable hydrological conditions in 2017.

<sup>76</sup> After a very dry 2017, 2018 enjoyed good water conditions as well as optimized availability of water assets.

<sup>77</sup> This improvement should be compared to 2017, which was heavily penalized by several reactor outages.



price effects (+€2.2 billion) given the increase in market prices and regulated sales rates,<sup>78</sup> which were partially offset by the decrease in nuclear<sup>79</sup> and hydro<sup>80</sup> output (€0.9 billion).

In 2020, the Group's EBITDA amounted to €16.2 billion (a contraction of -3.3%), due to the COVID-19 crisis (estimated impact of €1.5 billion<sup>81</sup>). In EDF RENEWABLES, the exceptional level of "Development-Sale of Structured Assets<sup>82</sup>" in 2019, with no equivalent in 2020, explains a €313 million decline in 2020 EBITDA.

To offset the impacts of the health crisis on its financial position, the Group launched a cost savings and divestment plan in 2020, targeting a €500 million reduction in operating expenses in 2022 relative to 2019<sup>83</sup> and asset disposals of roughly €3 billion over the period 2020 to 2022. At year-end 2020, €221 million in cost reductions had been achieved and approximately €0.5 billion<sup>84</sup> of asset disposals had been signed or completed.

The Group's EBITDA was €18.0 billion in 2021, its highest level for the period under review. EBITDA growth (+11.3%) was mainly driven by:

- The increase in the nuclear power output in France (+7.5%), reflecting greater reactor availability and lower modulation volumes relative to 2020, affected by the COVID-19;
- The exceptional performance of the trading business, with organic growth of +89.6%, in a context of very high volatility in the commodities markets;
- The significant improvement in Italy, linked to (i) the pick-up in business with industrial customers in the gas segment, and residential and SME customers in the electricity segment, and (ii) the capital gain on the sale of all of INFRASTRUTTURE DISTRIBUZIONE GAS (IDG);
- Regulated activities in France, which grew due to the increase in distributed volumes (+€251 million, reflecting an increase in distributed volumes of +15.8 TWh) and the strength of the network connection services business (+€159 million).

The cost savings and divestment plans initiated in 2020 have exceeded their targets. At year-end 2021, the cost reduction was estimated at €543 million relative to 2019<sup>85</sup> and the asset disposals signed or completed by December 31, 2021, had a favorable impact of €3 billion on the Group's net financial debt.

<sup>78</sup> Increase in regulated sales rates (i) on June 1, 2019, by +7.7% excluding VAT for residential and non-residential blue tariffs, and (ii) on August 1, 2019, by +1.47% excluding VAT for residential blue tariffs and +1.34% excluding VAT for non-residential blue tariffs.

<sup>79</sup> Lower availability of reactors due to an increase in outage extensions in the context of a busy ten-year-inspection schedule.

<sup>80</sup> Very unfavorable hydrological conditions during the first nine months of the year.

<sup>81</sup> The impact of the health crisis is essentially linked to the decline in (i) nuclear generation in France (-€0.7 billion), (ii) demand associated with the slowdown in construction sites and customer service activities (-€0.6 billion), and (iii) volumes distributed and connection work affecting the distribution business (-€0.2 billion).

<sup>82</sup> The development-sale of structured assets consists of selling all or part of built projects to third-party investors.

<sup>83</sup> Sum of personnel expenses and other external consumption. At constant scope, exchange rate, standards, and pension discount rate, and excluding inflation. Excluding costs of the sales of FRAMATOME's energy services operations and nuclear engineering services and of special projects such as JAIPAPUR.

<sup>84</sup> These disposals take into account, in particular, the binding agreements for the sale of EDISON NORGE's E&P business in Norway signed on December 30, 2020.

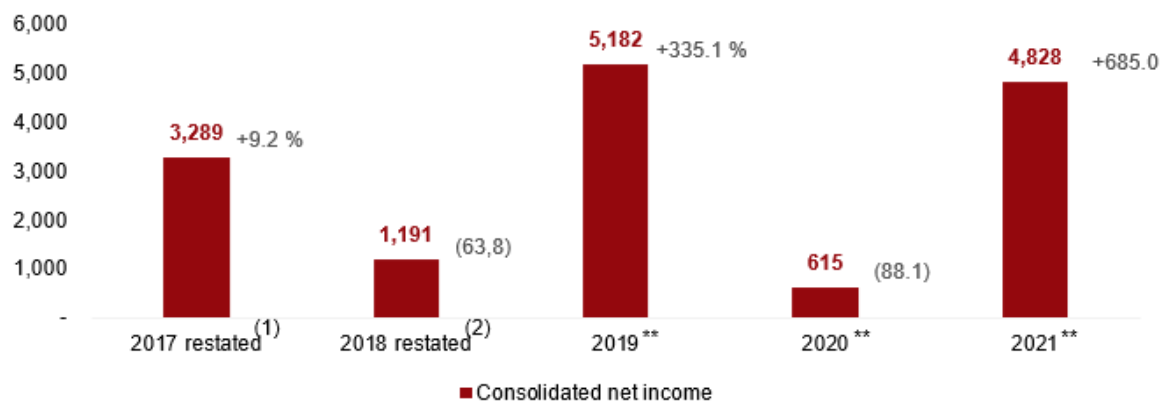
<sup>85</sup> Reduction in operating expenses between 2019 and 2021, i.e., the sum of personnel expenses and other external consumption, at constant scope, exchange rates, standards, and pension discount rate, and excluding inflation and the cost of the sales of energy services operations, and FRAMATOME's nuclear engineering services and specific projects such as JAIPAPUR.



These disposals are in line with the Group's strategy and have enabled the Group to focus on its core business and to exit certain carbon-based businesses (mainly the E&P business and the IDG gas distribution network).

## ■ Net income

Figure 33 – Change in the Group's net income since 2017 (in m€)



(1) Restatement due to IFRS 15 impacts.

(2) Restatement of the impact of presenting EDISON'S E&P business as a business in the process of being sold.

\*\* After application of IFRS 16.

Sources: EDF's 2019, 2020 and 2021 URDs and 2017 and 2018 Reference Documents

In 2018, EDF earned net income of €1.2 billion. In addition to the decline in operating income, this drop in net income was due to an exceptionally high negative financial result (-€4.8 billion, vs. -€2.2 billion in 2017) linked to:

- A €2.1 billion reduction in "Other financial income and expenses," resulting from the underperformance of growth assets<sup>86</sup> (-7.0% in 2018);
- An increase in nuclear provisions (+€512 million) resulting from a decrease in the real discount rate<sup>87</sup> relative to December 31, 2017 (real rate of -0.2%).

As a result of the contraction in EBITDA (-€549 million), the increase in depreciation and amortization, and the drop in the financial income (-€2.218 million), consolidated net income reached a low point in 2020, at €695 million. This figure rose to €4.828 million as of December 31, 2021, in the context of the economic rebound that followed the health crisis, in connection with the changes discussed above.

## 6.2 Results for the first half of 2022<sup>88</sup>

The interim financial statements presented below have been subject to a limited review by EDF's statutory auditors, who have not identified any material misstatements.

<sup>86</sup> Shares and equity funds.

<sup>87</sup> As of December 31, 2018, the discount rate was 3.9%, taking into account an average inflation rate of 1.5% (4.1% and 1.5%, respectively, as of December 31, 2017, and 4.2% and 1.5% as of December 31, 2016).

<sup>88</sup> Half-year financial report as of June 30, 2022, published on July 28, 2022.



The changes in the Group's consolidated income statement aggregates for the first half of 2021 and the first half of 2022 are summarized below:

Table 4 – Group consolidated half-year income statement

In millions of euros - As of June 30	6 months (post IFRS 16)	
	S1 2021	S1 2022
<b>Revenues</b>	<b>39,621</b>	<b>66,262</b>
% growth	14.1 %	67.2 %
Fuel and energy purchases	(18,753)	(48,238)
Other external consumption	(3,629)	(3,919)
Personnel costs	(7,273)	(7,286)
Taxes	(2,509)	(2,383)
Other operating income and expenses	3,144	(1,764)
<b>Gross operating profit (EBITDA)</b>	<b>10,601</b>	<b>2,672</b>
% growth	29.3 %	(74.8)%
% of revenues	26.8 %	4.0 %
Change in energy & commodity derivatives, excluding trading activities	(541)	(993)
Depreciation and amortization	(5,194)	(5,534)
(Impairment)/reversals	(502)	(253)
Other operating income and expenses	(92)	(388)
<b>Operating result</b>	<b>4,272</b>	<b>(4,496)</b>
% growth	163.1 %	(205.2)%
% of revenues	10.8 %	(6.8)%
Cost of gross financial debt	(754)	(728)
Effect of discounting	(1,016)	502
Other financial income and expenses	2,631	(2,721)
<b>Financial result</b>	<b>861</b>	<b>(2,947)</b>
<b>Income before tax of consolidated companies</b>	<b>5,133</b>	<b>(7,443)</b>
Income taxes	(1,458)	1,840
Share of net income of associates and joint ventures	344	444
Net income from discontinued operations	(3)	4
<b>Consolidated net income</b>	<b>4,016</b>	<b>(5,155)</b>
% growth	n.s.	(228.4)%
% of revenues	10.1 %	(7.8)%
of which Group share	4,172	(5,293)
of which minority interests	(156)	138

Source: Half-year financial report as of June 30, 2022

The results for the first half of 2022 reflect the difficulties encountered by the Group in terms of nuclear generation in France and, to a lesser extent, hydroelectric generation, as well as the impact of the exceptional regulatory measures (additional allocation of ARENH volumes to alternative suppliers and price shield<sup>89</sup>) adopted by the French Government to limit the increase in prices paid by end users in 2022.

Revenues for the first half of 2022 appear to be up (+67.2% relative to June 30, 2021), at €66.3 billion. This improvement should be compared with:

<sup>89</sup> In the context of a sharp increase in market prices for electricity, on February 1, 2022, the French Government instituted a "price shield" limiting increases in the regulated sale rate for residential customers to 4% (including tax) over the rate in effect on August 1, 2021.



- The rise in electricity<sup>90</sup> and gas prices<sup>91</sup> in 2022 linked to extreme pressure on the electricity market (the energy crisis began before the war in Ukraine and has been exacerbated by it) in a context of declining nuclear output<sup>92</sup> and, thus, significant purchases on the market;
- The strength of the Group's business in Italy, where its revenues grew strongly (by +€9.1 billion relative to the first half of 2021), mainly due to the increase in the volumes and prices of gas sold.

In the first half of 2022, the Group had EBITDA of €2.7 billion, a sharp decline compared to the EBITDA for the first half of 2021, which stood at €10.6 billion. The deterioration in EBITDA is mainly explained by the drop in nuclear output and, to a lesser extent, the impact of the exceptional ARENH regulatory measures adopted by the French Government to limit consumer price increases. As indicated above (see section 4.4.2.4.4), these measures, announced in January 2022, consisted of an additional allocation of up to 20 TWh of ARENH volume for 2022 (over the period from April 1 to December 31, 2022), at a price of €46.2/MWh. According to EDF, these exceptional measures have impacted the Group in two ways:

- By requiring EDF to purchase these 20 TWh of ARENH volume from alternative suppliers at a price of €256.98/MWh while at the same time delivering equivalent volumes to them at a price of €46.2/MWh;
- By lowering the prices at which EDF can sell electricity to its customers, whether they are on the regulated rate plan or subscribed to a market-rate plan, due to the increase in the relative share of ARENH volumes relative to the market price in the costs factored into the regulate rate and the market-rate plans.

Net financial income represented an expense of €2.9 billion, down €3.8 billion relative to the first half of 2021. This change is explained by a decline in the performance of the dedicated assets portfolio (-€5.0 billion), partially offset by a favorable discounting effect (+€1.5 billion) linked mainly to the increase<sup>93</sup> in the real discount rate for nuclear provisions between December 2021 and June 2022.

Net income for the first half of 2022 was a loss of €5.2 billion, compared with €4.0 billion as of June 30, 2021.

### 6.3 Consolidated balance sheet from 2017 to H1 2022

The Group's consolidated balance sheet for the period from 2017 to June 30, 2022, is presented below.

<sup>90</sup> In France, electricity spot prices averaged €229.0/MWh base load and €252.7/MWh peak load in the first half of 2022, up €170.5/MWh and €185.6/MWh respectively compared to the first half of 2021.

<sup>91</sup> The price of natural gas was €109.9/MWhg as of June 30, 2022, compared with €28.2/MWhg as of June 30, 2021.

<sup>92</sup> Nuclear generation in France stood at 154.1 TWh, or 27.6 TWh less than in the same period in 2021, due to the lower availability of nuclear reactors resulting from the discovery of signs of stress corrosion .

<sup>93</sup> The discount rate for nuclear provisions was 4.5% as of June 30, 2022, taking into account an assumed inflation rate of 2.2% (3.4% and 1.3%, respectively, as of June 30, 2021).



Table 5 – Group consolidated balance sheet (Assets)

In million euros	Pre-IFRS 16		Post-IFRS 16			
	2017	2018	2019	2020	2021	S1 2022
Intangible assets	18,932	20,113	24,306	23,964	25,311	25,361
Property, plant and equipment	137,968	142,106	150,039	155,694	163,105	164,251
Investments in associates and joint ventures	7,249	8,287	6,414	6,794	8,084	9,681
Non-current financial assets	36,787	37,104	46,219	47,615	55,609	53,787
Other non-current receivables	2,168	1,796	1,930	2,015	2,092	2,700
Deferred tax assets	1,220	978	557	1,150	1,667	2,870
<b>Non-current assets</b>	<b>204,324</b>	<b>210,384</b>	<b>229,465</b>	<b>237,232</b>	<b>255,868</b>	<b>258,650</b>
Stocks	14,138	14,227	14,049	14,738	16,197	16,484
Trade receivables and related accounts	16,843	15,910	15,606	14,521	22,235	20,624
Current financial assets	24,953	31,143	29,401	23,532	39,937	86,541
Current tax assets	673	869	286	384	544	1,032
Other current receivables	7,219	7,346	6,881	6,918	16,197	12,964
Cash and cash equivalents	3,692	3,290	3,934	6,270	9,919	7,418
<b>Current assets</b>	<b>67,518</b>	<b>72,785</b>	<b>70,157</b>	<b>66,363</b>	<b>105,029</b>	<b>145,063</b>
Assets related to assets held for sale	-	-	3,662	2,296	69	74
<b>Assets</b>	<b>271,842</b>	<b>283,169</b>	<b>303,284</b>	<b>305,891</b>	<b>360,966</b>	<b>403,787</b>

Sources: EDF's 2019, 2020 and 2021 URDs, 2017 and 2018 Reference Documents, and Half-Year Financial Report as of June 30, 2022



Table 6 – Group consolidated balance sheet (Liabilities)

In million euros	Pre-IFRS 16		Post-IFRS 16			
	2017	2018	2019	2020	2021	S1 2022
Capital	1,464	1,505	1,552	1,550	1,619	1,934
Reserves and consolidated results	39,893	42,964	44,914	44,083	48,592	57,173
<b>Shareholders' equity - Group share</b>	<b>41,357</b>	<b>44,469</b>	<b>46,466</b>	<b>45,633</b>	<b>50,211</b>	<b>59,107</b>
Interest attributable to non-controlling interests	7,341	8,177	9,324	9,593	11,778	12,211
<b>Shareholders' equity</b>	<b>48,698</b>	<b>52,646</b>	<b>55,790</b>	<b>55,226</b>	<b>61,989</b>	<b>71,318</b>
Provisions related to nuclear production	46,410	49,204	55,583	58,333	62,067	57,821
Provisions for employee benefits	20,630	17,627	20,539	22,130	21,716	12,402
Other provisions for deconstruction	1,977	2,033	1,573	1,744	1,872	1,979
Other provisions (excluding provisions for deconstruction)	2,356	2,908	3,065	3,630	3,570	3,584
<b>Non-current provisions</b>	<b>71,373</b>	<b>71,772</b>	<b>80,760</b>	<b>85,837</b>	<b>89,225</b>	<b>75,786</b>
Specific liabilities of public electricity distribution concessions in France	46,323	46,924	47,465	48,420	48,853	49,072
Non-current borrowings and financial liabilities	49,734	50,901	56,306	54,066	54,334	63,720
Hedging derivatives - negative fair value	1,631	1,228	696	1,833	2,209	4,354
<b>Non-current financial liabilities</b>	<b>51,365</b>	<b>52,129</b>	<b>57,002</b>	<b>55,899</b>	<b>56,543</b>	<b>68,074</b>
Other non-current payables	4,864	4,896	4,928	4,874	4,816	5,302
Deferred tax liabilities	2,362	1,987	2,295	3,115	2,401	2,284
<b>Non-current liabilities</b>	<b>176,287</b>	<b>177,708</b>	<b>192,450</b>	<b>198,145</b>	<b>201,838</b>	<b>200,518</b>
Current provisions	5,484	6,010	5,556	5,827	6,836	9,848
Suppliers and related accounts	13,994	13,421	12,867	11,900	19,565	15,949
Current borrowings and financial liabilities	7,112	8,287	11,074	11,525	15,072	13,705
Trading derivatives - negative fair value	2,787	7,160	6,327	5,125	22,027	46,601
Hedging derivatives - negative fair value	1,243	1,720	1,134	959	7,915	14,887
<b>Current financial liabilities</b>	<b>11,142</b>	<b>17,167</b>	<b>18,535</b>	<b>17,609</b>	<b>45,014</b>	<b>75,193</b>
Current tax liabilities	187	205	433	215	446	861
Other current payables	16,050	16,012	16,610	16,861	25,248	30,070
<b>Current liabilities</b>	<b>46,857</b>	<b>52,815</b>	<b>54,001</b>	<b>52,412</b>	<b>97,109</b>	<b>131,921</b>
Liabilities related to assets held for sale	-	-	1,043	108	30	30
<b>Liabilities</b>	<b>271,842</b>	<b>283,169</b>	<b>303,284</b>	<b>305,891</b>	<b>360,966</b>	<b>403,787</b>

Sources: EDF's 2019, 2020 and 2021 URDs, 2017 and 2018 Reference Documents, and Half-Year Financial Report as of June 30, 2022

## ■ Assets

As of June 30, 2022, EDF's balance sheet totaled €403.8 billion. Its assets are mainly composed of property, plant, and equipment (€164.3 billion) and current and non-current financial assets (€140.3 billion).

### Intangible assets

Intangible assets as of June 30, 2022, include, in particular, "Goodwill" (€10.8 billion) and "Other intangible assets" (€10.5 billion).

The Group's goodwill amounted to €10.8 billion as of June 30, 2022, and related mainly to EDF ENERGY (€7.9 billion), including €5.9 billion related to the takeover of BRITISH ENERGY in 2009 and other external growth transactions carried out by the Group (in particular IMTECH and POD POINT). During the period under review, impairment tests on goodwill resulted in the recognition of minor





impairments in 2019 (-€57 million, relating to the Italian company ZEPHYRO and a subsidiary of EDF RENEWABLES) and in 2020 (-€31 million, mainly relating to DALKIA's public works subsidiary in the United States).

"Other intangible assets" (€10.6 million) includes (i) studies relating to EPR 2 and SMRs (€1 billion), (ii) the EDISON brand (€945 million) and intangible assets relating to EDISON's hydroelectric concessions (€489 million), (iii) the DALKIA brand (€130 million) and intangible assets relating to DALKIA's concession contracts in France (€1,341 million), and (iv) the FRAMATOME brand (€151 million), intangible assets relating to nuclear technology (€712 million), and FRAMATOME's customer contracts (€344 million).

### **Property, plant, and equipment**

"Property, plant, and equipment" as of June 30, 2022 is mainly composed of (i) nuclear generating facilities (€23.9 billion), (ii) other plant and equipment (€12.9 billion), (iii) assets under construction (€47.6 billion), and (iv) assets under public electricity distribution concessions in France (€62.8 billion).

Nuclear facilities are recorded on the Group's balance sheet at €23.9 billion. The nuclear reactors in operation in France comprise 32 900-MWe reactors, 20 1,300-MWe reactors and four 1,450-MWe reactors. The depreciation period for the 900-MWe reactors (since January 1, 2016) and the 1,300-MWe reactors (since January 1, 2021) is 50 years, and 40 years for the 1,450-MWe reactors.

Assets under construction (€47.6 billion as of June 30, 2022) primarily include investments relating to (i) the HINKLEY POINT C project (€20.1 billion) and (ii) the FLAMANVILLE 3 EPR reactor (€15.2 billion). The €11.7 billion balance of property, plant, and equipment in progress (excluding assets under concession) mainly relates to EDF SA's existing nuclear power plants (approximately 70%), in connection with the Grand Carénage program,<sup>94</sup> and EDF RENEWABLES (approximately 15%) (plants under development in Europe, North America, and emerging countries).

Over the period under review (2017-June 30, 2022), impairments were recorded on property, plant and equipment for a total of €3 billion, including €2 billion in the United Kingdom segment due to the early shutdown of certain power plants, and €0.1 billion related to specific generating facility assets in France."

The impairment tests carried out as of June 30, 2022, on generating facilities in France and on the United Kingdom segment did not result in the recognition of any impairment of property, plant, and equipment.

"Fixed assets under public electricity distribution concessions in France" amounted to €62.8 billion as of June 30, 2022. These assets are linked to the public service concession system and the role of concessionaire played by ENEDIS,<sup>95</sup> the island energy systems,<sup>96</sup> and ES.<sup>97</sup> To ensure the smooth performance of the public service, the distribution network operator and the concession authority<sup>98</sup> have established a system for governing investments in the public electricity distribution network within the concession area including, in particular, network replacement. This system is

<sup>94</sup> Replacement program for large components, in particular steam generators, and work done in connection with ten-year and periodic inspections.

<sup>95</sup> In charge of operating most of the public distribution networks in France.

<sup>96</sup> In charge of the distribution network for areas not interconnected to the continental network.

<sup>97</sup> In charge of operating public distribution networks in a limited area under the control of a non-nationalized distributor.

<sup>98</sup> Local authorities or public cooperation establishments acting as energy distribution authorities.



reflected in an investment master plan<sup>99</sup> and multi-year investment programs (PPI), which reflect changes in "Fixed assets in public electricity distribution concessions in France."

Liabilities associated with concessions amounted to €49.1 billion as of June 30, 2022. These liabilities reflect the contractual obligations under the terms of the French public electricity distribution concessions, and as such mainly concern ENEDIS.<sup>100</sup> They correspond to the rights of the concession-granting authority over (i) existing assets (rights to receive all the assets granted under the concession), and (ii) assets to be renewed (obligations of the concession holder in respect of assets to be replaced).

### **Investments in associates and joint ventures**

The Group's investments in associates and joint ventures amounted to €9.7 billion as of June 30, 2022. These include, in particular, the 50.1% equity stake in CTE (the parent company of RTE) for €1.9 billion, the 30.0% equity stake in TAISHAN (TNPJVC) for €1.2 billion, investments held by EDF RENEWABLES for €2.3 billion, as well as dedicated assets for the French operations (€2.2 billion, see below, "Provisions related to nuclear generation").

### **Financial assets**

As of June 30, 2022, current and non-current financial assets consisted of debt and equity securities (€51.8 billion), loans and financial receivables (€19.4 billion), trading derivatives (€47.3 billion) and hedging derivatives (€21.8 billion).

Debt and equity securities are mainly composed of liquid assets (€23.3 billion) and dedicated assets relating to French operations (€27.3 billion) (see below, "Provisions related to nuclear production").

Loans and financial receivables consist of €14.8 billion in receivables from the Nuclear Liabilities Fund and the UK government to cover long-term nuclear power obligations and are therefore dedicated assets for EDF's UK operations.

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<sup>99</sup> The master investment plan reflects a long-term view of the network's development in the concession area.

<sup>100</sup> EDF SA and ELECTRICITÉ DE STRASBOURG are also concerned, but for much smaller amounts.



## ■ Liabilities

As of June 30, 2022, the Group's liabilities were mainly composed of (i) current and non-current financial liabilities (€143.3 billion, including €77.4 billion in borrowings), (ii) current and non-current provisions (€85.6 billion), (iii) the Group's share of equity (€59.1 billion), and (iv) specific liabilities relating to the French public electricity distribution concessions (€49.0 billion, see "Assets").

### **Shareholders' equity**

The Group's share of equity amounted to €59.1 billion as of June 30, 2022. Despite a net loss of €5.2 billion, dividend payments of €1.1 billion, and the remuneration of Perpetual Subordinated Notes (hereinafter, "PSN") of €0.3 billion in the first half of 2022, shareholders' equity (Group share) increased by €8.9 billion. This increase is explained by (i) gains on recyclable and non-recyclable items (+€11.4 billion corresponding, in particular, to actuarial gains on post-employment benefits (for €9.1 billion) and gains on hedging instruments), and by (ii) the €3.2 billion capital increase carried out in April 2022.

In the past five years, EDF paid dividends per share of €0.46 in 2017, €0.31 in 2018, €0.15 in 2019, €0.21 in 2020, and €0.58 in 2021, with shareholders having the option of receiving their dividends in cash or in EDF shares.

In each of those five years, the Government opted for a share-based dividend payment.

### **Provisions related to nuclear power generation**

Provisions related to nuclear power generation amounted to €60.7 billion as of June 30, 2022, including €57.8 billion in non-current provisions and €2.9 billion in current provisions. The decrease in provisions related to nuclear power generation observed in the first half of 2022 (-€4.1 billion) is explained, in particular, by an increase in the real discount rate in France (+30 basis points) and in the United Kingdom (in particular, +50 basis points on back-end cycle and decommissioning provisions).

These provisions are intended to cover (i) €27.3 billion in expenses related to the back end of the nuclear cycle (provisions for spent fuel management, waste recovery and conditioning, and long-term management of radioactive waste), (ii) €29.4 billion in expenses related to the decommissioning of nuclear power plants, and (iii) €4 billion in expenses related to the fuel in the reactor at the time of shutdown (provisions for the last cores)

In accordance with French regulations, EDF has set up a portfolio of financial assets dedicated to securing the financing of long-term nuclear commitments, in particular for the decommissioning of power plants and the long-term management of radioactive waste in France, representing total commitments of €32.1 billion. The realizable value of EDF's dedicated assets amounted to €33.9 billion as of June 30, 2022.

Articles L. 594-1 *et seq.* of the French Environmental Code and their implementing regulations govern how these dedicated assets are constituted and how the funds are managed and governed. Isolated from the management of the Company's other assets or financial investments, these



assets must have a realizable value greater than the value of the provisions corresponding to the discounted cost of the long-term nuclear obligations set forth in the French Environmental Code.

Since the decree of July 1, 2020 went into effect, there is no longer any obligation to fund dedicated assets as long as the hedging ratio (ratio between the realizable value of the assets and the amount of the provisions concerned) exceeds 100%. As of June 30, 2022, EDF's hedging ratio stood at 105.3%.

It should be noted that these figures are based on estimates that may vary according to market parameters. They are therefore exposed to significant volatility.

### **Financial liabilities**

As of June 30, 2022, current and non-current financial liabilities (€143.3 billion) consisted of borrowings (€77.4 billion), trading derivatives (€46.6 billion), and hedging derivatives (€19.2 billion).

Borrowings increased by €8 billion in the first half of 2022 as a result of the new financing arrangements entered into by the Group with credit institutions, including 12 bilateral credit lines for €12.4 billion with 9 banks, all with a maturity of 3 years and no early payment penalty.

The increase in the negative fair value of trading derivatives (+€24.6 billion) in the first half of 2022 is explained by the increase in the value of the derivatives used in trading activities, mainly in connection with the change in commodity market prices over the period and to a lesser extent with the increase in contracted volumes.



### **Net financial debt**

The Group's net financial debt is presented below:



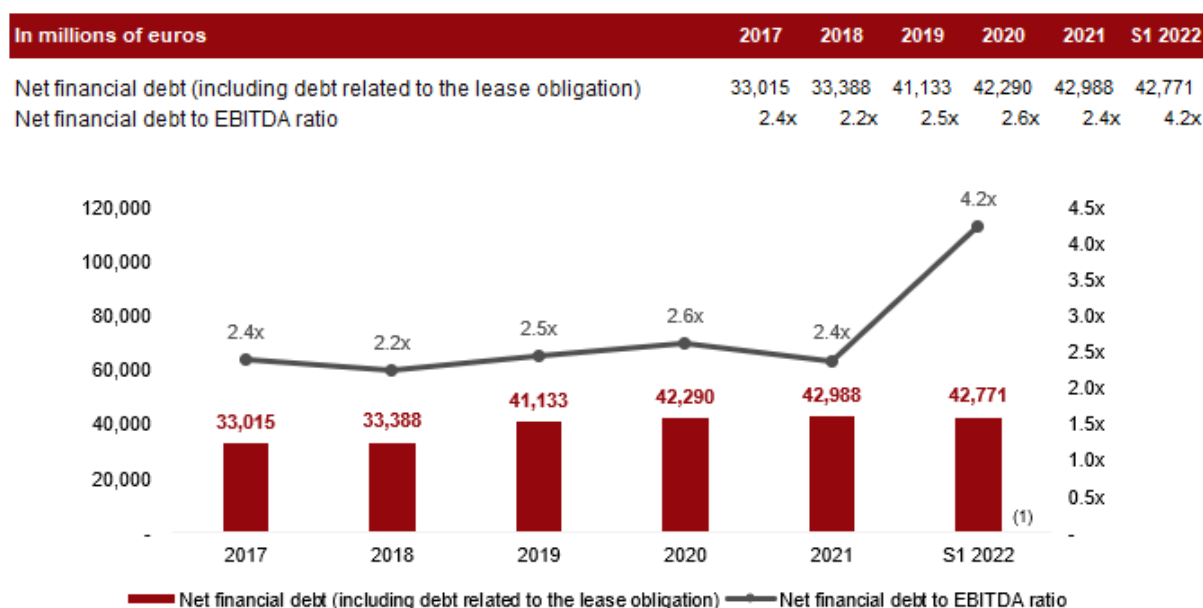
Table 7 - Group net financial debt

In millions of euros	2017	2018	2019	2020	2021	S1 2022
Current borrowings and financial liabilities	7,112	8,287	11,074	11,525	15,072	13,705
Non-current borrowings and financial liabilities	49,734	50,901	51,796	49,759	49,997	59,480
Loans and financial debts (excluding the debt related to the lease obligation)	56,846	59,188	62,870	61,284	65,069	73,185
Of which OCEANES	-	-	-	2,389	2,389	2,389
Net financial debt of assets held for sale	-	-	(26)	(17)	-	-
Derivatives used to hedge debt	(1,176)	(1,972)	(3,387)	(1,986)	(3,762)	(3,893)
Asset Hedging Derivatives	-	-	-	-	-	(20)
Available-for-sale financial assets - liquid assets	(18,963)	(20,538)	(18,900)	(15,028)	(12,737)	(23,323)
Availability	(3,328)	(2,855)	(3,698)	(5,832)	(9,178)	
Cash equivalents	(364)	(435)	(236)	(438)	(741)	
Cash and cash equivalents	(3,692)	(3,290)	(3,934)	(6,270)	(9,919)	(7,418)
<b>Net financial debt (excluding debt related to the lease obligation)</b>	<b>33,015</b>	<b>33,388</b>	<b>36,623</b>	<b>37,983</b>	<b>38,651</b>	<b>38,531</b>
Liability related to the lease obligation (IFRS 16)			4,510	4,307	4,337	4,240
<b>Net financial debt (including debt related to the lease obligation)</b>	<b>33,015</b>	<b>33,388</b>	<b>41,133</b>	<b>42,290</b>	<b>42,988</b>	<b>42,771</b>

Sources: EDF's 2019, 2020 and 2021 URDs, 2017 and 2018 Reference Documents, and Half-Year Financial Report as of June 30, 2022

The change in net financial debt and the ratio of net financial debt to EBITDA, as presented by the Group, is as follows:

Figure 34 - Changes in the Group's net financial debt<sup>101</sup> since 2017



(1) The ratio as of June 30, 2022, is calculated on the basis of the cumulative EBITDA for the second half of 2021 and the first half of 2022.

Sources: EDF's 2019, 2020 and 2021 URDs, 2017 and 2018 Reference Documents, and Half-Year Financial Report as of June 30, 2022

Between 2017 and 2021, the Group's net financial debt has varied between 2.3x and 2.6x EBITDA.

<sup>101</sup> Including lease liability (IFRS 16) and as presented in the Company's reference documents.



Due to the relatively low EBITDA in the first half of 2022 (€2.7 billion compared to €10.6 billion in the first half of 2021), the net financial debt ratio deteriorated significantly and stood at 4.2x as of June 30, 2022, for a net financial debt (including rental debt) of €42.8 billion.

In addition, on September 8, 2020, the Group issued green OCEANE bonds for a nominal amount of €2,400 million and an issue value of €2,569 million. The conversion and/or exchange ratio of these bonds, initially set at one share per OCEANE, has been modified on several occasions:

- Following the distribution of a dividend to EDF shareholders, this ratio was increased to 1.018 shares as of June 7, 2021;
- At the time of the interim dividend payment for 2021, this ratio was increased to 1.042 shares as of December 2, 2021;
- After the capital increase of April 7, 2022, this ratio was increased to 1.087 shares;
- At the time of the dividend payment for 2021, this ratio was increased to 1.124 shares as of June 13, 2022;
- At the time of the capital increase following the Preferential Offering restricted to Employees (the "ORS 2022"), this ratio was increased to 1.129 shares as of July 25, 2022, as shown in the half-year financial report as of June 30, 2022. However, the Company has confirmed to us that the ORS should not give rise to an adjustment of the conversion ratio, and that this was therefore a material error in the half-year financial report as of June 30, 2022. As a result, the conversion ratio is now 1.124, corresponding to the ratio in effect since June 13, 2022.

As of June 30, 2022, no subscriber had exercised its conversion and/or exchange option.

## 7. SWOT Matrix

The Company's strengths and weaknesses, as well as the threats and opportunities it faces in its markets, are summarized in the matrix below:

Figure 35 - Group SWOT matrix



Sources: EDF, FINEXSI analysis, XERFI





## 8. Valuation of EDF shares

Pursuant to Article 262-1 of the AMF's General Regulations, we have carried out our own multi-criteria valuation of the EDF shares, the results of which are set out below.

### 8.1 Rejected valuation methods

We rejected the following methods as part of our work:

#### 8.1.1 Consolidated Net Asset value

The Net Asset Value (NAV) is generally not considered to be representative of a company's intrinsic value, as it does not factor in its prospects for growth and profitability, whether positive or negative, or any capital gains on assets.

For information, the consolidated NAV as of June 30, 2022, was €46,717 million,<sup>102</sup> giving a value per share of €12.08 on a non-diluted basis.<sup>103</sup>

It should be noted that this amount does not include the significant loss expected in the second half of 2022, with the result that the NAV should be significantly lower as of December 31, 2022.

#### 8.1.2 Revalued Net Asset Value

The Revalued Net Asset Value (RNAV) method involves adjusting the Net Asset Value for unrealized capital gains or losses identified in assets, liabilities or off-balance sheet. This method, which is often used to value companies in certain sectors (holding companies, real estate companies), is particularly suitable for companies whose principal assets have a market value and for which acquisitions and disposals of such assets constitute their operating process, which is not the case for EDF.

In the case in hand, this method would also be redundant, given the use of the sum-of-the-parts method implemented below.

#### 8.1.3 Discounting of future dividends

This method, which involves discounting future dividends, depends on the distribution policy adopted by management and tends to provide better valuations of companies with the highest distribution rates, without taking into account the medium-term impact of switches between distribution, self-financing and investment. It can only be used for companies with a sufficient distribution capacity, and with regular and predictable rates of distribution.

<sup>102</sup> This amount is equal to the value of shareholders' equity at June 30, 2022 (€59,107 million), adjusted for the Perpetual Subordinated Notes (PSDs) in the amount of €12,264 million and the proportion of the OCEANes recognized in shareholders' equity (€126 million).

<sup>103</sup> Based on the 3,868,480,343 shares comprising the Company's share capital as of June 30, 2022.



By way of reminder, at the General Shareholders' Meeting of May 12, 2022, the shareholders approved an ordinary dividend for fiscal year 2021 of €0.58<sup>104</sup> per share, with the option of payment in cash or in shares.

However, as the Company has not announced any distribution forecasts to the market, particularly in the current environment, we will not use this method, since it appears to be less relevant than the discounted cash flow ("DCF") approach.

#### 8.1.4 Comparables method

The comparables method involves determining a company's value by applying multiples for a sample of other comparable listed companies in the same business sector to the aggregates considered to be relevant.

Given the specific nature of the EDF Group as a whole, we have not identified any listed company that is fully comparable to it in terms of size, business mix and geographic positioning.

The same is true for the sum-of-the-parts approach, with companies that would not be comparable to the EDF group as a whole, but are comparable to certain of its businesses, in particular for the Group's nuclear,<sup>105</sup> hydropower<sup>106</sup> and regulated business activities,<sup>107</sup> which represent most of the Group's business and value.

Furthermore, this method, based on an overall or sum-of-the-parts approach, does not seem to us to be appropriate for EDF insofar as it does not address the specific nature of its various activities, in particular the exposure to the market price during the ARENH period and the potential introduction of a regulated price from 2026 onwards for existing nuclear power in France, the extension of the life of existing nuclear power in France, the phase-out of nuclear operations in France and the United Kingdom, and the future flows of facilities that are currently under construction (FLAMANVILLE 3 and HINKLEY POINT C EPRs).

Moreover, the significant loss expected in 2022 and the uncertainties on the forecasted results for fiscal years 2023 and 2024 mean that we do not have access to relevant and normative aggregates suitable for the application of multiples.

For all these reasons, we have rejected this method.

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<sup>104</sup> Under Article 24 of the bylaws, shareholders who have held their shares in registered form for at least two calendar years without interruption at the end of the fiscal year and who still hold them on the date on which the dividend is paid are entitled to a bonus dividend of 10%. The number of shares at which shareholders become entitled to the bonus dividend may not exceed 0.5% of the Company's share capital for any one shareholder. The amount of the bonus dividend was €0.638 per share in respect of fiscal year 2021.

<sup>105</sup> As far as existing nuclear power is concerned (in France and the United Kingdom), there is no pure player listed in Europe. There is, however, the Czech company CEZ, listed in Europe, and the U.S. company Constellation Energy Corporation, listed in the United States, which we have used to determine the beta for this activity (see Table 13). These companies have nuclear facilities but operate in a non-regulated market that is very different from the French market, which makes it impossible to include them in a sample of comparable companies.

<sup>106</sup> We have not identified any fully comparable listed companies in the hydropower business. The Austrian companies EVN and Verbund, which we have used to determine the beta of this activity (see Table ), are, respectively, a diversified electricity producer with a limited share of hydropower in its mix (less than 20%, most of its production being thermal), and an electricity producer with a significant share of hydropower in its mix. For these reasons, we consider that these two companies cannot constitute a sample of comparable companies.

<sup>107</sup> As regards the Group's regulated activities, there are listed companies that we have used to determine the beta of this activity (see Table ) but which are not sufficiently comparable to constitute a sample. SNAM, Italgas and REN have a significant or even majority gas business. Terna's and REN's business is oriented mainly toward electricity transmission and not distribution.



However, for information purposes only and with a view to providing complete information to shareholders, we note that the application of this method by reference to listed companies that we do not consider to be fully comparable would result in extremely wide and inconsistent value ranges, ranging from -€10.06 to €26.96 per EDF share using an overall approach<sup>108</sup> and from -€11.00 to €38.90 using a sum-of-the-parts approach.

These discrepancies demonstrate that this method cannot be applied and is inappropriate.

### 8.1.5 Comparable transaction method

The comparable transactions method is based on an analysis of the multiples generated by total or partial takeovers of companies in the business sector of the entity that is being valued. Use of this approach is limited by the difficulty in identifying transactions that are fully comparable to EDF in terms of size, business mix and geographical positioning, and in obtaining full information on the targets and terms of the transactions.

In the case in hand, we have not been able to identify any recent comparable transactions involving companies with characteristics similar to those of EDF taken as a whole, in terms of size, business mix and geographical positioning.

For these reasons, this method cannot be applied.

### 8.1.6 Net asset value per share

We did not consider using this method, as it is not relevant where a group operates as a going concern. In such circumstances, approaches consistent with this principle should be applied, as they appropriately value the EDF shares.

## 8.2 Valuation methods used

We used a multi-criteria approach involving the following principal references and valuation methods:

- Reference to the EDF share price;
- The sum-of-the-parts method, based on an intrinsic approach using discounted cash flow (DCF) forecasts for the underlying business activities, assuming strategic continuity;

We have used the following method on a secondary basis:

- Analysts' price targets for the EDF shares;

For information purposes, we also address:

- The DCF method according to an overall approach;

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<sup>108</sup> Based on 2022 NTM (*Next Twelve Months*), 2023 and 2024 EBITDA multiples (before application of IFRS 16).



- The reference to recent transactions involving EDF's share capital, namely the April 2022 capital increase with preferential subscription rights.

In our analysis, we describe the relative relevance of each of these criteria.

## 8.3 EDF reference data

### 8.3.1 Number of shares

Our calculations are based on the number of shares comprising EDF's share capital as of June 30, 2022 (3,868,480,343 shares):

- Increased by the shares issued under the July 2022 ORS<sup>109</sup> (18,100,741 shares)<sup>110</sup>;
- Reduced by the number of treasury shares held as of August 31, 2022 (888,511 shares);
- Increased by any shares that would result from the conversion of the OCEANEs, which are also covered by this Offer (conversion ratio of 1.124 corresponding to the ratio applicable before the Offer was announced,<sup>111</sup> or 246,806,952 shares).

The number of shares use is therefore 4,132,499,525.

### 8.3.2 Adjusted net financial debt

The adjustments used to convert the enterprise value to the equity value were determined based on the Company's consolidated financial statements as of June 30, 2022.

Adjusted net financial debt as of June 30, 2022, was calculated as follows:

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<sup>109</sup> Preferential offer restricted to employees.

<sup>110</sup> We have also factored the Company's proceeds from the ORS into our adjusted net financial debt calculation.

<sup>111</sup> At the time of the capital increase following the ORS, this ratio was increased to 1.129 shares as of July 25, 2022, as shown in the half-year financial report of June 30, 2022. However, the Company has confirmed to us that the ORS did not result in any adjustment to the conversion ratio, and that this was therefore a material error in the half-year financial report of June 30, 2022. As a result, before factoring in the Offer, the conversion ratio is 1.124, corresponding to the ratio in effect since June 13, 2022.



Table 8 - Enterprise value to equity value bridge as of June 30, 2022

In millions of euros	30/06/2022
Borrowings and financial debt (excluding OCEANES)	(70,796)
Cash and cash equivalents	7,418
Liquid assets	23,323
Debt Hedging Derivatives	3,893
Asset Hedging Derivatives	20
<b>Net financial debt</b>	<b>(36,142)</b>
Investments in associates and joint ventures (excluding dedicated assets)	5,527
Minority interests	(9,318)
Hybrid bonds (PSNs)	(12,264)
Provisions for employee benefits net of recognized DTAs	(10,550)
Provisions related to nuclear production	(60,699)
EDF's dedicated assets (at their realizable value)	33,876
Dedicated assets UK	14,818
Other assets	1,109
Other provisions	(3,340)
July 2022 ORS Cash Out	104
Restatement of investments committed to the EPR2, SMR and SZC (capitalized amounts)	1,491
Fessenheim compensation - present value (after tax)	263
<b>Adjustments</b>	<b>(38,983)</b>
<b>Enterprise value to adjusted equity value bridge</b>	<b>(75,125)</b>

Sources: Company's consolidated financial statements as of June 30, 2022, FINEXSI analysis

In addition to financial debt and cash, which do not call for any particular comment on our part, we have included the following main items in net indebtedness:

- Investments in associates and joint ventures (€5,527 million) have been revalued using the discounted cash flow method for EDF RENEWABLES and new "Other International" projects, while other investments have been valued at their carrying amount, after ensuring that there is no material potential for revaluation. Dedicated assets have been deducted from nuclear provisions;
- Minority interests (€9,318 million) have been valued at their book value, with the exception of those relating to EDF ENERGY NUCLEAR GENERATION, HPC and FRAMATOME, which have been revalued on the basis of DCFs valuations;
- The perpetual subordinated notes (hereinafter "PSNs"), which are accounted for as equity in accordance with applicable accounting standards but are, by nature, debt, have been valued at their carrying amount as of June 30, 2022 (€12,264 million);
- Provisions for employee benefits, net of recognized deferred tax assets, have been valued at their carrying amount, i.e., €10,550 million;
- Provisions related to nuclear generation have been valued at their carrying value (€60,699 million), and assets dedicated to these obligations have been valued at their realizable value (€33,876 million for France and €14,818 million for the UK);
- Investments in non-consolidated companies are recognized at their carrying amount (€1,109 million);



- Other provisions (€3,340 million), corresponding mainly to provisions for dismantling facilities, for risks related to subsidiaries and affiliates, and for disputes<sup>112</sup>;
- The receipt of the subscription price for the new shares issued under the July 2022 ORS (€104 million);
- The restatement of historical expenditure related to the new nuclear power plant and capitalized in the balance sheet (EPR2, SMR and SZC), to neutralize the effect of investments committed up until June 30, 2022, insofar as these projects were not included in our valuation work due to the uncertainties surrounding their implementation and financing terms (+€1,491 million);
- The FESSENHEIM compensation (after tax), corresponding to an estimate of the compensation payable in 2042 for loss of revenue, discounted at the flat rate set out in the agreement (€263 million). This amount, calculated by the Company in accordance with the terms of the agreement entered into by the French Government and EDF, is currently the best estimate and is consistent with the assumptions used for the other nuclear facilities. It may change depending on future prices, post-2025 regulation, the number of 900 MW units whose lifetime will be extended to 60 years, and the costs incurred by the 900 MW units.

After adjustments, adjusted net financial debt is €75,125 million.

It should be noted that we have not included the OCEANE bonds, which are covered by this Offer, in net financial debt, as we have included them in calculating the number of diluted shares (see Section 8.3.1).

It should also be noted that for our various calculations and analysis, we have considered aggregates that do not factor in the application of IFRS 16 insofar as (i) those aggregates before IFRS 16 restatements better reflect the Company's asset situation and actual financial performance, particularly in terms of cash generation, and (ii) the impact of IFRS 16 has been restated based on the information provided by management in the financial trajectories on which our analysis is based. Consequently, the net financial debt as set out above does not include the IFRS 16 lease liability of €4,240 million as of June 30, 2022.

## 8.4 Valuing the EDF shares

### 8.4.1 The reference to the EDF stock market price (principal method)

The stock market price is a means of measuring the price of the Company's shares, which are freely traded subject to a sufficient level of free float and liquidity.

EDF's shares have been listed on compartment A of Euronext Paris since November 21, 2005 (ISIN code: FR0010242511).

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<sup>112</sup> We made sure that these risks and expenses were not already included in the flows in the financial trajectories.



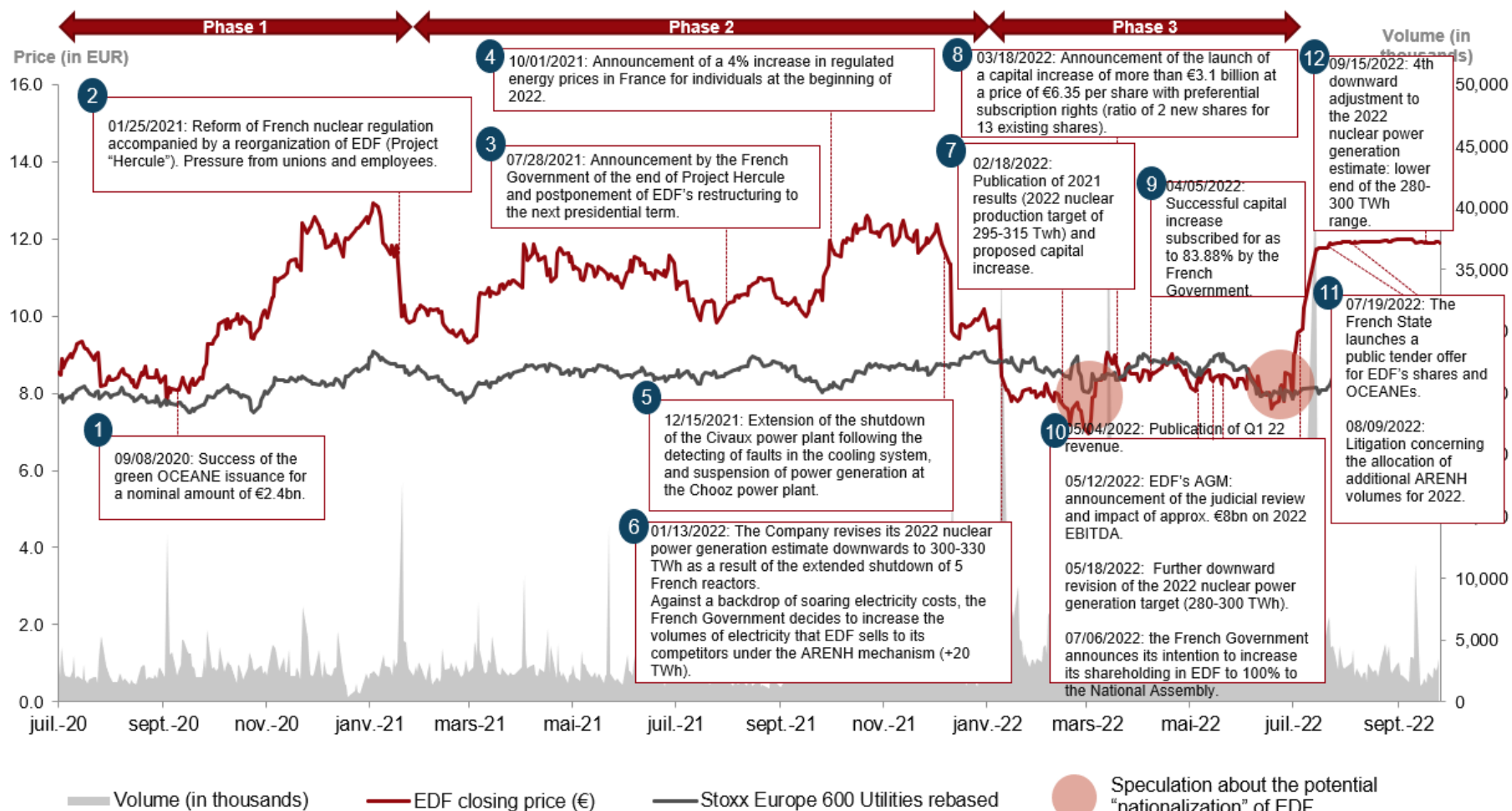
#### 8.4.1.1 Analysis of changes to the EDF share price

We analyzed changes to the adjusted stock market price<sup>113</sup> ("the stock market price") of the EDF shares between the beginning of July and September 30, 2022.

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<sup>113</sup> Adjusted for the capital increase announced on March 18, 2022 in order to reflect the current situation and to ensure that changes could be appropriately analyzed.

Figure 36 – Changes in the EDF share price since July 2020



Sources: CAPITAL IQ, FINEXSI analysis





We distinguish three phases in the changes to the stock market price over the period analyzed. The first phase ran from July 2020 to the end of January 2021. The second phase ran from the end of January 2021 to the end of December 2021. Finally, the third phase ran from the end of December 2021 to the day prior to the announcement by the French Government of its intention to increase its shareholding in EDF to 100% (i.e., July 5, 2022):

- I.** July 2020 - end of January 2021: The change the stock market price over this period is punctuated by the issuance of green OCEANES with a par value of €2.4 billion (*n°1*) and by the announcement of reforms to the regulation of French nuclear power to be accompanied by a reorganization of EDF, known as project "HERCULE" (*n°2*). The aim of this project was to reform the ARENH mechanism to cover the generation costs of existing nuclear power facilities while combining this reform with a reorganization of the Group into three entities.

This project was ultimately abandoned by the French government in July 2021 (*No. 3*).

The EDF share price rose by 15.1% over this period (compared with a 6.8% rise in the STOXX EUROPE 600 UTILITIES index);

- II.** End of January 2021 - end of December 2021: During this second phase, EDF's stock market price was affected by the announcement, on October 1, 2021, of a cap of 4% (including tax) on rises in regulated electricity prices in France for residential customers from February 1, 2022 (*no. 4*). The period was also marked by the Group's announcement on December 15, 2021 of the extended shutdown of the CIVAUX power plant and the suspension in production at the CHOOZ power plant (*No. 5*), which caused the share price to fall by 17.0% between December 15 and 20, 2021.

During this second phase, the EDF share price rose slightly, by 0.5%, underperforming the STOXX EUROPE 600 UTILITIES index (+6.6% over the same period);

- III.** End of December 2021 – July 5, 2022: This final phase was marked, on January 13, 2022, by (i) the downward revision of the nuclear output estimate for 2022 (300 - 330 TWh), as well as (ii) the French government's decision to increase, by 20 TWh, the volume of electricity sold by EDF in 2022 to its competitors under the ARENH mechanism, against a backdrop of soaring electricity prices, a decision with a negative impact on EBITDA estimated by EDF (factoring in other measures taken by the Government as part of its price shield) at around €8.4 billion<sup>114</sup> for 2022, given the replication in the TRVE and market offers of this additional ARENH volume awarded to alternative suppliers (*n°6*). The day after these two announcements, i.e., when markets closed on January 14, 2022, the share price fell by 18.8%.

On February 7, 2022, the Group again adjusted its nuclear output estimate for 2022 downwards (to 295 - 315 TWh) and reiterated its estimate for 2023 (340 - 370 TWh). On February 11, 2022, EDF adjusted its estimate for 2023 downwards (to 300 - 330 TWh). On February 18, 2022, the Group published improved results for 2021 (*No. 7*) (revenue up by 22.4% and EBITDA up by 11.3%).

On March 18, 2022, the Company announced that it was launching a capital increase of approximately €3.2 billion at a price of €6.35 per share with preferential subscription rights (PSRs)<sup>115</sup> (*n°8*), the success of which was confirmed on April 5, 2022 with the

<sup>114</sup> Estimated based on market prices as of December 31, 2021.

<sup>115</sup> Ratio of 2 new shares for 13 existing shares.



shares subscribed for by its shareholders (n°9). The French Government subscribed for 83.88% of the total amount of the shares.

At the Annual General Shareholders' Meeting held on May 12, 2022, EDF's CEO announced that he had sent the French Government a request to withdraw additional allocation of a maximum of 20 TWh of electricity to be sold at regulated prices in 2022 under the ARENH mechanism, the cost of which for EDF is estimated at around €8 billion in terms of EBITDA in 2022 (n°10).

On May 18, 2022, EDF adjusted its nuclear output estimate for 2022 downward (280 - 300 TWh) and on May 19, issued a new cost estimate and schedule for the HPC project (n°10).

During this final period, EDF's share price fell by -20.6%, compared to -12.9% for the STOXX EUROPE 600 UTILITIES index.

On July 6, 2022, the French Government announced its intention to increase its shareholding in EDF to 100%, without specifying the procedure therefor. At the close of trading on July 6, 2022, the share price was €8.98, an increase of 14.5% on the unaffected July 5, 2022 closing price (€7.84). Accordingly, and pending further details about the Transaction, the EDF share price was suspended between July 13, 2022 and July 18, 2022.

On July 19, 2022 (no. 11), the French Government stated that the transaction would be carried out by way of a Simplified Tender Offer (OPAS), followed, if necessary, by a squeeze-out, and that the OPAS would relate to the shares and OCEANEs in circulation, at a proposed price of €12.00 per EDF share and €15.64 per OCEANE, using an adjusted conversion ratio that assumed that the Offer would be launched on September 29, 2022.

It should also be noted that on August 9, 2022<sup>116</sup> (No. 11), EDF filed an action with the Conseil d'Etat, and a claim for compensation for an estimated amount of €8.34 billion<sup>117</sup> from the French Government. This action and the claim for compensation, which related to the additional allocation of a maximum of 20 TWh of electricity to be sold at regulated prices in 2022 under the ARENH mechanism, had no impact on EDF's share price, which remained at a level close to the Offer price at the August 10, 2022 close (€11.88). The market was already aware of the financial consequences of these regulatory measures from the Company's press releases of January 13, 2022 (approximately €8.4 billion based on the prices as of December 31, 2021) and May 12, 2022 (approximately €8 billion) that contained at initial estimate of its loss (see above).

For information purposes, the 2022 output estimate was revised downwards for a fifth time on September 15, 2022 (lower end of the 280-300 TWh range).

Finally, between July 6, 2022 and the issue date of this report, the share price has fluctuated between €7.84 and €12.00, levels that were reached on July 6, 2022 and September 5, 2022, respectively. During this period, EDF's share price exceeded the Offer price only once, during the September 6, 2022 trading session (reaching €12.03), before closing at €11.99 on that same day.

<sup>116</sup> The announcement was made after the stock market closed.

<sup>117</sup> Excluding compensatory interest.

#### 8.4.1.2 Analysis of the liquidity of the EDF shares

Based on the last stock market price that was not affected by the Transaction, i.e., before the announcement by the French Government of its intention to increase its shareholding in EDF to 100% (i.e., July 5, 2022), the volume-weighted average prices ("VWAPs"), the volumes traded in the shares and the resulting turnover rates were as follows over a 24-month period:

**Table 9 – Analysis of the intraday VWAP and liquidity of the EDF shares up until July 5, 2022**

Volume-weighted average prices	In €/share	Premium/(discount) represented by the offer price	Volume traded (in k)		Capital traded (in k)		% of share capital		% of free float	
			Average	Cumulative	Average	Cumulative	Volume traded	Capital turnover	Volume traded	Free float turnover
Spot (7/5/2022)	7.84	+53.0 %	7,878	7,878	63,163	63,163	0.2 %	0.2 %	1.4 %	1.4 %
1-month VWAP	8.17	+46.9 %	4,654	102,389	38,024	836,529	0.1 %	2.7 %	0.8 %	18.5 %
60-day VWAP	8.34	+43.9 %	3,832	218,408	31,950	1,821,163	0.1 %	5.8 %	0.7 %	39.5 %
3-month VWAP	8.35	+43.7 %	3,902	245,849	32,578	2,052,390	0.1 %	6.6 %	0.7 %	44.5 %
6-month VWAP	8.27	+45.1 %	5,351	679,633	44,252	5,620,009	0.1 %	18.2 %	1.0 %	131.8 %
12-month VWAP	9.24	+29.9 %	4,112	1,064,967	37,993	9,840,102	0.1 %	28.5 %	0.8 %	206.1 %
24-month VWAP	9.67	+24.1 %	3,506	1,809,012	33,908	17,496,354	0.1 %	48.4 %	0.7 %	369.5 %
12-month high (10/27/2021)	12.59	(4.7)%								
12-month low (03/07/2022)	6.95	+72.6 %								
24-month high (01/08/2021)	12.91	(7.1)%								
24-month low (03/07/2022)	6.95	+72.6 %								

Sources: CAPITAL IQ, FINEXSI analysis

Over the last 60 trading days (prior to July 5, 2022), the cumulative volume of EDF shares traded was 218.4 million shares (or approximately 3.8 million shares per trading day). Over that same period, capital rotation was 5.8% and free-float rotation was 39.5%.

Over the last 6 months (prior to July 5, 2022), the cumulative volume of EDF shares traded was 679.6 million shares (i.e., approximately 5.4 million shares per trading day). Over the same period, capital rotation was 18.2% and free-float rotation was 131.8%.

In our view, these figures demonstrate that the stock market price is liquid and represents a significant and relevant reference point in valuing the Company.

In the 24 months prior to the announcement by the French Government of its intention to increase its shareholding in EDF to 100%, EDF's stock market price fluctuated between a high of €12.91 reached on January 8, 2021, and a low of €6.95 reached on March 7, 2022.

Based on the July 5, 2022 closing price (last unaffected stock market price), the 60-day VWAP and the 12-month VWAP, the Offer price of €12.00 represents a premium of +53.0%, +43.9% and +29.9%, respectively.

#### 8.4.1.3 Additional analysis carried out for information purposes

For information purposes, and in order to factor in the various announcements and events that may have significantly affected EDF's stock market price, we set out below the premiums represented by the €12.00 Offer Price on the following dates:

- January 12, 2022: before the announcements of January 13, 2022 concerning (i) exceptional measures announced by the French Government on the allocation of a maximum additional 20 TWh of ARENH volume for 2022, the impact of which was estimated at approximately



€8.4 billion<sup>118</sup> and EDF's announcement that it was reviewing all means of defending its interests, and (ii) the downward revision of the nuclear production estimate in France for 2022 (from 330 – 360 TWh to 300 – 330 TWh);

- July 12, 2022: last trading day<sup>119</sup> before the announcement, on July 19, 2022, of the terms and conditions of the Offer, and in particular the Offer Price.

**Table 10 – Analysis of the intraday VWAP of the EDF shares as of January 12, 2022 and July 12, 2022**

Volume-weighted average prices	12/01/2022		12/07/2022	
	In €/share	Premium/(discount) represented by the offer price of €12	In €/share	Premium/(discount) represented by the offer price of €12
Spot (1/12/2022)	9.71	+23.6 %	10.23	+17.4 %
1-month VWAP	9.92	+21.0 %	8.68	+38.2 %
60-day VWAP	11.00	+9.1 %	8.54	+40.6 %
3-month VWAP	11.09	+8.2 %	8.56	+40.2 %
6-month VWAP	10.89	+10.2 %	8.33	+44.0 %
12-month VWAP	10.85	+10.6 %	9.21	+30.4 %
24-month VWAP	10.00	+19.9 %	9.67	+24.1 %
<b>Min</b>	<b>9.71</b>		<b>8.33</b>	
<b>Max</b>	<b>11.09</b>		<b>10.23</b>	
12-month high (100/27/2021)	12.59	(4.7)%	12.59	(4.7)%
12-month low (03/05/2021)	9.31	+28.9 %	6.95	+72.6 %
24-month high (02/21/2020)	12.96	(7.4)%	12.91	(7.1)%
24-month low (03/19/2020)	6.12	+96.1 %	6.95	+72.6 %

Sources: CAPITAL IQ, FINEXSI analysis

Compared to the share price over the 24 months preceding January 12, 2022, the Offer Price represents a premium of between +8.2% and +23.6%.

Compared to the share price over the 24 months preceding July 12, 2022, the Offer Price represents a premium of between +17.4% and +44.0%.

During these same periods, the highest price was reached on February 21, 2020 (€12.96) while the lowest price was reached on March 19, 2020 (€6.12).

#### 8.4.2 Sum of the Parts – Discounted Cash Flow Approach (principal method)

The sum-of-the-parts valuation method involves separately valuing a group's different businesses with a view to calculating the group's value. We consider this method to be appropriate to the valuation of the EDF Group, which operates in various business sectors and geographical regions, as it allows each of the Group's assets to be valued using criteria appropriate to its growth

<sup>118</sup> Estimated based on market prices as of December 31, 2021.

<sup>119</sup> By way of reminder, trading in EDF's shares was suspended from July 13 to July 18, 2022.



prospects, as well as its specific profile and risks, which can be assessed by reference to the nature of the business and its location.

We applied the sum-of-the-parts method, using a homogeneous approach that involved discounting the projected cash flows (DCF) of each business.

The discounted cash flow method involves calculating the intrinsic value of a business by discounting the cash flows set out in its financial trajectory at a rate that reflects the rate of return required by the market and factoring in an exit value over the term of the trajectory.

This method recognizes the value attributable to the growth prospects of the Company's various businesses and, in our view, is appropriate to EDF's situation, reflecting the strategic continuity of the scope of its current business activities. It is also representative of the Company's full value, since it assumes access to and control over the flows generated by the Company.

This method was applied assuming that no changes would be made to the Group's structure, i.e., without any assumption concerning asset disposals in excess of the €3 billion disposal plan announced at the beginning of 2022. The figures resulting from our work do not therefore correspond to sale prices including control premiums and any synergies that could be paid for by a buyer under an organized sale process, which is not currently being considered by the EDF Group or its controlling shareholder.

#### 8.4.2.1 Description of the management team's financial trajectory

The management team provided us with a financial trajectory (the medium-term plan (MTP)) covering the period 2022–2024. This plan was drawn up between the end of 2021 and the beginning of 2022 as part of the Company's annual forecasting exercise, and was presented to the EDF Board of Directors on February 17, 2022. This MTP, developed using a "bottom-up" approach, reflects the objectives and strategy of the EDF Group<sup>120</sup>.

The key assumptions of this MTP were then the subject of simulations by the Company applied to three scenarios (favorable, intermediate and degraded) principally relating to existing nuclear power in France, to reflect the uncertainties linked to market conditions and potential changes to the ARENH mechanism, which were presented to the Company's Board of Directors on June 29, 2022.

These scenarios and the key assumptions underlying them formed the basis of our valuation work. They were subsequently updated and were subject to simulations by EDF to reflect the information and assumptions available at the beginning of October 2022 and were presented to the Board of Directors on October 5, 2022, in the form of 5 scenarios (A, B, C, D and E), based on assumptions

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<sup>120</sup> It has been confirmed that no new MTP has been produced as of the date of this report.

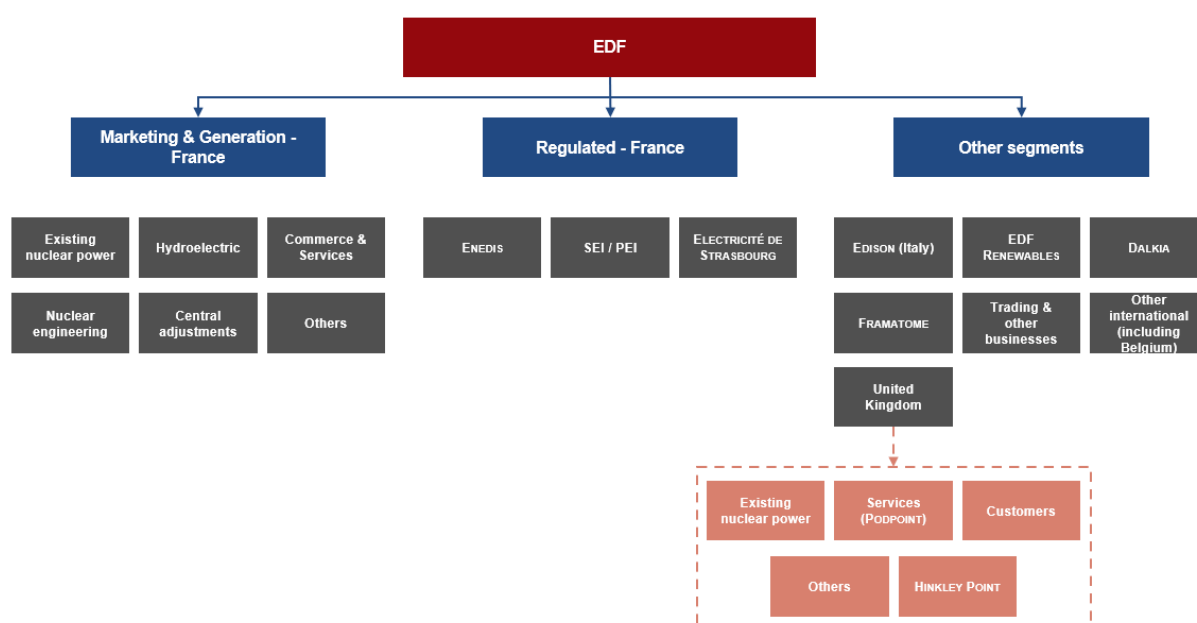


relating to prices, nuclear energy production in France and regulation (ARENH volume and price shield).

In addition to this MTP, which spanned a limited period, the management team provided us with normative financial trajectories for the Group's various businesses.<sup>121</sup> Assumptions underlying these extrapolations, established over time horizons adapted to the characteristics of each activity, were presented to the Company's Board of Directors.

Our sum-of-the-parts valuation work was therefore carried out based on about twenty individual financial trajectories<sup>122</sup> using the following segmentation, which allowed us to identify the main differences between the assets in operational and geographical terms:

Figure 37 – EDF's valuation scopes using the sum-of-the-parts method – discounted cash flows



Sources: Company, FINEXSI analysis

These financial trajectories incorporate the assets that may be disposed of as part of the approximately €3-billion disposal plan announced by the Company on February 18, 2022, and do not include any significant acquisition projects<sup>123</sup> or any significant asset disposals over and above the announced €3 billion disposal plan.

The sum-of-the-parts method was therefore applied based on the normative financial trajectories extrapolated by the management team over time horizons appropriate to each of the businesses,

<sup>121</sup> The management team also provided us with an extrapolation of the Group's consolidated financial trajectory for the period 2022–2032, which we used for the overall DCF approach presented for information purposes (see Section 8.4.4).

<sup>122</sup> A financial trajectory for each business shown in Figure 37 as well as a financial trajectory for the additional costs generated by the introduction of nuclear regulation from 2026 onwards.

<sup>123</sup> The proposed acquisition of GENERAL ELECTRIC's nuclear business (GE STEAM POWER), in relation to which an exclusivity agreement was signed in February 2022, is not included in the financial trajectories. This proposed acquisition has been considered to be neutral to the Group's valuation, insofar as the price to be paid by EDF should correspond to the future cash flows to be received by the Group. The value of the shares in this business is estimated at around \$200 million according to the press release of February 10, 2022.



which are discussed below. These extrapolated financial trajectories provide an insight into the full effect of the strategy, as well as the expected long-term development prospects.

We have described below the various scenarios that were communicated to us over the MTP period and the extrapolated financial trajectories for each of the business.

#### 8.4.2.1.1 Marketing and generation operations in France (C+P France)

##### **Existing nuclear power including FLAMANVILLE 3**

As stated above, the key assumptions of the MTP have been updated several times and have been the subject of a number of simulations since they were first drawn up, in particular to reflect uncertainties around market conditions, nuclear energy generation and potential changes to the ARENH mechanism, and to reflect the latest available information. The five scenarios (A, B, C, D and E) presented to the Board of Directors on October 5, 2022 incorporate these updates and can be represented as follows

**Table 11 – Scenarios presented to the EDF Board of Directors on October 5, 2022**

			A		B		C		D		E	
			2023	2024	2023	2024	2023	2024	2023	2024	2023	2024
Operational assumptions	Nuclear production France	TWh	315	330	300	315	300	315	315	330	280	295
	Average forward electricity prices calculated between January 1, 2022 and September 16, 2022	€/MWh	330	198	330	198	330	198	330	198	330	198
	Average forward electricity prices calculated between mid-June and mid-September 2022, also corresponding to spot prices as of September 13, 2022	€/MWh	538	268	538	268	538	268	538	268	538	268
Regulatory assumptions	ARENH volume	TWh	100	100	100	100	110	110	110	110	120	120
	ARENH price (for all volumes)	€/MWh	42	42	42	42	49.5	49.5	49.5	49.5	49.5	49.5
	Measures on limiting bills applicable to EDF		No measures applicable to EDF		No measures applicable to EDF		No measures applicable to EDF (excluding the increase in the ARENH cap)		TRV: +15%/year No measures in relation to MAFF (in addition to the increase in the ARENH cap)		TRV: +15%/year MAFF: +30%/year (in addition to the increase in the ARENH cap)	

Source: Company

These scenarios are based on the various nuclear output assumptions for 2023 and 2024, the various ARENH volume and price pairs, and two electricity pricing references.

- With regard to the nuclear production assumptions, the scenarios communicated, with the exception of scenario E, are within the range of the latest nuclear output estimates for France communicated by the Company on September 15, 2022, i.e., between 300 and 330 TWh for 2023 (or an average of 315 TWh) and between 315 and 345 TWh for 2024 (or an



average of 330 TWh). It should also be noted that output in 2022 is expected to be at the lower end of the range communicated (280 – 300 TWh), due in particular to the extended shutdown of four nuclear reactors affected by stress corrosion issues;

- In terms of the price assumptions, these are:
  - based on forward electricity prices for Q4 2022 (approximately 650/MWh) and average forward prices for 2023 (€330/MWh) and 2024 (€198/MWh) calculated between January 1, 2022 and mid-September 2022; and
  - based on average forward electricity prices for 2022 (about €900/MWh), 2023 (€538/MWh) and 2024 (€268/MWh), calculated over a shorter period, between mid-June and mid-September 2022<sup>124</sup>, to reflect the bullish market context;
- With regard to the regulatory assumptions (ARENH), the following assumptions are made in the various scenarios:
  - current regulations would remain in place, i.e., 100 TWh at €42.0/MWh (scenarios A and B);
  - an increase in the ARENH to 110 TWh, combined with an increase in the price to €49.50/MWh for all volumes (scenarios C and D);
  - an increase in the ARENH to 120 TWh, combined with an increase in the price to €49.50/MWh for all volumes (scenario E).

In all the scenarios, it was assumed that the exceptional 20 TWh increase in electricity volumes that EDF would allocate to its competitors under the ARENH mechanism set up in 2022 by the French Government, and the subject of EDF's claim for compensation, would not be renewed for subsequent years.

It should also be noted that any amendment to current regulations requires the prior approval of the European Commission.

Furthermore, it should be noted that the corollary of an increase in the ARENH price to €49.50<sup>125</sup>/MWh (from the current price of €42.0/MWh) would most likely be an increase in volumes to 110 TWh or 120 TWh. Since the French Government's objective is to limit the increase in bills,<sup>126</sup> we were told by the French Government that it was inconceivable that prices would be increased to €49.50/MWh without any increase to the current volume of 100 TWh, due to the very significant impact that this would have on customers' bills. Consequently, we have not applied such an assumption in our work.

With regard to 2023, the scenarios communicated by EDF do not reflect the incorporation into French law of the provisions of the European regulation on emergency measures capping infra-marginal revenues from electricity generation at €180/MWh (the "price cap"),

<sup>124</sup> These prices also correspond to the spot prices as of September 13, 2022.

<sup>125</sup> This price of 49.5€/MWh corresponds to the possible increase approved by the French Parliament in August 2022, but remains conditional on the agreement of the European Commission (see Article 2 of Decision SA.21918).

<sup>126</sup> Draft offer document of October 21, 2022.





which was introduced by an amendment dated October 7, 2022 to the Draft Finance Law for 2023. This position is favorable to EDF's shareholders, as these provisions may have a negative impact on EDF's 2023 results.

In addition to the scenarios, the main key assumption used for this business were as follows:

- The establishment of a long-term trajectory (until 2100), reflecting the operation, until the end of their life, of existing nuclear reactors, including the FLAMANVILLE 3 EPR, which is scheduled to begin operating, according to the latest schedule announced by EDF, with the reactor operating at full capacity, in 2025;
- A lifespan for all nuclear power facilities set at 60 years, even though EDF has not yet extended the accounting lifespan of these facilities to 60 years or obtained the necessary authorizations from the ASN on the conditions to be complied with in order to extend the operations of the facilities over this period.<sup>127</sup> This extension of the operating period could result in additional investments (in addition to those already included in the trajectory) to meet ASN's requirements, and additional maintenance requirements as a result of the facilities ageing. These are therefore assumptions relating to the lifespan of the plants that are favorable to shareholders;
- Financial trajectories that assume total net average electricity output of approximately 350 TWh (including lost opportunities and excluding output from the FLAMANVILLE 3 reactor), over the period 2025–2033, before decreasing until the end of the operational lifespan of all the nuclear reactors. This assumption in relation to output results in a utilization rate of 71% of the nuclear reactors over the operating horizon. These assumptions in relation to output incorporate a buffer of around 10 to 20 TWh per year, which means that they do not factor in any significant incident such as stress corrosion (with an impact on output of around 70 TWh) up until the end of the reactors' lifespan, an event that is significantly affecting the current utilization rate of the facilities.
- The significant return to EDF of customers of alternative suppliers due to the current changes to market prices and the commercial policies of alternative suppliers. This return of customers would have a negative impact of between €2 billion and €4 billion on EBITDA in 2023, depending on the level of the market price in question. This negative impact can be explained, firstly, by the decrease in demand in 2023 for the ARENH from alternative suppliers (as a result of the fall in customer numbers), resulting in a fall in the level of the cap on the ARENH provided to alternative suppliers, and correlatively in the level of the regulated rate and the EDF offers and, secondly, by the need for EDF to sell additional supplies to new customers (principally at the regulated rate) at a consistent price without having been able to source supplies at a consistent price over this period.

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<sup>127</sup> By way of reminder, the ASN has not yet taken a position on the 60-year operating period. It considered the principles presented by EDF in their fourth periodic review for the 900 MW and 1,300 MW units to be acceptable, with each unit being the subject of a specific review and possible restrictions. EDF has obtained a generic opinion from the ASN to extend the operating life to 50 years for the 32 900 MWh reactors. For the 20 1,300 MWh reactors, EDF has obtained the ASN's agreement to the review guidelines, which list the work to be carried out on the reactors, but no generic opinion has yet been issued. The 4 N4 series (1,450 MWh) reactors still have a lifespan of 40 years.

The assumptions we used in valuing the existing French nuclear facilities<sup>128</sup> were as follows:

- For the period 2022 – 2024:
  - Scenario A reflecting:
    - An ARENH volume of 100 TWh and a price of €42.0/MWh unchanged from the current situation, without any assumptions concerning increases in the cap in 2023 and 2024, the renewal of the additional allocation of a maximum of 20 TWh of electricity to be sold at regulated prices in 2022 under the ARENH mechanism, or the implementation of a possible price cap.<sup>129</sup> It should be noted that a scenario in which the ARENH price and volume are increased would have an unfavorable impact on EDF.

**Table 12 – EBITDA Delta (after IFRS 16) compared against Scenario A based on average forward electricity prices calculated between January 1, 2022 and mid-September 2022**

<b>EBITDA delta (after IFRS 16) compared to Scenario A. Based on average forward electricity prices calculated between January 1, 2022 and mid-September, 2022</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Scenario B	-	(4,854)	(2,884)
Scenario C	-	(8,899)	(4,243)
Scenario D	-	(10,551)	(1,526)
Scenario E	-	(30,470)	(6,449)

Source: Company, FINEXSI analysis

On this basis, scenario A appears to be the most favorable to shareholders;

- Nuclear output in 2022 at the lower end of the range of the latest estimates provided (280 TWh - 300 TWh), due in particular to the extended shutdown of four nuclear reactors affected by stress corrosion issues,<sup>130</sup> which will have a very material unfavorable impact on EBITDA in 2022;
- Nuclear output in 2023 and 2024 in the middle of the range of the latest production forecasts provided by the Company;
- A lack of measures on limiting customers' bills applying to EDF (no financing of the price shield by EDF);
- An assumption in relation to forward electricity prices for Q4 2022 (approximately 650/MWh) and average forward prices for 2023 (€330/MWh) and 2024 (€198/MWh) calculated between January 1, 2022 and mid-September 2022,

<sup>128</sup> It should be noted that the aggregates of the financial trajectories result from a conventional allocation between C+P France's various business lines. The long-term trajectories exclude CAPEX related to the new nuclear facility and are based on a normative amount of operating expenses. These are constant over time and bear no relation to project start-up and ramp-up rates.

<sup>129</sup> Or revenue cap, currently under discussion at the European level, which would apply to some or all of EDF's profits due to the high market prices in the current environment (see above).

<sup>130</sup> Press release of August 24, 2022.



mitigating the impact of the very significant volatility in the electricity market price over recent months;

- Based on these assumptions, EBITDA is significantly negative in 2022, and positive in 2023 and 2024;
  - CAPEX (excluding new nuclear power) represents, on average, 37.4% of annual EBITDA (after IFRS 16) over the period 2023 - 2024;
  - The change in WCRs is between -€149 million and -€32 million over the period.
- For FY 2025:
    - The ARENH price and volume pairs are identical to those for the 2022 – 2024 period;
    - The market price of electricity is €129/MWh;
    - EBITDA in 2025 (after IFRS 16) is 4.9% higher than EBITDA in 2024, with the fall in electricity market prices being offset by the increase in nuclear output;
    - CAPEX represents 32.4% of 2025 EBITDA (after IFRS 16);
    - The change in WCRs for 2025 is +€329 million.
  - For the period 2026 - 2100 (post ARENH):

It should be noted that the ARENH mechanism will end on December 31, 2025.

For the period beginning on January 1, 2026, we have assumed that the price of nuclear energy will be regulated, in line with the intentions expressed by the French government over the past few years (in connection with the HERCULE project in particular), the principles of which were reaffirmed by the President of the Republic in his speech in Belfort on February 10, 2022, *"We will introduce, alongside the European Commission, new nuclear electricity regulations (to replace the ARENH) so that French consumers, households and businesses may benefit from stable prices, close to the cost of producing electricity in France"*;

Furthermore, a scenario in which all volumes produced from 2026 onwards would be sold at market price does not seem realistic as this would lead to potentially unsustainable prices for consumers in periods of high market prices, like we are currently seeing (or conversely for EDF in the event of adverse price scenarios).

On this basis, new regulations applicable to the sale of the Group's nuclear energy in France will have to be negotiated by the French Government and the European Commission, it being noted that the European Commission's agreement will be required before any regulations are implemented.

For this new regulation, the mechanism discussed by the French Government and the European Commission at the time of the HERCULE project was a fixed price regulation



intended to guarantee that the full cost of EDF's existing nuclear facilities is covered, to protect the Group downward fluctuations in market prices, and protect customers against upward fluctuations in market prices.

Initial discussions on this topic were initiated as part of the HERCULE project and were suspended in June 2021 when the project was abandoned. The discussions concerned, among other things, the amount payable to EDF for the existing nuclear facilities, the scope of the regulation and the possible counterbalances to this new regulation.

EDF set out its demands for a rate of return in the negotiations with the various stakeholders, which reflected the market environment at the time, taking into account the costs of the facilities based on the financial trajectories provided and the risks considered to be relevant at that time. Against this same backdrop, CRE put forward an intermediate position, based on a rate of remuneration lower than that requested by EDF, but higher than that put forward by the European Commission.

The French Government has told to us that, as part of the discussions, which, it should be noted, were not completed, the European Commission was prepared to accept a rate of remuneration falling between its initial position and the intermediate position expressed by the CRE.

The French Government also informed us that, as part of the same discussions between the CRE, the French Government and the European Commission, the fixed price resulting from the rate of remuneration was an overall price, and included formal receipts<sup>131</sup> and revenue from nuclear production capacity.

On this basis, a central assumption to our work was a fixed price resulting from the rate of remuneration likely to be accepted by the European Commission at the time and corresponding to the regulated price used by the Offeror ("Price 1 - Offeror"). This fixed price applies from 2026 onwards and factors in inflation over the entire period (i.e., of between 1.5% and 1.7% per year on average, in line with the rate applied for cost increases). We have not taken into account any additional revenue related to the form of production, since the rate of remuneration constitutes an overall price.

A sensitivity analysis was also carried out on the price produced by the rate of remuneration initially requested by EDF ("Price 2 - EDF") (see Section 8.4.2.7.1).

It is not possible, given EDF's characteristics, to value it without factoring in the regulations that apply to the business activities in question. We obtained the appropriate documentation based on the information drawn up prior to the tender offer in relation to the HERCULE project, i.e., the rates of remuneration and fixed prices resulting therefrom.

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<sup>131</sup> These correspond to the additional revenue received by EDF through optimizing the allocation of the energy it generates when the needs of the electricity system are at their highest (peak consumption). This constitutes a performance incentive for the operator. To benefit from this revenue, EDF optimizes the availability of its nuclear units, by scheduling outages when the electricity system is under the least stress and therefore, all other things being equal, when prices are at their lowest.



- Therefore, the main aggregates used for the period 2026 - 2100 are as follows:
  - EBITDA is expected to grow at an average annual rate of 1.6% between 2026 and 2038;
  - CAPEX will represent, on average, 55.3% of EBITDA after IFRS 16 over the period 2026 - 2038, before falling to zero at the end of the plan;
  - The change in WCRs is between -€41 million and +€415 million between 2026 and 2032, it being noted that we have assumed no change in WCR beyond that date;
  - A tax rate of 25.83% was used for the entire period. Tax loss carryforwards were deducted from the tax charge.

The trajectory we applied ended at the end of the life of the existing facilities (including FLAMANVILLE 3), and we therefore did not use a terminal value at the end of this plan, since decommissioning costs were included in the adjusted net financial debt described above.

- New nuclear - France:

For new nuclear power plants (EPR 2 and SMR), there is no precise reference scenario, given the limited progress of the projects, the lack of decisions to date, and the multiple uncertainties surrounding their implementation (without limitation, number of reactors, final quotations, financing, remuneration method, operating period, etc.).

For these reasons, our valuation work does not cover the new nuclear power plants in France (excluding FLAMANVILLE 3), it being noted that, given the relatively long timeframe needed to commission these projects<sup>132</sup> and the very significant CAPEX that will need to be incurred in the coming years to build the initial facilities that do not benefit from the serial production effect, the value creation associated with the new nuclear power plants appears in any case very uncertain.

In addition, in keeping with the fact that the new nuclear power facilities were not covered by the valuation work, all direct expenses of these programs incurred up to June 30, 2022 and capitalized in the balance sheet have been neutralized in the enterprise value to equity value bridge, so as not to pass the costs already incurred on these projects on to minority shareholders (see Section 8.3.2).

### **Hydroelectric**

Certain concessions that have already expired, but that EDF continues to operate, are currently the subject of two formal notices issued against the French Government by the European authorities, who want a competitive bidding procedure to be arranged for the renewal of the concessions.

As a result of the way the EDF Group is currently structured, there is no legal framework that would allow the renewal of concessions without a competitive bidding process. The continued operation

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<sup>132</sup> By way of reminder, during his speech in Belfort in February 2022, President Macron announced his intention to build six EPR 2 nuclear reactors by 2050, with the first reactor to be commissioned in around 2035.



by EDF of all the hydroelectric dams, without a competitive bidding process, would only be legally feasible in the event that the Group was nationalized (with, for example, the establishment of an indirect quasi-government entity).

As part of our standalone valuation work, i.e., based on the Group's current structure, the Company provided us with a financial trajectory for the hydroelectric business, for the period 2022 - 2032, and incorporating an assumption that competitive bidding would be introduced for concessions, resulting in a normative decrease in the margin rate for renewed concessions. This assumption reflects a situation in which the Group would be forced to accept a lower level of profitability for its hydroelectric business and/or the non-renewal of certain concessions, as competitive bidding processes are launched at the end of concession periods.

In addition, the normative decrease in the margin rate was produced by a computational method that highlights the uncertainties associated with the outcome of the formal notices issued by the European authorities to the French Government and the competitive bidding process at the time the current concessions expire, which may have to be implemented by the Government as a result of such formal notices. Therefore, this rate is contractual and approximate in nature insofar as no concession has yet been put out to tender.

The main assumptions of the financial trajectory for this business are as follows:

- Average forward electricity prices for 2022, 2023 and 2024 calculated between January 1, 2022 and September 16, 2022, and market prices based on the EDF Group's internal assumptions beyond that date;
- EBITDA (after IFRS 16) of between €360 million and €5.1 billion over the period 2022e - 2032e;
- CAPEX representing, on average, 56.4% of annual EBITDA (after IFRS 16) over the period;
- A change in WCRs of between -€144 million and +€12 million;
- A tax rate of 25.83% over the entire period.

We calculated a terminal value at the end of this plan using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2032).

Moreover, the flows in the financial trajectory include actual water levels up to the end of August 2022, then assume that normal water levels will be restored, factoring in global warming, which could be more severe than expected.

### **Commerce & Services**

The main assumptions underlying the financial trajectory for this business, which covers the period 2022 - 2032, are as follows:





- EBITDA (after IFRS 16) of between €541 million and €1.3 billion over the period 2022 - 2032;
- CAPEX will represent on average 21.8% of annual EBITDA (after IFRS 16) over the period;
- A change in WCRs of between €1.12 billion and €1.2 billion over the period;
- A tax rate of 25.83%.

We calculated a terminal value at the end of this financial trajectory using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2032).

### **Other C+P France segments**

The other businesses of the C+P France segment include nuclear engineering and other activities that are more marginal at Group level, as well as central costs, which taken together show negative cash flows.

The management team has produced financial trajectories up to 2032. We extrapolated them to the end of the lifespan of the existing nuclear facilities based on changes in EBITDA. On this basis, we did not calculate a terminal value for nuclear engineering, central costs, or other items.

#### **8.4.2.1.2 Regulated activities in France**

##### **ENEDIS**

ENEDIS is the principal manager of the public electricity distribution network in France. From a technical point of view, ENEDIS manages the delivery of electricity to the end consumer, regardless of the electricity supplier chosen, although in certain municipalities, electricity may be delivered by a local distribution company.

The main assumptions of the financial trajectory for this business, which covers the period 2022 - 2040, are as follows:

- No change to the TURPE 6 pricing principles (see Section **Erreur ! Source du renvoi introuvable.**) over the period;
- Average annual growth in EBITDA (after IFRS 16) of 2.0%;





- CAPEX will represent on average 79.2% of annual EBITDA (after IFRS 16) over the period;
- A change in WCRs of between €1.4 billion and €1.2 billion over the period;
- A tax rate of 25.83%.

We calculated a terminal value at the end of this financial trajectory using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2040).

### ***Systèmes Energétiques Insulaires (SEI) / Production Electrique Insulaire (PEI) and ELECTRICITE DE STRASBOURG (ES)***

SEI is a division of EDF SA, and PEI is a subsidiary of EDF SA. SEI and PEI operate exclusively in areas that are not connected to the continental mainland network: Corsica, the French overseas departments (excluding Mayotte), the overseas collectivities of Saint-Barthélemy, Saint-Martin and Saint-Pierre-et-Miquelon, as well as several of the Ponant islands, etc. ES, which is listed on Euronext Paris, is the second largest electricity distributor in France with a network of more than 15,000km serving more than 400 municipalities in Alsace.

For the purposes of our valuation work, we considered these two businesses together. The financial trajectory for SEI/PEI was produced by the management team for the period 2022 - 2040, with the business plan for ES produced for the period 2022 - 2032. We extrapolated ES's flows over the period 2033 - 2040, so that the explicit horizons of the two financial trajectories were identical.

The main assumptions of this aggregated financial trajectory are as follows:

- An average annual fall in EBITDA (after IFRS 16) of -1.3% over the period 2022 - 2040;
- CAPEX representing on average 48.8% of annual EBITDA (after IFRS 16) over the period;
- A change in WCRs of between -€6 million and +€70 million over the period;
- A tax rate of 25.83%.

We calculated a terminal value at the end of this financial trajectory using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2040).

#### **8.4.2.1.3 Other segments**





### **United Kingdom - existing nuclear**

By way of reminder, EDF has 9 nuclear reactors in the UK.

The main assumptions of the financial trajectory for this business, which covers the period 2022 - 2055, are as follows:

- The establishment of a long-term trajectory<sup>133</sup> (to 2055), reflecting the operation to the end of the lifespan of the existing nuclear reactors in the UK (excluding HPC, which is currently under construction), and an extension in the lifespan of SIZEWELL B to 60 years (above its current 40-year lifespan authorized by the *Nuclear Decommissioning Authority - NDA*, a UK government entity);
- EBITDA (after IFRS 16) of between €100 million and €3.3 billion over the period 2022 - 2055;
- CAPEX representing on average 28.0% of annual EBITDA (after IFRS 16) until 2050 (with zero CAPEX between 2050 and the end of the plan in 2055);
- A change in WCRs of between €113 million and +€82 million over the period;
- A tax rate of 25%.

The trajectory we applied ended at the end of the life of the existing facilities and we therefore did not use a terminal value at the end of this financial trajectory.

### **United Kingdom - customers**

The main assumptions of the financial trajectory for this business which covers the period 2022 - 2032, are as follows:

- Average annual growth in EBITDA (after IFRS 16) of 2.3% over the period 2022 - 2032;
- CAPEX representing on average 33.2% of annual EBITDA (after IFRS 16);
- A change in WCRs of between -€39 million and +€119 million;
- A tax rate of 25%.

We calculated a terminal value at the end of this financial trajectory using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2032).

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<sup>133</sup> It should be noted that this trajectory does not contain any assumptions concerning a price cap, which, although the United Kingdom is no longer a member of the European Union, is currently under consideration.



### **United Kingdom - HINKLEY POINT C (HPC)**

The HPC EPR is currently under construction, with power generation scheduled to begin in June 2027 for the first unit. However, there is a risk of a delay in delivery estimated at 15 months, assuming no new wave of the pandemic and no additional impacts of the war in Ukraine<sup>134</sup>. This risk of delay and the possible associated additional costs are not included in our work. The facility is scheduled to operate for 60 years, until 2088.

The Company has provided us with a financial trajectory for the entire lifespan of the reactor, with the following key assumptions:

- Construction costs of approximately €21 billion<sup>135</sup> over the period 2022 - 2028;
- Average operating cash flow of approximately €5 billion per year over the operating period, between 2028 and 2088;
- Almost no change in WCRs.

Insofar as trajectory we applied ended at the end of the reactor's lifespan, we have not used a terminal value at the end of this trajectory.

### **United Kingdom - other**

The main assumptions of this financial trajectory, which covers the period 2022 - 2032, and which correspond mainly to central costs, are as follows:

- An average annual fall in EBITDA (after IFRS 16) of -1.5% over the period 2022 – 2032;
- Very limited CAPEX, representing on average -0.4% of annual EBITDA (after IFRS 16) over the period;
- A change in WCRs of between -€21 million and +€314 million.

We calculated a terminal value at the end of this trajectory using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2032).

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<sup>134</sup> Press release of May 19, 2022.

<sup>135</sup> Out of a total cost for the project of £25 to £26 billion<sub>2015</sub> (see press release of May 19, 2022)



### **EDISON (Italy)**

EDISON SPA, listed on the BORSA ITALIANA<sup>136</sup>, is an Italian company, active in the production, supply, distribution and sale of electricity and natural gas.

Management has provided us with a financial trajectory for the period 2022 - 2032. We extrapolated it to 2037 in order to converge depreciation and CAPEX at the end of the plan.

The main assumptions of this financial trajectory are as follows:

- Average annual growth in EBITDA (after IFRS 16) of +6.6% over the period;
- CAPEX representing on average 79.8% of annual EBITDA (after IFRS 16);
- A change in WCRs of between -€66 million and +€346 million over the period;
- A tax rate of approximately 40% in 2022 as a result of the windfall tax and 28% thereafter.

We calculated a terminal value at the end of this trajectory using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2037).

### **EDF RENEWABLES**

The main assumptions of the financial trajectory for this business, which covers the period 2022 – 2032, are as follows:

- EBITDA (after IFRS 16) up by an average of +7.6% per year;
- CAPEX representing on average 78.1% of annual EBITDA (after IFRS 16), it being noted that we did not use the CAPEX figures for the final year of the financial trajectory in our work insofar as they do not translate into an immediate EBITDA increment;
- A change in WCRs of between -€57 million and -€2 million;
- A tax rate of 37%.

Given the specific nature of this business, the assets (wind turbines, solar panels) of which generally have a lifespan of between 20 and 30 years, we applied an exit multiple over the horizon of the financial trajectory. This exit multiple of 15.4x<sup>137</sup> EBITDA was calculated to reflect the location of the operational assets, which are mostly in countries with a low cost of risk, and their growth profile, as they are relatively young and resilient assets.

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<sup>136</sup> Italy's main stock exchange.

<sup>137</sup> Based on the companies used to calculate the beta of EDF RENEWABLES (EDP RENOVAVEIS, ENCAVIS, NEOEN, ORSTED, and ERG) (see Table 13).



## ***DALKIA***

The main assumptions of the financial trajectory for this business, which covers the period 2022 - 2032, are as follows:

- EBITDA (after IFRS 16) up by an average of +2.2% over the period;
- CAPEX representing on average 65.6% of annual EBITDA (after IFRS 16);
- Almost no change in WCRs;
- A tax rate of 25.83%.

We calculated a terminal value at the end of this trajectory using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2032).

## ***FRAMATOME***

The main assumptions of the financial trajectory for this business, which covers the period 2022 - 2032, are as follows:

- EBITDA (after IFRS 16) up by an average of 10.6% over the period;
- CAPEX representing on average 72.4% of annual EBITDA (after IFRS 16);
- A change in WCRs of between -€195 million and -€112 million over the period;
- A tax rate of 25.83%.

We calculated a terminal value at the end of this trajectory using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2032).

## ***Other International (including Belgium)***

We valued the Belgian and the "Other International" businesses separately.

- The main assumptions of the financial trajectory for Belgium, which covers the period 2022 - 2032, are as follows:
  - EBITDA (after IFRS 16) up by an average of +2.1% over the period;



- CAPEX representing on average 43.6% of annual EBITDA (after IFRS 16);
- A change in WCRs of between -€120 million and +€20 million over the period;
- A tax rate of 25%.

We calculated a terminal value at the end of this trajectory using the GORDON-SHAPIRO formula, based on a perpetual growth rate of 1.7% estimated based on the inflation rate in 2050 communicated by the Company, and on operational assumptions in line with the last year of the financial trajectory's horizon (2032).

- With regard to the "Other International" business, the main assumptions of the financial trajectory for this business, which covers the period 2022 - 2032, are as follows:
  - EBITDA (after IFRS 16) up by an average of +4.3% over the period;
  - CAPEX representing an average annual amount of approximately €400 million over the entire period;
  - Almost no change in WCRs;
  - A tax rate of 25.83%.

Given the specific nature of these assets, which are in part regulated assets in various geographical regions, we applied an exit multiple of  $9.3 \times^{138}$  EBITDA over the horizon of the financial trajectory.

### **Trading & other businesses**

The trading business, which is highly dependent on market conditions, is by its very nature volatile and not very predictable, making it difficult to model. For these reasons, we did not value this business using the DCF method, but used an EBITDA multiple (the multiple of the Anglo-Swiss group GLENCORE, considered as the most comparable business, was applied to the 2024 EBITDA of the Trading & other businesses activity).

#### **8.4.2.2 Calculation of cash flows**

##### **IFRS 16**

Management's extrapolated financial trajectories incorporate the effects of IFRS 16, which means that lease expenses are not taken into account in calculating cash flows.

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<sup>138</sup> Based on the companies used to calculate the beta of "Other International" (ENEL, CEZ, CONSTELLATION, and EDP) (see Table ).



We have restated each of the financial trajectories in order to reintegrate lease expenses into the calculation of cash flows and, consequently, have not used the liability figure for the leases as recognized by IFRS 16 in calculating adjusted net financial debt (see Section 8.3.2).

#### Corporate income tax

Tax loss carryforwards have been deducted from the tax charge in the DCFs, reflecting the expected loss in the second half of 2022.

#### Discounting of cash flows

We have discounted the mid-year cash flows as of June 30, 2022, the date on which the adjusted net financial debt was calculated (see §8.3.2).

#### 8.4.2.3 Additional costs associated with the introduction of new regulations

Initial estimates of additional regulatory costs were made by the Company as part of the HERCULE project (based on the 2019 environment). This data represents the best information available at the time the discussions ended, it being reiterated that the HERCULE project was not completed.

The scope and extent of the constraints that could be requested by the European Commission are not known at this time, as no discussions have been reopened on the subject.

In addition, the Company and the EPA have told us that more recent information than of the information produced in connection with the HERCULE project is not available.

The estimates of additional costs communicated to us only cover the marketing and generation business in France (mainly nuclear, hydroelectric and commercial operations) and do not include additional costs of support functions or possible tax dis-synergies. Accordingly, we consider that the estimates of additional costs we used represent minimum amounts, which is favorable to shareholders.

These additional costs have been deducted from the value of the marketing and generation business in France.

#### 8.4.2.4 Discount rate

We have used different discount rates depending on the growth prospects of each business, the geographical regions in question and the maturity of the business.

For each business, we used the weighted average cost of capital to discount future cash flows, based on:

- A risk-free rate of:



- 1.9% corresponding to the average 10-year OAT TEC rate (3-month average calculated as of September 30, 2022, source: BANQUE DE FRANCE): for businesses mainly located in France;
- 2.6% corresponding to the average UK 10-year gilt rate (3-month average calculated as of September 30, 2022, source: CAPITAL IQ): for businesses located in the United Kingdom;
- 3.5% corresponding to the average 10-year government bond rate in Italy (3-month average calculated as of September 30, 2022, source: CAPITAL IQ): for businesses located in Italy;
- 3.1% corresponding to the average 10-year government bond rate in the United States (3-month average calculated as of September 30, 2022, source: CAPITAL IQ): for businesses mainly located in the United States;
- A risk premium of 6.3% (ASSOCIES EN FINANCE 3-month average risk premium as of September 30, 2022);
- Unleveraged betas calculated the companies listed below (see Table 13), identified by their business activities and geographic location (source: CAPITAL IQ);
- Risk premiums limited to between 0.5% and 2% included in certain discount rates, in order to reflect risks specific to each business (for example, due to a greater risk of manifestation under certain financial trajectories, a construction risk or a country risk);
- A pre-tax cost of debt of 4.5%, corresponding to a weighting of<sup>139</sup>:
  - 85% for the Group's cost of debt seen in the last financial year (2.2% as of December 31, 2021), excluding IFRS 16 debt, plus a financing spread provided by EDF (1.4%);
  - 15% for the cost that may be applied to any new hybrid issuances in the current market environment, or approximately 10%;

In view of current financing conditions, this rate of 4.5% is favorable.

- Gearing calculated based on the companies used to determine the beta of each business (i.e., net financial debt/market capitalization as of September 30, 2022).

On this basis, the discount rates used based on the specific features of each business are set out below:

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<sup>139</sup> The weighting used is equal to the weighting seen in the last financial year (i.e., 85% senior debt and 15% hybrid debt - PSNs).

Table 13 - Discount rates used by segment

	Risk-free rate (1)	Specific risk premium	Risk premium (2)	Unleveraged beta (3)	Target gearing (3)	Tax rate (4)	Leveraged beta	Cost of debt before tax (5)	WACC	Companies used to calculate the beta
<b>Existing nuclear including FL</b>	1.9 %	2% / 1%	6.3 %	0.65	16.2 %	25.8 %	0.73	4.5 %	7.8% / 6.9%	CEZ, Constellation
<b>Hydroelectric</b>	1.9 %	0.5 %	6.3 %	0.88	17.7 %	25.8 %	0.99	4.5 %	7.8 %	EVN, Verbund
<b>Nuclear engineering</b>	1.9 %	n/a	6.3 %	0.76	56.9 %	25.8 %	1.09	4.5 %	6.8 %	Enel, CEZ, Constellation, EDP
<b>Commerce</b>	1.9 %	n/a	6.3 %	0.76	56.9 %	25.8 %	1.09	4.5 %	6.8 %	Enel, CEZ, Constellation, EDP
<b>Services</b>	1.9 %	n/a	6.3 %	0.76	56.9 %	25.8 %	1.09	4.5 %	6.8 %	Enel, CEZ, Constellation, EDP
<b>Withdrawal and central adjus</b>	1.9 %	n/a	6.3 %	0.76	56.9 %	25.8 %	1.09	4.5 %	6.8 %	Enel, CEZ, Constellation, EDP
<b>Others</b>	1.9 %	n/a	6.3 %	0.76	56.9 %	25.8 %	1.09	4.5 %	6.8 %	Enel, CEZ, Constellation, EDP
<b>France C+P</b>										
<b>Enedis</b>	1.9 %	n/a	6.3 %	0.35	131.8 %	25.8 %	0.69	4.5 %	4.5 %	Snam, Italgas, Terna, Red Electrica, REN
<b>SEI/PEI &amp; ES</b>	1.9 %	n/a	6.3 %	0.35	131.8 %	25.8 %	0.69	4.5 %	4.5 %	Snam, Italgas, Terna, Red Electrica, REN
<b>France - regulated</b>										
<b>Existing nuclear power</b>	2.6 %	1.0 %	6.3 %	0.65	16.2 %	25.0 %	0.73	4.5 %	7.5 %	CEZ, Constellation
<b>HPC</b>	2.6 %	1.0 %	6.3 %	0.65	16.2 %	25.0 %	0.73	4.5 %	7.5 %	CEZ, Constellation
<b>Customers</b>	2.6 %	1.0 %	6.3 %	0.65	16.2 %	25.0 %	0.73	4.5 %	7.5 %	CEZ, Constellation
<b>Podpoint</b>									Market Capitalization	
<b>Others</b>	2.6 %	1.0 %	6.3 %	0.65	16.2 %	25.0 %	0.73	4.5 %	7.5 %	CEZ, Constellation
<b>EDF Energy</b>										
<b>Edison</b>	3.5 %	n/a	6.3 %	0.63	80.5 %	34.0 %	0.96	4.5 %	6.6 %	A2A, Centrica, ENGIE
<b>Belgium</b>	1.9 %	n/a	6.3 %	0.76	56.9 %	25.8 %	1.09	4.5 %	6.8 %	Enel, CEZ, Constellation, EDP
<b>Other International (excl. Belgium)</b>	1.9 %	2.0 %	6.3 %	0.76	56.9 %	25.8 %	1.09	4.5 %	8.1 %	Enel, CEZ, Constellation, EDP
<b>EDF Renewables</b>	3.1 %	n/a	6.3 %	0.65	41.2 %	37.0 %	0.82	4.5 %	6.7 %	EDP Renovaveis, Encavis, Neoen, Orsted, ERG
<b>Dalkia</b>	1.9 %	n/a	6.3 %	0.45	31.2 %	25.8 %	0.55	4.5 %	4.9 %	Bravida, Lassila & Tikanoja
<b>Other businesses</b>										Glencore
<b>Framatome</b>	1.9 %	n/a	6.3 %	0.80	16.3 %	25.8 %	0.90	4.5 %	7.0 %	BWX, Assystem, Bilfinger, Jacobs, John Wood
<b>Additional costs</b>	1.9 %	n/a	6.3 %	0.76	56.9 %	25.8 %	1.09	4.5 %	6.8 %	Enel, CEZ, Constellation, EDP
<b>Group</b>	1.9 %	n/a	6.3 %	0.76	56.9 %	25.8 %	1.09	4.5 %	6.8 %	Enel, CEZ, Constellation, EDP

(1) Sources: Banque de France, Capital IQ (3-month average for 10-year government bonds as of 09/30/2022)

(2) Source: Associés en Finance 3-month average as of 09/30/2022 and Finexsi analysis

(3) Source: Capital IQ, averaged unleveraged beta and average gearing of companies used to calculate the beta

(4) Source: Company

(5) 85%/15% weighting between the historic cost of debt (last financial year closed) plus a financing spread and the cost of hybrid debt

Sources: FINEXSI analysis, CAPITAL IQ, BANQUE DE FRANCE, ASSOCIES EN FINANCE

For existing nuclear power in France, we used a different discount rate for the ARENH period (i.e., until 2025), for which a discount rate of 7.8% was applied (including a specific risk premium of 2% to reflect the asymmetry of this mechanism), and the fixed-price regulation period (post-ARENH), which is scheduled to begin on January 1, 2026, for which a discount rate of 6.9% was applied (including a specific risk premium limited to 1.0% to reflect the risk relating to energy production capacity that will be borne by the Company during the regulated price period).

In our opinion, the rates used appropriately reflect, in the context of the Transaction, the likelihood of achieving the objectives set out in the various financial trajectories for each business activity and the specific characteristics of each of them on a going concern basis and without any changes to the scope of consolidation in a standalone review of the Group's activities.



#### 8.4.2.5 Valuation results

On this basis, EDF's enterprise value is €113,304 million. Taking into account the adjusted net financial debt described above, the central case value of shareholders' equity is €38,179 million, or €9.24 per EDF share, as shown by the table below:

Table 14 - Summary of central case value by segment

in millions of euros	Central value
C+P activities in France (after additional costs related to the implementation of new regulations)	18,584
Regulated activities in France	49,842
Other segments	44,878
<b>Total Enterprise Value of the Group</b>	<b>113,304</b>
Adjusted net cash/(debt)	(75,125)
<b>Shareholders' equity</b>	<b>38,179</b>
Number of shares	4,132
<b>Value per EDF share - As of June 30, 2022</b>	<b>9.24 €</b>

Source: FINEXSI analyses

#### 8.4.2.6 Potential upside from the litigation brought by EDF against the French Government

As previously stated, following the French government's announcement on January 13, 2022 of the allocation of a maximum additional 20 TWh of electricity sold at regulated prices for 2022 under the ARENH mechanism, on August 9, 2022, the Company brought legal proceedings before the Conseil d'Etat seeking the annulment of Decree no. 2022-342 of March 11, 2022 and the orders of March 11, March 12, and March 25, 2022, as well as a claim for compensation against the French Government, for a loss that is currently estimated at €8.34 billion<sup>140</sup>.

We reviewed, in conjunction with the Company and its legal advisors, the terms of this claim for compensation. We have not been provided with a legal opinion on the principal legal grounds and potential outcome of these proceedings for EDF from a financial perspective.

In the absence of information concerning the probability of success of the litigation and the claim, and in consideration of the uncertainty inherent to these proceedings, we have included the entire amount of the compensation claim in our sensitivity analyses, reflecting the fact that the proceedings are likely to last more than 5 years.

This approach is favorable to the Company's minority shareholder.

On this basis, the amount of this claim for compensation represents, on an after-tax basis, €1.50<sup>141</sup> per EDF share, or €1.36 after taking into account the time effect over a period of 5 years<sup>142</sup>.

<sup>140</sup> Excluding compensatory interest.

<sup>141</sup> It is advisable to focus on an after-tax amount insofar as all of EDF's tax loss carryforwards are already factored into the valuation.  $(8,340,000,000 \times (1 - 25.83\%)) / 4,132,499,525 = 1.50$ .

<sup>142</sup> We have discounted the after-tax amount of the compensation over a 5-year period at the risk-free rate of 1.9% set out above and used in our valuation work.  $1.50 / (1 + 1.9\%)^5 = 1.36$ .



#### 8.4.2.7 Risks, opportunities and sensitivity analysis

As we have seen, the value of the Company under the principal method used, i.e., the sum-of-the-parts method based on the DCF, is based on a large number of assumptions of various kinds. Each of the main assumptions used incorporates a certain level of uncertainty, but the valuation taken as a whole must constitute a coherent scenario.

In this context, we have prioritized sensitivity analyses of the key assumptions used in our central scenario, in order to simulate other scenarios incorporating the operational, regulatory or financial (market) risks or opportunities to which the Company is exposed. In practice, we carried out this analysis on the Marketing and Production France (C+P France) business, which essentially includes existing nuclear and hydroelectric facilities, as it involves the most significant uncertainty factors (see Section 8.4.2.1.1).

We also carried out sensitivity analyses on the valuation parameters (WACC and perpetual growth rate), which we considered to be less relevant in the circumstances, given the very significant level of financial leverage, which makes the value of the Company's shares extremely sensitive to any variation in these parameters (see Section 8.3.2).

##### 8.4.2.7.1 Based on sensitivities to various scenarios

Set out below are the key assumptions of the central scenario used to value the C+P France business based on the SOTP method, including the risks and opportunities that may have a material impact on the value of the EDF shares.

#### **Operational or market assumptions**

The level of nuclear production corresponds to the middle of the range of estimates communicated by EDF for the period 2023 - 2024, to production of approximately 350 TWh on average between 2025 and 2033 and to a resulting availability coefficient of 71% over the whole trajectory, with an assumption that the operating lifespan of the nuclear facilities will be extended to 60 years.

These assumptions appear, in our view, to be optimistic, as they are exposed to the risks of (i) a further deterioration in the outlook for nuclear production in 2023 and 2024<sup>143</sup>, (ii) obtaining the ASN's authorization to the conditions for extending of the lifespan of all facilities<sup>144</sup>, and (iii) maintaining the average availability coefficient of 71% despite the increasing age of the facilities and the likely increase in maintenance requirements.

<sup>143</sup> As we have seen above, EDF has repeatedly revised its estimate of nuclear production in France for 2022 downwards (13/01/2022; 07/02/2022; 18/05/2022; 15/09/2022) and for 2023 (11/02/2022).

<sup>144</sup> By way of reminder, the ASN has not yet taken a position on the 60-year operating period. It considered the principles presented by EDF in their fourth periodic review for the 900 MW and 1300 MW units to be acceptable, with each unit being the subject of a specific review and possible restrictions. EDF has obtained authorization from the ASN (generic opinion) to extend the operating life to 50 years for the 32 900 MWh reactors. For the 20 1,300 MWh reactors, EDF has obtained the ASN's agreement to the review guidelines, which list the work to be carried out on the reactors, but no generic opinion has yet been issued. The 4 N4 series (1,450 MWh) reactors still have a lifespan of 40 years.



#### Assumption of a one-off production shock

In order to factor in these risks, we obtained normative sensitivity analyses from EDF of a one-off production shock simulating a stress corrosion incident for the nuclear facilities in 2025 and 2031, resulting in a one-off fall in production of 70 TWh in each of these two years, consistent with the recent impact of stress corrosion in 2022. The impact of these shocks on EBITDA was measured at -€9.1 billion in 2025 and -€5.2 billion in 2031.

This impact, which is unfavorable for the Company, is estimated at -€2.07 per share<sup>145</sup> (see Table ).

#### Assumption of a fall in energy production capacity in 2023 and 2024

In light of recent events, we also simulated the impact of nuclear output for 2023 and 2024 at the lower end of the range of the latest estimates communicated by the Company, i.e., 300 TWh and 315 TWh respectively, and not at the mid-point of the range, as used in our central scenario. This simulation corresponds to scenario B produced by the Company (see Section 8.4.2.1.1). Moreover, no assumption was applied that production would be permanently lower than the Company's forecasts included in the trajectories.

This impact, which is unfavorable for the Company, is estimated at -€1.38 per share (see Table ).

#### Assumptions in relation to the electricity price for the period 2022 - 2024

Our central scenario is based on an assumed market price of €330/MWh in 2023 and €198/MWh in 2024, corresponding to the average forward price between the beginning of the year and September 16, 2022.

Given the current high volatility of electricity prices, we also reviewed a scenario with higher price assumptions. In view of the extreme price levels reached, which do not make sense from a medium- to long-term perspective, and in order to apply a coherent assumption, we use the average forward price over the shorter period between mid-June and mid-September 2022, which was €538/MWh for 2023 and €268/MWh for 2024.

This favorable impact for the Company is estimated at €1.35 per share (see Table ).

#### **Regulatory assumptions**

##### Assumption in relation to the ARENH regulation (2023 - 2025)

In the absence of any information on the future regulation for the period 2023 - 2025, our central scenario incorporates the current regulation, i.e., 100 TWh at a price of €42 per MWh, which is the

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<sup>145</sup> This simulation was based on a one-time decrease in production of -70 TWh for each of the two incidents, all other things being equal.



same as the Offeror's assumption. This assumption can be considered to be favorable for shareholders in a regulated context, since it shifts the cost associated with the cap on customers' bills to other operators.

Scenario D described above (see Table 11), produced by the Company, simulates a possible new regulation that may be introduced by the Government applicable to this period. It assumes nuclear production at the same level as in scenario A, but with an ARENH volume of 110 TWh at a price of €49.5 per MWh, in addition to the price shield limiting the increase in the TRV to +15% in 2023, to be financed by EDF in the form of a delay in raising prices (see Table 11 above). This scenario measures the unfavorable effect of such a change in regulation.

This impact for the Company is estimated at -€1.25 per share (see Table ).

#### Assumption in relation to regulated prices post-ARENH (post 2025)

For the post-ARENH period (i.e., after 2025), our central scenario uses the regulated price assumption applied by the Offeror, i.e., Price 1 - Offeror.

In view of the specific characteristics of EDF, it is appropriate to assume that a regulated price will be applied. In the absence of any information on regulated prices post-2025 in France, and in order to measure the sensitivity of the value of the EDF shares to this parameter, we applied a more favorable scenario with a price assumption equal to Price 2 - EDF. This price corresponds to the price requested by EDF during discussions with the CRE, the French Government and the European Union's Directorate General for Competition at the end of 2020 and reflects the market conditions and risks discussed at that date.

This favorable impact for the Company is estimated at +€1.34 per share (see Table 15).

In summary, we have set out below the value per EDF share under these various scenarios, compared to the value of €9.24 obtained by applying our central scenario:



Table 15 - SOTP synthesis - Sensitivities to the various scenarios

SOTP Synthesis - Sensitivities to the various scenarios					
	Factoring in the updated after-tax claim (€1.36 per EDF share)		Offer Price €12.00	Premium /(Discount) represented by the Offer price of €12.00 per share	Premium /(Discount) represented by the Offer price of €12.00 per share (including the updated after-tax claim for compensation)
Scenario A 2023 - 2024 YTD prices (average electricity forward price) Price 1 - Offeror	9,24	10,61		29,8 %	13,1 %
Scenario A 2023 - 2024 prices average mid-June mid-September 2022 Price 1 - Offeror	10,59	11,95		13,3 %	0,4 %
Scenario B 2023 - 2024 YTD prices (average electricity forward price) Price 1 - Offeror	7,86	9,22		52,7 %	30,1 %
Scenario D 2023 - 2024 YTD prices (average electricity forward price) Price 1 - Offeror	7,99	9,36		50,1 %	28,2 %
Scenario A 2023 - 2024 YTD prices (average electricity forward price) Price 2 - EDF	10,58	11,94		13,4 %	0,5 %
70 TWh shock to output Scenario A 2023 - 2024 YTD prices (average electricity forward price) Price 1 - Offeror	7,17	8,53		67,4 %	40,6 %

Sources: Company and FINEXSI analysis

On this basis, the value of the EDF shares falls within the €7.17 - €10.59 range, with a central case value of €9.24.

The Offer price of €12.00 per EDF share represents a premium of +67.4% over the lower limit (€7.17), a premium of +29.8% over the central case value (€9.24) and a premium of +13.3% over the upper limit (€10.59).

Moreover, the Offer Price of €12.00 represents a premium of +40.6% over the lower limit (€7.17) increased by the present value of the claim for compensation after taxes (or €1.36 – see above), a premium of +13.1% over the central case value (€9.24) increased by the same amount, and a premium of +0.4% over the upper limit (€10.59) increased by the same amount.

#### 8.4.2.7.2 Based on sensitivities to valuation parameters

As stated above, we also carried out sensitivity analyses on the valuation parameters (WACC and perpetual growth rate). However, we consider that these analyses are less relevant than those relating to operational assumptions given the very significant level of debt (over €75 billion) which



makes the value of the Company's share extremely sensitive to any variation in these parameters (see Section 8.3.2).

As a result, we carried out these sensitivity analyses on a narrower basis, using a combined change in the discount rate (in steps of 0.125 points) and the perpetual growth rate (in steps of 0.125 points).

Table 16 – SOTP Summary – Sensitivities to selected valuation parameters<sup>146</sup>

Δ Discount rate and perpetual growth rate (%)				
0.250%	0.125%		-0.125%	-0.250%
7.19	8.16	9.24	10.31	11.51

Source: FINEXSI analyses

On this basis, the value of the EDF shares falls within the €8.16 - €10.31 range, with a central case value of €9.24.

The Offer Price of €12.00 per EDF share represents a premium of +47.1% over the lower limit and a premium of +16.4% over the upper limit.

After factoring in the discounted, after-tax amount of the claim for compensation, i.e., €1.36 per share, the Offer Price of €12.00 represents a premium of +26.1% over the lower limit and +2.9% over the upper limit.

**Accordingly, we will use the range of €7.17 - €10.59 per share, with a central case value of €9.24 per share.**

On this basis, if the full amount of EDF's claim for compensation is added, bearing in mind that the results of methods based on future cash flows are representative of a control value since they assume that all cash flows are freely available, we note that the Offer Price incorporates 100% of the amount of the claim for compensation (a gross value of €1.50 and a present value of €1.36).

It should also be noted that this value range is based on limited separation costs. Although the calculation of a holding company discount determined by reference to structural costs or observed in relation to market comparables does not, in our view, seem appropriate in the circumstances, such an approach would have resulted in a significantly larger discount on the enterprise value than the amount of the separation costs referred to above.

Accordingly, we consider that the DCF method extrapolates the full value of the EDF group on a standalone basis for shareholders.

<sup>146</sup> The results are more sensitive to the discount rate than to the perpetual growth rate.

### 8.4.3 Analysts' price targets (secondary method)

The analysis of financial analysts' price targets does not represent a valuation method as such, but synthesizes opinions on value and constitutes a valuation reference. This reference involves observing the value of a company based on the price targets published by financial analysts.

The EDF shares are regularly monitored by a significant number of analysts.

Our analysis focused on the most recent notes issued after the publication, on May 18, 2022, of the update on the stress corrosion incident and the adjustment of the nuclear production estimate in France for 2022, and before the announcement by the Prime Minister on July 6, 2022, of the Government's intention to increase its shareholding in EDF to 100%.

Table 1712 - Analysis of analysts' notes published between May 19, 2022 and July 5, 2022

Periods	Publication date	Analyst	Price target (€)	Recommendation	Last closing price before the publication of the note (€)	Premium/(discount) represented by the offer price of €12
Between 05/19/2022 and 07/05/2022	05/19/2022	Oddo BHF	8.80	Hold	8.37	36.36 %
	05/20/2022	Jefferies	16.00	Buy	8.30	(25.00)%
	05/24/2022	Morning Star	8.80	Hold	8.46	36.36 %
	06/01/2022	Morgan Stanley	10.00	Hold	8.26	20.00 %
	06/01/2022	Goldman Sachs	11.90	Buy	8.26	0.84 %
	06/06/2022	HSBC	7.40	Sell	8.26	62.16 %
	06/09/2022	Barclays	11.10	Buy	8.11	8.11 %
	06/13/2022	Citi	11.30	Buy	8.48	6.19 %
	06/13/2022	CIC Market Solutions	9.10	Neutral	8.25	31.87 %
	06/24/2022	Kepler Cheuvreux	12.00	Buy	7.61	-
	06/30/2022	Alpha Value	7.77	Sell	8.22	54.44 %
Min			7.40			62.16 %
Mean			10.38			15.62 %
Median			10.00			20.00 %
Max			16.00			(25.00)%
Min (excl. extremes)			7.77			54.44 %
Mean (excl. extremes)			10.09			18.98 %
Median (excl. extremes)			10.00			20.00 %
Max (excl. extremes)			12.00			0.0 %

Sources: Analysts' notes, CAPITAL IQ

The latest price targets published by analysts for this period range between €7.40 and €16.00, with a median target price<sup>147</sup> of €10.00. On this basis, the Offer Price of €12.00 represents a premium of 20.00% over the median target price.

<sup>147</sup> We used the median because of a large standard deviation between the various price targets.





In addition, the latest price targets (excluding extremes) published by analysts for this period range from €7.77 to €12.00, with the median target price remaining unchanged.

For information, the table below shows the last price targets published before July 6, 2022 by all the analysts who follow the EDF shares (19 analysts):

Table 1813 - Analysis of analysts' notes published in 2022, prior to the July 6, 2022 announcement

Periods	Publication dat3	Analyst	Price target (€)	Recommendation	Last closing price before the publication of the note	Premium/(discount) represented by the offer price of €12
Before 07/06/2022	01/11/2022	Exane BNP Paribas	14.30	Buy	10.10	(16.08)%
	02/24/2022	Berenberg	7.74	Hold	7.83	55.04 %
	04/06/2022	Bryan, Garnier & Co	8.61	Sell	8.50	39.37 %
	03/11/2022	Bank of America ML	6.50	Sell	8.28	84.62 %
	04/26/2022	CIC Market Solutions	9.10	Neutral	Not provided	31.87 %
	05/04/2022	UBS	12.00	Buy	8.59	-
	05/04/2022	JP Morgan	7.60	Sell	8.59	57.89 %
	05/04/2022	Bernstein	8.50	Hold	8.59	41.18 %
	05/04/2022	Société Générale	Not provided	Not provided	8.59	Not provided
	05/19/2022	Oddo BHF	8.80	Hold	8.37	36.36 %
	05/20/2022	Jefferies	16.00	Buy	8.30	(25.00)%
	05/24/2022	Morning Star	8.80	Hold	8.46	36.36 %
	06/01/2022	Morgan Stanley	10.00	Hold	8.26	20.00 %
	06/01/2022	Goldman Sachs	11.90	Buy	8.26	0.84 %
	06/06/2022	HSBC	7.40	Sell	8.26	62.16 %
	06/09/2022	Barclays	11.10	Buy	8.11	8.11 %
	06/13/2022	Citi	11.30	Buy	8.48	6.19 %
	06/13/2022	CIC Market Solutions	9.10	Neutral	8.25	31.87 %
	06/24/2022	Kepler Cheuvreux	12.00	Buy	7.61	-
	06/30/2022	Alpha Value	7.77	Sell	8.22	54.44 %
Min			6.50			84.62 %
Mean			9.97			20.39 %
Median			8.95			34.08 %
Max			16.00			(25.00)%
Min (excl. extremes)			7.40			62.16 %
Mean (excl. extremes)			9.81			22.36 %
Median (excl. extremes)			8.95			34.08 %
Max (excl. extremes)			14.30			(16.08)%

Sources: Analysts' notes, CAPITAL IQ

The last price targets published before the July 6, 2022 announcement by all analysts who follow the EDF shares ranged between €6.50 and €16.00, with a median target price of €8.95, and between €7.40 and €14.30 excluding extremes.



For information, the table below shows the changes in the price targets published after July 19, 2022, i.e., after the announcement of the terms of the Offer.

**Table 19 - Analysis of analysts' notes published after the announcement of the quantitative terms of the Offer**

Periods	Publication date	Analyst	Price target (€)	Recommendation	Last closing price before the publication of the note (€)	Premium/(discount) represented by the offer price
After 07/19/2022	07/25/2022	Barclays	12.00	Hold	11.73	-
	07/28/2022	Morning Star	12.00	Hold	11.89	-
	07/28/2022	Morgan Stanley	10.00	Hold	11.90	20.00 %
	07/28/2022	UBS	12.00	Buy	11.87	-
	07/28/2022	Goldman Sachs	Not provided	Not provided	11.90	Not provided
	07/28/2022	Société Générale	Not provided	Not provided	11.90	Not provided
	07/28/2022	Citi	11.30	Buy	11.90	6.19 %
	07/28/2022	CIC Market Solutions	12.00	Neutral	11.90	-
	08/10/2022	Kepler Cheuvreux	12.00	Not provided	11.90	-
	09/05/2022	Oddo BHF	12.00	Hold	11.96	-
	09/15/2022	Jefferies	12.00	Hold	11.99	-
	09/15/2022	Alpha Value	12.90	Sell	11.99	(6.98)%
	10/06/2022	JP Morgan	12.00	Hold	11.96	-
	Min		10.00			20.00 %
	Mean		11.84			1.38 %
	Median		12.00			-
	Max		12.90			(6.98)%

Sources: Analysts' notes, CAPITAL IQ

After the announcement of the financial terms of the proposed Offer on July 19, 2022, the majority of analysts aligned their price targets with the €12.00 price, with the exception of MORGAN STANLEY, CITI and ALPHA VALUE, whose price targets were €10.00, €11.30 and €12.90, respectively.

We have noted the main comments<sup>148</sup> from analysts who follow the EDF shares in the last notes they published after the announcement of the Offer.

It should be noted that no analysts have explicitly disagreed with the Offer Price in the current economic environment and we note the following comments from certain analysts:

- MORNING STAR: "We consider the tender offer to be attractive. The €12 price represents a 53% premium over the closing price of July 5, the day before French Prime Minister Elisabeth BORNE announced the government's intention to buy out minority shareholders." (07/19/2022);
- ODDO BHF: "As the official price of the offer (expected to be carried out in the coming weeks) has been announced at €12, we are adjusting our price target to this level, since we consider that this is an appropriate exit price for shareholders compared to €7.4 (prior to the offer)" (07/28/2022);
- MORGAN STANLEY, which still has a €10.0 price target, also views the proposed price favorably: "We expect the market to react positively to the French Finance Ministry's announcement of the offer to buy out EDF's minority shareholders at €12 per share (and thereby nationalize EDF). We believe that a price of €12 per share is at the high end of the

<sup>148</sup> Comments from MORNING STAR, MORGAN STANLEY, CITI, BARCLAYS, JP MORGAN, KEPLER CHEVREUX HAVE BEEN translated by us.



*range of investors' "expectations". We also note that the €12 per share price represents a significant premium (53%) over the last closing price (€7.84 per share) prior to Prime Minister Elisabeth BORNE's announcement of the government's intention to nationalize EDF; a 46% premium over the 60-day VWAP; and 17% above the closing price on the last trading day prior to the suspension." (07/19/2022).*

In addition, some analysts have not commented on the Offer Price but believe that the transaction is very likely to close:

- CITI: *"From our perspective, the market expects the tender offer for EDF shares to close. The French Government has announced its intention to submit a simplified tender offer for EDF at €12 per share (...). We believe that the French Government is firmly committed to closing the transaction and we consider the risk of the offer being withdrawn as very low." (07/28/2022).*
- BARCLAYS: *"The French government announced its intention to nationalize EDF at €12 per share on July 19, 2022. We believe that this transaction will close without any major issues, given the French government's large 84% stake in EDF and the fact that the offer price represents a 53% premium over EDF's July 5 closing price." (07/25/2022);*
- JP MORGAN: *"... this risk should be limited given the risk/reward asymmetry of the situation. We therefore consider that the nationalization is on track to close with a squeeze-out by the end of the year." (10/05/2022).*


We have set out below a note (from KEPLER CHEUVREUX dated 08/10/2022) that questions the inclusion of the claim for compensation in the Offer Price<sup>149</sup>, without however altering the analyst's price target of €12.00:

- KEPLER CHEUVREUX: the analyst agreed on the €12.00 Offer Price but considers that EDF's valuation could be even higher than the proposed price due to the claim for compensation brought by EDF against the French Government: *"We consider that this claim will not prevent the transaction from moving forward. Nevertheless, it could add some spice to EDF's bid process, as it could be countered that if EDF's claim is fully or partially successful, EDF's implied valuation could be higher than the proposed offer (by up to about €2 per share), as its financing needs and credit rating expectations could change." (08/10/2022).*

#### **8.4.4 Discounting of projected cash flows – overall approach (for information purposes only)**

The discounting of cash flows based on the Company's overall (or consolidated) financial trajectory seems to us less appropriate than the sum-of-the-parts approach, since it does not enable us to capture the diversity and specific characteristics of the Group's various business activities

<sup>149</sup> For other analysts, it seems to be accepted that the Offer price incorporates the claim for compensation. For example, JP MORGAN on August 24, 2022 states: *"The market is aware that ADAM is asking for a higher price (...). We believe that the news is more a reflection of the technical/legal aspects of what we know about the positions of all stakeholders involved (minority shareholders, employee unions, management and the Government)."*



(regulated or non-regulated activities, risk profile, maturity, growth prospects, etc.). Furthermore, an overall approach does not, in our view, result in the full value of the Company being calculated.

For these reasons, we have included this approach for information purposes only.

#### 8.4.4.1 Description of the management team's financial trajectory

The comprehensive financial trajectory provided to us by the Company covers the period 2022-2032. The years 2022-2024 in this financial trajectory correspond to the years covered by the MTP, which has been updated on a number of occasions and been the subject of the various simulations described above (see Section 8.4.2.1.1), leading to the presentation of five scenarios (A, B, C, D, and E). Beyond 2024, this comprehensive financial trajectory has been extrapolated by the management team to cover the years up to 2032.

The key assumptions used in this comprehensive financial trajectory reflect those used in the sum-of-the-parts approach above, namely:

- Scenario A for the period 2022 – 2024, corresponding to:
  - An ARENH volume of 100 TWh at a price of €42.00;
  - Nuclear production in 2022 at the lower end of the range of the latest estimates communicated by the Company (280 – 300 TWh);
  - Nuclear production in 2023 and 2024 in the middle of the range of the latest estimates communicated by the Company;
  - A lack of measures on limiting customers' bills applying to EDF (no financing of the price shield by EDF).
- An assumption in relation to forward electricity prices for Q4 2022 (approximately 650/MWh) and average forward prices for 2023 (€330/MWh) and 2024 (€198/MWh) calculated between January 1, 2022 and 16 September 2022, mitigating the impact of the very significant volatility in the electricity market price over recent months
- ARENH price and volume pairs for 2025 identical to those for the 2022 – 2024 period;
- A regulated price equal to Price 1 - Offeror from 2026 onwards.

Therefore, the main aggregates of this financial trajectory are as follows:

- EBITDA in 2022 that is significantly negative, before becoming positive from 2023 onwards. The average annual growth rate of EBITDA (after IFRS 16) is 1.3% over the period 2023 - 2032;
- CAPEX represents on average 71.1% of annual EBITDA (after IFRS 16) over the period 2023 - 2032;



- A change in WCRs of between -€7.4 billion and +€7.2 billion over the period.

#### 8.4.4.2 Calculation of cash flows

##### Extrapolation period

In the 2022 - 2032 financial trajectory communicated by the Company, there is a very significant difference between CAPEX and depreciation at the end of the trajectory. Consequently, we extrapolated the financial trajectory over an additional 8 years, i.e., the period 2033 - 2040, in order to converge CAPEX and depreciation at the end of the period.

##### IFRS 16

Management's comprehensive financial trajectory incorporates the effects of IFRS 16, which means that lease expenses are not taken into account in calculating cash flows.

We carried out a restatement in order to reintegrate lease expenses into the calculation of cash flows and, consequently, have not used the liability figure for the leases as recognized by IFRS 16 in calculating adjusted net financial debt (see Section 8.3.2).

##### Corporate income tax

We have used the current French tax rate of 25.83%,<sup>150</sup> including the 3.3% social security contribution.

Tax loss carryforwards have been deducted from the tax charge in the DCFs, reflecting the expected loss in the second half of 2022.

##### Discounting of flows

We have discounted the mid-year cash flows as of June 30, 2022, the date on which the adjusted net financial debt was calculated (see Section 8.3.2).

#### 8.4.4.3 Normative cash flows

Normative cash flows have been constructed based on an EBITDA figure in line with the figure for the last year of the extrapolation period.

Depreciation was set at the level of CAPEX, and the change in WCRs was considered to be nil.

The normative tax rate corresponds to the rate applicable in France, i.e., 25.83% (including the 3.3% social security contribution).

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<sup>150</sup> This tax rate is the same as the rate applied to the French businesses (existing nuclear, hydroelectric, regulated activities, FRAMATOME, DALKIA), and is very close to the rate applied to the UK business activities (25%) under the sum-of-the-parts method. These two business activities account for the majority of the Group's assets, it being noted that the tax rates applicable to the other business activities valued under the sum-of-the-parts method are greater than or equal to 25%.



A perpetual growth rate of 1.7%, estimated based on the 2050 inflation rate communicated by the Company, has been applied to the normative cash flows.

#### 8.4.4.4 Discount rate

For the overall approach, we used the Group's weighted average cost of capital as calculated above (see Table ) to discount future cash flows. By way of reminder, this weighted average cost of capital was estimated at 6.8% based on:

- A risk-free rate of 1.9% corresponding to the average 10-year OAT TEC rate (three-month average, calculated as of September 30, 2022, source: BANQUE DE FRANCE);
- A risk premium of 6.3% (ASSOCIES EN FINANCE 3-month average risk premium as of September 30, 2022);
- An unleveraged beta of 0.76 calculated based on the following companies (ENEL SPA, CEZ, CONSTELLATION ENERGY CORPORATION, EDP - ENERGIAS DE PORTUGAL SA, source: CAPITAL IQ);
- A pre-tax cost of debt of 4.5%, corresponding to a weighting of<sup>151</sup>:
  - 85% for the Group's cost of debt seen in the last financial year (2.2% as of December 31, 2021), excluding IFRS 16 debt, plus a financing spread provided by EDF (1.4%);
  - 15% for the cost that may be applied to any new hybrid issuances in the current market environment, i.e., approximately 10%;
- Gearing of 56.9% calculated based on the companies used to determine the beta (i.e., net financial debt/market capitalization as of September 30, 2022).

#### 8.4.4.5 Valuation results

On this basis, EDF's enterprise value is €102,045 million, almost 68% of which results from the terminal value. Factoring in net financial debt, shareholders' equity is €26,919 million, or €6.51 per EDF share.

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<sup>151</sup> The weighting used is equal to the weighting seen in the last financial year (i.e., 85% senior debt and 15% hybrid debt - PSNs).

#### 8.4.4.6 Sensitivity analysis

As for the sum-of-the-parts approach, we carried out sensitivity analyses on the assumptions used in our central scenario, as well as on the valuation parameters (discount rate and perpetual growth rate).

##### Sensitivity to scenarios

We used the same operational and regulatory assumptions as above (see Section 4.2.2), for which the value per EDF share is as follows:

**Table 20 - Summary of overall approach - Sensitivities to the various scenarios**

Global DCF Summary - Sensitivities to the various scenarios				
	Factoring in the updated after-tax claim (€1.36 per EDF share)		Offer Price €12.00	
			Premium / (Discount) represented by the Offer price of €12.00 per share	Premium / (Discount) represented by the Offer price of €12.00 per share (including the updated after-tax claim for compensation)
Scenario A 2023 - 2024 YTD prices (average electricity forward price) Price 1 - Offeror	6,51	7,88	84,3 %	52,4 %
Scenario A 2023 - 2024 prices average mid-June mid-September 2022 Price 1 - Offeror	7,82	9,18	53,5 %	30,7 %
Scenario B 2023 - 2024 YTD prices (average electricity forward price) Price 1 - Offeror	5,22	6,59	129,7 %	82,1 %
Scenario D 2023 - 2024 YTD prices (average electricity forward price) Price 1 - Offeror	5,43	6,79	121,2 %	76,7 %
Scenario A 2023 - 2024 YTD prices (average electricity forward price) Price 2 - EDF	10,12	11,48	18,6 %	4,5 %
70 TWh shock to output Scenario A 2023 - 2024 YTD prices (average electricity forward price) Price 1 - Offeror	4,64	6,01	158,6 %	99,8 %

Source: FINEXSI analysis

On this basis, the value of the EDF shares falls within the €4.64 - €10.12 range, with a central case value of €6.51.

The Offer Price of €12.00 per EDF share represents a premium of +158.6% over the lower limit (€4.64), a premium of +84.3% over the central case value (€6.51) and a premium of +18.6% over the upper limit (€10.12).

After taking into account the present value of the claim for compensation after taxes, i.e., € 1.36 per share (see Section 8.4.2.6 above), the Offer Price of €12.00 represents a premium of +99.8%



over the lower limit, a premium of +52.4% over the central case value and a premium of +4.5% over the upper limit.

#### Sensitivity to valuation parameters

The sensitivity of the value of each EDF share to a combined change in the weighted average cost of capital (in steps of 0.125 points) and the perpetual growth rate (in steps of 0.125 points) is set out below:

**Figure 38 - Sensitivities<sup>152</sup> of the value of each EDF share (overall approach included for information purposes)**

<b>Δ Discount rate and perpetual growth rate (%)</b>				
<b>0.250%</b>	<b>0.125%</b>		<b>-0.125%</b>	<b>-0.250%</b>
4.76	5.62	6.51	7.46	8.46

Source: FINEXSI analyses

These analyses show that the value of the EDF shares falls within the €5.62 - €7.46 range, with a central case value of €6.51.

**On this basis, we use the range of €4.66 - €10.12 per EDF share, with a central case value of €6.51.**

The Offer Price of €12.00 represents a premium of +99.7% over the lower limit (€4.64) plus the present value of the claim for compensation after taxes (€1.36), a premium of +52.4% over the central case value (€6.51) plus the same amount, and +4.5% over the upper limit (€10.12) plus the same amount.

#### **8.4.5 Recent transactions involving the Company's share capital (for information purposes only)**

This method involves valuing a company by reference to recent significant transactions involving its share capital (excluding analysis of the market price, which is a separate valuation criterion covered elsewhere).

We refer in particular to the capital increase in cash with preferential subscription rights for shareholders, launched by the Company on March 18, 2022, for a gross amount of €3,163,938,046<sup>153</sup>, at the price of €6.35 per new share and a ratio of 2 new shares for 13 existing shares (with a value of €0.34<sup>154</sup> ascribed to the preferential subscription right), i.e., €6.69 including the value of the preferential subscription right.

This capital increase, which successfully closed on April 5, 2022, resulted in the issue of 498,257,960 new shares.

<sup>152</sup> The results are more sensitive to the discount rate than to the perpetual growth rate.

<sup>153</sup> Including share premium.

<sup>154</sup> In practice, the preferential subscription right was ultimately exchange based on its theoretical value, with the transaction being oversubscribed.



For this capital increase, which was relatively limited in size, total demand was approximately €4.1 billion, i.e., a subscription rate of 129.1%, which demonstrates investors' interest in the transaction, confirming that its price was attractive.

On this basis, we consider that this transaction may be used as an appropriate valuation reference. However, we include it only for information purposes because of its limited size and the fact that it is not representative in view of the scale of the EDF Group.

In practice, the shares subscribed for at the unit price of €6.35 may be tendered in the Offer at the price of €12.00.





## 9. Valuation of the OCEANEs issued by EDF

On September 14, 2020, EDF completed a €2.4 billion issue of zero-coupon OCEANE bonds maturing on September 14, 2024.

The principal characteristics of the OCEANEs, as derived from the Terms and Conditions (Ts & Cs) of the OCEANEs dated September 8, 2020, to which reference should be made, are set out below:

Table 21 - Main characteristics of the OCEANEs

Principal characteristics of the OCEANEs (Ts&Cs of September 8, 2020)	
Issue date	08/09/2020
Nominal amount (€bn)	2.4
Number of OCEANEs (unit)	219,579,139
Par value (€ per OCEANE)	10.93 €
Issue price (€ per OCEANE)	11.70 €
Status	Senior, unsecured
Coupon (%)	0%
Maturity date (4 years)	14/09/2024
Ratio in effect before announcement of the Offer	1.124
Initial conversion premium (%)	32.50%
Adjustment of dividends	Adjustment of the ratio in the event of the payment of dividends
Early redemption by EDF	Possible from 09/14/2022, provided the price is above 130% of the nominal value. Also possible where 80% or more of the OCEANEs initially issued have been converted and/or repaid and/or redeemed and/or canceled by EDF.
Early redemption by the holder	None, except in the event the EDF's shares are delisted from a regulated market.

Sources: Terms and conditions of the OCEANEs and FINEXSI analysis

The Offer made by the French Government is for all the Company's shares at a price of €12.00 per share and for all the OCEANEs at a price of €15.52 per OCEANE.

Consequently, pursuant to Article 262-1 of the AMF's General Regulations, we have carried out our own multi-criteria valuation of the OCEANEs, the results of which are set out below.

### 9.1 Rejected valuation methods

As a result of our work, we rejected the reference to the early redemption clause in the event of the delisting of the shares insofar as it only applies in the event that EDF's shares are delisted from a regulated market.



This scenario seems unlikely from an investor's point of view since early redemption applies at the par value (€10.93 per OCEANE), i.e., a price lower than the Offer Price of €15.52.

On that basis, this reference does not seem relevant to us.

## **9.2 Valuation methods used**

We used a multi-criteria approach involving the following principal references and valuation methods:

- Analysis of the market price of the OCEANES;
- The adjusted contractual conversion value;
- The intrinsic value based on an optional model, using the value of the EDF shares before the announcement of the Offer.

We have also set out, on a secondary basis, the intrinsic value based on an option model that factors in the Offer Price of €12.00 per EDF share for the underlying.

## **9.3 Calculating the value of EDF's OCEANES**

### **9.3.1 The reference to the market price of the OCEANES (principal method)**

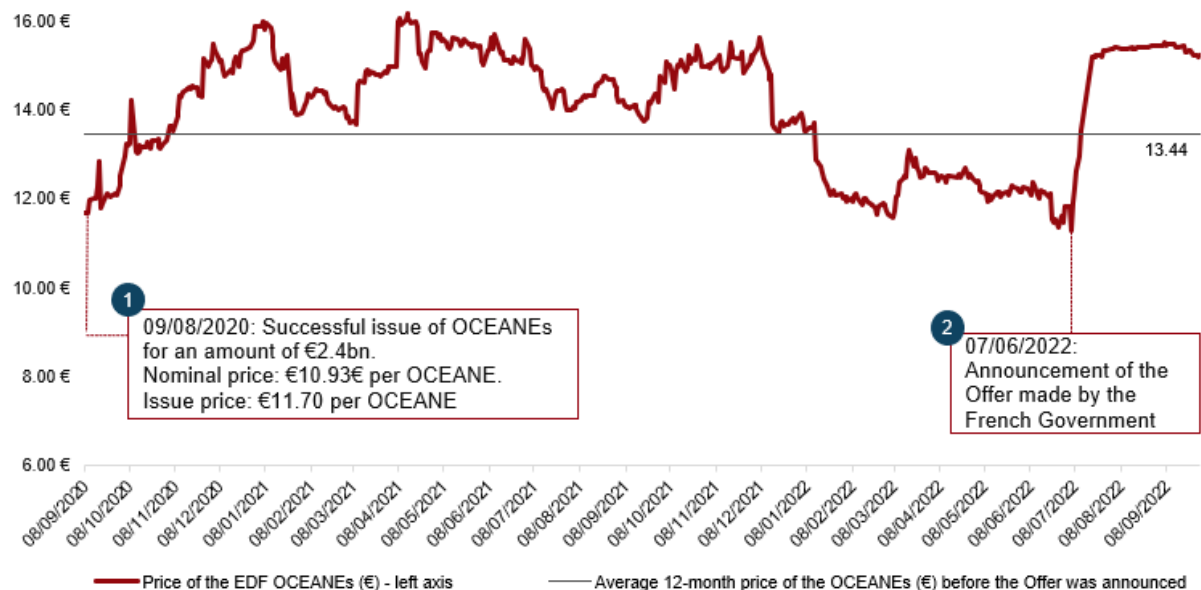
The stock market price is a means of measuring the price of the company's OCEANES, which are freely traded subject to a sufficient level of free float and liquidity.

The OCEANES are listed on the EURONEXT market in Paris (under ISIN code FR0013534518).

We analyzed the change in the share price between the date on which the OCEANES were issued and September 30, 2022, together with the volatility in the underlying:

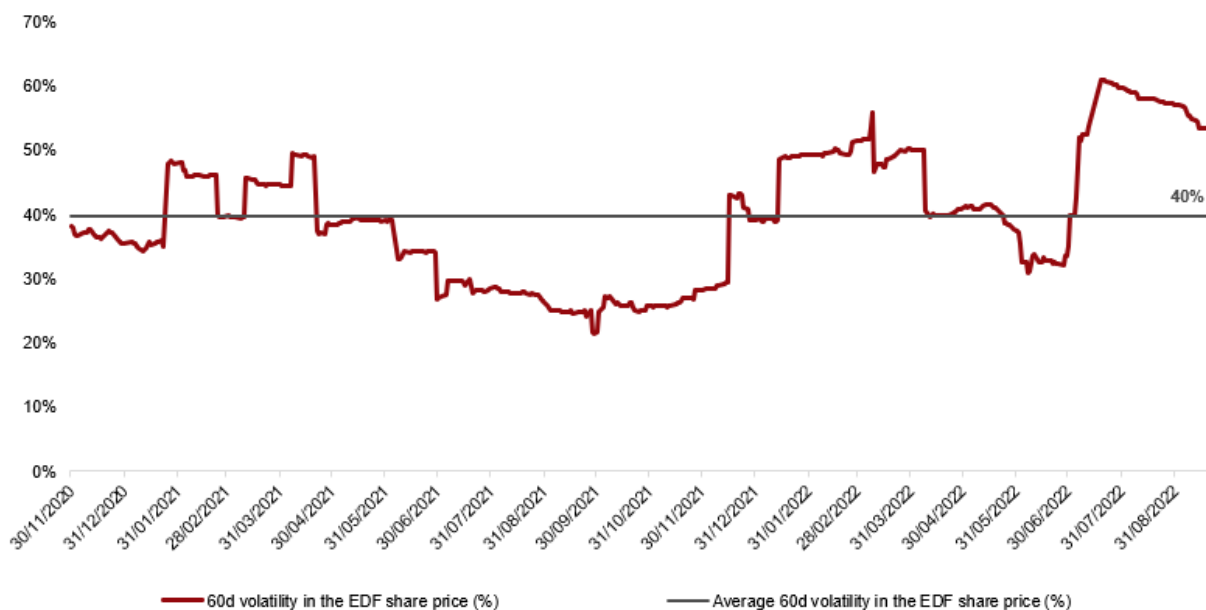


Figure 39 - Change in the share price of the OCEANES between their issue date and September 30, 2022



Sources: CAPITAL IQ, FINEXSI analysis

Figure 40 - 60-day volatility in EDF shares

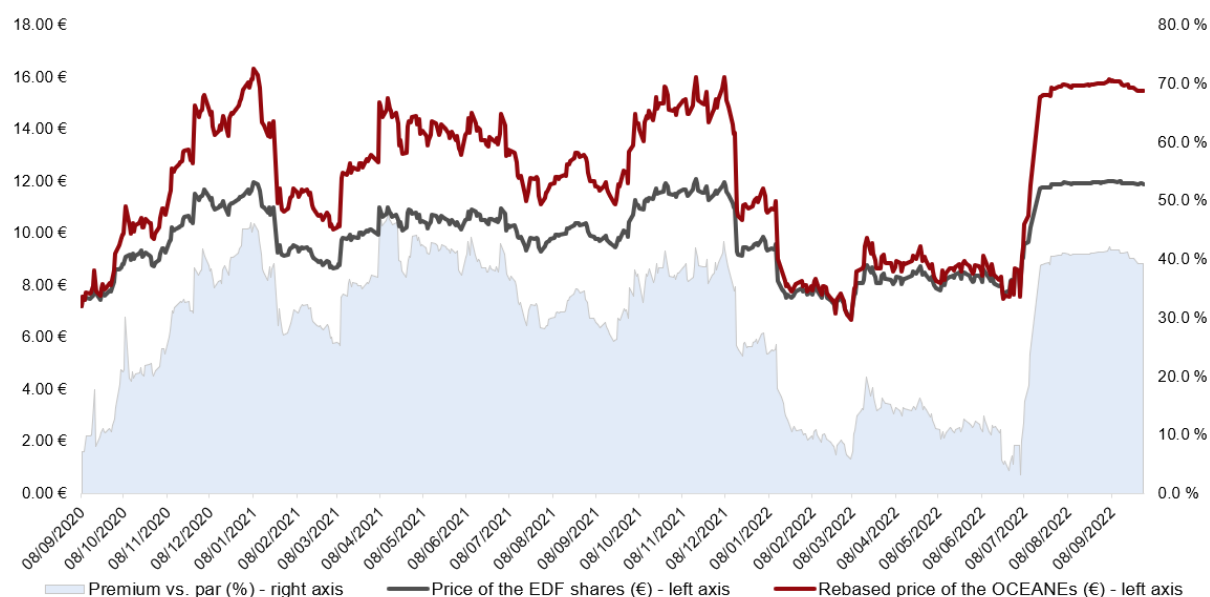


Sources: CAPITAL IQ, FINEXSI analysis

The following graph shows the rebased OCEANE price compared to the EDF share price as well as the premium compared to the par value since the date on which the OCEANES were issued:



**Figure 41 - Change in the price of the OCEANEs and EDF shares and in the premium compared to the par value (%) up until September 30, 2022**



Sources: CAPITAL IQ, FINEXSI analysis

Our comments on these graphs are as follows:

- Prior to the announcement of the Offer (i.e., at the July 5, 2022 close), the OCEANEs were trading at €11.28, i.e., at 103.2% of the par value;
- The change in the bond price before the announcement of the Offer was the result of the change in the price of the underlying EDF shares and the recent deterioration in credit conditions;
- The average volatility in the EDF share price (the underlying of the OCEANEs) was approximately 40% between the date on which the OCEANEs were issued in September 2020 and the announcement of the Offer.

The table below shows the average trading price of the OCEANEs over the last 12 months. It should be noted that our financial databases do not cover all traded volumes (since a significant proportion of the volumes are traded over the counter):



Table 22 - Analysis of the average share price of the OCEANEs up until July 5, 2022

Period	in €/OCEANE	Premium/(discount) represented by the offer price of €15.52
Spot (7/5/2022)	11.28	+37.6 %
1-month average	11.90	+30.5 %
60-day average	12.13	+28.0 %
3-month average	12.16	+27.6 %
6-month average	12.27	+26.5 %
12-month average	13.44	+15.4 %
21-month VWAP	14.01	+10.8 %
12-month high (12/07/2021)	15.64	(0.7)%
12-month low (06/23/2022)	11.28	+37.6 %

Sources: CAPITAL IQ, FINEXSI analysis

On this basis, the Offer Price represents premiums of between +15.4% and +37.6% over the period analyzed.

### 9.3.2 The adjusted contractual conversion value (principal method)

The terms and conditions of the OCEANEs issued on September 8, 2020 set out the formula for adjusting the conversion ratio in the event of a tender offer for the EDF shares. This conversion ratio is therefore used as a principal valuation method.

The conversion ratio was increased to 1.124<sup>155</sup> as of June 13, 2022 to reflect the dividend payment for fiscal year 2021 and has since remained unchanged.

The table below shows our calculation of the new conversion ratio resulting from the Offer, in accordance with the terms and conditions of the OCEANEs, as well as the resulting adjusted intrinsic conversion value.

<sup>155</sup> At the time of the capital increase as part of the ORS, this ratio was increased to 1.129 shares as of July 25, 2022, as shown in the half-year financial report of June 30, 2022. However, the Company has confirmed to us that the ORS did not result in any adjustment to the conversion ratio, and that this was therefore a material error in the half-yearly financial report of June 30, 2022. As a result, the conversion ratio is now 1.124, corresponding to the ratio in effect since June 13, 2022.

Table 23 - Calculation of the adjusted contractual conversion value in the event of a tender offer under the terms and conditions of the OCEANES

<b>NCER = CER x (1+ ICEP x (c/t))</b>		
<b>CER</b>	Conversion ratio in effect before the Offer	1.124
<b>ICEP</b>	Initial conversion premium	32.50%
<b>c</b>	Number of days between the launch of the Offer and the maturity date of the OC	674
	<i>Launch date of the public tender offer</i>	10/11/2022
	<i>Maturity date of the OCEANES</i>	14/09/2024
<b>t</b>	Number of days between the issue date and the maturity date of the OCEANES	1461
	<i>Issue date of the OCEANES</i>	14/09/2020
	<i>Maturity date of the OCEANES</i>	14/09/2024
<b>NCER</b>	New conversion ratio (rounded to 3 decimal places according to the Ts&Cs)	<b>1.293</b>
	Offer price per share (€)	12.00 €
	<b>Adjusted contractual conversion value</b>	<b>15.52 €</b>

Sources: Terms and conditions of the OCEANES, FINEXSI analysis

Based on the Offer Price of €12.00 per EDF share and the new conversion ratio calculated at 1.293, the adjusted contractual conversion value is €15.52 per OCEANE, assuming an opening date for the Offer of November 10, 2022.

On this basis, the Offer Price of €15.52 per OCEANE is, by design, equal to the adjusted contractual conversion value.

### 9.3.3 Intrinsic value (principal method)

We valued the instrument based on the value of its bond component (i.e., the value of a non-convertible bond with the same characteristics) and the value attributable to the conversion option available to the holder:

- For the bond component, we valued it based on the par value of €10.93, a zero coupon and a credit spread of 1.0%<sup>156</sup>;
- The option component was calculated using a BLACK & SCHOLES model. By way of reminder, the terms and conditions (see Table ) of the OCEANES stipulate that EDF is entitled to redeem the OCEANES early in the event that their value increases to more than 130% of their par value. This right held by EDF is similar to an option whose value is reduced by the option component of the OCEANES in favor of the holder. Accordingly, the value of the option component is calculated as the difference between, on the one hand, the value of the conversion option held by the holder and, on the other hand, the value of the option resulting from the early redemption clause held by EDF.

<sup>156</sup> Average credit spread at September 30, 2022 for three non-convertible bonds issued by EDF maturing in March 2023, September 2024 and November 2025.



The intrinsic value<sup>157</sup> of the OCEANEs on a non-diluted basis was calculated by reference to the parameters of the OCEANEs and the market data prior to the announcement of the Offer (i.e., as of July 5, 2022), with the exception of the risk-free rate and the credit spread, which reflect market conditions as of September 30, 2022 (the date on which we determined the market parameters of the discount rates used to value the EDF shares above).

On this basis, the table below shows the main assumptions used to calculate the intrinsic value of the OCEANEs under the BLACK & SCHOLES model:

**Table 24 - Main assumptions used in the intrinsic approach**

PARAMETERS		COMMENTS	VALUE RETAINED
<b>Bond component</b>	<b>Nominal</b>	■ In September 2020, EDF issued 219,579,139 OCEANEs each with a par value of €10.93 (i.e. approximately €2.4 billion)	✓ €10.93
	<b>Credit spread</b>	■ A bond's spread is the difference between the instrument's yield-to-maturity and the risk-free rate for the same term. The lower the spread, the better the issuer's perceived creditworthiness.	✓ 100 bps calculated based on 3 non-convertible bonds issued by EDF (i.e. a discount of 4.2% to the nominal value)
<b>Option component</b> (American option because it can be exercised at any time, considered, for simplicity, as a European option, which is favorable to the holder)	<b>EDF share price</b>	■ We use the spot price of the EDF shares prior to the announcement of the Offer. ■ On a secondary basis, we use the Offer price of €12.00 per EDF share.	✓ 7.844 (closing price on July 5, 2022) ✓ €12.00 (offer price)
	<b>Conversion ratio</b>	■ At the time of the dividend payment in respect of fiscal year 2021 (June 13, 2022), the conversion ratio had increased to 1.124	✓ 1.124
	<b>Exercise price</b>	■ Corresponds to the nominal value of the OCEANE divided by the conversion ratio stated above. ■ Early redemption possible by EDF from September 14, 2022 where the price exceeds 130% of the par value. Also possible if 80% or more of the OCEANEs initially issued have been converted, and/or redeemed, and/or repurchased and cancelled by EDF.	✓ €9.7242 ✓ 12.64 (price corresponding to the early redemption threshold (130% of par adjusted by the conversion ratio))
	<b>Volatility</b>	■ We use the historical volatility (60 days) of the EDF shares since the date on which the OCEANEs were issued, the EDF share being the observed underlying	✓ 40%
	<b>Risk-free rate</b>	■ We use the 3-month average of the 2-year OAT TEC on September 30, 2022	✓ 0.97%
	<b>Term of the option</b>	■ As the option expires on September 14, 2024, we use a residual maturity of 2.2 years from before the announcement of the Offer (July 5, 2022) ■ The maturity is lower for the €12.00 share price used as a secondary price	✓ 2.2 years ✓ 2 years
	<b>Borrowing rate</b>	■ The cost of carry (borrowing rate) is representative of the cost incurred by the holder of the OCEANE bonds to hedge its position. This rate mainly depends on the liquidity of the securities and the ability to find a counterparty on the market. In the case in point, this cost represents the financing rate usually provided by prime brokers to hedge funds in a liquid market	✓ 40 bps (in terms of the liquidity of the securities). There is no database containing relevant references
	<b>Dividend</b>	■ No dividend applied, it being noted that the conversion ratio is adjusted in the event of payment	✓ No dividend applied

Sources: CAPITAL IQ, BANQUE DE FRANCE, FINEXSI analysis

## Principal valuation methods

On this basis, and using the spot price of the EDF shares prior to the announcement of the Offer (€7.84), the value of the OCEANE is €11.10, which we will use as our principal valuation.

<sup>157</sup> Our methodology is applied pre-dilution, as we take the view that the market already prices in the future dilution resulting from the conversion of the OCEANEs, as long as it has all relevant information relating to the OCEANEs and their potential dilutive effect.



The sensitivity of the value of the OCEANEs to a combined change in the volatility of the EDF share price (of between -10% and +10%) and in the risk-free rate (of between -0.5 point and +0.5 point) is set out below:

Figure 42 - Intrinsic value sensitivities per EDF OCEANE (principal)

		Volatility in the EDF share price (%)				
		20%	30%	40%	50%	60%
Risk-free rate (%)	1.97%	10.62	10.81	10.89	10.92	10.92
	1.47%	10.71	10.90	10.99	11.02	11.02
	0.97%	10.81	11.00	11.10	11.13	11.13
	0.47%	10.91	11.10	11.20	11.24	11.24
	0.00%	11.00	11.20	11.30	11.34	11.34

Source: FINEXSI analysis

The intrinsic valuation method results in a price range of between €10.99 and €11.20, with a central case value of €11.10 per OCEANE. On this basis, the Offer Price represents premiums of between 41.2% and 38.6%, with a central case value for the premiums of +39.9%.

### Secondary valuation method

If we use the Offer Price<sup>158</sup> (€12.00 per EDF share) rather than the spot price of the EDF shares, we obtain a value for the OCEANEs of €14.72, which we will retain as a secondary valuation.

The sensitivity of the value of the OCEANEs to a combined change in the volatility of the EDF share price (of between -10% and +10%) and in the risk-free rate (of between -0.5 point and +0.5 point) is set out below:

Figure 43 – Sensitivities of the intrinsic value per EDF OCEANE (secondary valuation)

		Volatility in the EDF share price (%)				
		20%	30%	40%	50%	60%
Risk-free rate (%)	1.97%	13.54	14.06	14.64	15.23	15.82
	1.47%	13.57	14.10	14.68	15.28	15.87
	0.97%	13.59	14.13	14.72	15.33	15.93
	0.47%	13.61	14.17	14.77	15.38	15.98
	0.00%	13.64	14.21	14.81	15.43	16.04

Source: FINEXSI analysis

The intrinsic valuation method results in a price range of between €14.13 and €15.33, with a central case value of €14.72 per OCEANE. On this basis, the Offer Price represents premiums of between 9.8% and 1.3%, with a central case value for the premiums of +5.4%.

<sup>158</sup> Without taking into account EDF's early redemption option.





## 10. Related agreements

We have reviewed the share allocation agreement entered into by the French Government and EPIC BPIFRANCE on January 15, 2018.

Under this agreement, (i) the French Government will allocate EDF shares to EPIC BPIFRANCE in connection with the creation of an innovation and industry fund, and (ii) the French Government and EPIC BPIFRANCE WILL act in concert in relation to EDF.

This agreement provides, among other things, that the EDF shares received by EPIC BPIFRANCE are non-transferable. EPIC BPIFRANCE may therefore not transfer them, pledge them as security, or otherwise dispose of them, but it may use the dividends and other income derived from these shares that are paid out.

EPIC BPIFRANCE, which is not represented on the EDF Board of Directors, has undertaken not to acquire, directly or indirectly, any EDF shares and not to act in concert with a third party vis-à-vis EDF.

The French Government and EPIC BPIFRANCE are required to consult each other before each EDF Shareholders' Meeting in order to reach, as far as possible, a common policy on the resolutions submitted to a shareholder vote. If they are unable to reach a common position, EPIC BPIFRANCE is required to use its best efforts to vote in line with the French Government. The French Government may terminate the arrangement in the event of disagreement with EPIC BPIFRANCE on the EDF group's strategy, in particular if EPIC BPIFRANCE does not vote in the same way as the French Government at one or more EDF General Meetings.

Finally, the French Government may repossess the allocation at any time.

The provisions of this agreement should not, in our view, affect the fairness of the Offer Price for the other Shareholders.

We are not aware of any other agreement entered into or to be entered into that may have a material effect on the valuation of this present Offer.

## 11. Analysis of the information used to calculate the prices produced by the Presenting Institutions

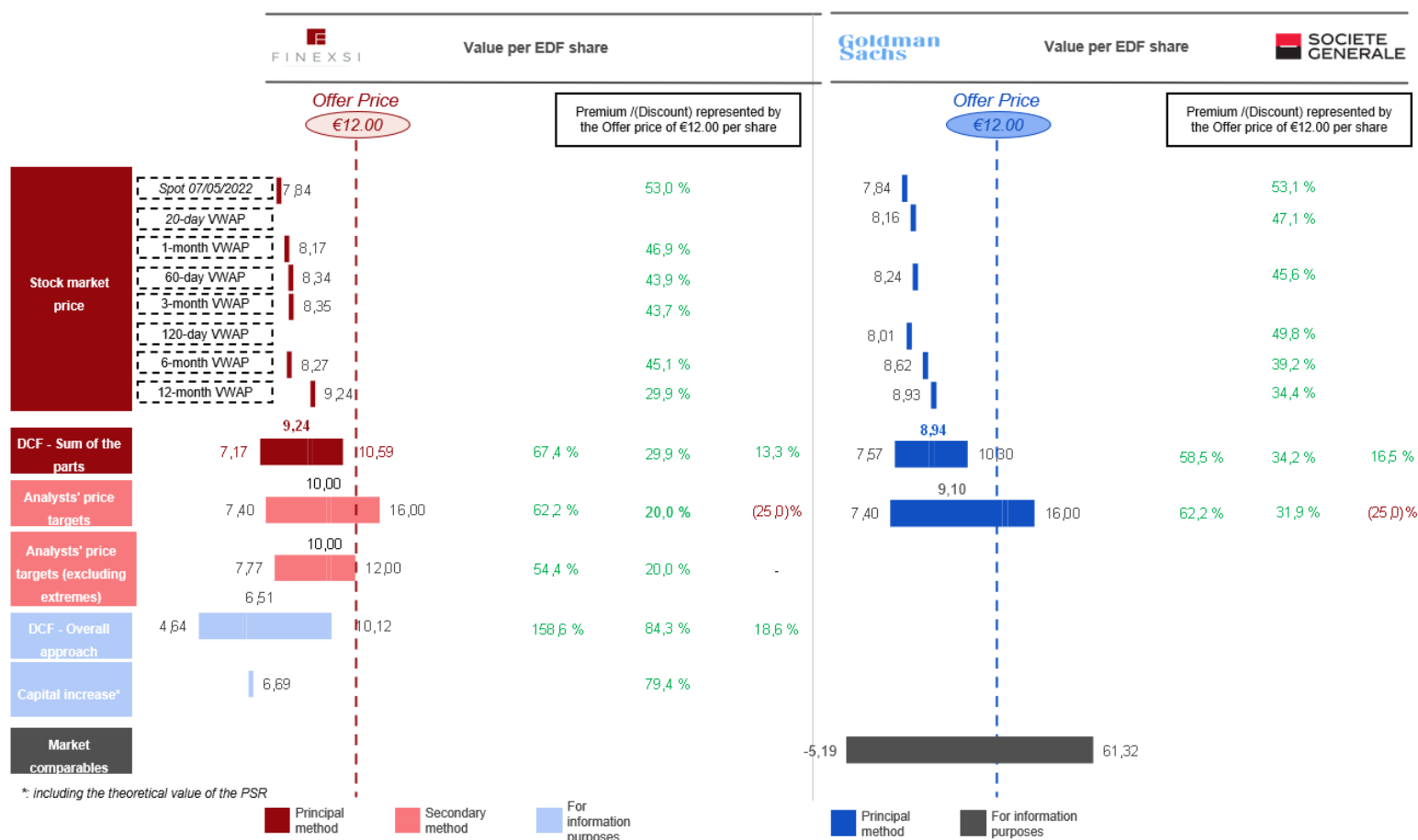
The Presenting Institutions, GOLDMAN SACHS and SOCIÉTÉ GÉNÉRALE, prepared the information used to calculate the Offer Price per share and per OCEANE, included in section 3 of the draft offer document.

We analyzed this information and met with representatives of the Presenting Institutions to discuss the valuation methods and references used.

### 11.1 The EDF shares

The results of the work we each carried out are summarized below:

Figure 44 - Comparison of the values per EDF share produced by FINEXSI and the Presenting Institutions



Sources: Draft offer document, FINEXSI analysis



### 11.1.1 Valuation criteria chosen for the EDF shares

Like FINEXSI, the Presenting Institutions used (i) the sum-of-the-parts approach based on discounted cash flows and (ii) the stock market price, as their principal valuation method.

The Presenting Institutions also used analysts' price targets in their principal valuation method, whereas we used such information in our secondary method.

Unlike the Presenting Institutions, which do not use them, we also used, for information purposes, the discounted cash flow method according to an overall approach and the April 2022 capital increase.

As regards market comparables, we rejected this method, whereas the Presenting Institutions used it for reference purposes.

Lastly, like FINEXSI, the Presenting Institutions did not use the comparable transactions, Net Asset Value, Revalued Net Asset Value or discounted cash flow methods.

We have a number of comments on how the various criteria were applied.

### 11.1.2 Application of the various criteria

#### 11.1.2.1 Financial data

##### 11.1.2.1.1 Number of shares used

The Presenting Institutions used an estimated diluted number of shares of 4,169,608,399. We used a diluted number of shares of 4,132,499,525. The difference results from the conversion ratio applied to the OCEANes, with us using a ratio of 1.124, i.e., the ratio before the announcement of the Offer, while the Presenting Institutions used the new adjusted conversion ratio (1.293) as defined in the terms and conditions of the tender offer.

##### 11.1.2.1.2 Enterprise value to equity value bridge

The Presenting Institutions have used the enterprise value as a basis for calculating equity value, giving a total amount of -€74,962 million (before IFRS 16) on the basis of the consolidated financial statements for the period ended June 30, 2022, while we, using the same basis, calculated an amount of -€75,125 million (before IFRS 16). The very small difference (€163 million) does not call for any particular comment on our part.

#### 11.1.2.2 Share price analysis

Like FINEXSI, the Presenting Institutions use weighted average share prices as of July 5, 2022 as the basis for their analysis.

We also analyzed the share price as of (i) July 12, 2022, i.e., the last day of trading before the announcement of the quantified terms of the proposed Offer (July 19, 2022), and (ii) January 12, 2022, i.e., before the announcement of the exceptional measures announced by the French Government on the allocation of a maximum additional 20 TWh of ARENH volume for 2022, and



before the downward revision of the nuclear power output estimate in France for 2022. The Presenting Institutions, for their part, carried out this additional analysis only as of July 12, 2022.

There are limited differences in the VWAPs for the periods we both cover, since the Presenting Institutions have used a share price adjusted for ordinary and exceptional dividends and capital increases (excluding the ORS), while we used a share price adjusted only for the capital increase announced in March 2022.

### 11.1.2.3 Discounting of forecast cash flows - sum of the parts

The Presenting Institutions and FINEXSI received the same scenarios (A, B, C, D and E) and the same normative financial trajectories extrapolated from 2025 onwards from the Company.

#### 11.1.2.3.1 Marketing and production activities in France (C+P France)

##### **Existing nuclear power**

FINEXSI and the Presenting Institutions applied scenario A for the 2023 2024 period and the average forward electricity prices for 2022, 2023 and 2024 calculated between January 1, 2022 and September 16, 2022.

In terms of regulation from 2026 onwards (post ARENH), FINEXSI and the Presenting Institutions used the same regulated sale price equal to Price 1 - Offeror.

FINEXSI and the Presenting Institutions used the same financial trajectory up until the end of life of the existing reactors in 2100, and did therefore use a terminal value at the end of the forecast period.

In terms of the discount rate, the Presenting Institutions applied a single rate of 7.6% over the entire horizon. For our part, we used differentiated rates of 7.8% for the ARENH period (until 2025) and 6.9% for the post-ARENH period with a regulated price equal to Price 1 - Offeror.

##### **Hydroelectric**

The Presenting Institutions used a gradual phase-out scenario for the concession agreements based on their respective expiry dates.

We used a financial trajectory drawn up for the 2022 - 2032 period, which includes an assumption that a competitive bidding process would be introduced for concessions, resulting in a normative fall in the margin on revenue for renewed concessions. This assumption reflects a situation in which the Group would be forced to accept a lower level of profitability for its hydroelectric business and/or the non-renewal of certain concessions as competitive bidding processes are launched at the end of concession periods.



We therefore calculated a terminal value over the horizon of our financial trajectory, unlike the Presenting Institutions, which discounted the forecast cash flows over the period ending on the expiry of the existing concessions, without any assumption that contracts would be renewed.

We used a discount rate of 7.8%, close to the 7.9% rate used by the Presenting Institutions.

### **Commerce & Services**

The trajectories used by the Presenting Institutions do not call for any particular comment on our part.

As regards the discount rate, we used a rate of 6.8%. The Presenting Institutions used a discount rate of 10.4%.

#### 11.1.2.3.2 Regulated activities in France

##### **ENEDIS**

The Presenting Institutions calculated their terminal value on the basis of an exit multiple (RAB multiple<sup>159</sup> of 0.95x). In accordance with our methodological approach, we calculated a terminal value using the GORDON-SHAPIRO formula based on a perpetual growth rate of 1.7%.

For this segment, we used a discount rate of 4.5%, whereas the Presenting Institutions used a discount rate of 5.0%.

##### **SEI/PEI & ES**

In accordance with our methodological approach, we calculated a terminal value using the GORDON-SHAPIRO formula based on a perpetual growth rate of 1.7%. The Presenting Institutions used an EBITDA multiple for the terminal value, calculated based on an average of ITALGAS and E.ON's 2023 EBITDA market multiples.

The Presenting Institutions used a discount rate of 5.0%, compared to the 4.5% used by FINEXSI.

#### 11.1.2.3.3 United Kingdom

##### **Existing nuclear power**

Our work, as well as that of the Presenting Institutions, was based on a financial trajectory drawn up for the 2022 – 2055 period, reflecting the operation, until the end of life, of the existing nuclear reactors in the United Kingdom.

This financial trajectory assumes, among other things, that the life of the SIZEWELL B plant would be extended to 60 years, beyond its currently authorized 40-year life.

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<sup>159</sup> Regulated Asset Base



For the lower limit of their range, the Presenting Institutions used the shutdown of SIZEWELL B in 2035, i.e., a life of 40 years, and use management's assumption of a life of 60 years for the upper limit of their range.

We use management's assumption that the life of SIZEWELL B would be extended to 60 years.

Like the Presenting Institutions, we did not use a terminal value over the horizon of the forecasts, insofar as the trajectory we applied ended at the end of the life of the existing facilities.

In terms of the discount rate, the Presenting Institutions used a discount rate of 9.6%, whereas we used a discount rate of 7.5%.

### **Customers**

The Presenting Institutions calculated a terminal value based on an EBITDA exit multiple (using CENTRICA as a comparable). In contrast, in accordance with our methodological approach, we calculated a terminal value using the GORDON-SHAPIRO formula based on a perpetual growth rate of 1.7%.

In addition, we used a discount rate of 7.5%, while the Presenting Institutions used a discount rate of 11.8%.

### **HPC**

For the lower limit of their range, the Presenting Institutions valued HPC based on the average of the valuations published by financial analysts (CITIBANK, HSBC, BARCLAYS, UBS and BANK OF AMERICA). For the upper limit of their range, HPC was valued based on its carrying value in EDF's financial statements.

We valued HPC based on the flows communicated by the Company up until the end of the reactor's life, and a discount rate of 7.5%.

### **Other**

Like FINEXSI, the Presenting Institutions calculated the terminal value using the GORDON-SHAPIRO formula based on a perpetual growth rate of 1.7%.

We used a discount rate of 7.5%, while the Presenting Institutions used a discount rate of 9.7% .

In relation to PODPOINT, the Presenting Institutions used its market capitalization as of September 21, 2022, whereas we used its market capitalization as of July 5, 2022 (i.e., before the Offer was announced), though it should be noted that this difference has no impact on the value.



#### 11.1.2.3.4 Italy

The Presenting Institutions used a terminal value based on an exit multiple calculated using the average of RWE and A2A's EV/EBITDA 2023 market multiples. In contrast, in accordance with our methodological approach, we calculated a terminal value after a 5-year extrapolation period using the GORDON-SHAPIRO formula based on a perpetual growth rate of 1.7%.

We also used a discount rate of 6.6%, while the Presenting Institutions used a discount rate of 7.4%.

#### 11.1.2.3.5 EDF RENEWABLES

The Presenting Institutions valued the EDF RENEWABLE segment based on an EV/EBITDA 2024 multiple with, as the lower limit of the range, the multiple for ACCIONA ENERGIA and, as the upper limit, the average of the multiples of EDPR, ACCIONA ENERGIA and NEOEN.

FINEXSI used the cash flows until the end of the explicit horizon of the financial trajectory (2032), and calculated, in accordance with our methodological approach, a terminal value based on an EBITDA exit multiple, reflecting the specific nature of this business activity, in which assets generally have a lifespan of between 20 and 30 years.

#### 11.1.2.3.6 DALKIA

The Presenting Institutions calculated a terminal value based on an exit multiple equal to the average of the 2023 EV/EBITDA multiples of ENGIE, E.ON, SPIE, and ITALGAS as the lower limit of the range, and SPIE's 2023 EV/EBITDA multiple as the upper limit.

In contrast, in accordance with our methodological approach, we calculated a terminal value using the GORDON-SHAPIRO formula based on a perpetual growth rate of 1.7%.

We also used a discount rate of 4.9%, while the Presenting Institutions used a discount rate of 7.0%.

#### 11.1.2.3.7 FRAMATOME

Like FINEXSI, the Presenting Institutions calculated the terminal value using the GORDON-SHAPIRO formula based on a perpetual growth rate of 1.7%.

We used a discount rate of 7.0%, while the Presenting Institutions used a discount rate of 8.4%.



#### 11.1.2.3.8 Other International (including Belgium)

We valued this segment by separating business activities in Belgium from other international business activities. In contrast, the Presenting Institutions valued this segment by combining the flows of both activities.

The Presenting Institutions calculated the terminal value using the GORDON-SHAPIRO formula based on a perpetual growth rate of 1.7%, as did FINEXSI for Belgium. We also calculated a terminal value based on an EBITDA exit multiple for the "Other International" segment.

In terms of the discount rate, the Presenting Institutions used a rate of 8.1% for the segment as a whole. We used discount rates of 6.8% and 8.1% for Belgium and for other international business activities, respectively.

#### 11.1.2.3.9 Trading & Others

The EDF TRADING & OTHERS segment was valued by the Presenting Institutions and FINEXSI based on an EV/EBITDA multiple, using GLENCORE as a comparable.

#### 11.1.2.4 Value per share

Based on the sum-of-the-parts calculation using discounted cash flows, the Presenting Institutions arrived at a range of values of between €7.57 and €10.30, with a central case value of €8.94.

We arrived at a range of values of between €7.17 and €10.59, with a central case value of €9.24.

It should be noted that we carried out sensitivity analyses based on a number of scenarios and various valuation parameters (discount rate and perpetual growth rate). The Presenting Institutions did not carry out any sensitivity analyses on the various scenarios.

#### 11.1.3 Analysts' price targets

We used this information as a secondary valuation method, while the Presenting Institutions used it as a principal method.

We used analysts' price targets published after the news item on the stress corrosion issue and the adjustment of the nuclear production estimate in France for 2022, and before Prime Minister Elisabeth Borne's announcement on July 6, 2022, i.e., those published between May 19, 2022 and July 5, 2022. In addition, we included for information purposes the last price targets published before July 6, 2022 of all analysts who monitor EDF shares, as well as the price targets published after July 19, 2022, i.e., after the announcement of the terms of the Offer.

The Presenting Institutions used, as a principal valuation method, the last price targets published before July 6, 2022 by all analysts who monitor EDF shares and, on an indicative basis, the price targets published after July 19, 2022, i.e., after the announcement of the terms of the Offer.





#### 11.1.4 Comparables method

The work of the Presenting Institutions, under the comparables method, resulted in a range of values of between -€5.19 € and €61.32 according to an overall approach, which they included for information purposes.

We did not use this method but provided, for information purposes only, the range of values that would have resulted from using this approach based on listed companies that are not, in our view, fully comparable to EDF, i.e., between -€10.06 and €26.96 based on NTM<sup>160</sup> EBITDA multiples, for 2023 and 2024 (before IFRS 16), under the overall approach, and -€11.00 and €38.90 using a sum-of-the-parts approach.

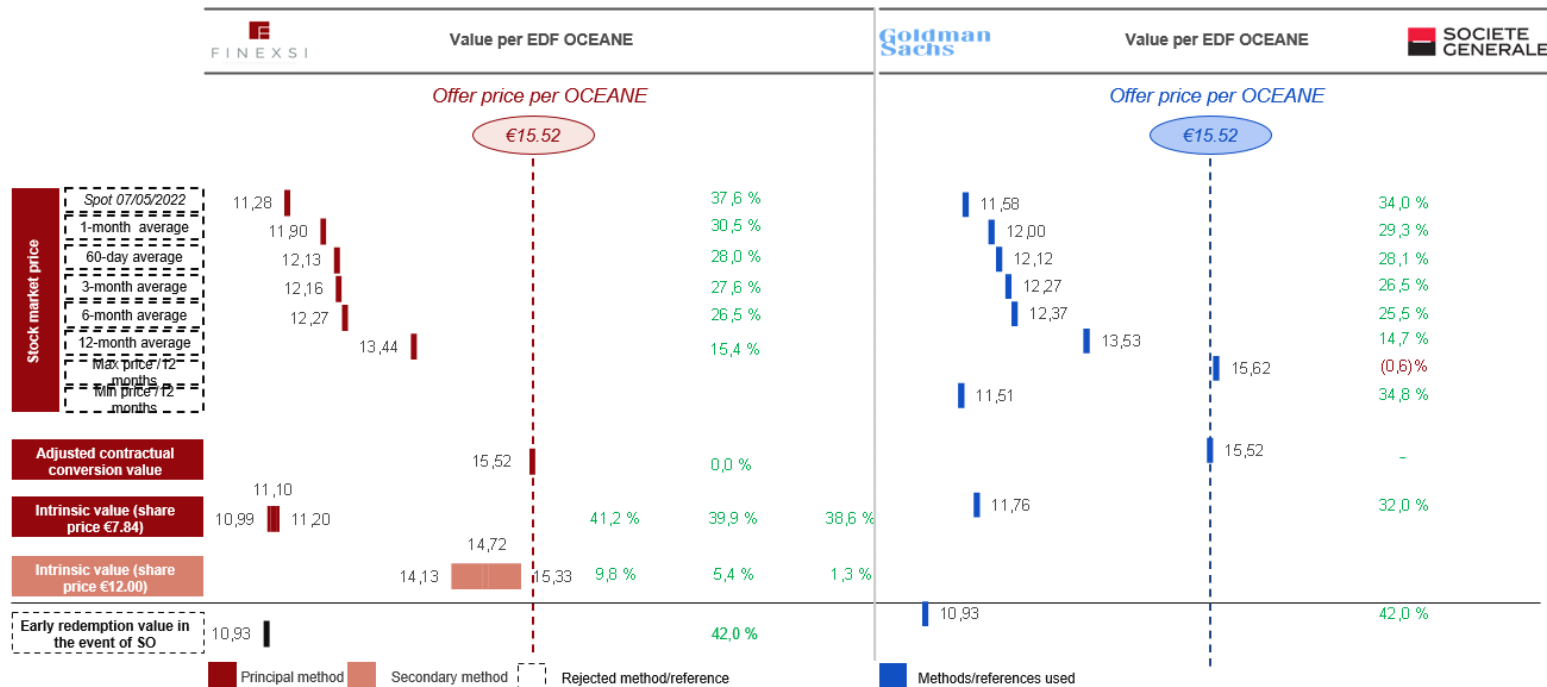
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<sup>160</sup> *Next Twelve Months.*

## 11.2 The OCEANES

The results of our respective work are summarized below:

Figure 45 - Comparison of the valuation work carried out by FINEXSI and the Presenting Institutions



Sources: Draft offer document, FINEXSI analysis

### 11.2.1 Valuation criteria chosen for the OCEANES

The Presenting Institutions used the following methods and references without giving them any particular ranking:

- Historical market value;
- The conversion value of the OCEANES in the event of a tender offer;
- The intrinsic value of the OCEANES;
- The value of the OCEANES in the event of early redemption as a result of the shares being delisted.

We used as a reference the OCEANES' market price, their adjusted contractual conversion value and their intrinsic value based on the EDF share price as of July 5, 2022 (€7.84).

We also used, as a secondary valuation method, the intrinsic value of the OCEANES based on the Offer Price of €12.00.



In terms of the value of the OCEANEs in the event of early redemption as a result of the shares being delisted, we did not use this reference as we do not consider it to be relevant to the case in hand.

## 11.2.2 Application of the various criteria

### 11.2.2.1 Analysis of the market price

GOLDMAN SACHS and SOCIÉTÉ GÉNÉRALE used the closing price of the OCEANEs on July 5, 2022 as the basis for their analysis, as did FINEXSI.

We note that there are some small differences in the calculation periods that we used, as we used different databases (BLOOMBERG for the Presenting Institutions and CAPITAL IQ for FINEXSI), and as these databases do not cover all trades in the OCEANEs (since a significant proportion of the volumes are traded over the counter).

### 11.2.2.2 Adjusted contractual conversion value

The application of this approach defined in the terms and conditions of the OCEANEs does not call for any comment on our part, since we arrived at the same value of €15.52.

### 11.2.2.3 Intrinsic value

In terms of the main assumptions used to calculate the option value under the BLACK & SCHOLES model:

- FINEXSI and the Presenting Institutions used the closing price for EDF shares on July 5, 2022 of €7.844. On a secondary basis, we also calculated its value based on the Offer Price of €12.00 per EDF share;
- For the risk-free rate, we used the 3-month average for the 2-year OAT TEC (government bonds) at September 30, 2022 (i.e., 0.97%) given the maturity date of the OCEANEs, whereas the Presenting Institutions used the rate of 1.25%;
- In terms of the credit spread, the Presenting Institutions used a credit spread of 46 bps seen on EDF's non-convertible bonds maturing on September 11, 2024. We used a credit spread of 100 bps seen on September 30, 2022 on 3 non-convertible bonds issued by EDF maturing in March 2023, September 2024, and November 2025;
- A cost of borrowing of 40 bps was used by both FINEXSI and the Presenting Institutions;
- The Presenting Institutions used a figure of 41.6% for the volatility of the EDF shares, in line with the historical volatility of the EDF shares seen over 260 trading days as of July 5, 2022. We used a figure of 40% representing the average historical volatility (over 60 days) of the EDF shares since the OCEANEs were issued.

In our intrinsic calculations, we have taken account of the option available to EDF to redeem the OCEANEs early in the event that their value increases to more than 130% of their par value. This



right held by EDF is similar to an option whose value is reduced by the option component of the OCEANEs. Accordingly, the value of the option component is calculated as the difference between, on the one hand, the value of the conversion option held by the holder and, on the other hand, the value of the option resulting from the early redemption clause held by EDF. This option held by EDF has not been valued by the Presenting Institutions, which is the main reason for the differences.

The Presenting Institutions have stated a value of €11.76 per OCEANE under the intrinsic approach, whereas we arrived at a range of values of between €10.99 and €11.20, with a central case value of €11.10 per OCEANE taking into account the sensitivities to market parameters (volatility of the EDF share price and risk-free rate).

We also arrived, on a secondary basis, at a range of values, based on a price of €12.00 for the underlying, of between €14.13 and €15.33, with a central case value of €14.72 per OCEANE.



## 12. Analysis and assessment of the comments received from minority shareholders

We were contacted by seven shareholders (A, B, C and C', D, E and F) who sent us, either directly or indirectly<sup>161</sup>, certain letters. We met with shareholder B on October 14, 2022, and with the appraiser appointed by shareholder D on October 13 and 21, 2022. On October 24, 2022, we also met with shareholder D's lawyer, who on the same day provided us with an addendum to the report of shareholder D's appraiser.

We contacted the Offeror and the Presenting Institutions, as well as the Company's management team for their comments on the matters raised by the shareholders who contacted us.

Pursuant to Article 3 of AMF Instruction 2006-08, we set out below the comments made by each shareholder as well as our analysis and assessments. We also refer to the relevant sections of the report.

### 12.1 Comments of shareholders A and F

Shareholder A sent letters directly to EDF on July 21, 2022<sup>162</sup>, August 18, 2022 and October 13, 2022<sup>163</sup> concerning the litigation and the claim for compensation of €8.34 billion<sup>164</sup>, which were sent to us by the Company.

On October 14, 2022, Shareholder A also forwarded to us on a letter that it had sent to EDF on August 25, 2022, in response to EDF's letter dated August 23, 2022.

Finally, shareholder A sent us a letter dated October 21, 2022.

We reviewed and analyzed the information contained in the above-mentioned letters and set out below our views on the matters that relate to our work, some of which have already been discussed in the various sections of this report.

#### **On the use of the Company's current value, while the loss of value since EDF's IPO is allegedly partly due to decisions taken by the French Government**

First of all, please note that our valuation of EDF and our assessment of the Offer Price are made as of the date of our report, taking into account the context and the situation of the Group at that date.

Without commenting on the prejudicial nature of certain Government decisions for shareholders, we note that EDF's shareholders cannot ignore the regulatory risks to which the Company is

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<sup>161</sup> Some letters were sent to us directly, while others were sent by the AMF, by EDF or by the Offeror.

<sup>162</sup> We received a letter dated July 29, 2022, which repeats the terms of the letter sent by shareholder A on July 21, 2022, sent by shareholder F to the AMF. We therefore respond to it in this section. This letter dated July 21 from shareholder A was also sent to us directly by shareholder A on October 14, 2022.

<sup>163</sup> These two letters were also sent to us by shareholder A on October 14, 2022.

<sup>164</sup> Excluding compensatory interest.



exposed, nor can they ignore the Company's public service mission<sup>165</sup>. It appears that EDF is necessarily impacted by decisions taken by the Government, particularly when these decisions are taken in the public interest.

We are not aware of any administrative or legal proceedings that may have been brought historically by the Company or its shareholders against the French Government at the date of these decisions, in particular concerning regulation or, more generally, management decisions.

The proceedings of which we are aware to date are the preliminary administrative appeal requesting withdrawal of the system for allocating an additional maximum volume of 20 TWh of electricity sold at a regulated price from April to December 2022 (announced on May 12, 2022), the litigation to invalidate *ultra vires* acts, and the claim for compensation filed by EDF in respect of that same allocation system (announced on August 9, 2022). The claim for compensation has been dealt with in full in our assessment of the Offer Price (see below).

Criminal proceedings together with a joint civil claim were also brought on August 31, 2022 by the association ENERGIE EN ACTIONS<sup>166</sup> to which we will return below.

In this context, this remark by shareholder A does not have any impact on our valuation work.

### **Neutrality of the transaction for shareholders**

In its letter dated July 21, 2022, shareholder A considers that the operation should be neutral for shareholders who acquired their shares during the 2005 IPO and therefore suggests that the potential squeeze-out should take place at the IPO price as adjusted by the dividends received over the period, i.e., at a price of €16.58.<sup>167</sup>

We note that this approach does not constitute one of the "generally used objective valuation criteria" provided for by the AMF texts<sup>168</sup> on independent valuations of Offer Prices. Moreover, beyond the fact that this "neutral transaction" principle does not allow the price to be valued on the date on which the Offer is submitted, it would amount to protecting the holders of EDF shares from the risks to which they are exposed as shareholders, which is not possible. Indeed, shareholders are exposed both to upside and downside risks in relation to their shares, as exposure to the financial markets does not confer a guaranteed value. For these reasons, the assumption the value of shareholders' shares would have remained neutral since EDF's IPO does not seem to us to be

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<sup>165</sup> The regulatory risk to which EDF is exposed was set out in the registration document drawn up at the time of the 2005 IPO (see in particular page 269) and is also set out in the 2022 Universal Registration Document (see in particular pages 104, 107 and 539).

<sup>166</sup> See the press release dated July 17, 2022 from Energie en actions, an association of employee and former employee shareholders of the EDF Group.

<sup>167</sup> In its letter dated October 21, 2022, the amount is €16.48 per EDF share. For information purposes, we note that the two calculations presented are incomplete insofar as they do not take into account the enhanced dividends and the exercise of the PSRs for the capital increases, which overstates the results obtained. Taking these two elements into account, for information purposes, we have calculated the price resulting in a neutral transaction since 2005 for the three categories of shareholders with differentiated listing prices: €13.02 per EDF share for institutional investors who benefited from an IPO price of €33.00; €12.35 per EDF share for the open price offer at an IPO price of €32.00; and €8.09 per EDF share for employees who benefited from the 20% discounted offer at a price of €25.60. It should be noted that these calculations do not constitute a reference for our price valuation work.

<sup>168</sup> AMF General Regulation, Article 231-18; AMF Instruction 2006-07; AMF Recommendation 2006-15.



a relevant reference in the context of the Offer, and the Offer does not seek to protect them against the risks to which they are exposed as investors in EDF.

It should also be noted that the shareholders to whom the Offer is currently being made are not necessarily those who participated in the IPO, and that the IPO offered different prices to different categories of investor<sup>169</sup>.

### **Inclusion of the claim for compensation**

It should be noted that our assessment of the offer price includes the total amount<sup>170</sup> of the claim for compensation of €8.34 billion<sup>171</sup> made by EDF, as explained above (see Section 8.4.2.6), which represents the most optimistic scenario in the context of strong legal uncertainty, which represents the most optimistic scenario in a context of significant legal uncertainty.

On this basis, we note that we arrived at a range of values of between €7.17 and €10.59 per share, with a central case value of €9.24 per share under the sum-of-the-parts method used as the principal valuation method. If the full amount of EDF's claim for compensation, of €1.36 per share, is added to this range, the Offer Price remains above the upper end of the range per our valuation.

### **The valuation methods used by the Offeror**

Shareholder A states that the Offer Price does not represent a premium over the Net Asset Value (NAV). We note that the NAV is generally not considered to be representative of the intrinsic value of a company, as it does not take into account any prospects for growth and profitability, whether positive or negative, or any capital gains on assets. For information purposes, the consolidated NAV at June 30, 2022 was €12.08 on a non-diluted basis, it being noted that this amount does not include the significant loss expected in the second half of 2022, such that the NAV is expected to fall sharply at December 31, 2022, to a level below €12.0 per share (see Section 8.1.1 above).

In terms of the comparables method, shareholder A considers that the sample of comparable companies should have been established in 2005 (date of the IPO). In addition to the fact that, as we have already stated, the Company must be valued on the date on which the Offer is submitted, reference should be made to the sections dedicated to this method in this report (see Section 8.1.4) as well as to the paragraph on the comments received from shareholder E.

In terms of the share price, shareholder A considers that it does not reflect the intrinsic value of the Company because it includes the impacts of the disadvantageous decisions of the Government. We have already commented above on this remark on the Government's decisions and we also refer readers to section 8.4.1 of the report, which deals with the reference to the stock market price.

### **New nuclear power**

Shareholder A is surprised that new nuclear power was not included in the Company's valuation. This subject is dealt with in section 8.4.2.1.1 of our report, in which we explain the reasons why new nuclear power was excluded and the consequential restatements made in our valuation work.

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<sup>169</sup> €33 for institutional investors, €32 for individuals and €25.60 for employees under restricted offers.

<sup>170</sup> After taxation and discounting over 5 years.

<sup>171</sup> Excluding compensatory interest.



Shareholder A compares the valuations of the three "components" used in the offer document with those derived from "analysts' models", without any further details on the sources used. It appears that the amounts it uses value EDF shares at more than €16.0<sup>172</sup>, which is inconsistent with the price targets of analysts, which are on average around €10.50 (see Section 8.4.3).

### **The cost of debt**

Shareholder A questions the cost of debt of 6.1% used by the Presenting Institutions, corresponding to the cost of the new 20-year senior debt issue (4.7% as to 80% of the amount) and the hybrid debt (11.5% as to 20% of the amount), and considers it too high when viewed against the Company's current cost of debt.

We used a cost of debt of 4.5% in our valuation work, which we consider favorable to the minority shareholder in the current context of rising interest rates.

**In summary, we do not consider that we need to modify our assessment of the Offer Price as a result of the various matters raised by shareholders A and F.**

## **12.2 Comments received from shareholder B**

We held a working meeting on October 14, 2022 at our office with shareholder B's representatives, who provided us with a letter dated October 11, 2022 on certain matters. We also received additional comments on October 16, 2022.

We note that shareholder B announced in a press release dated July 17, 2022 its intention to file criminal proceedings<sup>173</sup> together with a joint civil claim against X but targeting the Government as the majority shareholder of EDF for "*putting the Company in difficulty to the detriment of the Company's interests and the interests of its minority shareholders, due to ill-advised and confiscatory decisions.*" The complaints set out in this press release concern the principle of the ARENH mechanism, the regulated sale price of €42/MWh, which has not been re-valued since 2012, the additional allocation of a maximum of 20 TWh of electricity sold at regulated prices for 2022 under the ARENH mechanism, the closure of the FESSENHEIM power plant, the takeover of PHOTOWATT and EDF's participation in the "AREVA rescue", the offer to acquire GENERAL ELECTRIC's nuclear turbine business, as well as the distribution of significant dividends in cash. These topics were covered by the two above-mentioned letters dated October 11 and 16, 2022, and our comments on them are as follows:

- The compensation payable to EDF as a result of the closure of the FESSENHEIM power plant and the offer to acquire GENERAL ELECTRIC's nuclear turbine business, which is still ongoing, are discussed in the report in sections 8.3.2 and 8.4.2.1;

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<sup>172</sup> (143.7-75.1) / 4,132.5 million shares

<sup>173</sup> This criminal complaint was filed on August 31, 2022.





- The other matters relate to past management decisions that are not within the scope of our work on valuing the price at the date on which the Offer was submitted;
- Finally, it should be noted that the Company is not a party to these proceedings, the outcome of which is too uncertain for us to estimate its possible impact on our valuation of EDF. Moreover, as these are criminal proceedings, EDF will continue to prosper after the Offer closes, even if a Squeeze-out is carried out as part of the Offer.

The other topics covered by the letters of October 11 and 16, 2022 call for the following comments:

### **Neutrality of the transaction for shareholders**

Shareholder B claims that the transaction should be neutral, resulting in it calculating a minimum price of between €15.03 and €16.95. We refer readers to the discussion above on the letters sent by shareholders A and F.

### **Reference to the historical share price**

Like shareholder A, shareholder B considers that the stock market prices are impacted by the disadvantageous decisions of the Government, in particular the decision announced on January 13, 2022 concerning the ARENH +.

As stated in section 1.4.2 of our report, we have factored in the various announcements and events that may have materially affected the EDF share price, and we have described the premiums represented by the Offer Price of €12.00 on January 12, 2022<sup>174</sup> and July 12, 2022<sup>175</sup>.

### **Analysts' price targets**

According to shareholder B, the references to the analysts' price targets included in the October 4, 2022 offer document cover a limited period that is irrelevant (May 19 to July 5, 2022).

It should be noted that the draft offer document dated October 21, 2022 includes broader price target analysis periods.

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<sup>174</sup> Before the announcements of January 13, 2022 concerning (i) exceptional measures announced by the French Government designed to limit electricity price hikes in 2022 (system for allocating an additional maximum volume of 20 TWh of electricity sold at regulated prices from April to December 2022), the overall impact of which was estimated at that date at approximately €8.4 billion, and (ii) the downward revision of the nuclear production estimate in France for 2022 (from 330 - 360 TWh to 300 - 330 TWh).

<sup>175</sup> Last trading before the announcement, on July 19, 2022, of the terms and conditions of the Offer, including the Offer price.



We also carried out analysis on different periods, including the period beginning after July 19, 2022 and ending on October 6, 2022, which includes more recent decisions favorable to EDF<sup>176</sup> (see Section 8.4.3).

### **New nuclear power**

Shareholder B is surprised that new nuclear has not been included in the valuation of the Group and questions the neutralization of operating expenses related to new nuclear.

These aspects are explained in our report (see Section 8.4.2.1.1).

### **The litigation and the claim for compensation**

Please refer to the relevant sections of this report (see Section 8.4.2.6).

### **Shares with enhanced dividends**

Shareholder B considers that the shares with enhanced dividends should receive a higher price per share under the Offer. Our comments are as follows:

Firstly, we note that there is only one class of EDF shares, the ordinary shares, even though there is a different ISIN code for registered shares that have been held for more than 2 years and that benefit from an enhanced dividend.

The enhanced dividend is a mechanism that rewards the loyalty of shareholders who have held their shares for a continuous period of at least two calendar years. In the event that these shares are sold, the enhanced dividend is not transferable to the purchaser, who cannot therefore benefit from the enhanced dividend. As a result, no value is attached to this enhanced dividend, and it does not alter the intrinsic value of the shares covered by the Offer.


Holders of shares that benefit from an enhanced dividend are therefore not entitled to receive a higher price under the Offer.

### **Other matters raised**

Issues related to the management of the Group, i.e., (i) the increase in debt in order to be able to pay dividends in cash, (ii) the rationale for disposing of “*profitable activities*,” (iii) the rationale for

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<sup>176</sup> Announcement of August 9, 2022 on the litigation to invalidate *ultra vires* acts and the claim for compensation filed with the French Government for compensation in an amount estimated at that date of €8.34 billion (excluding compensatory interest).



issuing the perpetual subordinated notes that are "*more costly*" than senior debt, are questions for the management team and fall outside the scope of our valuation work on the Offer Price.

**In summary, we not consider that we need to modify our assessment of the Offer Price as a result of the various matters raised by shareholder B.**

### **12.3 Comments received from shareholders C and C'**

The lawyer of shareholders C and C' forwarded us two letters sent to the AMF on September 9, 2022 and October 21, 2022.

These letters refer in particular to the conflict of interest involving the Government because of its dual position as majority shareholder and defender of the public interest, a subject dealt with in the previous paragraph concerning the remarks of shareholder A.

Analysis of the conflicts of interest within the Board of Directors is a legal matter. We note, pursuant to AMF recommendation 2006-15, Section 4), in accordance with Article 261-1-III of the AMF's General Regulation, that on July 19, 2022, EDF's Board of Directors established an ad hoc committee made up of a majority of independent directors<sup>177</sup>. This ad hoc committee is responsible for monitoring our work and for issuing a recommendation to the Board of Directors on the attractiveness of the Offer for the Company, the shareholders, the holders of OCEANEs and the employees.

We also note that the directors appointed on the proposal of the French Government and the director representing the Government will not participate in the Board of Directors' vote on the reasoned opinion issued with respect to the Offer.

The letters from shareholders C and C' also refer to the lack of information provided on the progress of EDF's judicial review submitted to the Conseil d'Etat and the claim for compensation of €8.34 billion<sup>178</sup>. We note that the total amount of the claim for compensation has been used in our work (see Section 8.4.2.6 of the report), which represents the most favorable scenario for the minority shareholders, regardless of the outcome of the ongoing proceedings, on which we are unable to comment.

Shareholder C' considers that there must be a "*takeover premium*" relative to the EDF stock market price insofar as (i) the Offeror will hold 100% of the target if the Offer is successful, and (ii) the stock market price would not reflect the Company's intrinsic value. It should first be noted that the stock market price is a relevant reference for the value of EDF in the case in point (see Section 8.4.1, "The reference to the EDF stock market price (principal method)") and that on this criterion, the premiums reflected are very high (between 29.9% and 53.0%). The premiums are usually calculated on this last criterion. Furthermore, we note that the sum-of-the-parts method, which

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<sup>177</sup> Bruno CREMEL as Chairman (independent director), Colette LEWINER (independent director), Philippe PETITCOLIN (independent director) and Mr. Christian TAXIL (director elected by employees).

<sup>178</sup> Excluding compensatory interest.



makes it possible to determine the full value of the EDF share, also yields premiums of between 0.4% and 40.6% after the claim for compensation is taken into account (see Section 8.2.4.7.1).

**In summary, we not consider that we need to modify our assessment of the Offer Price as a result of the various matters raised by shareholders C and C'.**

## **12.4 Comments received from shareholder D**

On October 16, 2022, the French Government's legal advisors sent us a letter from a shareholder dated July 8, 2022, and addressed to Elisabeth BORNE. The AMF also forwarded to us letters dated January 23, 2022 and June 16, 2022 that it received from this shareholder before the announcement of the Transaction.

These letters contain requests for clarification concerning the Government's intentions and consider that the valuation of the EDF share takes into account the impact of various past Government decisions that may have led to a fall in the EDF share's stock market price (these points are discussed above in Section 12.1).

**In summary, we not consider that we need to modify our assessment of the Offer Price as a result of the various matters raised by shareholder D.**

## **12.5 Comments received from shareholder E**

On September 13, 2022, shareholder E appointed its own appraiser to provide an opinion on the price offered for the EDF shares under the Offer. We met with shareholder E's appraiser on October 21, 2022, who provided us with its report dated the same day containing its assessment of the Offer Price, and we held discussions with shareholder E's appraiser on October 24, 2022 based on a letter it had sent that same day. Shareholder E's appraiser also sent us a supplement to its report dated October 25, 2022.

Shareholder E's appraiser read the draft offer document filed with the AMF on October 4, 2022 and made a number of assessment concerning the valuations made by the Presenting Institutions. We met with shareholder E's appraiser on two occasions.

We reviewed and analyzed the information contained in the report and set out below our views on the matters that relate to our work, some of which have already been discussed in the various sections of this report.

### **The methods used**

Shareholder E's appraiser is surprised that the consolidated DCF method was not used.



The DCF method based on the Company's overall (or consolidated) financial trajectory seems to us less appropriate than the sum-of-the-parts approach, since it does not enable us to capture the diversity and specific characteristics of the Group's various business activities (regulated or non-regulated activities, risk profile, maturity, growth prospects, etc.). Furthermore, an overall approach does not, in our view, result in the full value of the Company being calculated, as it produces a lower value for each EDF share. For these reasons, we have included this approach for information purposes only and note that few analysts use this valuation method. Reference should be made to the relevant sections of this report (see Section 8.4.4).

With regard to the NAV, shareholder E's appraiser is also surprised that this method is not used by the Presenting Institutions. We did not use this method either insofar as it would be redundant, given the use of the sum-of-the-parts method (see Section 8.1.2).

More generally, it should be remembered that the multi-criteria approach does not consist of using all the existing valuation methods and averaging the results thus obtained. On the contrary, in accordance with the AMF's recommendations (<sup>179</sup>), it is a matter of explaining the various valuation methods and the reasons for rejecting or using them after identifying those that are the most relevant.

### **The stock market price**

Please refer to the relevant sections of this report (see Section 8.4.1).

Shareholder E's appraiser prefers to use the share price that applied before January 2022 and the various government announcements.

We analyzed not only the share price before the announcement by the French Government of its intention to increase its shareholding in EDF to 100% (i.e., July 5, 2022), but also the share price on January 12, 2022, i.e., before the announcements of January 13, 2022 concerning the exceptional measures announced by the French Government designed to limit electricity price hikes in 2022 (including the system for allocating an additional maximum volume of 20 TWh of electricity to be sold at regulated prices from April to December 2022), the overall impact of which was estimated at that date at approximately €8.4 billion, and the downward revision of the nuclear power generation estimate in France for 2022 (from 330 - 360 TWh to 300 - 330 TWh). The offer price of €12.00 per share still represents a significant premium on that date.

### **Analysts' price targets**

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<sup>179</sup> AMF Reco 2006-15: the independent appraiser determines, according to the relevance of the available information, the method or methods that are best suited to the company concerned. The independent appraiser implements, when they are relevant, the two families of methods defined above. It compares the results obtained to the available references and clearly explains the approach that led it to favor one method or reference over another.



Similarly, by valuing the shares at the end of 2021 before the government's announcements, shareholder E's appraiser also disregards the key operational announcements that have impacted EDF's results and projections.

It should also be noted that the JEFFERIES note, which was not used by the Presenting Institutions to shareholder E's appraiser's surprise, was finally used in the new offer document dated October 21, 2022. For our part, we also used that note.

Shareholder E's appraiser ultimately uses a price target of €12.00 per share which does not correspond to any of the average or median prices he calculated, at €10.68 and €10.

For our part, we used the most recent notes issued after the publication, on May 18, 2022, of the update on the stress corrosion incident and the adjustment of the nuclear production estimate in France for 2022, and before the announcement by the Prime Minister on July 6, 2022, of the Government's intention to increase its shareholding in EDF to 100%, i.e., a range of values between €7.40 and €16.00, with a median target price of €10.55 per EDF share. This seems to us to cover the relevant period.

Please refer to the relevant sections of this report (see Section 8.4.3).

### **The sum-of-the-parts method**

Shareholder E's appraiser "corrects" two parameters of the discount rate used in the Offeror's work, namely:

- The risk-free rate: shareholder E's appraiser suggested using the 10-year OAT instead of the 20-year OAT. Even if the choice of a long-maturity OAT could be justified for business activities with a very long cycle, we applied a risk-free rate of 1.9% for activities that are mainly located in France, corresponding to the 3-month average of the 10-year OAT TEC rate, which is close to the rate used by the expert;
- Gearing: calculated, using a market approach, at 75% by the Presenting Institutions and at 69% by shareholder E's appraiser, using an accounting approach. It should be noted that the calculation of gearing at December 31, 2021 does not take into account the restatement of minority interests, nor the adjustment of hybrid debt (perpetual subordinated notes) recognized in equity. For our part, we applied a gearing figure based on the listed companies that were used to determine the beta.

### **Comparables**

Shareholder E's appraiser considers that the comparables method should be used to value EDF as a whole. For the reasons set out in Section **Erreur ! Source du renvoi introuvable.** of our report, we do not consider that there are any fully comparable companies in terms of size, business mix and geographical positioning. In particular, it should be noted that unlike EDF and as shareholder E's appraiser acknowledges, the stock market comparables it proposes (EDP, ENEL, ENGIE and IBERDROLA) have little or no nuclear business, so they are not comparable.



Shareholder E's appraiser proposes using an average of highly disparate results produced by different methods, which leads to a narrower range, but which is not methodologically sound in this case. Shareholder E's appraiser has taken the average of two approaches (EBITDA and P/E multiples), which are themselves derived from averages of median values. Besides the fact that the P/E multiple seems irrelevant given the differences in the debt and financing structures of the comparable companies, it seems questionable to use averages of different methods.

### **The implementation of shareholder E's appraiser's multi-criteria approach**

Shareholder E's appraiser uses the following assumptions in valuing the EDF shares. Our comments are as follows:

- Shareholder E's appraiser develops an alternative approach based on aggregates derived from a group of analysts the make-up of which is not disclosed. The expert also forgets to deduct the debt from the enterprise value he calculates, such that the values presented are erroneous and should be reduced by half on average<sup>180</sup>;
- Concerning the amount of debt, it should be noted that this does not include the perpetual subordinated notes, which amount to €12.3 billion, resulting in each share being overvalued by €3.16<sup>181</sup>.
- Shareholder E's appraiser seems to suggest using scenario D simulated by EDF, which is, however, less favorable than scenario A (see Section 8.4.2.1.1).

### **Shareholder E's appraiser's value proposal**

Shareholder E's appraiser arrives at a value per EDF share of €13.79, using an unexplained and methodologically questionable weighting for each criterion, which tends to give greater weight to methods that produce higher values (such as the comparables method, which in our opinion is not appropriate in the case in hand).

Shareholder E's appraiser states the need to take into account (i) a "usual" and arbitrary premium of 20%<sup>182</sup> to compensate for the regulatory measures imposed by the Government, as well as (ii) potential capital gains from future disposals (such as EDISON and the assets in Brazil, for example). It should be noted that the market premiums are not "usual" and apply to the specific circumstances of each offer. Furthermore, it has been confirmed to us by the Offeror that the rumors surrounding the possible sale of EDISON and the assets in Brazil are unfounded.

**In summary, we not consider that we need to modify our assessment of the Offer Price as a result of the various matters raised by shareholder E and its valuer.**

<sup>180</sup> Example: scenario 1 in 2023 presented by the expert: (EV of €72.3 billion - debt of €43 billion)/3,886 million shares = €7.50 per EDF share compared to the price of €19 arrived at by the expert.

<sup>181</sup> €12.3 billion/3,886 million shares

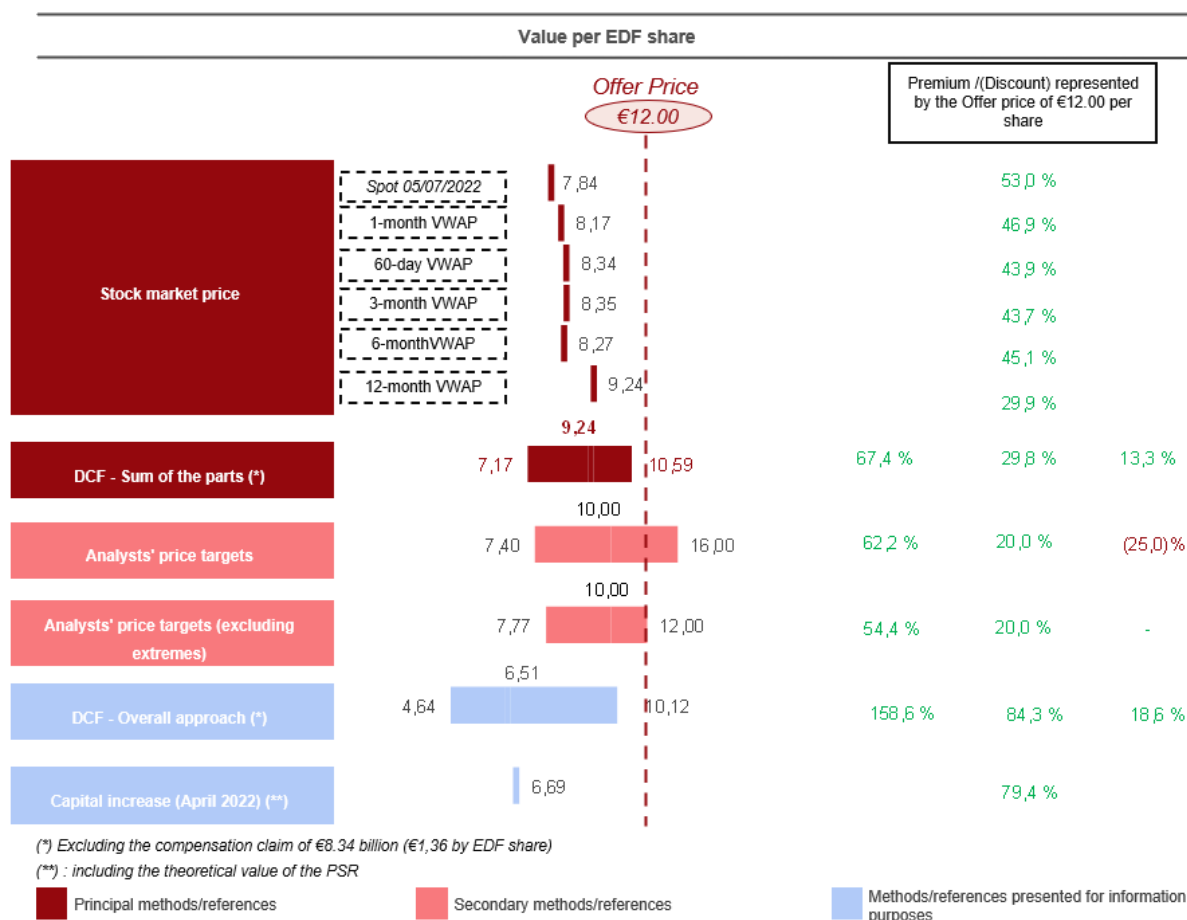
<sup>182</sup> This has become an average premium of 38.4% over the share price in its supplementary report of October 25, 2022, based on 41 transactions (Source: le journal des OPA).

## 13. Summary of our work and opinion of the fairness of the Offer Prices

### 13.1 The EDF shares

As a result of our work, the Offer Price, i.e., €12.00 per EDF share, reflects the following premiums on, and discounts from, the values produced by our valuation work, based on the methods we deemed appropriate:

Figure 46 - Summary of our valuation work on the EDF shares



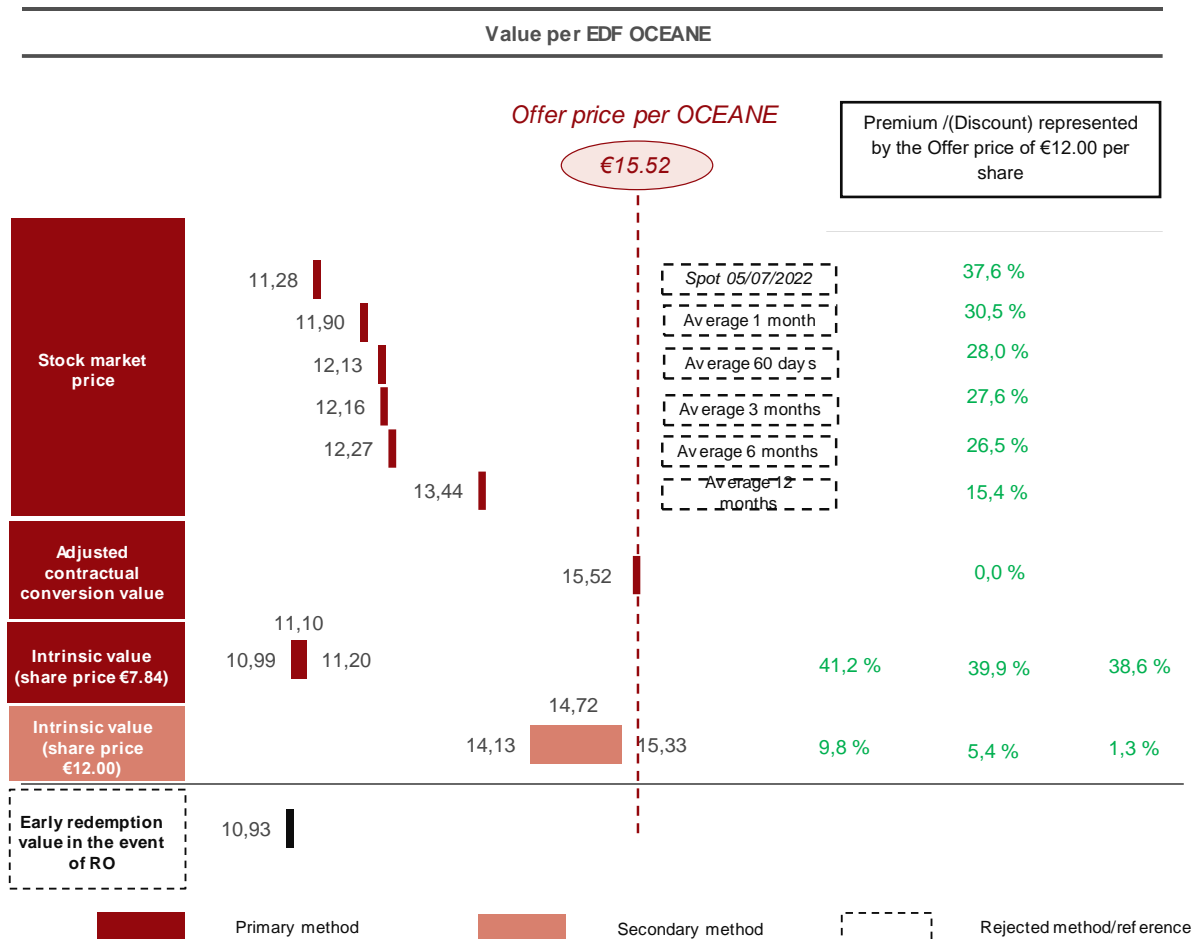
Source: FINEXSI analysis



## 13.2 The OCEANES

As a result of our work, the Offer Price of €15.52 per OCEANE, reflects the following premiums on, and discounts from, the values produced by our valuation work, based on the methods we deemed appropriate:

Figure 47 - Summary of our valuation work on the OCEANES



Source: FINEXSI analysis



### 13.3 Fairness Opinion on the Offer Price

This Offer follows the French Prime Minister's announcement of July 6, 2022, that the French Government intends to hold all of EDF's share capital and the press release of July 19, 2022, by which the French Government announced its intention to file a simplified tender offer for EDF's shares and OCEANEs.

In this context, several fundamental comments must be made before we provide our opinion:

- First of all, EDF has specific characteristics: it has a public service mission and is also exposed to regulatory risks in France, and more generally in all the countries in which it operates, based on public energy policies.

The regulations to which EDF is subject may also change rapidly depending on the political context and conditions on the international energy markets, as has been the case in recent months with very high volatility in wholesale electricity prices, leading governments to implement measures to cap increases in consumers' bills, in a variety of forms.

This constraint inherent to EDF has a specific impact on the low level of nuclear power generation, which is currently impacted by a number of incidents, hazards and risks.

These circumstances are fundamental to the valuation of EDF.

- Following the announcement, on January 13, 2022, of the allocation of an additional 20 TWh of electricity sold at regulated prices for 2022 under the ARENH scheme, the Company filed a preliminary administrative appeal with the French Government requesting that the scheme be withdrawn. On August 9, 2022, after in-depth legal analysis, the Company filed a judicial review application with the Conseil d'Etat, and a claim for compensation from the French Government for an amount estimated, at that date, at €8.34 billion.<sup>183</sup> These proceedings have been factored into our work.

As far as we are aware, there are currently no other proceedings brought by the Company against a decision of the French Government as a shareholder in EDF and as regulator, that we should take into account.

Concerning the Company's shareholders, we have been informed that, on August 31, 2022, certain minority shareholders filed a criminal complaint against X for "*putting the Company (EDF) in difficulty to the detriment of the Company's interests*". We have not been given a copy of this complaint and are therefore unable to analyze it with a view to taking its contents and its possible impact into account in our valuation work, but we note that the complaint will not be affected by the outcome of the Offer and will continue to run its course, in particular with respect to the shareholders, even if a squeeze-out is carried out.

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<sup>183</sup> Excluding compensatory interest.



- Concerning the new regulation that would be introduced in 2026 to replace the ARENH, we note that its terms are not currently precisely defined, even though certain guidelines, such as the principle of a structure suited to the constraints related to the regulation and the associated costs, and of a fixed-price regulation that covers the full costs of nuclear power generation, thereby protecting EDF against the volatility of market prices and offering stable prices for consumers, have been expressed by the French Government. It appears that the positions of the French Government, EDF and the European Commission will need to converge for there to be agreement on the terms. In this respect, our work has been based on the confidential discussions held on the regulation of the existing facilities included in the HERCULE project, which took place before the Offer was made, on which precise confirmations have been provided to us by the French Government.

With these fundamental aspects in mind, our main comments on the Offer Price are as follows:

### **Price per EDF share**

We applied a multi-criteria approach in carrying out our work, which has resulted in the following findings:

The diversity of the EDF Group's business activities led us to use the sum of the parts method as the main method for assessing the relative value of the Offer Price. This method, based on the valuation of each of the Group's business activities using the discounted cash flow method, appears to be the most relevant as it allows each of the Group's assets to be valued using criteria appropriate to its growth prospects, as well as its specific profile and risks, which can be assessed by reference to the nature of the business and its location.

It should be noted that this method was applied based on the Group's current structure, i.e., without any assumption concerning asset disposals in excess of the €3 billion disposal plan announced at the beginning of 2022. The figures resulting from our work do not therefore correspond to sale prices including control premiums and any synergies that could be paid for by a buyer under an organized sale process, which is not currently being considered by the EDF Group or its controlling shareholder.

The central scenario that we have chosen is based on a large number of assumptions of different kinds, each of which incorporates a certain level of uncertainty, and all of which constitute a coherent scenario. In this context, we prioritized sensitivity analyses of the key assumptions used in our central scenario, in order to simulate other scenarios incorporating the operational, regulatory or financial (market) risks or opportunities to which the Company is exposed.

On this sum-of-the-parts criterion, the Offer Price represents a premium of between +13.3% and +67.4%, it being noted that the cash flow approach is representative of a control value since it assumes that all cash flows are freely available.



However, in this context, the extent to which the above-mentioned claim for compensation is integrated into the valuation needs to be assessed. In this respect, we reviewed with the Company and its legal advisors the terms of the judicial review case before the Conseil d'Etat and the €8.34 billion compensation claim against the French Government. Given the uncertainty inherent in these proceedings, we have included the entire amount of the claim for compensation in our sensitivity analyses, which appears favorable to minority shareholders. The maximum amount of this claim for compensation is, after tax, €1.50 per EDF share, and €1.36 after accounting for the time effect over a period of 5 years, before any compensatory interest is paid.

The premium on the Offer Price includes 100% of the present value of the claim for compensation (€1.36 per share), but the resulting premium falls within a range of +0.4% to +40.6%.

In relation to the use of the stock market price, which is also the main criterion used, the Offer Price represents a premium of 53.0% over the last unaffected stock market price on July 5, 2022, and a premium of 43.9% over the weighted average stock market price for the 60 days preceding that date.

In relation to the claim for compensation referred to above, it may be noted that, on its announcement on August 9, 2022, the share price did not rise above the Offer Price.

In relation to the use of price targets, a criterion used as a secondary valuation method, the Offer Price represents a premium of 20.00% over the median of the price targets of financial analysts published between May 19 and July 5, 2022.

The judicial review and the claim for compensation announced on August 9, 2022, did not result in any changes being made to analysts' price targets.

On the valuation method that uses EDF's overall DCFs, provided for information purposes, the Offer Price represents premiums of 18.6% and 158.6%, respectively, over the upper and lower limits, covering 100% of the present value of the claim for compensation (€1.36 per share), but the resulting premium falls within a range of +4.5% to +99.8%.

We have no specific comments on the other methods.

### **Price per EDF OCEANE**

The Offer also covers all the OCEANEs issued by EDF.



The Offer Price for the OCEANEs corresponds to the adjusted contractual conversion value of the OCEANEs in the event of a tender offer at €12.00 per share<sup>184</sup>, the main valuation criterion.

The financial terms of the Offer do not therefore result in unequal treatment between the shareholders and the holders of the OCEANEs, as the Offer Price for the OCEANEs is calculated by applying the conversion formula provided for in the event of a tender offer to the Offer Price for the shares.

We further note that the proposed repurchase price of the OCEANEs represents a premium of 37.6% over the last unaffected trading price as of July 5, 2022, and a premium of 39.9% over the intrinsic value of the OCEANEs (using the principal valuation approach), factoring in the calculation parameters as of July 5, 2022.

### **Related agreements**

Our review of the only agreement provided in the draft offer document that could have a material influence on the assessment or the outcome of the Offer, namely the share allocation agreement entered into by the French Government and EPIC BPIFRANCE on January 15, 2018, did not contain any financial provision that might, in our opinion, call into question the fairness of the Offer from a financial perspective.

Consequently, and as of the date of this report, we are of the opinion that the Offer Price of €12.00 per share and €15.52 per OCEANE is a fair price, from a financial perspective, for EDF's shareholders, including in the event that a squeeze-out is implemented.

Signed in Paris, on October 26, 2022

FINEXSI EXPERT & CONSEIL FINANCIER

Olivier COURAU

Partner

Olivier PERONNET

Partner

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<sup>184</sup> Offer price of €15.52 per OCEANE assuming an opening date for the Offer of November 10, 2022, in accordance with the indicative timetable of the offer set out in the draft offer document dated October 21, 2022.



## Appendix 1: Information about FINEXSI, and progress of the valuation work

### Information about FINEXSI EXPERT & CONSEIL FINANCIER

FINEXSI EXPERT ET CONSEIL FINANCIER'S (FINEXSI) work is regulated by the *Ordre des Experts Comptables* (Association of Chartered Accountants) and the *Compagnie Nationale des Commissaires aux Comptes* (French national auditing body). It principally carried out the following activities:

- Statutory auditing work;
- Business acquisitions and disposals;
- Contributions and mergers;
- Independent valuations and appraisals;
- Assistance with disputes.

The firm has employees who help it to carry out such assignments, most of whom have a high level of experience and expertise in each of these specialist areas.

FINEXSI is independent and does not belong to any group or network.



## List of independent valuations carried out by FINEXSI over the last 18 months

Date	Target	Offeror	Presenting bank(s)	Transaction	Advising bank(s)(1)
mars-21	Vallourec	N/A	N/A	Proposed capital increase with preferential subscription rights and capital increase restricted to certain creditors	Rothschild & Co
mai-21	Tarkett	Tarkett Participations	BNPP, Crédit Agricole CIB, Rothschild Martin Maurel, Société Générale	Simplified Public Tender Offer followed by a Squeeze-out	-
juin-21	Bourrellier Group	M14	Invest Securities	Public Repurchase Offer	-
juin-21	Suez	Veolia Environnement	HSBC, Crédit Agricole CIB, Morgan Stanley, Bank of America	Public Tender Offer	Goldman Sachs Rothschild & Co
juin-21	Bel	Unibel SA	BNP Paribas	Public Repurchase Offer	Parella Weinberg Partners
juil.-21	SFL	Immobiliaria Colonial	Morgan Stanley	Simplified Combined Tender Offer	Natixis Partners
août-21	Genkyotex	Calliditas Therapeutics AB	Bryan, Garnier & Co	Public Repurchase Offer followed by a Squeeze-out	-
nov.-21	Prodware	Phast Invest	Banque Degroof Petercam	Public Tender Offer	-
nov.-21	SQLI	Synsion Bidco (DBAY Advisors)	Messier & Associés (Mediobanca)	Public Tender Offer	Rothschild & Co
déc.-21	LV Group	LVMH - Moët Hennessy Louis Vuitton SE	Natixis	Public Repurchase Offer	-
mai-22	Pierre & Vacances Center Parcs	N/A	N/A	Restricted capital increase and capital increase with preferential subscription rights	-
mai-22	Figeac Aero	N/A	N/A	Capital increase restricted to Tikehau Ace Capital	-
mai-22	Ucar	Goa LCD (subsidiary of Cosmobilis)	Rothschild Martin Maurel	Public Tender Offer	Rothschild & Co
juil.-22	Nextstage	Nextstage Evergreen	BNP Paribas	Simplified Public Tender Offer followed by a Squeeze-out	N/A
août-22	Technicolor Creative Studios	N/A	N/A	IPO and simultaneous distribution of 65% of the shares to Technicolor's shareholders	N/A
sept.-22	Cast	Financière Da Vinci (Bridgepoint)	Bryan, Garnier & Co	Simplified Public Tender Offer	-

(1): if different from the presenting bank



### **Membership of a professional association recognized by the Autorité des Marchés Financiers**

FINEXSI EXPERT & CONSEIL FINANCIER is a member of the APEI (Association Professionnelle des Experts Indépendants), a professional association recognized by the Autorité des Marchés Financiers under Article 263-1 of its General Regulation.

FINEXSI EXPERT & CONSEIL FINANCIER also applies procedures aimed at protecting the firm's independence, avoiding conflicts of interest and controlling, on each assignment, the quality of work and reports before they are issued.

### **Fee received**

Our fee for this work is €1.500k, excluding taxes, fees and disbursements, which represents roughly 4,300 hours of work.

### **Description of the work carried out**

The following detailed work program was implemented:

- 1 - Familiarizing ourselves with the Transaction and accepting the engagement.
- 2 - Identifying risks and scoping of the engagement.
- 3 - Gathering the information and data needed to carry out the engagement: reading sector analysis notes and analysts' notes in particular.
- 4 - Review of the specific background to the Transaction:
  - Discussions with the Company's managers;
  - Discussions with the Company's financial and legal advisors.
- 5 - Analysis of the Transaction and the related legal documentation (in particular related agreements).
- 6 - Familiarizing ourselves with the Company's accounting and financial documentation.
- 7 - Analysis of the EDF share price:
  - Analysis of changes to the price;
  - Free float and liquidity analysis.
- 8 - Analysis of recent transactions involving the Company's share capital.
- 9 - Review of the financial trajectories produced by the Company's management team (comprehensive financial trajectory and financial trajectories for each business and geographic location).





- 10 -** Producing a valuation based on the discounted cash flow method, using an overall approach and a sum-of-the-parts approach, and carrying out sensitivity analyses on a number of scenarios and various valuation parameters.
- 11 -** Producing a valuation using the analogical comparables method (method not used), using an overall approach and a sum-of-the-parts approach.
- 12 -** Analysis of analysts' price targets.
- 13 -** Analysis of the draft offer document, and in particular agreements and related transactions that may have an impact on the assessment of the Offer Price
- 14 -** Analysis of the draft response document.
- 15 -** Obtaining letters of representation from the representative of the Target Company and the Offeror.
- 16 -** Independent review.
- 17 -** Drafting the report.



## Review timeline

July 22, 2022	Presentation of FINEXSI's proposal
July 22 - 26, 2022	Discussions with the Ad Hoc Committee
July 27, 2022	Appointment of FINEXSI as independent valuer by the EDF Board of Directors
July 28, 2028	Working meeting with EDF's advisors on valuation issues (LAZARD and BNP PARIBAS)
August 2022	Gathering available public information Identification and gathering of data on market comparables from, among others, our CAPITAL IQ and MERGERMARKET financial databases
August 1, 2022	Working meeting with the EDF Legal Department
August 3, 2022	Meeting with the Ad Hoc Committee
August 4, 2022	Working meeting with EDF and its advisors - Working meeting with EDF on the operation of the ARENH and its outlook (volume, price, etc.) - Q&A session
August 9, 2022	Working meeting with MORGAN STANLEY's ECM teams on (hybrid) financing topics - Q&A session
August 10, 2022	Working meetings with EDF and its advisors, on the ARENH dispute, the DataPack, the underlying assumptions and on financing issues (hybrids) - Q&A session
August 10, 2022	Meeting with the Presenting Institutions on their valuation work
August 11, 2022	Working meeting with MORGAN STANLEY on valuation assumptions (realistic scenario, sensitivities, etc.)
August 12, 2022	Discussions with the Presenting Institutions and MORGAN STANLEY on the OCEANES
August 12, 2022	Meeting with the Ad Hoc Committee
August 16, 2022	Working meeting with EDF on nuclear power
August 16, 2022	Working meeting with EDF on accounting issues, the EV-EqV transition and assets/liabilities relating to public electricity distribution concessions in France (ENEDIS)



August 19, 2022	Working meeting with EDF on the consensus (comparison against the financial trajectory, etc.)
August 22, 2022	Working meeting with the Offeror's advisors and MORGAN STANLEY
August 23, 2022	Meeting with the Offeror and the Presenting Institutions on their vision of the ARENH mechanism up until 2025, the litigation regarding the additional allocation of a maximum of 20 TWh of electricity sold at regulated prices for 2022 under the ARENH mechanism, the implementation of a new regulation for existing nuclear power from 2026, and on new nuclear projects
August 23, 2022	Working meeting with MORGAN Stanley
August 25, 2022	Meeting with the Ad Hoc Committee
August 25, 2022	Working meeting with EDF on new nuclear projects and renewable energy
August 26, 2022	Working meeting with the Presenting Institutions and MORGAN STANLEY
August 26, 2022	Working meeting with MORGAN Stanley
August 29, 2022	Working meeting with EDF and its advisors
August 31, 2022	Meeting with the Ad Hoc Committee
September 1, 2022	Meeting with the Presenting Institutions on the valuation methods and assumptions used by the Offeror
September 2, 2022	Meeting with the EDF Finance Department on the minutes of discussions with the Presenting Institutions
September 5, 2022	Workshop on separation costs (quantification) with the EDF Strategy Department
September 5, 2022	Workshop on separation costs (legal framework) with the EDF Legal Department
September 6, 2022	Workshop on post-2026 regulated prices with the EDF Finance Department
September 6, 2022	Review of the proposed timelines with the Offeror's advisors
September 7, 2022	Follow-up meeting and preparation of the Ad Hoc Committee with the EDF Finance Department



September 8, 2022	Follow-up meeting and workshop on the latest 2022 projections with the EDF Finance Department
September 8, 2022	Meeting with the Ad Hoc Committee
September 26, 2022	Meeting with the Offeror's advisors and MORGAN STANLEY
September 29, 2022	Meeting with the Ad Hoc Committee
October 1, 2022	Conference call with the Offeror and its advisors
October 4, 2022	Meeting with the Ad Hoc Committee
October 12, 2022	Meeting with the Ad Hoc Committee
August - October 2022	Drafting of the fairness opinion
October 19 to 26, 2022	Independent review of FINEXSI's report
October 26, 2022	Delivery of the fairness opinion to the Ad Hoc Committee
October 27, 2022	Meeting of EDF's Board of Directors



### **List of the principal people we met or had contact with**

#### **EDF**

- Jean-Bernard LEVY, Chairman and CEO of the Group;
- Xavier GIRRE, Group Senior Executive Vice-President, responsible for the Finance Division;
- Pierre TODOROV, Group General Secretary;
- Sabine LE GAC, Group Legal Director;
- Anne Charlotte PORRET, Secretary of the Board of Directors;
- Catherine BAUBY, Group Strategy Director;
- Nathalie PIVET, Director of the Performance Management and Synthesis Department;
- Laurent PERDIOLAT, Director of the Financial Trajectory and Regulation Division;
- Thomas PERROTIN, Head of the Long-Term Challenges Department in France (Financial and Regulatory Trajectory Division);
- Bernard DESCREUX, Group Treasury Financing Director;
- Isabelle TRIQUERA-GONBEAU, Group Accounting and Tax Director;
- Emilio ZITO, Investors and Markets Director;
- Nicolas DEBLAYE, Senior Investor Relations Manager;
- Anne Lafont, Legal, Finance and M&A Director.

#### **Ad Hoc Committee established by EDF's Board of Directors**

- Bruno CREMEL, Chairman of the Ad Hoc Committee, Independent Director;
- Colette LEWINER, Independent Director;
- Philippe PETITCOLIN, Independent Director;
- Christian TAXIL, Director elected by the employees.

#### **BNP PARIBAS, advisor to EDF**

- Bruno VILLARD, Head of M&A EMEA;





- Thierry DORMEUIL, Managing Director;
- Nicolas CUZOL, Managing Director;
- Florent BOULENC, Vice President;
- Loïc SAINT GERMAIN, Vice President;
- Valentin MORONVAL, Associate;
- Valentin BONHOMME, Analyst.

LAZARD, advisor to EDF

- Jean Louis GIRODOLLE, Managing Partner;
- Cédric LEOTY, Managing Director;
- Maxime NORDIN, Vice President;
- Hugo TOUJAS, Associate;
- Vincent THARAUD, Analyst.

MORGAN STANLEY, advisor to the Ad Hoc Committee

- Yves AYACHE, Managing Director;
- Thomas CONTENAY, Managing Director;
- Maxime STEVIGNON, Managing Director;
- Benjamin DELION, Vice President;
- Victor MOLHO, Vice President;
- Simon APPERT, Associate;
- Sacha TENENBAUM, Analyst;
- Julie LIN, Analyst.

BREDIN PRAT, legal counsel to EDF





- Benjamin KANOVITCH, Partner;
- Clémence FALLET, Partner;
- Charles SAHEL, Assistant.

DARROIS VILLEY MAILLOT BROCHIER, legal advisor to the Ad hoc Committee

- Bertrand CARDI, Partner;
- Christophe VINSONNEAU, Partner;
- Cécile de NARP, Counsel.

AGENCE DES PARTICIPATIONS DE L'ÉTAT (APE)

- Stéphanie BESNIER, Deputy Chief Executive Officer;
- Sébastien JUSTUM, Deputy Director of Energy Investments;
- Céline FORNARO, Head of the Finance Division;
- Arthur FAUST, Investment Officer;
- Etienne SIMON, Investment Officer.

Presenting Institutions

GOLDMAN SACHS

- Anne BIZIEN, Managing Director;
- Maxime KENNEL, Managing Director;
- Daphne LEBAS, Associate;
- Pierre RIDWAN, Associate;
- Alexandre SPAETH, Associate;
- Théo GERSPACHER, Analyst.





## SOCIÉTÉ GÉNÉRALE

- Patrick PERREAULT, Managing Director;
- Julien BENHAMOU, Managing Director;
- Colomban MATHIEU DE VIENNE, Director;
- Fabien CLOUARD, Associate;
- Gatien POIRIER, Analyst;
- Loic GUILLLOT, Analyst.

### CLEARY GOTTlieb, legal counsel to the Offeror

- Pierre-Yves CHABERT, Partner;
- Laura BOURNHONESQUE, Associate.

### **Information sources used**

#### Main source of information provided by the various stakeholders

- Financial trajectories for each business activity;
- Minutes of Board meetings held from February 2020 to date;
- EDF valuation report prepared by the Presenting Institutions;
- Draft offer document and Draft Response Document;
- Letters of representation from the Company and the Offeror.

#### Market information

- EDF's financial communications (Universal Registration Documents and half-yearly financial reports) for fiscal years 2017 to 2022 (up until the half-yearly report for the first half of 2022);
- EDF's communications about the Transaction (press releases, investor presentations, etc.);
- Stock market prices, market comparables, market consensus: CAPITAL IQ, MERGERMARKET, EPSILON, etc.;
- Market data (risk-free rate, risk premium, beta, etc.): CAPITAL IQ, ASSOCIÉS en Finance, DAMODARAN, BANQUE DE FRANCE;
- Others: XERFI.





### **Employees involved in the engagement**

The signatories, Olivier PERONNET (Partner, more than 35 years' experience) and Olivier COURAU (Partner, more than 30 years' experience), were assisted by Maxime ROGEON (Managing Partner, 13 years' experience), Janah BENKIRANE (Manager), Arthur LANDES (Senior Associate), Célio SIMON (Associate), Jonathan BAUDIFFIER (Analyst) and Mohamed-Amine RAKIBE (Analyst).

The independent review was carried out by Lucas ROBIN, a Partner at the firm who specializes in financial valuations and who was not involved in the valuation work.

He was appointed at the beginning of the engagement and was kept informed of key matters or difficulties identified during the engagement up until the report was issued. His role was to ensure that the work was of the appropriate quality and that good valuation practices were applied. His work principally involved:

- Reviewing the engagement acceptance procedure and the assessment of the firm's independence;
- Reviewing the valuation work carried out by the team and the findings resulting from that work;
- Reviewing the documents on which the opinion of the signatory partners is based and assessing the format and findings of the report.

His work was formally documented and discussed with the signatory partners.



## **Appendix 2: the Independent Appraiser's engagement letter**