



## €45,000,000,000 EURO MEDIUM TERM NOTE PROGRAMME

Under the Euro Medium Term Note Programme (the “**Programme**”) described in this base prospectus (the “**Base Prospectus**”), Électricité de France SA (the “**Issuer**” or “**EDF**” or “**Électricité de France**”), subject to compliance with all relevant laws, regulations and directives, may from time to time issue Euro Medium Term Notes (the “**Notes**”) to qualified investors and the public in France or in any other Member State of the European Economic Area (the “**EEA**”) where this Base Prospectus has been notified to the competent authority in that Member State in accordance with Regulation (EU) 2017/1129 as may be amended from time to time (the “**Prospectus Regulation**”). The aggregate nominal amount of Notes outstanding will not at any time exceed Euro 45,000,000,000 (or the equivalent in other currencies at the date of issue of any Notes).

This Base Prospectus (together with any supplements thereto) constitutes a base prospectus for the purposes of Article 8 of the Prospectus Regulation. This Base Prospectus has been approved by the Autorité des marchés financiers (the “**AMF**”) in France in its capacity as competent authority under the Prospectus Regulation and pursuant to the French Code monétaire et financier and received the AMF visa no. 19-540 on 21 November 2019. The AMF only approves this Base Prospectus as meeting the standards of completeness, comprehensibility and consistency imposed by the Prospectus Regulation. Such approval should not be considered as an endorsement of the Issuer and of the quality of the Notes which are subject to this Base Prospectus. Investors should make their own assessment as to the suitability of investing in the Notes.

Application may be made (i) to Euronext Paris during the period of twelve (12) months from the date of this Base Prospectus for Notes issued under the Programme to be admitted to trading and/or (ii) to the competent authority of any other EEA Member State for Notes issued under the Programme to be admitted to trading on a Regulated Market (as defined below) in such Member State. Euronext Paris is a regulated market (a “**Regulated Market**”) for the purposes of Directive 2014/65/EU on markets in financial instruments of 15 May 2014, as amended (“**MiFID II**”). However, Notes may be issued pursuant to the Programme which are not admitted to trading on any Regulated Market. The relevant final terms (the “**Final Terms**”) (a form of which is contained herein) in respect of the issue of any Notes will specify whether or not such Notes will be admitted to trading, and, if so, the relevant Regulated Market. The minimum denomination of each Note will be €1,000 (or, if the Notes are denominated in a currency other than euro, the equivalent amount in such currency).

The Programme has been rated “A3” (senior unsecured debt) by Moody’s Investors Service Ltd. (“**Moody’s**”) and “A-” (long-term debt) by S&P Global Ratings (“**S&P**”). As of the date of this Base Prospectus, the Issuer’s long-term and short-term debt has been respectively rated (i) “A3” and “P-2” with stable outlook by Moody’s, (ii) “A-” and “A-2” with negative outlook by S&P and (iii) “A-” and F2 with stable outlook by Fitch Ratings Limited (“**Fitch Ratings**”). Each of Moody’s, S&P and Fitch Ratings is established in the European Union, is registered under Regulation (EC) No 1060/2009 of 16 September 2009 on credit rating agencies as amended (the “**CRA Regulation**”) and is included in the list of registered credit rating agencies published on the website of the European Securities and Markets Authority ([www.esma.europa.eu/supervision/credit-rating-agencies/risk](http://www.esma.europa.eu/supervision/credit-rating-agencies/risk)). Notes issued pursuant to the Programme may be unrated or rated differently from the current ratings of the Programme. The rating(s) of the Notes (if any) will be specified in the relevant Final Terms, including as to whether or not such credit ratings are issued by credit rating agencies established in the European Union, registered (or which have applied for registration) under the CRA Regulation and included in the list of registered credit rating agencies published on the website of the European Securities and Markets Authority ([www.esma.europa.eu/supervision/credit-rating-agencies/risk](http://www.esma.europa.eu/supervision/credit-rating-agencies/risk)).

[agencies/risk](#)). A rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, change or withdrawal at any time by the assigning rating agency without notice.

Notes may be issued either in dematerialised form (“**Dematerialised Notes**”) or in materialised form (“**Materialised Notes**”) as more fully described herein. Dematerialised Notes will at all times be in book entry form in compliance with Article L.211-3 et seq. and R.211-1 et seq. of the French Code monétaire et financier. No physical documents of title will be issued in respect of the Dematerialised Notes.

Dematerialised Notes may, at the option of the Issuer, be in bearer dematerialised form (au porteur) inscribed as from the issue date in the books of Euroclear France (“**Euroclear France**”) (acting as central depository) which shall credit the accounts of Account Holders (as defined in “Terms and Conditions of the Notes — Form, Denomination(s), Title and Redenomination”) including Euroclear Bank SA/NV (“**Euroclear**”) and the depository bank for Clearstream Banking S.A. (“**Clearstream**”) or in registered dematerialised form (au nominatif) and, in such latter case, at the option of the relevant Noteholder (as defined in “Terms and Conditions of the Notes — Form, Denomination(s), Title and Redenomination”), in either fully registered form (au nominatif pur), in which case they will be inscribed either with the Issuer or with the registration agent (designated in the relevant Final Terms) for the Issuer, or in administered registered form (au nominatif administré) in which case they will be inscribed in the accounts of the Account Holders designated by the relevant Noteholders.

Materialised Notes will be in bearer materialised form only and may only be issued outside France. A temporary global certificate in bearer form without interest coupons attached (a “**Temporary Global Certificate**”) will initially be issued in connection with Materialised Notes. Such Temporary Global Certificate will be exchanged for Definitive Materialised Notes in bearer form with, where applicable, coupons for interest attached, on or after a date expected to be on or about the 40th day after the issue date of the Notes (subject to postponement as described in “Temporary Global Certificates issued in respect of Materialised Bearer Notes”) upon certification as to non-U.S. beneficial ownership as more fully described herein.

Temporary Global Certificates will (a) in the case of a Tranche (as defined in “Terms and Conditions of the Notes – Form, Denomination(s), Title, Redenomination”) intended to be cleared through Euroclear and/or Clearstream, be deposited on the issue date with a common depository on behalf of Euroclear and/or Clearstream and (b) in the case of a Tranche intended to be cleared through a clearing system other than or in addition to Euroclear and/or Clearstream or delivered outside a clearing system, be deposited as agreed between the Issuer and the relevant Dealer (as defined below).

Notice of the aggregate nominal amount of Notes, interest (if any) payable in respect of Notes, the issue price of Notes and any other terms and conditions not contained herein which are applicable to each Tranche of Notes will be set out in the Final Terms.

**Prospective investors should have regard to the factors described under the section headed “Risk Factors” in this Base Prospectus in connection with any investment in any of the Notes issued under the Programme.**

This Base Prospectus, any documents incorporated by reference herein, any supplements thereto (if any) and, so long as Notes are admitted to trading on any Regulated Market in accordance with the Prospectus Regulation, the Final Terms relating to such Notes can be obtained free of charge from the registered office of the Issuer and will be published on the websites of (a) the Issuer ([www.edf.com](http://www.edf.com)) and (b), provided they constitute documents on which the AMF has granted a filing or visa number, the AMF ([www.amf-france.org](http://www.amf-france.org)).

This Base Prospectus shall be valid for admission to trading of Notes on a Regulated Market for twelve (12) months after the approval by the AMF, until 21 November 2020, provided that it is completed by any supplement, pursuant to Article 23 of the Prospectus Regulation, following the occurrence of a significant new factor, a material mistake or a material inaccuracy relating to the information included (including information incorporated by reference) in this Base Prospectus which may affect the assessment of the Notes. After such date, the Base

*Prospectus will expire and the obligation to supplement this Prospectus in the event of significant new factors, material mistakes or material inaccuracies will no longer apply.*

*Arranger for the Programme*  
**BNP PARIBAS**

*Dealers*

**BNP PARIBAS**

**Société Générale Corporate & Investment Banking**

**Crédit Agricole CIB**

*The date of this Base Prospectus is 21 November 2019.*

This Base Prospectus (together with any supplements thereto published from time to time (each a “Supplement” and, together, the “Supplements”)) constitutes a base prospectus for the purposes of Article 8 of the Prospectus Regulation, and for the purposes of giving all necessary information, with regard to the Issuer and its fully consolidated subsidiaries (the “EDF Group”) and the Notes, which is material to an investor for making an informed assessment of the assets and liabilities, financial position, profit and losses and prospects of the Issuer and the rights attached to the Notes.

This Base Prospectus should be read and construed in conjunction with any Supplement thereto and with any relevant information of the documents incorporated by reference (see “*Documents Incorporated by Reference*”), the information of which shall be incorporated in and form part of this Base Prospectus and, in relation to any Series (as defined herein) of Notes, should be read and construed together with the relevant Final Terms, the Base Prospectus and the relevant Final Terms being together, the “Prospectus”.

No person has been authorised by the Issuer to give any information or to make any representation not contained in or not consistent with this Base Prospectus or any other document entered into in relation to the Programme or any information supplied by the Issuer or such other information as is in the public domain and, if given or made, such information or representation should not be relied upon as having been authorised by the Issuer, the Dealers or the Arranger.

No representation or warranty is made or implied by the Dealers or any of their respective affiliates, and none of the Dealers or any of their respective affiliates makes any representation or warranty or accepts any responsibility, as to the accuracy or completeness of the information contained in this Base Prospectus. Neither the delivery of this Base Prospectus or any Final Terms nor the offering, sale or delivery of any Note shall, in any circumstances, create any implication that the information contained in this Base Prospectus is true subsequent to the date thereof or the date upon which this Base Prospectus has been most recently amended or supplemented or that there has been no adverse change in the financial situation of the Issuer since the date thereof or, as the case may be, the date upon which this Base Prospectus has been most recently amended or supplemented or that any other information supplied in connection with the Programme is correct at any time subsequent to the date on which it is supplied or, if different, the date indicated in the document containing the same.

Each prospective investor in the Notes must determine, based on its own independent review and such professional advice as it deems appropriate under the circumstances, that its acquisition of the Notes is fully consistent with its financial needs, objectives and condition, complies and is fully consistent with all investment policies, guidelines and restrictions applicable to it and is a fit, proper and suitable investment for it, notwithstanding the clear and substantial risks inherent in investing in or holding the Notes.

A prospective investor may not rely on the Issuer or the Dealers, the Arranger or any of their respective affiliates in connection with its determination as to the legality of its acquisition of the Notes or as to the other matters referred to above.

The distribution of this Base Prospectus, any Final Terms, any offering materials under the Programme and the offering, sale and delivery of the Notes in certain jurisdictions may be restricted by law.

No action has been taken by the Issuer, the Dealers or the Arranger which would permit a public offering of any Notes or distribution of this Base Prospectus in any such jurisdiction where action for that purpose is required. Accordingly no Notes may be offered or sold, directly or indirectly and neither this Base Prospectus nor any Final Terms or other offering material may be distributed or published in any jurisdiction, except under circumstances that will result in compliance with any applicable laws and regulations and the Dealers have represented that all offers and sales by them will be

made on the same terms. Persons into whose possession this Base Prospectus or any Final Terms come are required by the Issuer and the Dealers to inform themselves about and to observe any such restrictions.

Neither this Base Prospectus nor any Final Terms constitutes an offer of, or an invitation by or on behalf of the Issuer, any of the Dealers or the Arranger to subscribe for, or purchase, any Notes.

For a description of certain restrictions on offers, sales and deliveries of Notes and on the distribution of this Base Prospectus or any Final Terms and other offering material relating to the Notes, see “Subscription and Sale” herein.

**PRIIPs / IMPORTANT - EEA RETAIL INVESTORS** – If the Final Terms in respect of any Notes include a legend entitled “Prohibition of Sales to EEA Retail Investors”, the Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the EEA. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, “MiFID II”); or (ii) a customer within the meaning of Directive (EU) 2016/97, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Regulation. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the “PRIIPs Regulation”) for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

**MiFID II Product Governance / Target Market** – The Final Terms in respect of any Notes will include a legend entitled “MiFID II Product Governance” which will outline the target market assessment in respect of the Notes, taking into account the five (5) categories referred to in item 18 of the Guidelines published by the European Securities and Markets Authority (ESMA) on 5 February 2018 and which channels for distribution of the Notes are appropriate. Any person subsequently selling or recommending the Notes (a “distributor” as defined in MiFID II) should take into consideration the target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the target market assessment) and determining appropriate distribution channels.

A determination will be made in relation to each issue about whether, for the purpose of the MiFID II Product Governance rules under EU Delegated Directive 2017/593 (the “MiFID II Product Governance Rules”), any Dealer subscribing for any Notes is a manufacturer as defined in MiFID II in respect of such Notes, but otherwise neither the Arranger nor the Dealers nor any of their respective affiliates will be a manufacturer for the purpose of the MiFID II Product Governance Rules. For the avoidance of doubt, the Issuer is not a MiFID II regulated entity and does not qualify as a distributor or a manufacturer under MiFID II Product Governance Rules.

**Legality of Purchase**- Neither the Issuer, the Dealers, the Arranger nor any of their respective affiliates has or assumes responsibility for the lawfulness of the acquisition of the Notes by a prospective investor in the Notes, whether under the laws of the jurisdiction of its incorporation or the jurisdiction in which it operates (if different), or for compliance by that prospective investor with any law, regulation or regulatory policy applicable to it.

Investors whose investment activities are subject to investment laws and regulations or to review or regulation by certain authorities may be subject to restrictions on investments in certain types of debt securities. Investors should review and consider such restrictions prior to investing in the Notes.

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### DESCRIPTION OF THE PROGRAMME

*This general description must be read as an introduction to this Base Prospectus and is qualified in its entirety by the remainder of this Base Prospectus.*

*Words and expressions defined in the "Terms and Conditions of the Notes" below or elsewhere in this Base Prospectus have the same meaning in this summary.*

<b>Issuer:</b>	Électricité de France (the " <b>Issuer</b> ")
<b>Description:</b>	Euro Medium Term Note Programme (the " <b>Programme</b> ")
<b>Size:</b>	Up to €45,000,000,000 (or the equivalent in other currencies at the date of issue of any Notes) aggregate nominal amount of Notes outstanding at any one time pursuant to the Programme. The size of the Programme may be increased in accordance with the terms of the Dealer Agreement.
<b>Arranger:</b>	BNP Paribas
<b>Dealers:</b>	BNP Paribas, Crédit Agricole Corporate and Investment Bank and Société Générale.  The Issuer may from time to time terminate the appointment of any dealer under the Programme or appoint one or more additional dealers either generally in respect of the Programme or in relation to a particular Tranche of Notes. References to " <b>Permanent Dealers</b> " are to the persons listed above as Dealers and to such additional persons that are appointed as dealers in respect of the whole Programme (and whose appointment has not been terminated) and to " <b>Dealers</b> " are to all Permanent Dealers and all persons appointed as a dealer in respect of one or more Tranches.
<b>Fiscal Agent, Paying Agent and Calculation Agent:</b>	Société Générale
<b>Method of Issue:</b>	Notes may be distributed on a syndicated or non-syndicated basis.
<b>Listing and Trading:</b>	As specified in the relevant Final Terms, a Series of Notes may or may not be listed and admitted to trading on Euronext Paris and/or any Regulated Market or any other stock exchange.
<b>Clearing Systems:</b>	Euroclear France as central depository in relation to Dematerialised Notes and, in relation to Materialised Notes, Clearstream and Euroclear or any other clearing system that may be agreed between the Issuer, the Fiscal Agent and the relevant Dealer.
<b>Issuance in Series:</b>	Notes will be issued in Series. Each Series may comprise one or more Tranches issued on different issue dates. The Notes of each Series will all be subject to identical terms, except that the issue price, the issue date, the amount of the first payment of interest and the nominal amount of the Tranche may be different in respect of different Tranches. The Notes of each Tranche will all be subject to identical terms in all respects save that a Tranche may comprise

Notes of different denominations.

**Forms of Notes:**

Notes may be issued in either dematerialised form ("**Dematerialised Notes**") or in materialised form ("**Materialised Notes**").

Dematerialised Notes may, at the option of the Issuer, be issued in bearer dematerialised form (*au porteur*) or in registered dematerialised form (*au nominatif*) and, in such latter case, at the option of the relevant Noteholder, in either fully registered form (*au nominatif pur*) or administered registered form (*au nominatif administré*) form. No physical documents of title will be issued in respect of Dematerialised Notes.

Materialised Notes will be in bearer materialised form only and may only be issued outside of France. A temporary Global Certificate in bearer form will be issued initially in respect of each Tranche of Materialised Notes.

**Currencies:**

Notes may be denominated in any currency or currencies, subject to compliance with all applicable legal and/or regulatory and/or central bank requirements.

**Status of the Notes:**

Notes and, where applicable, any related Coupons, will constitute direct, unconditional, unsubordinated and (subject to the provisions of the Negative Pledge set out in Condition 4 (see below)) unsecured obligations of the Issuer and will rank *pari passu* without any preference among themselves and (subject to such exceptions as are from time to time mandatory under French law) equally and rateably with all other present or future unsecured and unsubordinated obligations of the Issuer.

**Negative Pledge**

So long as any of the Notes remains outstanding, the Issuer has agreed that it will not create or have outstanding any mortgage, charge, pledge or other security interest upon the whole or any part of its undertaking, revenues or assets, present or future, in order to secure any Indebtedness (as defined below), or any guarantee or indemnity in respect of any Indebtedness, without at the same time according to the Notes the same security.

"**Indebtedness**" means any indebtedness of the Issuer which, in each case, is in the form of or represented by any bond, note, debenture, debenture stock, loan stock, certificate or other instrument which is, or is capable of being, listed, quoted or traded on any stock exchange or in any securities market (including, without limitation, any over-the-counter market).

For the avoidance of doubt, the Indebtedness shall include any obligations of the Issuer under dematerialised debt securities that may be issued from time to time by the Issuer and are traded under a book-entry transfer system.

**Issue Price:**

Notes may be issued at their nominal amount or at a discount or premium to their nominal amount.

The price and amount of Notes to be issued under the Programme will be determined by the Issuer and the



## Description of the Programme

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	relevant Dealer(s) at the time of issue on the basis of the prevailing market conditions.
<b>Maturities:</b>	Subject to compliance with all relevant laws, regulations and directives, any maturity from one month from the date of original issue, as specified in the relevant Final Terms.
<b>Redemption:</b>	The relevant Final Terms will specify the redemption amounts payable in accordance with the Terms and Conditions of the Notes. The Issuer may also purchase and, subject to applicable laws and regulations, hold or cancel the Notes so purchased.
<b>Optional Redemption:</b>	The Final Terms issued in respect of each issue of the Notes will state whether such Notes may be redeemed prior to their stated maturity at the option of the Issuer (either in whole or in part) or at the option of the Noteholders and if so the terms applicable to such redemption.
<b>Make-Whole Redemption by the Issuer:</b>	If a Make-Whole Redemption by the Issuer is specified in the relevant Final Terms as applicable, in respect of any Series of Notes, the Issuer will have the option to redeem all (but not some only) of the Notes of such Series at any time prior to their Maturity Date at their relevant Make-Whole Redemption Amount.
<b>Residual Maturity Call Option:</b>	If a Residual Maturity Call Option is specified in the relevant Final Terms as applicable, in respect of any Series of Notes, the Issuer will have the option to redeem the Notes of such Series, in whole but not in part, at any time as from the Residual Maturity Call Option Date (as specified in the relevant Final Terms), which shall be no earlier than six (6) months before the Maturity Date of the relevant Notes.
<b>Early redemption:</b>	Except as provided in "Optional Redemption", "Make-Whole Redemption by the Issuer" and "Residual Maturity Call Option" above, Notes will be redeemable at the option of the Issuer prior to their stated maturity only for taxation reasons.
<b>Interest:</b>	Notes may bear interest or not. Interest (if any) may accrue at a fixed rate or a floating rate.
<b>Fixed Rate Notes:</b>	Fixed interest amounts will be payable in arrears on the date or dates in each year specified in the relevant Final Terms.

## Description of the Programme

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<b>Floating Rate Notes:</b>	<p>Floating Rate Notes will bear interest determined separately for each Series as follows:</p> <ul style="list-style-type: none"><li>(i) on the same basis as the floating rate under a notional interest rate swap transaction in the relevant Specified Currency governed by an agreement incorporating the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. or the definitions set out in the FBF Master Agreement, in each case as supplemented or amended as at the Issue Date of a particular issue of Notes; or</li><li>(ii) by reference to LIBOR, EURIBOR, SONIA or CMS Rate, as specified in the relevant Final Terms,</li></ul> <p>in both cases as adjusted for any applicable margin or any successor or alternative rate. Unless a higher rate is stated in the applicable Final Terms, the minimum rate of interest (including any applicable margin) shall be deemed to be zero.</p>
<b>Zero Coupon Notes:</b>	<p>Zero Coupon Notes may be issued at their nominal amount or at a discount to it and will not bear interest.</p>
<b>Fixed/Floating Rate Notes:</b>	<p>Fixed/Floating Rate Notes may bear interest at a rate (i) that the Issuer may elect to convert on the date set out in the Final Terms from a Fixed Rate to a Floating Rate, or from a Floating Rate to a Fixed Rate or (ii) that will automatically change from a Fixed Rate to a Floating Rate, or from a Floating Rate to a Fixed Rate at the date(s) set out in the Final Terms.</p>
<b>Denominations:</b>	<p>Notes shall be issued in the specified denomination(s) set out in the relevant Final Terms (the "<b>Specified Denomination(s)</b>") subject to compliance with the regulations of the relevant central bank (or equivalent body) or any laws or regulations applicable to the relevant Specified Currency and save that the minimum denomination of each Note listed and admitted to trading on a Regulated Market, or offered to the public, in a Member State of the EEA in circumstances which require the publication of a prospectus under the Prospectus Regulation will be Euro 1,000 (or, if the Notes are denominated in a currency other than euro, the equivalent amount in such currency at the issue date). Dematerialised Notes shall be issued in one Specified Denomination only.</p>
<b>Events of Default:</b>	<p>There will be events of default in respect of the Notes as further described in Condition 9 (<i>Events of Default</i>).</p>

<b>Taxation:</b>	<p>All payments of principal, interest and other revenues by or on behalf of the Issuer in respect of the Notes shall be made free and clear of, and without withholding or deduction for, any taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or within France or any authority therein or thereof having power to tax, unless such withholding or deduction is required by law.</p> <p>If French law should require that payments of principal or interest in respect of any Note or Coupon be subject to deduction or withholding in respect of any present or future taxes or duties whatsoever, the Issuer will, to the fullest extent then permitted by law, pay such additional amounts as shall result in receipt by the Noteholders or, if applicable, the Couponholders, as the case may be, of such amounts as would have been received by them had no such withholding or deduction been required, subject to such exceptions as are further set out in Condition 8(b).</p>
<b>Rating:</b>	<p>The Programme has been rated "A3" (senior unsecured debt) by Moody's Investors Service Ltd. ("<b>Moody's</b>") and "A-" (long-term debt) by S&amp;P Global Ratings ("<b>S&amp;P</b>"). As of the date of this Base Prospectus, the Issuer's long-term and short-term debt has been respectively rated (i) "A3" and "P-2" with stable outlook by Moody's, (ii) "A-" and "A-2" with negative outlook by S&amp;P and (iii) "A-" and F2 with stable outlook by Fitch Ratings Limited ("<b>Fitch Ratings</b>").</p>
<b>Governing Law:</b>	<p>The Notes (and, where applicable, the Coupons and the Talons) are governed by, and shall be construed in accordance with, French law.</p>
<b>Selling Restrictions:</b>	<p>Restrictions may apply to the offer, sale or delivery of Notes and on the distribution of offering material in various jurisdictions. See section "<i>Subscription and Sale</i>" herein.</p>
<b>Use of Proceeds</b>	<p>The net proceeds of the issue of each Tranche will be applied by the Issuer to meet part of its general financing requirements, to finance investments in eligible projects or to finance any other particular identified use of proceeds set out in the relevant Final Terms.</p>
<b>Representation of Noteholders</b>	<p>of Noteholders will, in respect of all Tranches in any Series, be grouped automatically for the defence of their common interests in a masse (in each case, the "<b>Masse</b>").</p> <p>The Masse will act in part through a representative (the "<b>Representative</b>") and in part through collective decisions of the Noteholders. The names and addresses of the Representative and its alternate, if any, will be set out in the relevant Final Terms. The Representative appointed in respect of the first Tranche of any Series of the Notes will be the representative of the single Masse of all Tranches in such Series.</p>

### RISK FACTORS

#### A. RISK FACTORS RELATING TO THE NOTES

*Factors which the Issuer believes are specific to the Notes and material for an informed investment decision with respect to investing in the Notes issued under the Programme are described below. In each category below the Issuer sets out the most material risks (in descending order of importance), taking into account the negative impact of such risks and the probability of their occurrence.*

*Prospective investors should read the detailed information set out elsewhere in this Base Prospectus (including any document incorporated by reference herein, in particular section 2.1 (“Risks to which the EDF Group is exposed”) of the 2018 Document de Référence and section 8 (“Principal risks and uncertainties for the second half-year of 2019”) of the 2019 Half-Year Management Report and should consult their own financial and legal advisers about risks associated with investment in a particular Series of Notes and the suitability of investing in the Notes in light of their particular circumstances.*

*Terms defined herein shall have the same meaning as in the Terms and Conditions of the Notes.*

#### **Risks related to all Series of Notes**

##### ***Credit Risk***

An investment in the Notes involves credit risk on the Issuer. Since the Notes are unsecured obligations of the Issuer, benefiting from no direct recourse to any assets or guarantees, the Noteholders can only rely on the ability of the Issuer to pay any amount due under the Notes. The value of the Notes will depend on the creditworthiness of the Issuer. If the creditworthiness of the Issuer deteriorates, the potential impact on the Noteholder could be very high. A deterioration in creditworthiness could give rise to very serious negative repercussions on the Noteholders because: (i) the Issuer may not be able to fulfil all or part of its payment obligations under the Notes, (ii) the market value of the Notes may decrease, and (iii) investors may lose all or part of their investment.

##### ***French insolvency law***

As a *société anonyme* incorporated in France, French insolvency laws apply to the Issuer. Subject to the provisions of the relevant Final Terms, the Noteholders, in respect of all Tranches in any Series, will be grouped automatically for the defence of their common interests in a *Masse*, as defined in Condition 11 (*Representation of Noteholders*). However, under French insolvency law, holders of debt securities are automatically grouped into a single assembly of holders (the “**Assembly**”) in the event of the opening in France of safeguarding proceedings (*procédure de sauvegarde*), accelerated financial safeguarding proceedings (*procédure de sauvegarde financière accélérée*), accelerated safeguarding proceedings (*procédure de sauvegarde accélérée*), or a judicial restructuring (*procédure de redressement judiciaire*) of the Issuer, in order to defend their common interests.

The Assembly comprises holders of all debt securities issued by the Issuer (including the Notes), whether or not under a debt issuance programme (EMTN) and regardless of their governing law.

The Assembly deliberates on the draft safeguarding plan (*projet de plan de sauvegarde*), draft accelerated financial safeguarding plan (*projet de plan de sauvegarde financière accélérée*), draft accelerated safeguarding proceedings plan (*projet de plan de procédure de sauvegarde accélérée*), or draft restructuring plan (*projet de plan de redressement*) applicable to the Issuer and may further agree to:

- increase the liabilities (*charges*) of holders of debt securities (including the Noteholders) by rescheduling and/or writing-off debts;

## Risk Factors

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- establish an unequal treatment between holders of debt securities (including the Noteholders) as appropriate under the circumstances; and/or
- decide to convert debt securities (including the Notes) into shares.

Decisions of the Assembly will be taken by a two-third majority (calculated as a proportion of the debt securities held by the holders attending such Assembly or represented thereat). No quorum is required on convocation of the Assembly.

For the avoidance of doubt, the provisions relating to the Representation of the Noteholders described in this Base Prospectus will not be applicable to the extent that they conflict with compulsory insolvency law provisions that apply in these circumstances.

It should be noted that a directive “on preventive restructuring frameworks, on discharge of debt and disqualifications, and on measures to increase the efficiency of procedures concerning restructuring, insolvency and discharge of debt, and amending Directive (EU) 2017/1132” has been adopted by the European Union on 20 June 2019. Once transposed into French law (which should happen by 17 July 2021 at the latest), such directive should have a material impact on French insolvency law, especially with regard to the process of adoption of restructuring plans under insolvency proceedings. According to this directive, “affected parties” (i.e., creditors, including the Noteholders, and, where applicable under national law, equity holders whose claims or interests are affected under a restructuring plan) shall be treated in separate classes which reflect certain class formation criteria for the purpose of adopting a restructuring plan. Classes shall be formed in such a way that each class comprises claims or interests with rights that are sufficiently similar to justify considering the members of the class a homogenous group with commonality of interest. As a minimum, secured and unsecured claims shall be treated in separate classes for the purpose of adopting a restructuring plan. A restructuring plan shall be deemed to be adopted by affected parties, provided that a majority in the amount of their claims or interests is obtained in each and every class (the required majorities shall be laid down by Member States at not higher than 75% in the amount of claims or interests in each class). If the restructuring plan is not approved by each and every class of affected parties, the plan may however be confirmed by a judicial or administrative authority by applying a cross-class cram-down, provided that:

- the plan has been notified to all known creditors likely to be affected by it;
- the plan complies with the best interest of creditors test (i.e., no dissenting creditor would be worse off under the restructuring plan than they would be in the event of liquidation, whether piecemeal or sale as a going concern);
- any new financing is necessary to implement the restructuring plan and does not unfairly prejudice the interest of creditors;
- the plan has been approved by a majority of the voting classes of affected parties, provided that at least one of those classes is a secured creditors class or is senior to the ordinary unsecured creditors class; or, failing that, by at least one of the voting classes of affected parties or where so provided under national law, impaired parties, other than an equity-holders class or any other class which, upon a valuation of the debtor as a going-concern, would not receive any payment or keep any interest, or, where so provided under national law, which could be reasonably presumed not to receive any payment or keep any interest, if the normal ranking of liquidation priorities were applied under national law;
- the plan complies with the relative priority rule (i.e. dissenting classes of affected creditors are treated at least as favourably as any other class of the same rank and more favorably than any junior class). By way of derogation, Member States may instead provide that the plan shall comply with the absolute priority rule (i.e., a dissenting class of creditors must be satisfied in full before a more junior class may receive any distribution or keep any interest under the restructuring plan); and

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- no class of affected parties can, under the restructuring plan receive or keep more than the full amount of its claims or interests.

Therefore, when such directive is transposed into French law, it is likely that the Noteholders will no longer deliberate on the proposed restructuring plan in a separate assembly, meaning that they will no longer benefit from a specific veto power on this plan. Instead, as any other affected parties, the Noteholders will be grouped into one or several classes (with potentially other types of creditors) and their dissenting vote may possibly be overridden by a cross-class cram down.

Should the above risks materialise, the impact on the Noteholders would be high. The commencement of insolvency proceedings against EDF would have a significant adverse effect on the market value of the Notes. Any decisions taken by the Assembly or a class of creditor, as the case may be, could negatively impact the Noteholders and cause them to lose all or part of their investment.

### ***Change of law***

The Terms and Conditions of the Notes are based on French law as in effect as at the date of this Base Prospectus. No assurance can be given as to the impact of any possible judicial decision or change in French law or the official application or interpretation of French law after the date of this Base Prospectus. Any such decision or change could be unfavourable to creditors' rights, including those of the Noteholders. If any change in law was unfavourable to the Issuer or the Noteholders, it could have an adverse or a significant adverse effect on the market value of the Notes (depending on the nature of the change) and could have potentially negative repercussions on the Noteholders' investment in the Notes. The risk of changes in law is higher for Notes with longer maturities.

### ***Modification of the Terms and Conditions of the Notes, waivers and substitution***

Condition 11 (*Representation of Noteholders*) contains provisions for consulting Noteholders on matters affecting their interests generally. Subject to the provisions of the Final Terms, the Noteholders will, in respect of all Tranches in any Series, be automatically grouped for the defence of their common interests in a Masse, as defined in Condition 11 (*Representation of Noteholders*). Noteholders can adopt measures either through a general meeting (the "**General Meetings**") or by consent following a written consultation (the "**Written Resolutions**").

The Terms and Conditions permit in certain cases defined majorities to bind all Noteholders including Noteholders who did not attend and vote at the relevant General Meeting, Noteholders who voted in a manner contrary to the majority or Noteholders who did not consent to a Written Resolution.

While it is not possible to assess the likelihood that the Terms and Conditions will need to be amended by way of a General Meeting or Written Resolution during the life of the Notes, if such a General Meeting were to take place or such a Written Resolution were to be taken, it is possible that a majority of Noteholders could adopt a decision that would modify the Terms and Conditions in a way that could impair or limit the rights of the Noteholders. However, the likelihood of a majority of Noteholders adopting a decision that would have a significant adverse effect on the Noteholders should not be overplayed.

### **Risk related to the market generally**

#### ***No active secondary/trading market for the Notes***

Notes issued under the Programme will be new securities which may not be widely distributed and for which there may be no active trading market. If the Notes are traded after their initial issuance, they may trade at a discount to their initial offering price, depending upon prevailing interest rates, the market for similar securities, general economic conditions and the financial condition of the Issuer. Although in relation to Notes to be admitted to trading on Euronext Paris and/or any other Regulated Market in the EEA, the Final Terms of the Notes will be filed with the AMF and/or with the competent authority of the Regulated Market of the EEA where the Notes will be admitted to trading, which, in the case of Notes to be admitted to trading on Euronext Paris shall be the AMF, there is no assurance that such filings will be accepted, that

any particular Tranche will be so admitted or that an active trading market will develop. Accordingly, there is no assurance as to the development or liquidity of any trading market for any particular Tranche.

In addition, certain Notes may be designed for specific investment objectives or strategies and therefore may have a more limited secondary market and experience more price volatility than conventional debt securities. This may have a negative impact on the liquidity of the Notes and result in low trading volumes. The degree of liquidity of the Notes may negatively impact the price at which an investor can dispose of the Notes where the investor is seeking to achieve a sale within a short timeframe. In such circumstances, the impact of this risk on the Noteholder would be high because Notes would likely have to be resold at a discount to the nominal value of the Notes. Furthermore, if additional and competing products are introduced in the markets, this may have an adverse effect on the market value of the Notes.

Investors may not be able to sell Notes readily or at prices that will enable investors to realise their anticipated yield. No investor should purchase Notes unless the investor understands and is able to bear the risk that certain Notes may not be readily sellable, that the market value of Notes may fluctuate over time and that such fluctuations may be significant.

Furthermore, the secondary market for securities is currently experiencing significantly reduced liquidity, which could limit investors' ability to resell Notes and adversely affect the price of Notes.

### ***Exchange rate risks and exchange controls***

The Programme allows for Notes to be issued in a range of currencies (each a "**Specified Currency**"). The principal of, or any return on, Notes may be payable in, or determined by reference or indexed to, one or more specified currencies (including exchange rates and swap indices between currencies or currency units). For investors whose financial activities are denominated principally in a currency or currency unit (the "**investor's currency**") other than the Specified Currency in which the related Notes are denominated, or where principal or return in respect of Notes is payable by reference to the value of one or more specified currencies other than by reference solely to the investor's currency, an investment in such Notes entails significant risks that are not associated with a similar investment in a debt security denominated and payable in such investor's currency. Such risks include, without limitation, the possibility of significant fluctuations in the rate of exchange between the applicable Specified Currency and the investor's currency and the possibility of the imposition or modification of exchange controls by authorities with jurisdiction over such Specified Currency or the investor's currency. Such risks generally depend on a number of factors, including financial, economic and political events over which the Issuer has no control.

Appreciation in the value of the investor's currency relative to the value of the applicable Specified Currency would result in a decrease in the investor's currency-equivalent yield on a Note denominated, or the principal of or return on which is payable, in such Specified Currency, in the investor's currency-equivalent value of the principal of such Note payable at maturity (if any) and generally in the investor's currency-equivalent market value of such Note. In addition, depending on the specific terms of a Note denominated in, or the payment of which is determined by reference to the value of, one or more specified currencies (other than solely the investor's currency), indices (including exchange rates and swap indices between currencies or currency units) or formulas, fluctuations in exchange rates relating to any of the currencies or currency units involved could result in a decrease in the effective yield on such Note and, in certain circumstances, could result in a loss of all or a substantial portion of the principal of such Note to the investor.

Government and monetary or financial authorities have imposed from time to time, and may in the future impose, exchange controls that could affect exchange rates, as well as the availability, of the Specified Currency in which a Note is payable at the time of payment of the principal or return in respect of such Note. As a result, if this risk ever materialises, Noteholders whose financial activities are denominated principally in a currency or currency unit other than the relevant Specified Currency may receive less interest or principal than expected, or no interest or principal.

### Risks related to the structure of a particular issue of Notes

The Programme allows for different types of Notes to be issued. Accordingly, each Tranche of Notes may carry varying risks for potential investors depending on the specific features of such Notes such as, *inter alia*, the provisions for computation of periodic interest payments, if any, redemption and issue price. A description of the most common risks associated with such structures and features is set out below:

#### (1) *Interest Rate Risks*

##### **Fixed Rate Notes**

The Terms and Conditions of the Notes allow the Issuer to issue Notes that pay a fixed rate of interest ("**Fixed Rate Notes**") to Noteholders (see Condition 5(b) (*Interest on Fixed Rate Notes*)). Investment in Fixed Rate Notes involves the risk that subsequent changes in market interest rates may adversely affect the market value of the relevant Tranche.

While the nominal interest rate of a Fixed Rate Note is determined during the term of such Note or within a given period of time, the market interest rate (the "**Market Interest Rate**") typically varies on a daily basis. As the Market Interest Rate changes, the price of the Fixed Rate Note varies in the opposite direction. If the Market Interest Rate increases, the price of the Fixed Rate Note typically decreases, until the yield of such Fixed Rate Note equals approximately the Market Interest Rate. If the Market Interest Rate decreases, the price of a Fixed Rate Note typically increases, until the yield of such Fixed Rate Note equals approximately the Market Interest Rate. Noteholders should be aware that movements of the Market Interest Rate can adversely affect the price of the Notes and could cause Noteholders to lose part of the capital invested if they decide to sell Notes during a period in which the market interest rate exceeds the fixed rate of the Notes. It is difficult to anticipate future market volatility in interest rates, but any such volatility may have a significant adverse effect on the price of the Notes and cause Noteholders who sell Notes on the secondary market to lose part of their initial investment.

##### **Floating Rate Notes**

The Terms and Conditions of the Notes allow the Issuer to issue Notes that pay a floating rate of interest ("**Floating Rate Notes**") to Noteholders (see Condition 5(c) (*Interest on Floating Rate Notes*)). Investment in Floating Rate Notes comprises (i) a reference rate and (ii) a margin to be added or subtracted, as the case may be, from such base rate. Typically, the relevant margin will not change throughout the life of the Notes but there will be a periodic adjustment (as specified in the relevant Final Terms) of the reference rate (e.g., every three (3) months or six (6) months) which itself will change in accordance with general market conditions. Accordingly, the market value of Floating Rate Notes may be volatile if changes, particularly short-term changes, to Market Interest Rates evidenced by the relevant reference rate can only be reflected in the interest rate of these Notes upon the next periodic adjustment of the relevant reference rate. This stated volatility may have a significant adverse effect on the market value of the Notes. Due to varying interest income, investors are not able to determine a definite yield of such Notes at the time they purchase them, such that their return on investment cannot be compared with that of investments having longer fixed interest periods. If the Terms and Conditions of the Notes (as completed by the relevant Final Terms) provide for frequent interest payment dates, investors are exposed to reinvestment risk if market interest rates decline. That is, investors may reinvest the interest income paid to them only at the relevant lower interest rates then prevailing.

#### **Risks related to Notes which are linked to or referencing to "benchmarks"**

Where the applicable Final Terms for a Series of Floating Rate Notes specify that the Rate of Interest for such Notes will be determined by reference to the London Interbank Offered Rate ("**LIBOR**"), the Euro Interbank Offered Rate ("**EURIBOR**") and other indices which are deemed to be "benchmarks", investors should be aware that such "benchmarks" are the subject of recent national, international and other regulatory guidance and proposals for reform. Some of these reforms are already effective while others are still to be implemented. These reforms may cause such benchmarks to perform differently than in the past, or to disappear entirely, or have



other consequences which cannot be predicted. Any such consequences could have a significant adverse effect on the liquidity and market value of and return on any Notes linked to such a “benchmark”.

Regulation (EU) 2016/1011 (the “**Benchmarks Regulation**”) was published in the European official journal on 29 June 2016 and has been in force since 1 January 2018.

The Benchmarks Regulation applies to “contributors”, “administrators” and “users” of “benchmarks” (including EURIBOR and LIBOR) in the EU, and will, among other things, (i) require benchmark administrators to be authorised or registered (or, if non-EU-based, to be subject to an equivalent regime or otherwise recognised or endorsed) and to comply with extensive requirements in relation to the administration of “benchmarks” (or, if non EU based, to be subject to equivalent requirements) and (ii) prevent certain uses by EU supervised entities of “benchmarks” of administrators that are not authorised or registered (or, if non-EU based, not deemed equivalent or recognised or endorsed).

The Benchmarks Regulation could have a material impact on any Notes linked to a “benchmark”, including in any of the following circumstances:

- a rate or an index deemed to be a “benchmark” could not be used by a supervised entity in certain ways if its administrator does not obtain authorisation or registration or, if based in a non-EU jurisdiction, the administrator is not recognised as equivalent or recognised or endorsed and the transitional provisions do not apply; and
- the methodology or other terms of the “benchmark” are changed in order to comply with the requirements of the Benchmarks Regulation. Such changes could, among other things, have the effect of reducing, increasing or otherwise affecting the volatility of the published rate or level of the “benchmark”.

More broadly, any of the international, national or other proposals for reform, or the general increased regulatory scrutiny of “benchmarks”, could increase the costs and risks of administering or otherwise participating in the setting of a “benchmark” and complying with any such regulations or requirements. Such factors may have the following effects on certain “benchmarks” (including EURIBOR and LIBOR): (i) discourage market participants from continuing to administer or contribute to the “benchmark”; (ii) trigger changes in the rules or methodologies used in the “benchmark” or (iii) lead to the disappearance of the “benchmark”. Any of the above changes or any other consequential changes as a result of international, national or other proposals for reform or other initiatives or investigations, could have a significant adverse effect on the market value of and return on any Notes linked to or referencing a “benchmark”.

Investors should be aware that, if a benchmark were discontinued or otherwise unavailable, the rate of interest on Notes which are linked to such benchmark will be determined for the relevant period by the fall-back provisions applicable to such Notes (it being specified that if “Benchmark Replacement” applies, a specific fall-back shall apply - please refer to the risk factor entitled “*Occurrence of a Benchmark Event*” below). Depending on the manner in which a benchmark is to be determined under the Terms and Conditions, this may (i) if ISDA Determination or FBF Determination applies, be relying upon the provision by reference banks of offered quotations for the relevant benchmark which, depending on market circumstances, may not be available at the relevant time or (ii) if Screen Rate Determination applies, result in the effective application of a fixed rate based on the rate which applied for the immediately preceding Interest Period for which the benchmark was available. Any of the foregoing could have an adverse effect on the market value or liquidity of, and return on, any Notes linked to a “benchmark”.

Investors should consult their own independent advisers and make their own assessment about the potential risks imposed by the Benchmarks Regulation reforms, investigations and licensing issues in making any investment decision with respect to the Notes linked to a “benchmark”.

***The occurrence of a Benchmark Event could have a material adverse effect on the market value of and return on any Notes linked to or referencing such “benchmarks”***

In case of Screen Rate Determination for Notes linked to or referencing a "benchmark" and unless "Benchmark Replacement" is specified in the relevant Final Terms as "Not Applicable", the Terms and Conditions of the Notes provide for certain fallback arrangements in the event that a Benchmark Event occurs, including if an inter-bank offered rate (such as LIBOR or EURIBOR) or other relevant reference rate, and/or any page on which such benchmark may be published, becomes unavailable, or if the Calculation Agent, any Paying Agent or any other party responsible for the calculation of the Rate of Interest (as specified in the applicable Final Terms) are no longer permitted lawfully to calculate interest on any Notes by reference to such benchmark under the Benchmarks Regulation or otherwise. Such fallback arrangements include the possibility that the rate of interest could be set by reference to a Successor Rate or an Alternative Rate (both as defined in the Terms and Conditions of the Notes), with or without the application of an adjustment spread (which, if applied, could be positive or negative, and would be applied with a view to reducing or eliminating, to the fullest extent reasonably practicable in the circumstances, any economic prejudice or benefit (as applicable) to investors arising out of the replacement of the relevant benchmark), and may include amendments to the Terms and Conditions of the Notes to ensure the proper operation of the successor or replacement benchmark, all as determined by the Independent Adviser and without the consent of the Noteholders.

In certain circumstances, the ultimate fallback for a particular Interest Period, including where no Successor Rate or Alternative Rate (as applicable) is determined, may be that the rate of interest for such Interest Period be based on the rate which applied for the immediately preceding Interest Period. This ultimate fallback may result in the effective application of fixed rate Notes linked to or referencing a "benchmark". Subject to the right for the Issuer to re-apply, at any time, the provisions regarding the determination of a Successor Rate or Alternative Rate, the effective conversion into fixed rate notes may affect the secondary market and the market value of the Notes as the fixed rate may be lower than the rates usually applicable to such Notes. In the event of the application of a fixed rate of interest, the Noteholders would not be able to benefit from any potentially favourable prevailing market conditions.

In addition, due to the uncertainty concerning the availability of Successor Rates and Alternative Rates and the involvement of an Independent Adviser, the relevant fallback provisions may not operate as intended at the relevant time.

Any such consequences could have a significant adverse effect on the market value of and return on any such Notes.

Moreover, any of the above matters or any other significant change to the setting or existence of any relevant rate could affect the ability of the Issuer to meet its obligations under the Notes linked to or referencing a "benchmark" or could have a material adverse effect on the market value or liquidity of, and the amount payable under, the Notes linked to or referencing a "benchmark". Investors should note that, the Independent Adviser will have discretion to adjust the relevant Successor Rate or Alternative Rate (as applicable) in the circumstances described above. Any such adjustment could have unexpected consequences and there can be no assurance that, due to the particular circumstances of each Noteholder, any such adjustment will be favourable to each Noteholder.

Investors should consider all of these matters when making their investment decision with respect to the relevant Notes linked to or referencing such "benchmarks".

### ***Risks relating to Notes which are linked to SONIA***

Where the applicable Final Terms for a Series of Floating Rate Notes specify that the Rate of Interest for such Notes will be determined by reference to SONIA, investors should be aware that the market continues to develop in relation to SONIA as a reference rate in the capital markets and its adoption as an alternative to Sterling LIBOR. In particular, market participants and relevant working groups are exploring alternative reference rates based on SONIA, including term SONIA reference rates (which seek to measure the market's forward expectation of an average SONIA rate over a designated term). The market or a significant part thereof may adopt an application of SONIA that differs significantly from that set out in the relevant Terms and Conditions and used in relation to Floating Rate Notes that reference a SONIA rate issued

under this Base Prospectus. The nascent development of Compounded Daily SONIA as an interest reference rate for the Eurobond markets, as well as continued development of SONIA-based rates for such markets and the market infrastructure for adopting such rates, could result in reduced liquidity or increased volatility or could otherwise affect the market price of the Notes. Interest on Notes which reference a SONIA rate is only capable of being determined at the end of the relevant Interest Period and shortly prior to the relevant Interest Payment Date. It may be difficult for investors in Notes that reference a SONIA rate to reliably estimate the amount of interest that will be payable on such Notes. In addition, the manner of adoption or application of SONIA reference rates in the Eurobond markets may differ materially compared with the application and adoption of SONIA in other markets, such as the derivative and loan markets. Investors should carefully consider how any mismatch between the adoption of SONIA reference rates across these markets may impact any hedging or other financial arrangements which they may put in place in connection with any acquisition, holding or disposal of any Notes referencing a SONIA rate. Investors should consider these matters when making their investment decision with respect to any such Floating Rate Notes.

### ***Fixed to Floating Rate Notes***

The Terms and Conditions allow the Issuer to issue Notes with a fixed rate of interest that is later converted to a floating rate of interest and vice versa (see Condition 5(e)). Fixed/Floating Rate Notes may bear interest at a rate that the Issuer may elect to convert from a fixed rate to a floating rate, or from a floating rate to a fixed rate. The Issuer's ability to convert the interest rate will affect the secondary market and the market value of such Notes since the Issuer may be expected to convert the rate when it is likely to produce a lower overall cost of borrowing. If the Issuer converts from a fixed rate to a floating rate, the spread on the Fixed/ Floating Rate Notes may be less favourable than then prevailing spreads on comparable Floating Rate Notes tied to the same reference rate. In addition, the new floating rate at any time may be lower than the rates on other Notes. If the Issuer converts from a floating rate to a fixed rate, the fixed rate may be lower than the prevailing rates on its Notes. It is difficult to anticipate future market volatility in interest rates, but any such volatility may have a significant adverse effect on the market value of the Notes.

### ***Zero Coupon Notes***

The Terms and Conditions of the Notes allow the Issuer to issue Zero Coupon Notes (see Condition 5(d) (*Zero Coupon Notes*)). Changes in market interest rates have a substantially stronger impact on the prices of Zero Coupon Notes than on the prices of ordinary Notes because the discounted issue prices are substantially below par. If market interest rates increase, Zero Coupon Notes can suffer higher price losses than other Notes having the same maturity and credit rating. Due to their leverage effect, Zero Coupon Notes are a type of investment associated with a particularly high price risk. Therefore, in similar market conditions the holders of Zero Coupon Notes could be subject to higher losses on their investments than the holders of other instruments such as Fixed Rate Notes or Floating Rate Notes. It is difficult to anticipate future market volatility in interest rates, but any such volatility may have a significant adverse effect on the value of the Notes.

### ***Notes issued at a substantial discount or premium***

The relevant Final Terms of a Tranche of Notes will specify the relevant issue price. The market values of Notes issued at a substantial discount or premium from their principal amount tend to fluctuate more in relation to general changes in interest rates than do prices for conventional interest-bearing securities. Generally, the longer the remaining term of the Notes, the greater the price volatility as compared to conventional interest-bearing securities with comparable maturities. It is difficult to anticipate future price volatility, but any such volatility may have an adverse effect on the market value of the Notes. Therefore, holders of Notes issued at a substantial discount or premium could be exposed to greater losses on their investment than holders of conventional interest-bearing securities.

### (2) *Early Redemption Risks*

#### *Optional redemption*

The Final Terms for a particular issue of Notes may provide for an early redemption at the option of the Issuer (including a Make-Whole Redemption by the Issuer as described in Condition 6(c) or a Residual Maturity Call Option by the Issuer as described in Condition 6(e)). As a consequence, the yields received upon redemption may be lower than expected, and the redeemed face amount of the Notes may be lower than the purchase price for the Notes paid by the Noteholder. As a result, part of the capital invested by the Noteholder may be lost, so that the Noteholder in such case would not receive the total amount of the capital invested. In addition, investors that choose to reinvest monies they receive through an early redemption may be able to do so only in securities with a lower yield than the redeemed Notes.

Furthermore, in the event that the Issuer is obliged to increase the amounts payable in respect of any Notes due to any withholding or deduction for or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by the country of domicile (or residence for tax purposes) of the Issuer, or on behalf of France, or any political subdivision thereof or any authority therein or thereof having power to tax, the Issuer may redeem all outstanding Notes in accordance with the Terms and Conditions.

More generally, if, in the case of any particular Tranche, the relevant Final Terms specify that the Notes are redeemable at the Issuer's option in certain other circumstances, the Issuer may choose to redeem the Notes at times when prevailing interest rates may be relatively low. During a period when the Issuer may elect, or has elected, to redeem Notes in part or in whole, such Notes may feature a market value not above the price at which they can be redeemed. In such circumstances, an investor may not be able to reinvest the redemption proceeds in a comparable security at an effective interest rate as high as that of the relevant Notes. Prospective investors should consider reinvestment risk in light of other investments available at that time.

### (3) *Other Risks*

#### **Risks Relating to Renminbi-denominated Notes**

Notes denominated in RMB ("**RMB Notes**") may be issued under the Programme. RMB Notes contain particular risks for potential investors, including the following:

**Renminbi is not freely convertible; there are significant restrictions on the remittance of Renminbi into and out of the PRC; there is only limited availability of Renminbi outside the PRC; each of which may affect the liquidity of the RMB Notes and the Issuer's ability to source Renminbi out of the PRC to service RMB Notes.**

The applicable Final Terms in relation to any Series of Notes may specify that the Notes are denominated in Renminbi. Renminbi is not freely convertible at present. The government of the PRC (the "**PRC Government**") continues to regulate conversion between Renminbi and other currencies.

Although the People's Bank of China ("**PBoC**") has implemented policies improving accessibility to Renminbi to settle cross-border transactions in the past, there is no assurance that the PRC Government will liberalise control over cross-border remittance of Renminbi in the future, that the schemes for Renminbi cross-border utilisation will not be discontinued or that new regulations in the PRC will not be promulgated in the future which have the effect of restricting or eliminating the remittance of Renminbi into or out of the PRC. Despite the efforts in recent years to internationalise the currency, there can be no assurance that the PRC Government will not impose interim or long-term restrictions on the cross-border remittance of Renminbi.

In the event that funds cannot be remitted out of the PRC in Renminbi, the overall availability of Renminbi outside the PRC and the ability of the Issuer to source Renminbi to finance its obligations under the RMB Notes may be adversely affected.

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As a result of the restrictions by the PRC Government on cross-border Renminbi fund flows, the availability of Renminbi outside the PRC is limited.

Although the offshore Renminbi market is expected to grow in depth and size, this is subject to constraints imposed by PRC laws and regulations on foreign exchange. There is no assurance that new PRC law and regulations will not be promulgated or the settlement arrangements between the PBoC and certain financial institutions in respect of limited clearing of Renminbi outside of the PRC will not be terminated or amended in the future, each of which may have the effect of restricting availability of Renminbi outside the PRC. The limited availability of Renminbi outside the PRC may affect the liquidity of its RMB Notes. To the extent the Issuer is required to source Renminbi outside the PRC to service the RMB Notes, there is no assurance that the Issuer will be able to source such Renminbi on satisfactory terms, if at all. Should the Issuer resort to using another currency, such as US Dollar, to respect its payment obligations under the RMB Notes, the relevant Noteholders may lose part of their investment when converting such currency back into Renminbi, depending on the prevailing exchange rate at that time.

**In respect of any Notes issued with a specific use of proceeds, such as a Green Bond, there can be no assurance that such use of proceeds will be suitable for the specific investment criteria of an investor**

The Final Terms relating to any specific Tranche of Notes may provide that it will be the Issuer's intention to apply the net proceeds of the issue of those Notes to certain eligible projects as further described in the EDF Green Bond Framework (as amended and supplemented from time to time) (the "**Green Bond Framework**") available on the website of the Issuer ([https://www.edf.fr/sites/default/files/contrib/groupe-edf/espaces-dedies/espace-finance-fr/investisseurs-et-analystes/espace%20obligataire/Green-Bond/edf\\_green\\_bond\\_framework-september\\_2016.pdf](https://www.edf.fr/sites/default/files/contrib/groupe-edf/espaces-dedies/espace-finance-fr/investisseurs-et-analystes/espace%20obligataire/Green-Bond/edf_green_bond_framework-september_2016.pdf)). Prospective investors should have regard to the information set out in the relevant Final Terms and must determine for themselves the relevance of such information for the purpose of any investment in such Notes together with any other investigation such investor deems necessary. In particular, no assurance is given by the Issuer that the use of such proceeds for any eligible projects will satisfy, whether in whole or in part, any present or future investor expectations or requirements as regards any investment criteria or guidelines with which such investor or its investments are required to comply, whether by any present or future applicable laws or regulations or by its own by-laws or other governing rules or investment portfolio mandates, in particular with regard to any direct or indirect environmental, sustainability or social impact of any projects or uses, the subject of or related to, any eligible projects.

No assurance or representation is given as to the suitability or reliability for any purpose whatsoever of any opinion or certification of any third party (whether or not solicited by the Issuer) which may be made available in connection with the issue of any Notes and in particular with any eligible projects to fulfil any environmental, sustainability, social and/or other criteria. Currently, the providers of such opinions and certifications are not subject to any specific regulatory or other regime or oversight.

In the event that any such Notes are listed or admitted to trading on any dedicated "green", "environmental", "sustainable" or other equivalently-labelled segment of any stock exchange or securities market (whether or not regulated), no representation or assurance is given by the Issuer or any other person that such listing or admission satisfies, whether in whole or in part, any present or future investor expectations or requirements as regards any investment criteria or guidelines with which such investor or its investments are required to comply, whether by any present or future applicable laws or regulations or by its own by-laws or other governing rules or investment portfolio mandates, in particular with regard to any direct or indirect environmental, sustainability or social impact of any projects or uses, the subject of or related to, any eligible projects. Furthermore, it should be noted that the criteria for any such listings or admission to trading may vary from one stock exchange or securities market to another. Neither is any representation or assurance given or made by the Issuer nor any other person that any such listing or admission to trading will be obtained in respect of any such Notes or, if obtained, that any such listing or admission to trading will be maintained during the life of the Notes.

While it is the intention of the Issuer to apply the proceeds of any Notes so specified for eligible projects in, or substantially in, the manner described in the relevant Final Terms, there can be

no assurance that the relevant project(s) or use(s) the subject of, or related to, any eligible projects will be capable of being implemented in or substantially in such manner and/or in accordance with any timing schedule and that accordingly such proceeds will be totally or partially disbursed for such eligible projects. Nor can there be any assurance that such eligible projects will be completed within any specified period or at all or with the results or outcome (whether or not related to the environment) as originally expected or anticipated by the Issuer. Any such event or failure by the Issuer will not constitute an Event of Default under the Notes.

Any such event or failure to apply the proceeds of any issue of Notes to eligible projects as aforesaid and/or withdrawal of any such opinion or certification or any such opinion or certification attesting that the Issuer is not complying in whole or in part with any matters for which such opinion or certification is opining or certifying on and/or any such Notes no longer being listed or admitted to trading on any stock exchange or securities market as aforesaid may have a material adverse effect on the value of such Notes and also potentially the value of any other Notes which are intended to finance eligible projects and/or result in adverse consequences for certain investors with portfolio mandates to invest in securities to be used for a particular purpose.

Any failure to comply with the reporting obligations will not constitute an Event of Default under the Notes.

No Dealer makes any representation as to the suitability of the Notes to fulfil environmental and sustainability criteria required by prospective investors. The Dealers have not undertaken, nor are responsible for, any assessment of the eligibility criteria, any verification of whether the eligible projects meet the eligibility criteria, or the monitoring of the use of proceeds. Investors should refer to the Issuer's website, reports on the use of proceeds and second-party opinions for information.

### **B. RISK FACTORS RELATING TO THE ISSUER AND ITS OPERATIONS**

*The risks presented below concern risks associated with the regulation of energy markets, risks related to the competitive and general context, risks related to the transformation of the EDF Group, risks related to the operational performance of the EDF Group and specific risks related to the EDF Group's nuclear activities.*

*The risks associated with the regulation of energy markets are described in Section "Risks associated with the regulation of energy markets", particularly the regulation of the electricity market, in particular those for electricity, with consideration of (i) competition rules, especially in Europe and France, where most of the EDF Group's activities are conducted and (ii) public policies in the field of energy.*

*In Section "Risks related to the competitive and general context" a description is given of the risks caused by exposure to the energy markets in which the EDF Group operates, as well as the risks caused by changes to competition and new societal expectations, economic circumstances, or general circumstances, and elements of public policy or general regulation in the various countries and territories where the EDF Group exercises its activities. The risks caused by factors internal to the EDF Group are described in Sections "Risks related to the transformation of the EDF Group", "Risks related to the operational performance of the EDF Group" and "Specific risks related to the EDF Group's nuclear activities."*

*In Section "Risks related to the transformation of the EDF Group", a description is given of the risks associated with the implementation of its strategy, the evolution of the EDF Group's portfolio and business model, and its transformation in its industrial, service and sales activities with the associated change management..*

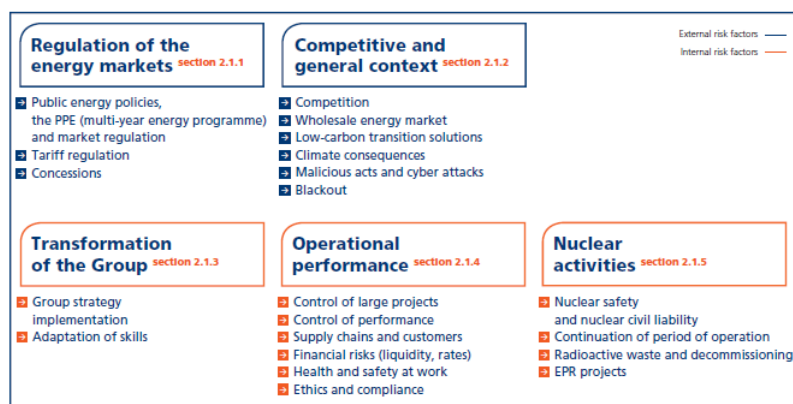
*In Section "Risks related to the operational performance of the EDF Group", a description is given of the risks associated with the control of its operational activities in its various industrial, services and sales activities.*

*The last section is devoted to the specific risks related to the EDF Group's nuclear activities describes the specific risks related to the Group's nuclear activities, which involves additional*

## Risk Factors

*risk factors and specific measures, notably with regard to the overriding requirements of nuclear safety and the long-term capital-intensive nature of the nuclear activities.*

The EDF Group's main specific risks are grouped into five categories



The risks specific to the EDF Group are classified into 5 categories and described in detail in each of the sections concerned for their respective category. They are numbered to facilitate the link between the following table and the detailed descriptions. Risks were grouped by importance in a qualitative approach that takes into account both the potential impact on the EDF Group and the probability of occurrence. Thus, the most important risks (marked with a + sign in the below table) are identified in each category, without assuming the relative importance of the risks between them or the relative importance between categories.

As a general rule, the scope of exposure is France, Europe and international. Where the scope of exposure is more restrictive, it is specified in the table and in the risk description.

Exposure to risk may vary according to duration. The potential impact of these risks may produce effects at very different time horizons, ranging from very short term (less than a year), to medium term (up to a few years) to very long term (up to several decades or more, given the nature of the relevant industrial activities which may span centuries). This time horizon is indicated in the risk description when it is considered relevant.

Estimates of the order of magnitude of the financial consequences caused by the occurrence of certain risks taken in isolation are mentioned for information purposes only in the body of this section "Risk factors relating to the Issuer".

The measures taken by the EDF Group to control the activities and risks to which it is exposed, and to implement appropriate control, prevention and mitigation actions, are described in section 2.2 "Control of Group risks and activities" of the 2018 *Document de Référence*. Additional measures addressing occupational health and safety risks are described in section 3.2.2.1 "A Reference Company in terms of health and safety: the health and safety of our employees and the employees of our service providers, an absolute priority" and those relating to the risks of breach of ethics and compliance are described in section 3.5.1 "Ethics and compliance" of the 2018 *Document de Référence*.

## Risk Factors

Risk categories	Summary of the main risks specific to the Group	Importance
Regulation of the energy markets, section 2.1.1	<ul style="list-style-type: none"> <li>1A - Evolution of public energy policies and market regulation, including the Multiannual Energy Programme (PPE or programmation pluriannuelle de l'énergie) in France</li> <li>1B - Evolution of the regulatory framework and tariff regulation</li> <li>1C - Evolution of the regulatory framework for concessions (hydropower field or public distribution) ***</li> <li>1D - Insufficient compensation for missions of general interest*</li> <li>1E - Increased cost caused by energy savings certificates*</li> </ul>	<ul style="list-style-type: none"> <li>+</li> <li>+</li> <li>+</li> <li></li> <li></li> </ul>
Competitive and general context, section 2.1.2	<ul style="list-style-type: none"> <li>2A - Increased competition in energy markets</li> <li>2B - Exposure to wholesale energy and capacity market prices</li> <li>2C - Environment unfavourable to the Group's low-carbon transition solutions</li> <li>2D - Exposure to the physical effects of climate change</li> <li>2E - Increased risks of malicious attack, including cyber attacks</li> <li>2F - Blackout risk</li> <li>2G - Major crisis</li> <li>2H - Impact of Brexit</li> </ul>	<ul style="list-style-type: none"> <li>+</li> <li>+</li> <li>+</li> <li>+</li> <li>+</li> <li>+</li> <li></li> <li></li> </ul>
Transformation of the Group, section 2.1.3	<ul style="list-style-type: none"> <li>3A - Group strategy implementation in line with the defined objectives</li> <li>3B - Adaptation and development of skills according to the Group's evolution, division requirements and new working methods</li> <li>3C - Ability to ensure the Group's long-term social and financial commitments (pensions and other employee benefits)</li> </ul>	<ul style="list-style-type: none"> <li>+</li> <li>+</li> <li></li> </ul>
Operational performance of the Group, section 2.1.4	<ul style="list-style-type: none"> <li>4A - Management of large and complex industrial projects (including nuclear)</li> <li>4B - Control of operational and financial performance</li> <li>4C - Operational continuity of supply chains and contractual relationships with customers and suppliers</li> <li>4D - Exposure to financial risks (liquidity, exchange rates, interest rates, discount rates)</li> <li>4E - Occupational safety or health violations</li> <li>4F - Ethics or Compliance Violations</li> <li>4G - Industrial safety and impact on environmental heritage including biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>+</li> <li>+</li> <li>+</li> <li>+</li> <li>+</li> <li>+</li> <li></li> </ul>
Nuclear activities of the Group, section 2.1.5	<ul style="list-style-type: none"> <li>5A - Nuclear safety in operation, exercise of nuclear civil liability**</li> <li>5B - Safely extending operating life while controlling costs and deadlines** (Grand Carénage in France*)</li> <li>5C - Management of the final processing of radioactive waste, the decommissioning of reactors and the ability to fulfil the corresponding commitments**</li> <li>5D - In addition to factor 4-A, additional regulatory, industrial and financial factors are taken into account for EPR projects</li> <li>5E - In addition to factor 4-B, consideration of fuel cycle management**</li> </ul>	<ul style="list-style-type: none"> <li>+</li> <li>+</li> <li>+</li> <li>+</li> <li></li> </ul>

Main scope of exposure, France, Europe and International, with specific notes

\* France

\*\* France and United Kingdom

\*\*\* France and Italy

## Risks associated with the regulation of energy markets

**Description 1A: The evolution of public energy policies and market regulation in the countries where the EDF Group operates, including the multi-year energy programme (PPE) in France, is likely to lead to profound transformations in the EDF Group's governance or business portfolio. These could hinder the EDF Group's development in relation to its competitors or undermine its ability to meet its commitment to climate protection.**

On 25 January 2019, the French Government presented a draft multi-year energy programme (PPE) which sets out the trajectory for the next 10 years in terms of energy policy, and therefore ecological transition (see section 1.5.2 "Public service in France" of the 2018 *Document de Référence*):

- to fully implement the PPE guidelines, the Government asked EDF's management to propose EDF Group developments that would enable it to meet the challenges facing the Issuer in the nuclear, renewable energy, energy services and networks sectors. The proposed developments must preserve the EDF Group's integrated nature and make it possible to dedicate adequate resources and financing for each activity;
- the French Government has confirmed the objective of diversifying the electricity mix and reducing nuclear power to 50% of electricity generation in France by 2035: to reduce nuclear power to 50% of the energy mix, 14 reactors could be shut down by 2035 (including the two in Fessenheim). This would represent a quarter of the reactors currently operating in France. The final version of the multi-year energy programme will identify the sites on which these reactors should be closed;



- accordingly, the early closure of one or more reactors in the EDF fleet might be decided upon, not because of an industrial choice but rather because of a legal decision. Such decisions must lead to EDF being compensated for the harm suffered, as reiterated by the French Constitutional Council in a decision of 13 August 2015. In this respect, with regard to the Fessenheim nuclear power plant, discussions remain ongoing with the State with a view to signing a protocol defining the principles of compensation, which may not cover the entire loss of revenue.

At the same time, the competent authorities or certain States could, in order to preserve or promote competition on certain energy markets, take decisions that are contrary to the EDF Group's economic or financial interests or that impact its integrated operator model.

The European legal framework organising the liberalisation of the energy sector is relatively recent. It is likely to change in the future ("Climate Energy and Clean Energy Packages") and may adversely affect the EDF Group, in particular resulting in additional costs, be at odds with the EDF Group's development model, modify the competitive context in which the EDF Group operates, modify European regulations on regulated tariffs or affect the profitability of current or future generating units or of other EDF Group activities.

In terms of the governance or delimitation of its scope of activity that may be enforced, EDF could be affected by a limitation or loss of control of certain strategic and operational decisions that could have a negative impact on the outlook and profitability of its various activities (see section 1.5 "Legislative and regulatory environment" of the 2018 *Document de Référence* and section 3.4 "Regulatory environment" of the 2019 Half-Year Management Report). At the same time, EDF may continue, in its capacity as shareholder, to bear certain risks, potential liabilities towards third parties and factors that may affect the profitability of assets.

Although EDF complies and will continue to comply with applicable laws and rules in terms of competition and non-discrimination, competitors have initiated or may initiate litigation for non-compliance with these rules, which could be decided in a way that is detrimental to the EDF Group's interests (see Section 2.4 "Legal proceedings and arbitration" of the 2018 *Document de Référence* and Section 9.1 "Proceedings concerning EDF" of the 2019 Half-Year Management Report).

In the new energies field, EDF relies primarily on its EDF Renewables subsidiary (see section 1.4.1.5.3 "EDF Renewables" of the 2018 *Document de Référence*), which does business in numerous countries. The profitability of these developments is often dependent on the support policies adopted in the various countries. The EDF Group cannot guarantee that the support programmes will not change in some of these countries and adversely impact the profitability of investments made.

Finally, changes in the legislative and regulatory environment in the energy sector in the various countries where the EDF Group operates may constitute an obstacle in terms of the EDF Group's ability to achieve its no. 1 corporate responsibility goal: "Committed to climate action" (see section 3.2.1.1 "EDF group's ambition (CSRG no. 1 of the 2018 *Document de Référence*)").

***Description 1B: A significant portion of the EDF Group's revenues comes from activities subject to regulated purchase or sales tariffs, for which changes in tariff regulations could have an impact on the EDF Group's results. Changes in the regulation of carbon dioxide emissions, including the price of CO2 emission allowances, are likely to affect the EDF Group's profitability and its objectives for low-carbon energy solutions for climate protection.***

In France, a significant portion of the EDF Group's revenues is based on regulated tariffs set by public authorities or regulatory authorities (Regulated Sales Tariff, Tariffs for Using the Public Transmission and Distribution Networks (TURPE)). In France, the law on the New Organisation of the Electricity Market (NOME law or *Nouvelle Organisation du Marché de l'Electricité*) has also introduced the Regulated Access to Electricity from the Existing Nuclear Fleet (ARENH), for the benefit of EDF's competing electricity suppliers. (See section 1.5 "Legislative and

regulatory environment" of the 2018 *Document de Référence* and section 3.4 "Regulatory environment" of the 2019 Half-Year Management Report).

In this context, the risks are as follows:

- risk of limiting or even blocking rate increases for the same quality of service;
- risk of stakeholders challenging tariff decisions;
- many options in favour of alternative suppliers that give them arbitrage opportunities on the markets to the detriment of EDF, which therefore exposes EDF symmetrically to major uncertainties that adversely impact the effectiveness of its energy market risk management (see section 2.2.2.2.1 "Control of energy market risks" of the 2018 *Document de Référence* and section 6.2 of the 2019 Half-Year Management Report).

More generally, in France as in other countries, the EDF Group cannot guarantee that regulated sale or purchase tariffs will always be set at a level enabling it to preserve its short-, medium- and long-term investment capacity and its property interests, by ensuring a fair return on capital invested by the EDF Group in its generation, service, transmission and distribution assets.

There is a risk, potentially caused by inadequate regulation, that CO<sub>2</sub> prices remain low hindering sufficient development of low-carbon energy solutions, to the detriment of both an effective transition to combat the global greenhouse effect and the EDF Group's consideration of climate change. This may represent a loss of opportunity to promote the EDF Group's low-carbon energy solutions and call into question the EDF Group's ability to achieve corporate responsibility goal no. 1, committed to climate action (see section 3.2.1.1 "EDF group's ambition (CSRG no. 1)" of the 2018 *Document de Référence*).

***Description 1C: At times, the EDF Group operates its generation, transmission, distribution or supply businesses pursuant to public service concession arrangements and it is not always the owner of the assets it operates. Changes in the regulatory framework, in concession specifications and implementation conditions could have an impact on the EDF Group's results.***

The EDF Group does not always own the assets that it uses for its activities and, in such case, frequently operates them pursuant to a public service concession arrangement.

In France, for example, Enedis does not own all distribution network assets: it operates them under concession agreements negotiated with local authorities (see section 1.4.4.2.2 "Distribution activities" of the 2018 *Document de Référence*), which grant it the exclusive right to engage in expansion actions and operate the public electricity distribution network. These public electricity distribution concession agreements, generally concluded for a period of between 20 and 30 years, are tripartite contracts between the licensing authority, the distribution system operator and the supplier at the regulated rates. Under the law, only Enedis and Local Distribution Companies (LDC) in their service areas (and EDF for areas not connected to the continental metropolitan network) may be appointed to operate the public energy distribution networks and only EDF and LDCs in their service areas may be appointed to provide the supply at the regulated rates. Therefore, at this time, when a concession agreement is renewed, Enedis and EDF do not compete with other operators. However, the EDF Group cannot guarantee that such provisions will not be amended by law in the future (see section 1.5.5 "Public electricity distribution concessions in France" of the 2018 *Document de Référence*). Furthermore, the EDF Group may not obtain the renewal of these contracts under the same financial terms and conditions.

In France, hydropower generation facilities are operated under concessions awarded by the French State for structures of 4.5MW or more and within the framework of prefectural authorisations for structures of less than 4.5MW (see section 1.5.6.2.4 "Regulations applicable to hydropower facilities" of the 2018 *Document de Référence*). The challenges associated with the renewal of hydraulic concessions in France are specified in section 1.4.1.5.1.4 "Hydropower generation issues" of the 2018 *Document de Référence*.

The EDF Group cannot guarantee that each of the concessions that it currently operates will be renewed, or that any concession will be renewed under the same financial terms and conditions as the initial concession. Furthermore, the EDF Group cannot guarantee that the compensation paid by the government in the event of early termination of a concession's operation will fully compensate the EDF Group's consequent loss of revenue, or that future regulations regarding the limitation of fees will not change in a way that could negatively affect the EDF Group. These factors could have an adverse impact on its activities and financial position.

The EDF Group also operates under electricity distribution or generation concessions in other countries where it does business, particularly in Italy in the field of hydropower generation. Depending on the conditions in each country, the transmission, distribution or generation concessions may not be continued or may not be renewed in its favour with changes to the financial terms and conditions of the concession specifications, which would have an adverse impact on the EDF Group's activities and financial position.

***Description 1D: EDF has certain obligations, in particular public service obligations, that are remunerated by mechanisms that may not provide complete compensation for additional costs incurred in connection with such obligations, or that are subject to change.***

The public service contract entered into by the French government and EDF on 24 October 2005 specifies the objectives and terms for performing the public service obligations that EDF is appointed to perform under law (in particular Articles L. 121-1 *et seq.* of the French *Code de l'énergie*), and also sets out the mechanisms under which EDF is compensated for the performance of these obligations (see section 1.5.2 "Public service in France" and section 1.5.3.2 "French legislation: Energy Code - Compensation of Public Electricity Service (CSPE)" of the 2018 *Document de Référence*). The estimated amount of public service energy costs to be offset in France in 2019 for EDF amounts to €7,206.1 million (decision of the Energy Regulation Commission of 12 July 2018 on the assessment of public service energy costs for 2019).

The development of renewable energies connected directly to the distribution network may, in certain regions, saturate the reception capacities of the source substations and networks. This situation may possibly generate local imbalances, or disputes if Enedis must disconnect certain producers or connect them with significant delays. New investments may be required in these regions, with the risk that the costs associated therewith may not be taken into account.

More generally, EDF cannot be certain that the compensation mechanisms provided in the laws and regulations applicable to it for performing these public service obligations will fully compensate additional costs incurred to perform such obligations. Furthermore, EDF cannot guarantee that these compensation mechanisms will never be subject to change or that existing mechanisms will fully cover potential additional costs that may be incurred in relation with new duties imposed on EDF in connection with its public service obligations, in particular when a new public service contract is negotiated.

The occurrence of any of these events may have an adverse impact on EDF's activities and financial position. Such situations could also call into question the EDF Group's ability to achieve its corporate responsibility goal no. 3 in its commitment to supporting fragile populations (see section 3.2.3.1 "EDF's commitment: providing 100% of vulnerable populations with information and support solutions in terms of energy consumption and access to rights (CSR no. 3)" of the 2018 *Document de Référence*).

***Description 1E: Changes to regulations concerning energy savings certificates (ESC) could impose additional obligations on EDF and generate costs in relation thereto.***

In France, the energy savings certificates (ESC) measure, which is set out in Articles L. 221-1 *et seq.* of the French *Code de l'énergie*, imposes energy savings obligations on energy sellers. It sets a three-year energy savings target in terms of volumes for those bound by the obligations and financial penalties in case of failure to meet the targets. The Energy Transition for Green Growth Act of 17 August 2015 (*loi n° 2015-992 du 17 août 2015 relative à la transition*

*énergétique pour la croissance verte*) amended the ESC scheme for the third period of the scheme by adding to the original obligation a supplementary scheme for energy savings for households in situations of fuel poverty. Decree No. 2017-690 of 2 May 2017 (*décret n° 2017-690 du 2 mai 2017 modifiant les dispositions de la partie réglementaire du code de l'énergie relatives aux certificats d'économies d'énergie*) set the overall level of obligations for the 2018-2020 period, with a doubling of objectives compared to the third period (see section 1.5.6.1 "General regulations applicable to the environment, health, hygiene and safety" of the 2018 *Document de Référence*).

An increase in competition between energy suppliers, the economic crisis or a reduction in the main sources of energy savings could cause an additional difficulty in reaching this three-year objective. The EDF Group cannot guarantee that the commercial costs incurred in meeting the three-year target will be fully passed on in energy prices, which would be detrimental to the EDF Group's financial position. Such situations would also call into question corporate responsibility goal no. 1 in its commitment to climate and corporate responsibility goal no. 4 in its commitment to helping each customer consume better (CSRG 1 and CSRG 4, see section 3.2.1.1 "EDF group's ambition (CSRG no. 1)" and section 3.2.4.1 "Innovate so that customers can consume better (CSRG no. 4)" of the 2018 *Document de Référence*).

### **Risks related to the competitive and general context**

#### ***Description 2A: The EDF Group faces stiff competition in the European energy markets and, especially, in the French electricity market, which constitutes its main market.***

In France, the electricity market has been totally open to competition since 1 July 2007. All EDF customers can select their electricity supplier and therefore choose any of EDF's competitors (see section 1.4.2.1 "Presentation of the market in France" of the 2018 *Document de Référence*). In a context of escalating competitive intensity (new customer expectations, new regulations, emergence of new players, mergers between existing operators, changes in market prices, etc.), these changes, at constant consumption and price levels, have had and may have in the future a negative impact on the EDF Group's sales in France. EDF must therefore adjust its marketing expenses; insufficient adjustment could have a negative impact on its profitability.

Elsewhere in Europe, the EDF Group faces different situations, depending on the local competitive conditions (totally or partially open markets, position of competitors, regulations, etc.). The type of competition faced by the EDF Group, the evolution over time of such competition and its effect on the EDF Group's activities and results vary from one country to another. These factors depend in particular on the level of market depth and its regulations in the country in question and on other factors over which the EDF Group has no control.

In this context, particularly following the development of low-carbon electricity uses and energy services and energy efficiency, the EDF Group may not be able to defend its market share or gain market shares as expected, or it may see its margins decrease, which would have an adverse effect on its activities, its strategy and its financial position.

#### ***Description 2B: In order to sell its output, the EDF Group is exposed, directly or indirectly, to the prices of the European wholesale energy markets and capacity markets in the course of deployment, the levels of which might impact its financial position.***

In conducting its production and marketing activities, the EDF Group does business in energy markets, primarily in Europe. Therefore, the EDF Group is exposed to price fluctuations in the wholesale energy markets (electricity, gas, coal, petroleum products). These fluctuations are particularly significant in the current context of wholesale energy prices in Europe (see section 5.1.2 "Economic environment" of the 2018 *Document de Référence* and section 2 "Economic environment" of the 2019 Half-Year Management Report).

In France, since the end of regulated tariffs for companies, the EDF Group has been exposed to market prices. The degree of exposure depends on the level of subscription to the ARENH mechanism, which is itself dependent on the level of market prices: market exposure in France

is thus at a maximum when no ARENH volume is subscribed and it is then estimated at about 80% of the EDF production in France.

Low electricity price levels create strong uncertainty regarding sales, the expected margin and the results. If they persist, they may also affect the profitability of the EDF Group's generating units and, more broadly, the value of assets, mainly in Europe, and the conditions under which they are maintained or even renewed.

Various factors affect these price levels in wholesale energy markets: commodity prices in world markets, the balance between supply and demand, but also tariff, fiscal or subsidy policies allocated to certain means of generation. Therefore, the EDF Group cannot guarantee that it will be able to avoid adverse impacts on the development of its activities, the valuation of its assets and its financial position.

The EDF Group manages its exposure to these risks primarily through purchases and sales on wholesale markets. With the exception of petroleum products markets, these are recent markets that are still under development. Therefore, a lack of liquidity may limit the EDF Group's ability to hedge its exposure to risks in the energy market. Moreover, certain of these markets continue to be partially partitioned by country due to, in particular, a lack of interconnections. Furthermore, these markets may experience significant price increases or decreases that are difficult to foresee, as well as liquidity crises.

Energy market risks are managed in accordance with the "Energy market risks" policy adopted by the EDF Group (see section 2.2.2.2.1 "Control of energy market risks" of the 2018 *Document de Référence*). The EDF Group hedges its positions on these markets through derivatives, such as futures, forwards, swaps and options traded on organised markets or over the counter. However, the EDF Group cannot guarantee that it is totally protected, in particular against liquidity risks and significant price fluctuations, which could have an adverse impact on its financial position and the valuation of its assets (see note 40 "Management of market and counterparty risks" to the consolidated financial statements for the year ended 31 December 2018).

In addition, the context of wholesale energy market prices in Europe may impact the profitability of certain generating tools, particularly those that are potentially useful for food security, and this applies to all European producers. Capacity markets are currently being set up in several European countries, but with different approaches. In addition, the judgement handed down by the European Court of Justice on 15 November 2018 suspending the capacity market in place in Great Britain, poses a risk to its sustainability and the corresponding revenues for EDF Energy. The EDF Group's exposure to these various evolving capacity markets may affect its financial position.

***Description 2C: The societal, technological and economic context may not be favourable to the EDF Group's low-carbon solutions for the transition to address climate change challenges.***

The EDF Group has made a commitment to significantly reduce its carbon dioxide emissions released directly into the atmosphere, with a target of 30 million tonnes in 2030 instead of 51 million tonnes in 2017. The achievement of this objective, which contributes directly to corporate responsibility goal no. 1 with regard to climate commitment (see CSRG 1 section 3), is primarily determined by the continued societal acceptance of nuclear energy, the successful closure or conversion of fossil fuel-fired power plants and the accelerated development of renewable means of generation in addition to nuclear and hydropower generation. The EDF Group has been particularly active in the development of solar energy in France, electric storage and low-carbon electric mobility, which will make it possible to develop and promote the EDF Group's low-carbon energy solutions, particularly for the transport sector, which still emits a very high level of carbon dioxide in France and Europe.

The external, societal, competitive, social, economic or industrial context could constitute a barrier to these developments. New low-carbon energy solutions can lead to new societal questions (new intrusive technologies, land tenure, new usage conflicts in the use of scarce

resources, etc.). Nuclear energy may not be recognised at the societal level as a key factor in enabling the low-carbon transition.

The EDF Group may encounter difficulties in achieving these transformations and may not achieve the desired objectives. It may also have to deal with the emergence of new technologies or disruptive solutions in response to the need for transition.

These situations are likely to directly or indirectly affect the EDF Group's business volumes, margins, the value of its assets, its financial position, its reputation or its outlook, and the achievement of the first corporate responsibility goal and compliance with its climate commitment (see section 3.2.1.1 "EDF group's ambition (CSRG no. 1)" of the 2018 *Document de Référence*).

The time-frame of this risk factor is short/medium term.

***Description 2D: The EDF Group is exposed to physical effects of climate change that could have consequences on its own industrial and tertiary facilities and more generally on the EDF Group's financial position.***

The EDF Group's industrial and tertiary facilities may not be designed to cope with extreme weather events caused by climate change in the context of their expected operating life, notably despite periodic reviews of nuclear and hydropower facilities. The EDF Group's industrial, logistics and tertiary activities are likely to be significantly affected by the possible physical effects of climate change. These effects are difficult to predict and could have an adverse effect on the continued operation of the EDF Group's activities, its operating results, cash flows and overall operating performance. New legislative or regulatory developments caused by climate change may also have a negative impact on EDF's activities.

Such situations may jeopardise the EDF Group's commitment to meeting the challenges of climate change as expressed in its Sustainable Development Policy and may have consequences on its financial position and reputation.

The time-frame of this risk factor is medium/long term.

***Description 2E: The EDF Group is exposed to an increase in the risk of malicious attacks, particularly on its information system.***

The facilities or assets operated by the EDF Group or its employees may be the target of external attacks or malicious acts of any kind. An attack or malicious act committed on these facilities could have consequences such as injury to persons and damage to property, the EDF Group being held liable on the grounds of measures judged to be inadequate and interruptions to operations. In addition, the EDF Group cannot guarantee that laws and regulations regarding the protection of sensitive sites and critical infrastructure will not become more restrictive, which could generate additional investments or costs for the EDF Group.

The EDF Group operates multiple, interconnected and highly complex information systems (databases, servers, networks, applications, etc.) that are essential to the conduct of its commercial and industrial activity, the preservation of its human, industrial and commercial assets, and the protection of personal data (of customers and employees alike), the control of its industrial processes, particularly hydropower and nuclear, which must adapt to a rapidly changing context (digital transition, development of teleworking, new ways to share work in extended companies with suppliers, changes in regulations, etc.).

The frequency and sophistication of information system hacking and data corruption incidents are increasing worldwide.

A malicious attack may have a negative impact on the EDF Group's operational activity, its financial, legal or property position or its reputation.

***Description 2F: Repeated customer power supply interruptions, or a black out, or a widespread power grid incident, in a territory served by the EDF Group could have consequences for the EDF Group's activities, financial position and reputation, particularly if they were partly attributable to the EDF Group.***

The EDF Group may be faced with repeated power outages or even a black-out, a widespread network incident of considerable scale, or be involved in it, even if the triggering incident occurred on a network not operated by EDF or was attributable to another player.

The causes of power outages can be diverse: local or regional imbalance between electricity generation and consumption, accidental power supply or transmission failure, cascade failures, interconnection problems, delays in investment and the necessary network conversions to meet the needs of energy and ecological transition, difficulty in coordinating players, particularly in a market with insufficient or evolving regulation.

The initial impact of such power failures could be repair costs incurred to re-establish power or restore the network. Power failures may also generate capital expenditures if it were decided, for example, to install additional generation or network capacity. This could also cause a decline in the EDF Group's turnover. Finally, they could have a negative impact on the EDF Group's financial position or reputation with its customers and all its stakeholders, particularly if the power outage were to be partly attributable to it.

***Description 2G: Any major event or crisis of unpredictable scale, whether involving the EDF Group or outside the EDF Group, could have a significant negative impact on the EDF Group's financial position.***

As was the case with storms Klaus (2009) and Xynthia (2010) in France, and Irma (2017) in the Antilles, natural disasters (floods, landslides, earthquakes, etc.), other significant weather changes (droughts, etc.), or any other event on a scale that is difficult to predict (large-scale epidemics, a major industrial accident in the world, etc.) may affect the EDF Group's activities. The national and international feedback from each of these types of events may lead to provisions to strengthen the robustness of the EDF Group's facilities, particularly industrial facilities, and to limit the impact and consequences of such major events.

In the event of an exceptional incident, the measures adopted may generate costs beyond those of repairing the damage caused by the disaster and the loss of earnings from the interruption of the supply and services provided by the EDF Group.

As part of the renewal of the storm insurance coverage, Enedis has signed with Swiss Re a parametric insurance policy covering its aerial distribution network against the consequences of high-intensity storms (see section 2.5.5.3 "Storm cover" of the 2018 *Document de Référence*). Island Energy Systems aerial distribution networks are not covered for property damage. Damage to these networks could have an adverse impact on the EDF Group's financial position in the absence of insurance cover or if cover is inadequate. In addition, renewing or taking out these specific covers may be difficult or costlier due to the impact, frequency and magnitude of natural disasters experienced in recent years by the alternative risk transfer markets.

In the event of a wide-spread health epidemic, depending on the intensity of the crisis, the continuity of electricity supply and the safety of the facilities may no longer be fully guaranteed.

Despite the implementation of a crisis management system taking account of the EDF Group's territorial presence and the economic importance of the EDF Group's energy activities, the EDF Group cannot guarantee that the occurrence of a natural disaster, or any other event of a scale that is inherently difficult to predict, will not have a significant negative effect on its business, assets, financial position and reputation.

***Description 2H: The United Kingdom's exit from the European Union is likely to have an adverse effect on overall economic conditions, the financial markets and EDF's activities.***

In June 2016, a majority of UK citizens voted in favour of withdrawing from the European Union in a national referendum. The consequences of this referendum, and the procedures for the withdrawal of the United Kingdom, are the subject of negotiations within the withdrawal procedure specified by Article 50 of the Treaty on the European Union. Many of the United Kingdom's policies are likely to evolve (monetary, tax, economy, energy, etc.). The impact of these evolutions on the economic and financial environment (notably in terms of growth, exchange rates and inflation) and on the EDF Group may exist from the transition phase or once the course of events is stabilised. These consequences will depend on the content of the negotiations, not only between the United Kingdom and the European Union, but also with other parties involved, such as the Commonwealth, the United States and China.

The referendum created significant uncertainty about future relations between the United Kingdom and the European Union, including in terms of which laws and regulations of European origin the United Kingdom will decide to replace or replicate. Furthermore, the United Kingdom's withdrawal from the European Union may lead to changes in energy policy both within the European Union and the United Kingdom along with changes to laws relating to nuclear activity.

The draft law empowering the British Prime Minister to implement the right of withdrawal in accordance with Article 50 of the Treaty on European Union, which was approved by the House of Commons on 1 February 2017, provides for the joint exit from the European Atomic Energy Community established by the "Euratom" treaty, of which the United Kingdom became a member on 1 January 1973 at the same time as it became a member of the European Economic Community. Specific agreements have been negotiated accordingly in order to allow for continued cooperation in the nuclear field and operational continuity, with the United Kingdom remaining a member of the International Atomic Energy Agency. However, delays in setting up or deploying the new provisions could disrupt the implementation of ongoing or future projects and more generally, the operation of the existing nuclear fleet.

The impact of all these developments on the activity of the EDF Group in the United Kingdom remains limited in the short term. See section 1.4.5.1.1."Strategy" of the 2018 *Document de Référence*. It may however result in the worsening of the economic conditions leading to a restriction of the energy market. Changes in the monetary and economic environment, the deflationary or inflationary context, potential future exchange rate fluctuations, possible new legislation, regulations, tax or customs charges, both for trade in services and products and for the movement of people, new shifts instigated by economic players, may lead to new risks for the EDF Group in the UK market.

This new environment may lead to changes in the conditions of project profitability (see in particular section 1.4.5.1.2.4 "Nuclear New Build Business" of the 2018 *Document de Référence*) and to re-assessment or even removal of investors associated with the EDF Group's future projects in the United Kingdom or Europe. Changes in exchange rates and customs duties may have an impact on the Hinkley Point C (HPC) project, in particular (see section 2.1.5 description of the 5D factor below)

These developments, the uncertainty that they create, as well as the belief that any of them might occur, are likely to weaken European economic activity, threaten the stability of its regulatory environment and cause significant fluctuations in exchange rates (see the risk factor "exchange rate risk" below). This could have a significant adverse effect on global economic conditions, and in particular on the EDF Group's activities, financial position and operating results, particularly in the United Kingdom.

### **Risks related to the transformation of the EDF Group**

***Description 3A: The EDF Group's development strategy, changes in the scope of activities and synergies within the integrated EDF Group may not be implemented in accordance with the objectives defined by the EDF Group, at the service of customers, EDF Group stakeholders and climate protection.***

The EDF Group, in line with corporate responsibility goal no. 1 to protect the climate (see section 3.2.1.1 "EDF group's ambition (CSRG no. 1)" of the 2018 *Document de Référence*), and



goal no. 4, (see section 3.2.4.1 "Innovate so that customers can consume better (CSRG no. 4)" of the 2018 *Document de Référence*) intends to pursue its development as a high-performance and responsible electricity producer, champion of low-carbon growth in France, in its core countries in Europe (United Kingdom, Italy, Belgium) and internationally in accordance with the CAP2030 strategy. This strategy combines the search for growth drivers with the promotion of existing assets. The strategy and drivers of the EDF Group's transformation are described in section 1.3 "Group Strategy" of the 2018 *Document de Référence*. Weak synergy in the deployment of the EDF Group's integrated model, particularly upstream/downstream or in the enhancement of the complementarity of the divisions and the diversity of the solutions deployed by the EDF Group (see section 1.4 "Description of the Group's activities" of the 2018 *Document de Référence*) could lead to an increase in risks related to physical and market contingencies, and to a loss of gross margin, to the detriment of customers, subsidiaries and the EDF Group's performance. The lack of added value of geographical diversification, or of the diversification and complementarity of the low-carbon industrial solutions proposed by the EDF Group, or the reduction of cross-functional synergies deployed within the integrated EDF Group, could lead to a decrease in the EDF Group's ability to cope with the seasonal nature of the electricity generation and sales activity, the diversity of local expectations and the proximity of its customers and stakeholders, and the efficiency and, therefore, the competitiveness of the low-carbon industrial solutions used to meet them.

In order to provide itself with the resources for its strategy, the EDF Group implements development, conversion, reorganisation and performance plans (see risk factor 4B below entitled "The Group is exposed to the risk of non-control of operational performance and its continuous improvement"). These programmes may be complemented by a strategic analysis of assets which may itself lead to a requirement for additional financial agility, giving rise to disposals or acquisitions.

Focused primarily on its customers and stakeholders, the EDF Group intends to develop and consolidate its offer of integrated service solutions, in particular energy efficiency services, its offer of low-carbon and decentralised power generation solutions, and its offer of diffuse storage solutions, in a sustainable development approach and in close proximity to customers and local communities.

The Solar Plan, the Electric Storage Plan and the Electric Mobility Plan are three major levers for developing and expanding the range of low-carbon energy solutions offered by the EDF Group in addition to the industrial solutions already widely available within the EDF Group, particularly wind, hydro and nuclear power.

Even in the event of protective contractual arrangements, the EDF Group cannot guarantee that these various projects relating to its offer or to the various low-carbon industrial solutions deployed to meet them can be implemented according to the forecast schedules and under satisfactory economic, financial, regulatory, partnership or legal conditions or that they will ensure a long-term response to the needs expressed by our customers and stakeholders and the expected profitability at the outset, which could have a negative impact on the EDF Group's financial position, its commitment to the fight against climate change, and its reputation.

***Description 3B: Skill conversion and development may be insufficient in view of the EDF Group's transformation, business line requirements and new organisational and working methods.***

People development is the corporate responsibility goal no.2 (see section 3.2.2 "Committed to human development" of the 2018 *Document de Référence*). The EDF Group's scope of activity is evolving in a rapidly changing environment and context of energy and digital transition and, consequently, many new business lines are emerging and new working methods are being adopted (extended company, project platform operation, teleworking, etc.). The historical business lines are themselves undergoing dramatic change yet retaining their very high level of technicality, with a similarly high requirement for a culture of safety and security, particularly in the hydropower and nuclear power sectors as well as for electricity networks. The human and socio-organisational dimension is a key factor in the EDF Group's performance. The anticipation of emerging needs and requirements related to new business lines, the necessary functional

and geographical adjustments required to facilitate the evolution of the scope of activity, elicits adaptation and constant development of skills and organisations. (See section 3.4.1 "Professional excellence, employment and skills development" and section 3.4.2 "Providing the conditions for well-being: organisation and quality of working life" of the 2018 *Document de Référence*). Obtaining qualifications or authorisations may require several years and sufficient coverage for the transfer of knowledge and experience. The rapid evolution of technology and, therefore, of the business lines, requires flexibility and an increased ability to adapt on both an individual and organisational level, as well as in terms of working methods and acquiring and transmitting individual and collective skills.

The EDF Group considers the dynamic matching of skills to needs over time to be a major challenge and therefore implements the appropriate measures to facilitate change. However, it cannot guarantee that the measures taken will always be sufficient, timely or on satisfactory terms, which could have an impact on its business, financial position and reputation as an employer.

***Description 3C: The EDF Group may be required to meet significant commitments related to pensions and other employee benefits.***

The pension plans applicable in the various countries in which the EDF Group operates involve long-term commitments to pay benefits to the EDF Group's employees (see note 31 "Provisions for employee benefits" to the consolidated financial statements for the financial year ended 31 December 2018 and note 20.3 "Employee benefits" of the 2019 Half-Year Financial Statements). In France, in addition to these pension commitments, the EDF Group also owes obligations for post-employment benefits and long-term benefits for employees currently in service. The ongoing pension reform in France may have an impact on the EDF Group's commitments.

To cover these commitments, the EDF Group has set up outsourced funds or pension funds. At the end of 2018, depending on the case, assets only partially covered these commitments, although, for the EDF Group, the maturity dates of the obligations are relatively smoothed over time. At 31 December 2018, the average duration of employee benefits commitments was 18.8 years in France and 19.5 years in the United Kingdom.

The amounts of these commitments, the provisions booked, the outsourced funds or pension funds set up and the additional contributions required to make up insufficient funding are calculated based on certain actuarial assumptions, including a discount rate subject to adjustment depending on market conditions and, in the event of any employee-related commitments in France, on the rules governing retirement benefits paid out by the general retirement scheme, and amounts owed by the EDF Group. These assumptions and rules may be adjusted in the future, which could increase the EDF Group's current commitments for pensions and other employee benefits and, therefore, require a corresponding increase in provisions.

Furthermore, if the value of outsourced funds or pension funds proves insufficient to meet the corresponding commitments, in particular in the United Kingdom or France, primarily due to calculation assumptions or developments in the financial markets, (see risk factor above, "The Group is exposed to risks related to financial markets"), the EDF Group may be obliged to make additional contributions to the relevant funds, which may have an adverse impact on its financial position.

**Risks related to the EDF Group's operational performance**

***Description 4A: The EDF Group is exposed to risks related to the management of major projects, both nuclear and otherwise.***

As part of its activity and in its capacity as project owner or prime contractor, the EDF Group is called upon to carry out projects that are inherently complex, require significant investments and lengthy procedures for construction and regulatory approvals. A very large number of stakeholders can be involved. Projects may need to be connected to local development projects or may encounter difficulties with respect to local approval. The control of these projects is part

of the corporate responsibility goal no. 5 to organise a process of open dialogue and consultation for every new project around the world. (See section 3.2.5.1 "EDF's commitment to organise a worldwide dialogue and consultation process around our projects (CSRG no. 5)" of the 2018 *Document de Référence*).

Such projects may include, but are not limited to, offshore structures for new energies (offshore wind power in France) the installation of new meters throughout a distribution network covering tens of millions of customers in France or the United Kingdom, the implementation of international hydropower projects, or carrying out large-scale nuclear investments over decades, (notably, Grand Carénage, EPR projects and decommissioning projects). Technical, administrative, financing or admissibility issues are likely to affect project time lines, associated costs or profitability.

The additional and specific challenges and risks related to nuclear activities and nuclear projects, are specified in "Specific risks related to the EDF Group's nuclear activities" below.

More generally, the implementation of these projects may be subject to numerous technical, industrial, operational, economic, regulatory or environmental risks that could delay or prevent them. Such situations could have a negative impact on the EDF Group's activities, results, asset values, financial position, reputation and prospects.

***Description 4B: The EDF Group is exposed to the risk of non-control of operational performance and its continuous improvement.***

The EDF Group has set up programmes that aim to continuously improve its operational and financial performance and increase its financial flexibility. The objectives set for these programmes may not be achieved.

Energy, and electricity in particular, is an activity that is very closely linked to economic activity in general and requires responsiveness and flexibility in operational performance, notably to respond effectively to changes in the economic environment and the emerging needs of customers and stakeholders.

The EDF Group's operational and financial performance is a key condition for achieving corporate responsibility goal no. 4, to commit and innovate to optimise customer energy consumption. (See section 3.2.4.1 "Innovate so that customers can consume better (CSRG no. 4)" of the 2018 *Document de Référence*). It makes it possible to achieve sustainable development performance objectives as expressed in the EDF Group's sustainable development policy and also contributes to the achievement of other corporate responsibility goals, no. 1, committed to climate action, (see section 3.2.1.1 "EDF group's ambition (CSRG no. 1)" of the 2018 *Document de Référence*), no. 3, committed to supporting fragile populations, (see section 3.2.3.1 "EDF's commitment: providing 100% of vulnerable populations with information and support solutions in terms of energy consumption and access to rights (CSRG no. 3)" of the 2018 *Document de Référence*) and no. 6, committed to biodiversity (see section 3.2.6.1 "EDF's commitment: to launch a positive approach to biodiversity, not to limit itself solely to knowledge in the long term, but to have a positive impact on biodiversity (CSRG no. 6)").

The EDF Group's ability to transform depends on the achievement of operating results.

However, the EDF Group cannot guarantee that the performance improvement programmes that it implements will have the anticipated results or that these results will be obtained according to the forecast schedule, nor that they will be sufficient to jointly cope with regulatory and economic developments and with the EDF Group's commitments.

Failure to achieve the expected operating results, and failure to achieve the objectives of improving operational performance, may lead to a direct deterioration in the EDF Group's financial position, reputation and ability to transform.

***Description 4C: The EDF Group is exposed to the operational continuity of supply chains and contractual relationships with customers and suppliers as well as to fluctuations in***

***the price and availability of materials, equipments or services it purchases in the course of its business activities.***

The EDF Group's needs can arise in markets with limited surface area or increasing tensions, in particular due to the structure and evolution of the industrial offer or the increase in competition from new uses (competition that increases in particular between the growing needs of information systems and the needs of energy players). The climate transition can create further tensions in supply chains. The effect of climate change could have consequences for supply chains. In the event of significant and sustained increases in the prices of raw materials, the EDF Group may experience higher procurement costs for certain critical products or services. Such increases may also lead certain suppliers to reduce supply due to reduced profit margins. Furthermore, the EDF Group's results may be affected by fluctuations in the prices of certain raw materials used to structure electricity and energy services prices. Certain materials, equipment or services could also be subject to increased demand relative to the available industrial supply, which could have an impact on their cost and availability and on the EDF Group's supply capacities in terms of costs, volume and contractual flexibility.

The EDF Group currently depends on a limited number of industrial players with specific skills and the required experience. This situation reduces competition in markets where EDF is a buyer and exposes the EDF Group to the default risk of one or more of these specialised suppliers or service providers. This is notably the case for Orano, Westinghouse, GE and Alstom (see section 2.3 "Dependency factors" of the 2018 *Document de Référence*). Changes to the shareholding or governance of these various providers may also have an impact on the cost, the operational continuity of ongoing contracts and the cost of services provided or delivered products.

The scarcity of raw materials could become critical for the EDF Group in the event of geological, geopolitical, industrial or regulatory constraints. The control of the conditions under which raw or semi-finished materials are extracted, processed or packaged for the EDF Group's needs, may be subject to provisions implementing strong regulatory requirements, increased vigilance, or the search for alternative solutions with R&D actions or the development of new industrial solutions.

Control of these activities can directly affect that of the financial position and, through its relations with its suppliers, the achievement of corporate responsibility goal no. 2 with respect to people development (see section 3.2.2 "Commitment to human development" of the 2018 *Document de Référence*). Corporate responsibility goal no. 2: adopt industrial groups' best practices in people development: health & safety, gender equality, and social advancement") and section 3.3.3.4 "responsible purchasing" of the 2018 *Document de Référence*.

***Description 4D: The EDF Group is exposed to risks in the financial markets.***

As a result of its activities, the EDF Group is exposed to risks in the financial markets:

- liquidity risk: the EDF Group must at all times have sufficient financial resources to finance its day-to-day business activities, the investments necessary for its expansion and the appropriations to the dedicated portfolio of assets covering long-term nuclear commitments, as well as to deal with any exceptional events that may arise. The EDF Group's ability to raise new debt, refinance its existing indebtedness or, more generally, raise funds in financial markets, and the conditions that can be negotiated to this effect, depend on numerous factors including the rating of the EDF Group's entities by rating agencies. The EDF Group's debt is periodically rated by independent rating agencies (see section 6.1.2 "Credit rating" of the 2019 Half-Year Management Report). Any downgrading of EDF's debt rating could increase the cost of refinancing existing loans and have a negative impact on the EDF Group's ability to obtain financing; To meet liquidity needs, the use of hybrid issues could lead to a change in the EDF Group's financial statements, particularly in the event of a change in accounting standards;
- counterparty risk: like all economic operators, the EDF Group is exposed to possible default by certain counterparties (partners, subcontractors, service providers, suppliers

or customers). A default by these counterparties may impact the EDF Group financially (loss of receivables, additional costs, in particular if EDF is required to find satisfactory alternatives or take over the relevant activities or pay contractual penalties). The risk may be hedged by the use of margin calls. In the event of high market volatility, the EDF Group may have to mobilise cash. (see section 5.1.6.1.1.2 "Management of Liquidity Risk" of the 2018 *Document de Référence* and section 6.1.1 "Liquidity position and management of liquidity risk" of the 2019 Half-Year Management Report.);

- exchange rate risk: due to the diversity of its activities and their geographical distribution, the EDF Group is exposed to the risks of fluctuations in foreign exchange rates, which may impact currency translation adjustments, balance sheet items and the EDF Group's financial expenses, equity and financial position. As the EDF Group is involved in long-term contracts, an unfavourable currency fluctuation could have consequences on project profitability. In the absence of hedging, currency fluctuations between the euro and the currencies of the various international markets in which the EDF Group operates can therefore significantly affect the EDF Group's results and make it difficult to compare performance levels from year to year. If the euro appreciates (or depreciates) against another currency, the euro value of the assets, liabilities, income and expenses initially recognised in that other currency will decline (or increase). Moreover, insofar as the EDF Group is likely to incur expenses in a currency other than that in which the corresponding sales are made, fluctuations in exchange rates could result in an increase in expenses, expressed as a percentage of turnover, which could affect the EDF Group's profitability and income (see section 5.1.6.1.3 "Management of foreign exchange risk of the 2018 *Document de Référence* and section 6.1.3 "Management of foreign exchange risk" of the 2019 Half-Year Management Report). An adverse fluctuation of 10% in exchange rates related to currencies in which the EDF Group's debts are denominated (USD, GBP, other currencies) would have an impact amounting to around 2% on the EDF Group's indebtedness after hedging instruments;
- equity risk: the EDF Group is exposed to equity risk on securities held primarily as dedicated assets constituted to cover the cost of long-term commitments in relation with the nuclear business, in connection with outsourced pension funds and, to a lesser extent, in connection with its cash assets and investments held directly by the EDF Group (see section 5.1.6.1.5 "Management of equity risks" of the 2018 *Document de Référence* and section 6.1.5 of the 2019 Half-Year Management Report and section 5.1.6.1.6 "Management of financial risk on EDF's dedicated asset portfolio" of the 2018 *Document de Référence* and section 6.1.6 "Management of financial risk on EDF's dedicated asset portfolio" of the 2019 Half-Year Management Report);
- interest rate risk: the EDF Group is exposed to risks related to changes in interest rates in the various countries in which it operates. These rates depend partly on the decisions of the central banks. Increases in interest rates could affect the EDF Group's ability to obtain financing under optimum conditions or even its ability to refinance itself if the markets are very tight. The EDF Group's exposure to changes in interest rates involves in particular two types of risks: (i) the risk of changes in the value of fixed-rate financial assets and liabilities along with the risk of changes in the EDF Group's discounted liabilities and (ii) the risk of changes in cash flows associated with variable-rate financial assets and liabilities. Downward variations in interest rates could notably affect the value of the EDF Group's long-term commitments in the nuclear field and its commitments in matters of retirement and other specific provisions in favour of the employees, which are discounted with discount rates which depend on interest rates with different time frames. Such changes in provisions could impact the EDF Group's financial position by (i) affecting the financial rating of its debt securities and (ii) generating an obligation to pay for dedicated hedging assets (See risk factor below "Specific risks related to the EDF Group's nuclear activities", in the paragraph "Provisions made by the EDF Group for spent fuel treatment operations, recovery and packaging of waste and for the long-term management of waste may increase significantly if assumptions... are revised") (and see section 5.1.6.1.4 "Management of interest rate risk" of the 2018 *Document de Référence* and section 6.1.4 "Management of interest rate risk" of the 2019 Half-Year Management Report).

The impact on income before tax of a 0.5% fluctuation in interest rates would be around +€290 million<sup>1</sup> (impact on the financial result in relation to the cost of the debt and the accretion expense of the provisions, and on the gross operating surplus in relation to the benefits to the personnel).

As for the financial assets held by the EDF Group and classified as floating-rate bonds and negotiable debt securities, the impact on income before tax of a 1% fluctuation in interest rates would be around €22 million.

Besides, the EDF Group's exchange rate risk relates, in particular; to the value of the EDF Group's long-term nuclear commitments (see note 29 "Provisions related to Nuclear Generation – Back end of the Nuclear Cycle, Plant decommissioning and last cores" to the consolidated financial statements for the fiscal year ended 31 December 2018) and its commitments for pensions and other specific employee benefits (see note 31 to the consolidated financial statements for the fiscal year ended 31 December 2018), which are discounted to their present value using rates that depend on interest rates at various time horizons, and debt instruments held for the management of the dedicated assets constituted to cover these commitments.

For the specific case of nuclear provisions in France, given the decline in rates over the past few years, the discount rate could be reduced over the next few years by applying the method used by the EDF Group, in accordance with regulation on the ceiling discount rate. The importance of this decline will depend on the future rates evolution. An increase in nuclear provisions due to a decrease of the discount rate may require allocations to the dedicated assets and may result in an adverse effect on the EDF Group's results, cash flow generation and net debt.

With regards to the regulations on the ceiling discount rate, the order dated 29 December 2017 changes the statutory discount rate ceiling. The new formula leads, progressively over a period of ten years, from the regulatory ceiling as of 31 December 2016 (4.3%), to a regulatory ceiling equal, in 2026, to the average over the four previous years of the thirty-year constant maturity rate (TEC 30), increased by 100 basis points.

Given past and expected changes in rates, this new formula, which takes into account progressively the transition from the 4.3% regulatory rate to an average rate calculated over four years, including a 100 basis point spread, should lead to a steadier evolution of the regulatory ceiling rate during the next few years, as opposed to the previous formula.

As the case may be, this increase in provisions, including those covered by dedicated assets, does not mean however a mechanical impact on the amount to be allocated to dedicated assets as of the considered dates, as the former depends on:

- the profitability of dedicated assets and the resulting hedging rate: there is no need to provide dedicated assets once the hedging rate reaches 110%;
- the period within which the allocation is made, as applicable rules provide for the option to set a maximum three-year time period to proceed with the allocation, subject to approval by the supervisory authority.
- As a reminder, changes in nuclear provisions estimates resulting from a variation of the discount rate are recorded (see notes 1.3.2.2 "Nuclear Provisions" and 29.1.5.1 "Discount rate" to the consolidated financial statements for the financial year ended 31 December 2018 presented in chapter 6 of the 2018 *Document de Référence*);
- as an increase or decrease of the corresponding assets, within the limit of their net book value, when the counterparty to the provision has been initially recorded as an asset;
- as financial income for the period in other cases.

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<sup>1</sup> This estimate is only indicative. The completeness of the economic effects of a rate increase for the Group is not presented here.

Therefore, any change of the discount rate therefore has a punctual impact on the financial results of the year during which the discount rate change occurred, without equivalence for the following years.

The policy and principles concerning the management of the EDF Group's financial risks are described in section 5.1.6.1 "Management and control of financial risks" of the 2018 *Document de Référence* and section 6.1 "Management and control of financial risks" of the 2019 Half-Year Management Report. The control of financial risks is described in section 2.2.2.2.2 "Control of financial risks" of the 2018 *Document de Référence*.

However, the EDF Group cannot guarantee that it is totally protected, in particular in the event of significant fluctuations in foreign exchange rates, interest rates and the equities markets.

***Description 4E: The EDF Group is exposed to occupational health and safety risks.***

Human resources and their related skills are a major challenge for the EDF Group and its service providers. In a very diverse industrial context, adherence to rules and consideration of the various risks that may affect people working in the EDF Group's industrial facilities are crucial to preserving occupational health and safety.

On 29 May 2018, EDF's Chairman and CEO signed a global agreement at the headquarters of the International Labour Organisation in Geneva, with the General Secretaries of two global trade union federations, IndustriAll Global Union and Rosasa Pavanelli for Public Services International (PSI), as a responsible employer, covering human and social rights. This agreement encompasses all EDF's industrial and tertiary activities in 24 countries, in accordance with international labour conventions. It is designed to guarantee the development of a common set of standards for the EDF Group's 160,000 employees and to consolidate social dialogue. This agreement promotes human rights, diversity, health and safety, skills development and social protection for employees and subcontractors wherever the EDF Group operates. This commitment is in line with corporate responsibility goal no. 2 (section 3.2.2 "Committed to human development. Corporate responsibility objective no. 2: to integrate the best practices of industrial groups in terms of human development: health/ safety, gender equality, and internal social advancement" of the 2018 *Document de Référence*).

Although the EDF Group has for many years taken the steps necessary to comply with the health and safety laws and regulations in the various countries in which it operates, and considers that it has taken the measures required to ensure the health and safety of its employees and that of its subcontractors', the risk of occupational illnesses or accidents cannot be excluded. The occurrence of such events may lead to lawsuits against the EDF Group and may result in the payment of damages, which could be significant.

***Description 4F: Prohibited and unethical practices carried out by employees or third parties in the conduct of business could, in certain circumstances, adversely affect the EDF Group's reputation and shareholder value. The EDF Group is involved, and could be involved in the future, in litigations or regulatory investigations which may adversely affect the EDF Group's reputation, as well as its relationship with regulatory bodies and results.***

The globalisation of the EDF Group's activities and the strengthening of regulatory frameworks repressing unethical practices especially in the conduct of business could expose the EDF Group, its employees, or third parties acting on the EDF Group's behalf to criminal and civil sanctions that could adversely affect EDF's reputation and shareholder value.

In France, Act No 2016-1691 of 9 December 2016 on transparency, the fight against corruption and the modernisation of economic life (*loi n° 2016-1691 du 9 décembre 2016 relative à la transparence, à la lutte contre la corruption et à la modernisation de la vie économique*) requires companies to take measures to prevent and identify acts of corruption or trading in influence, under the control of a French Anti-Corruption Agency established under the Act and under penalty of administrative or criminal penalties. This law incorporates a system for protecting whistleblowers from possible criminal or disciplinary prosecution and provides, within

a corporate framework, an internal alert reporting system (see section 1.5.6.1 "General regulations applicable to the environment, health, hygiene and safety" of the 2018 *Document de Référence*). These regulations could increase compliance costs. Moreover, any failure to comply in any way with these regulations could lead to prosecutions being brought against EDF, which could have a negative impact on the EDF Group's result and reputation.

Notwithstanding the fact that the EDF Group has taken all necessary measures to ensure the compliance of its practices with the regulations in force, a risk of non-compliance cannot be totally ruled out.

As a result of its activities, the EDF Group is involved in several litigation and arbitration cases and regulatory investigations, of which material ones are described in section 2.4 "Legal proceedings and arbitration" of the 2018 *Document de Référence*. In the future, the EDF Group may be involved or exposed to such proceedings. The potential adverse outcome of these proceedings may entail the payment of damages, or result in other civil or criminal adverse consequences (including financial consequences) for the EDF Group. The implementation of class actions in France in 2014 and similar developments in other European jurisdictions, as well as recent or future regulatory changes, may increase litigation risks and related costs, which could have a negative impact on the EDF Group's results and reputation.

***Description 4G: The EDF Group operates facilities for which accidents could, in the event of a failure in industrial safety, have serious consequences on the human or natural environment, particularly in terms of biodiversity and environmental capital.***

The EDF Group operates or has operated facilities which, as part of their day-to-day operations, can, may or may have been the cause of industrial accidents or environmental and health impacts. The EDF Group's facilities may be located in industrial areas where other activities subject to similar risks are conducted, which means that the EDF Group's own facilities may be impacted by accidents occurring at neighbouring facilities owned by other operators and not under the EDF Group's control.

Biodiversity issues concern all the EDF Group's facilities and projects, particularly in France where EDF is a landowner and a manager of natural resources of great importance. The EDF Group is committed to biodiversity through its corporate responsibility goal no. 6 (see section 3.2.6.1 "EDF's commitment: to launch a positive approach to biodiversity, not to limit itself solely to knowledge in the long term, but to have a positive impact on biodiversity (CSRG no. 6)" of the 2018 *Document de Référence*).

Measures taken for industrial safety and the control of these risks may not be fully effective, which could have consequences for people, property and business continuity. Protective measures may be taken on similar facilities. The EDF Group may be held liable.

Insurance policies for civil liability and damages taken out by the EDF Group could prove to be significantly inadequate, and the EDF Group cannot guarantee that it will always be able to maintain a level of cover at least equal to current cover levels and at the same cost.

The risks specific to nuclear facilities are the subject of an additional explanation in section 2.1.5 "Specific risks related to the EDF Group's nuclear activities".

The impact of an industrial safety failure may have a negative impact on the EDF Group's operational activity, its financial, legal or property position or its reputation, and may affect the EDF Group's ability to achieve Corporate Responsibility Goal no. 6 with respect to biodiversity.

### **Specific risks related to the EDF Group's nuclear activities**

The EDF Group is the world's leading nuclear operator in terms of the number of reactors in operation (73 reactors for which the EDF Group is the nuclear operator, among 453 operating



reactors in the world)<sup>2</sup>. With 58 reactors in operation in France, nuclear electricity accounted for 47.8% of installed electrical power at the end of 2018, and accounted for 71.6% of total electricity output in France<sup>3</sup> during that year. EDF operates 15 nuclear reactors in the United Kingdom, accounting for 19.3% of electricity output in 2017<sup>4</sup>.

The EDF Group has basic nuclear fuel cycle facilities and carries out activities in research, equipment manufacture and the supply of services to other nuclear operators, since the integration of the New NP subsidiary, now Framatome, within the scope of the EDF Group in 2018.

In addition, the EDF Group holds minority stakes in nuclear power plants in operation in China, the United States, Belgium and Switzerland, which it does not operate. The EDF Group is investing in new reactor projects in France, the United Kingdom and China and carries out its nuclear industrial activity in other countries, notably India and the United Arab Emirates, countries in which nuclear operators signed agreements with the EDF Group in 2018.

The share of nuclear energy, as a low-carbon form of energy and a part of the EDF Group's electricity mix, thus represents a significant industrial asset for the competitiveness and development of the EDF Group.

Given the low impact of the nuclear industry's fossil carbon dioxide emissions over the entire industrial life cycle, the performance and control of nuclear activities directly contribute to achieving corporate responsibility goals: committed to climate action (see CSRG no. 1); committed to human development (see CSRG no. 2); committed to supporting fragile populations (see CSRG no. 3), particularly in the fight against fuel poverty and access to clean, low-carbon and competitive energy, including for the most disadvantaged; committed to helping each customer consume better (see CSRG no. 4); committed to consultation (see CSRG no. 5); and committed to biodiversity (see CSRG no. 6). (see section 3.2 "EDF's corporate social responsibility goals" of the 2018 *Document de Référence*. The control and performance of nuclear activities are at the heart of EDF's sustainable development policy.)

The nuclear activities of EDF are associated with the following issues:

- as with any nuclear operator, the latter's obligations means giving ongoing priority to nuclear safety, based on technical and organisational provisions in order to guard against a nuclear accident and, in the hypothetical event of an accident occurring, to limit the consequences of such an accident. The nuclear business is carried out under the control of nuclear safety authorities in countries where the EDF Group exercises nuclear operator responsibility; failure to take into account the requisite number 1 priority dedicated to nuclear safety could have a significant or even vital impact on the EDF Group;
- the EDF Group's nuclear activity is subject to detailed and demanding regulations with, particularly in France, a system in place that monitors and periodically re-examines basic nuclear facilities, which focuses, firstly on nuclear safety, protection of the environment and public health, but also on security considerations regarding malicious acts. These regulations may be significantly tightened by national or European authorities (see section 1.5.6.2.2 "Specific regulations applicable to basic nuclear facilities" of the 2018 *Document de Référence*). Furthermore, stricter regulations or possible non-compliance with current or future regulations could result in the temporary or permanent shutdown of one or more of the EDF Group's plants or financial penalties as stated in Article L. 596-4 of the French *Code de l'environnement*. Cases of non-compliance with regulations or non-compliance with commitments undertaken, may also be used by third parties against EDF and brought before the courts. The increased

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<sup>2</sup> Source: International Atomic Energy Agency , Power Reactor Information System, <https://www.iaea.org/pris>, indicating that there were 453 nuclear reactors in operation in the world on 23 January, 2019.

<sup>3</sup> Source: RTE, [www.rte-france.com/fr/article/bilans-electriques-nationaux](http://www.rte-france.com/fr/article/bilans-electriques-nationaux)

<sup>4</sup> Source: [www.iaea.org/pris](http://www.iaea.org/pris)

number of requests emanating from the French Nuclear Safety Authority (NSA) and enhanced controls may increase EDF's compliance costs and risks;

- although the nuclear business can contribute effectively to the security of energy supply and to combating the greenhouse effect, it must also demonstrate its competitiveness and its acceptance over the different time scales in which it operates. Nuclear activity by its very nature requires substantial and long-term investments, sometimes spanning decades. The robustness and efficiency overtime of maintenance and upgrading programmes for the operating fleet, new reactor projects, and the respect of very long-term commitments are inevitably subject to extreme vigilance, with industrial cycles that span a century or even beyond;
- the nuclear fuel cycle is part of this long-term industrial outlook. EDF has a specific responsibility to develop a long-term strategy with the various stakeholders;
- the nuclear business is an industrial activity that brings together a large number of industrial partners in France, Europe and throughout the world. In France, EDF was assigned the role of lead company in the nuclear sector by the public authorities, with the integration of the Framatome subsidiary, which involves specific risks associated with the exercise of this responsibility and the activities of Framatome.

In light of the fact that EDF is the world's largest nuclear operator, exploiting global feedback and making comparisons with best practices internationally<sup>5</sup> represents an ongoing challenge to ensure that the EDF Group is well positioned to be able to sustainably manage the risks associated with being the world leader;

***Description 5A: In addition to the risks relating to industrial performance control set out in category 4 above, the exercise of nuclear operator liability, with the number one priority given to nuclear safety, determines the EDF Group's overall performance in its nuclear activities. As a result, the EDF Group is exposed to nuclear civil liability risks.***

The primary responsibility for nuclear safety lies with the nuclear operator throughout the operating cycle of nuclear reactors. The no. 1 priority given to nuclear safety drives the industrial performance of the nuclear activity as a whole. The nuclear operator's consideration of the design is an element of nuclear safety. Failure to control operating safety could have major or even vital consequences on the value of the EDF Group's industrial assets, its financial position and its development outlook or even on the continuation of its industrial activity.

Any serious event related to the EDF Group's nuclear activities, with a potential or proven impact on the population or on a territory, could lead to a significant increase in the operating constraints of the EDF Group's industrial sites, or even the partial or total interruption of the EDF Group's nuclear activities. Such an event could have a significant negative impact on the EDF Group's activities, financial position, strategy and reputation.

The nuclear civil liability scheme that applies to nuclear facility operators of States Parties to the Paris Convention, and the insurance applicable thereto, are described in section 1.5.6.2.2 ("Specific regulations applicable to basic nuclear facilities" of the 2018 *Document de Référence*) and section 2.5.6 ("Specific insurance for nuclear facility operations" of the 2018 *Document de Référence*). This scheme is based on the principle of the operator's strict liability. Accordingly, if an event occurs that causes nuclear damage, the EDF Group would be automatically liable up to a monetary maximum set by the law applicable in the country, regardless of the source of the event that caused the damage and any safety measures that may have been taken.

The EDF Group cannot guarantee that in countries where it operates nuclear facilities the maximum liability set by law will not be increased or cancelled. For example, the protocols amending the Paris Convention and the Brussels Convention, not yet in force (see section

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<sup>5</sup> Exploitation of standards and feedback from the International Atomic Energy Agency and the World Association of Nuclear Operators (WANO).

1.5.6.2.2 "Specific regulations applicable to basic nuclear facilities" of the 2018 *Document de Référence*), provide for these maximum amounts to be increased and a substantial expansion of the damage to be covered. With regard to the new amounts, Act No. 2015-992 of 17 August 2015 on the energy transition for green growth (*loi n° 2015-992 du 17 août 2015 relative à la transition énergétique pour la croissance verte*) made them applicable as from 18 February 2016. The operator's liability in France now amounts to €700 million in the event of a nuclear accident in a facility and €70 million in the event of a nuclear accident during transport. The entry into force of the other changes laid out in these protocols is likely to increase yet again the cost of insurance and the EDF Group cannot guarantee that insurance covering this liability will always be available or that it will always be able to maintain such insurance. The insurance cover for the EDF Group's civil liability as a nuclear operator is described in section 2.5.6.1 "Civil liability of nuclear facility operators" of the 2018 *Document de Référence* and for insurance coverage for transport of nuclear materials in section 2.5.6.2 "Civil liability for transport of nuclear substances" of the 2018 *Document de Référence*.

Property damage to EDF's nuclear facilities is covered by insurance programmes (see section 2.5.6.3 "Damage to nuclear facilities" of the 2018 *Document de Référence*). Despite this cover, any event that may cause significant damage to a nuclear facility of the EDF Group could have an adverse impact on the EDF Group's business and financial position.

Lastly, the EDF Group cannot guarantee that the insurers that cover both its liability as a nuclear plant operator and property damage to its facilities will always have available capacity or that the costs of cover will not significantly increase, particularly in light of the impacts on the insurance market of events such as the nuclear accident in Japan that occurred in March 2011.

***Description 5B: The EDF Group may not be able to obtain authorisation to continue the operation of its reactors beyond the period currently planned, or it may not even be authorised to exploit them up to the end of this period. In addition to the control of complex projects specified in risk factor 4B described above, the EDF Group may not be able to control the costs and deadlines of its operations to upgrade the fleet in operation (major refit in France).***

The fleet of nuclear reactors that the EDF Group currently operates in France is highly standardised (see section 1.4.1.1.1 "EDF's nuclear fleet in France" of the 2018 *Document de Référence*). This enables the EDF Group, in particular, to achieve economies of scale, to apply improvements made to its newest reactors to all reactors and, in the event of a reactor malfunction, to anticipate the measures to be taken in other reactors. But this standardisation has a potential parallel risk of the dysfunction being common to several reactors or to a generation or series of reactors (see section 1.4.1.1.2 "Operation and technical performance of the nuclear fleet of the 2018 *Document de Référence*"). The EDF Group cannot guarantee that it will not be required to make significant or costly repairs or modifications to all or some of its plants, or that events will not occur that may have an impact on the operation of its plants or their output or cause a temporary or permanent shutdown of all or some of its plants.

During the periodic reviews carried out during the ten-yearly inspections and following the Fukushima accident in Japan, the EDF Group drew up a major work programme, called "Large refit", the principle of which was approved by the Board of Directors. The potential risks of the latter include a possible delay in the appraisal of the authorisations required to start operations, in particular as regards the authorisations expected from the French Nuclear Safety Authority (ASN). Such uncertainties may also concern the manufacture and delivery on site of new equipment or work carried out on-site in a situation where a large number of industrial operations are being carried out at the same time.

The ASN decides on the measures taken by the operator and may give additional instructions for each reactor and for each authorisation stage. Solutions are being studied to demonstrate the capacity of non-replaceable equipment such as the containment building and reactor vessels, to ensure their operation up to 60 years. These studies, which are based on data

available in France but also internationally<sup>6</sup> make it possible to confirm the safety margins available for the operating periods under investigation but may also lead to the need to identify additional protective measures, if necessary, to be taken on the existing fleet, which could have consequences on its performance.

In order to postpone the construction of new units and related investments, and to continue to benefit from low-carbon generation and cash flows from its existing fleet, the EDF Group has been aiming for several years to extend the operating life of its nuclear fleet in France beyond 40 years, a period already exceeded in France for five reactors. The fourth ten-yearly inspection of the 900MWe reactor series (VD4-900), like the previous ones, includes, on the one hand, a verification of the compliance of the facilities with the current reference design and, on the other hand, a safety reassessment. This makes it possible to increase the level of safety by taking into account, on the one hand, international best practices and, on the other hand, the condition of the facilities, the experience acquired during operation and the evolution of the knowledge and rules applicable to similar facilities.

The ASN shall examine the extended operation of each reactor on the basis of a report on the conclusions of the periodic re-examination, taking into account the results of the inspections and re-qualification tests. The first concluding report on the fourth re-examination of the 900 reactor series should be available in February 2020 for Tricastin 1. The president of the ASN confirmed that the generic opinion would be issued in 2020 and that the enforceable and applicable requirements for EDF would be submitted in 2021 by the ASN. The ASN will rely on the following key elements: the Response Note to the Objectives, which was sent to the ASN on 28 February 2018 and which takes stock of the provisions proposed by EDF as part of the fourth periodic re-examination of the 900 reactor series, the result of the public consultation on the generic phase of the re-examination, which was launched in the second half of 2018 under the supervision of the High Committee for Transparency and Information on Nuclear Safety, the conclusions of the standing "reactors" group currently scheduled for 2020 and the first concluding report of the fourth periodic re-examination to be submitted by EDF in February 2020 for the first reactor concerned.

In 2016, all the technical, economic and governance conditions necessary for the amortisation period of France's nuclear fleet with the EDF Group's industrial strategy to match were met (see notes 1.3.2 "Management judgements and estimates" and 1.3.2.1. "Depreciation period of nuclear power plants in France" to the financial statements as of 31 December 2018). The consolidated financial statements dated 31 December 2018 incorporate the extension from 40 to 50 years of the amortisation period of the 900MW PWR units (except Fessenheim), without prejudice to any decisions which might be made by the French Nuclear Safety Agency following each ten-year inspection regarding authorisations to continue operations, reactor by reactor.

The accounting period of the other series of France's nuclear fleet (1,300MW and 1,450MW), which are more recent, currently remains at 40 years, because the conditions for an extension have not been met. The subsequent extension of these other series remains an industrial objective of the EDF Group that may not be achieved.

In the United Kingdom, in-service inspection and upgrading programmes for reactors in operation, in particular advanced gas reactors (AGR) with specific technology, may result in prolonged downtime.

The current planned operating period for the reactors in EDF Energy's existing nuclear fleet ranges from 41 to 47 years for advanced gas reactors (AGRs) and is 40 years for the pressurised water reactor (PWR). Since EDF Energy acquired them, the operating lifespan of the AGR power plants has been extended by 10 years on average and the objective is to increase the operating life of the PWR power plant by 20 years after the currently planned 40 years (see section 1.4.5.1.2.1 "Nuclear generation" of the 2018 *Document de Référence*). However, in light of the nuclear safety rules applicable in the United Kingdom, the EDF Group

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<sup>6</sup> Six reactors in the US are being investigated for an extended operating life of 80 years: the Nuclear Regulatory Commission (NRC) staff has defined subsequent license renewal (SLR) to be the period of extended operation from 60 years to 80 years. <https://www.nrc.gov/reactors/operating/licensing/renewal/subsequent-license-renewal.html>.

cannot guarantee that EDF Energy will obtain the necessary authorisations at the appropriate time to operate its existing nuclear reactors until the end of their currently projected operating life, or that such authorisations will not be obtained subject to conditions that entail significant expenditures or investments for the EDF Group.

For nuclear reactors where EDF is not in charge of operation but has financial interests (United States, Belgium, Switzerland, China), the EDF Group is financially exposed to the same risks. The EDF Group may be required to contribute up to the amount of its share to costly repairs or modifications to be carried out on these units or to events that may have an impact on their operating lifespan, production or availability. As in France and the United Kingdom, the nuclear safety authorities in these countries may take decisions that require additional works or controls, in particular as regards exploiting feedback from international experience and anticipating potentially precursory events.

Furthermore, despite the quality of operations and the changes made by the EDF Group to its nuclear facilities, it cannot be ruled out that some of these facilities will be subject to special operating conditions to reinforce the operating safety margins at the initiative of the nuclear operator responsible for nuclear safety or at the request of the Nuclear Safety Agency.

Finally, a potential serious nuclear accident not involving the EDF Group but with widespread consequences worldwide could lead the Safety Authorities to require new reactor upgrades applicable to the EDF Group's reactors, and to those in which the EDF Group has a stake.

The EDF Group cannot guarantee that it will receive the expected operating lifespan extension from the competent authorities. Furthermore, such extensions could also be obtained under certain conditions, the financial impact of which, in particular in terms of investments, could affect the EDF Group's strategy with respect to extending the operating life of its reactors or the EDF Group's ability to pursue its global investment strategy. These events could have a significant negative impact on the EDF Group's financial position.

***Description 5C-1: The amount of dedicated assets in France allocated by the EDF Group to cover the costs of its long-term nuclear business commitments (radioactive waste and decommissioning) might need to be revised upwards or require additional expenditures.***

In France, as of 30 June 2019, the market value of EDF's portfolio of dedicated assets was €30.258 billion, compared to €27.689 billion on 31 December 2018 (see sections 1.4.1.1.7 "Assets available to cover long-term nuclear commitments (outside the operating cycle)" of the 2018 *Document de Référence* and 1.5.6.2.2 "Specific regulations applicable to basic nuclear facilities" of the 2018 *Document de Référence* and note 45.3 "Valuation of EDF's dedicated assets" to the consolidated financial statements for the financial year ended 31 December 2018, see note 24.1 "Valuation of EDF's dedicated assets" of the 2019 Half-Year Financial Statements).

In the event of a significant change in the provisions determining the reference base of the dedicated assets, it might prove necessary to make additional allocations to adjust the value of these assets, which could have a material adverse impact on EDF's financial position. Moreover, stricter regulations at the national level (in particular those that impact the base for determining the dedicated assets to be constituted by EDF) or European level may lead to more stringent requirements regarding the constitution of dedicated assets and have a significant impact on EDF's financial position.

Lastly, although these assets are constituted and managed in accordance with strict prudential rules, the EDF Group cannot guarantee that price fluctuations in the financial markets or changes in valuation will not have a material adverse impact on the value of these assets (see section 5.1.6.1.6 "Management of financial risk on EDF's dedicated asset portfolio" of the 2018 *Document de Référence* for a sensitivity analysis and section 6.1.6. "Management of financial risk on EDF's dedicated asset portfolio" of the 2019 Half-Year Management Report), which could require EDF to allocate additional amounts to restore the value of these assets; such events could have a material adverse effect on the EDF Group's financial position.

In the United Kingdom, funds to finance nuclear commitments are managed by an independent organisation created by the UK government (Nuclear Liabilities Fund – NLF). Operators therefore have no assets to manage for this purpose (see section 1.4.5.1.2.1 “Nuclear generation” of the 2018 *Document de Référence*).

The unavailability or insufficient amount of dedicated assets to hedge the expenditure schedules of the EDF Group's long-term commitments could have a negative impact on the EDF Group's financial position and reputation.

***Description 5C-2: The provisions allocated by the EDF Group for final processing and storage of radioactive waste may be insufficient, particularly for long-lived waste from spent fuel reprocessing and decommissioning.***

The EDF Group's liability may be alleged, in particular as a nuclear power operator or producer of radioactive waste within the meaning of applicable legislation on waste, in the event of an accident or any damage to third parties or the environment from spent fuel or waste, even if they are handled, transported, kept, warehoused or stored by contractors other than the EDF Group (especially, in France, the ORANO EDF Group and the French National Agency for the Management of Radioactive Waste (ANDRA)), in particular in the event of a breach by such contractors.

In France, the EDF Group is responsible for all radioactive waste produced during the operation of its nuclear facilities, during the reprocessing of spent fuel from its reactors, and during the decommissioning operations of its nuclear facilities. (See section 1.4.1.1.4 “The nuclear fuel cycle and related issues - Storing conditioned ultimate waste” of the 2018 *Document de Référence*).

The long-term management of radioactive waste has been the subject of various studies under programme laws no. 91-1381 of 30 December 1991 on research on radioactive waste management and no. 2006-739 of 28 June 2006 on the sustainable management of radioactive materials and waste. The EDF Group cannot guarantee that all long-life high- and medium-level waste will constitute “final radioactive waste” within the meaning of Article L. 542-1-1 of the French *Code de l'environnement* and, therefore, that such waste may be directly stored in deep geological layers, especially as the nuclear order of 10 February 2016 adopted pursuant to Law no. 2015-992 on the Energy Transition for Green Growth empowers the administrative authority to reclassify radioactive material as radioactive waste and radioactive waste as radioactive material. Nor can the EDF Group guarantee the time-frame within which the authorisations allowing such storage will be granted by the public authorities, nor what the technical guidelines will be, which is likely to create uncertainties regarding the fate of waste, liability and the resulting costs for EDF.

EDF has allocated provisions for the long-term management of waste, assessed on the assumption of geological storage, which is the international solution of reference for the ultimate storage of long-lived high-level radioactive waste and on the basis of a reasonable version of the work carried out in 2006 by a working group comprising ANDRA, the public authorities and radioactive waste producers (see note 29.1.2 “Provisions for waste removal and conditioning – Provisions for long-term radioactive waste management” to the consolidated financial statements for the year ended 31 December 2018). Following new calculations of the costs of deep storage under the supervision of the DGEC in conjunction with EDF, the Minister of Ecology, Sustainable Development and Energy, in an order of 15 January 2016, set the new reference cost at €25 billion under the economic conditions of 31 December 2011. This cost was taken into account in the EDF Group's financial statements at the end of 2015 (see note 29.1.2 “Provisions for waste removal and conditioning – Provisions for long-term radioactive waste management” to the consolidated financial statements for the year ended 31 December 2018). The current estimate is based on the preliminary design assumptions and will be regularly revised based on the progress of the project, as stated in the Ministerial order. Opinion no. 2018-AV-0300 from the French Nuclear Safety Authority dated 11 January 2018 relative to the safety options file presented by Andra for the Cigeo project to store radioactive waste in a deep geological layer specifies that the project has achieved satisfactory overall technological maturity at the stage of the safety options file. The reservations that remain and the

supplementary investigation being carried out for Andra to obtain approval for the construction of the geological storage area starting in 2022 could lead to a revision of the provisions for long-term waste management.

The Act no. 2006-739 dated 28 June 2006 (*loi n° 2006-739 du 28 juin 2006 de programme relative à la gestion durable des matières et déchets radioactifs*) provided for a dedicated storage centre for Low-Level Long-Life waste (FAVL), such as graphite. ANDRA submitted a progress report in July 2015 under the national plan for the management of radioactive materials and radioactive waste (PNGMDR). This report assesses several storage concepts and allows for the possibility of storage of graphite waste on the Soulaïnes site. A global industrial plan for the management of all FAVL radioactive waste is planned by the PNGMDR before the end of 2019. (See section 1.4.1.1.4 "The nuclear fuel cycle and related issues" of the 2018 *Document de Référence*). Provisions may have to be adjusted accordingly.

In the United Kingdom, when British Energy was restructured, agreements were entered into with the authorities concerning the management of certain radioactive waste from existing nuclear power plants (see section 1.4.5.1.2.1 "Nuclear generation" of the 2018 *Document de Référence*). Under the terms of these agreements, the liability and certain costs associated with the management of certain radioactive waste are transferred to the British government. However, EDF Energy Nuclear Generation Ltd. remains financially, technically and legally liable for the management, storage and processing of waste that does not come within the scope of the aforementioned agreements.

For nuclear power plants which EDF does not operate, but in which it has financial interests (United States, Belgium, Switzerland, China), the EDF Group is exposed financially in proportion to its shareholding to contributing to future expenditures related to the management of spent fuel and waste.

In addition to these technical and industrial sensitivity factors, the amount of provisions currently set aside may change in the coming years. Determining the amount of these provisions is sensitive to assumptions made in terms of costs, inflation rate, long-term discount rate and payment schedules. Pursuant to the French *Code de l'environnement*, the amount of these provisions may be controlled by the administrative authority formed jointly by the Ministry for the Economy and the Ministry of Energy, which verifies in particular the adequacy of the provisioned expenses and imposes a cap on the discount rate for the provisions. Given these sensitivity factors, changes in certain parameters may require significant adjustments of the provisions booked. In such case, any insufficiency of provisions for long-term nuclear commitments may have a material adverse impact on the EDF Group's financial position (see note 29.1.5 "Discounting of provisions related to nuclear generation and sensitivity analyses" to the consolidated financial statements for the financial year ended 31 December 2018).

Note 29.1.5.2 "Analyses of sensitivity to macro-economic assumptions" of note 29.1 "Nuclear provisions in France" to the consolidated financial statements as of 31 December 2018 indicates the connection between "costs based on year-end economic conditions", which represent estimated amounts as at 31 December 2018, and "provisions made at present value". Concerning the long-term management of waste and the recovery and packaging of waste, the expenses at year-end economic conditions are evaluated at €32,164 million and the corresponding provision is €10,597 million, as the discounting effect is very significant due to distant waste storage maturities. Note 29.1.5.2 "Analyses of sensitivity to macro-economic assumptions" to the consolidated financial statements as of 31 December 2018 indicates the analyses of sensitivity of provisions and EDF Group's results to a discount rate change, for the different types of provisions.

Failure to control the costs and time-frames for completion with respect to the solutions for the treatment and ultimate storage of waste for which the EDF Group is liable would have a negative impact on the EDF Group's financial position and reputation.

***Description 5C-3: The provisions allocated by the EDF Group for the decommissioning of nuclear facilities may be insufficient. In particular, in addition to the control of complex projects specified in risk factor 4 - A above, the decommissioning of the existing nuclear***

***fleet could present difficulties that are not currently envisaged or could be significantly more costly than currently provided for.***

Ongoing operations in France (see section 1.4.1.1.6 "Decommissioning of nuclear power plants" of the 2018 *Document de Référence*) concern plants that were built and operated before the current nuclear fleet and the Superphenix plant ("first generation" plants). These operations cover four different reactor technologies: heavy water reactor (Brennilis), sodium-cooled fast reactor (Superphenix at Creys-Malville), graphite-moderated and gas-cooled reactor (UNGG reactors at Chinon, Saint Laurent and Bugey) and the ("PWR" at Chooz). These operations were firsts for EDF and with the exception of the PWR, they concern reactor technologies for which international feedback is low or non-existent. They therefore require the development of new methods and technologies which involve greater risk than technologies for which feedback is already available. The decommissioning of the PWR at Chooz does benefit from some feedback (essentially American and of a limited nature) but it has the innovative specific feature of being located in a cave, which also makes it an unusual operation for which experience is not immediately transferable and which includes specific risks.

The feedback from the PWR at Chooz will enable consolidation, as far as possible, of the studies and estimates on the future costs of decommissioning the nuclear fleet currently in operation (power plants of the "second generation"). Nevertheless, neither EDF, nor any other operator, has yet undertaken a decommissioning programme on a scale comparable to that of the EDF Group's current PWR fleet and the estimates therefore involve risks that are associated in particular with this scale effect.

The time-frame and cost of the work is also dependent on administrative authorisations and the timely availability of radioactive waste storage centres or other facilities required for the conditioning or storage of waste packages.

In addition to these technical and industrial sensitivity factors, the amount of provisions currently set aside may change in the coming years. Determining the amount of these provisions is sensitive to assumptions made in terms of costs, inflation rates, long-term discount rates and payment schedules. The amount of these provisions, in accordance with the French *Code de l'environnement*, is subject to control by the administrative authority, which verifies in particular the adequacy of the provisioned expenses and imposes a cap on the discount rate for the provisions.

Given these sensitivity factors, changes in certain parameters may require significant adjustments of the provisions booked and, therefore, the EDF Group cannot guarantee that the provisions booked will equal the costs actually incurred at the relevant time, which would have an adverse impact on the EDF Group's financial position (see note 29.1.5 "Discounting of provisions related to nuclear generation and sensitivity analyses" to the consolidated financial statements for the financial year ended 31 December 2018). The EDF Group regularly conducts an update of the key assumptions underlying the provisions (see note 29.1.3 "Decommissioning provisions for nuclear power plants" to the consolidated financial statements for the financial year ended 31 December 2018).

With regards to the provision for decommissioning the nuclear electricity generation fleet in France, the costs at year-end economic conditions are evaluated at €27,331 million and the corresponding provision is €15,985 million. As for the last core provision, costs based on year-end economic conditions are estimated at €4,346 million and provision at present value amounts are valued €2,526 million, as the discounting effect is very significant due to distant waste storage maturities. Note 29.1.5.2 "Analyses of sensitivity to macro-economic assumptions" to the consolidated financial statements for the fiscal year ended on 31 December 2018 indicates the analyses of sensitivity of provisions and EDF Group's results to a discount rate change, for the different types of provisions.

The provisions of Framatome and SOCODEI in relation to the basic nuclear facilities in France stand respectively at €77.5 million and €45.5 million (see note 30 "other provisions for decommissioning" to the consolidated financial statements for the fiscal year ended 31 December 2018).



In the United Kingdom, under the agreements concluded in connection with the restructuring of British Energy, the costs of decommissioning EDF Energy Nuclear Generation Group Ltd.'s existing nuclear power plants will be paid by the Nuclear Liabilities Fund. If the assets of this Fund prove insufficient, these costs will be borne by the UK Government (see section 1.4.5.1.2.1 "Nuclear Generation" of the 2018 *Document de Référence*).

For nuclear power plants which EDF does not operate, but has financial interests in (China, United States, Belgium, Switzerland), the EDF Group is exposed financially in proportion to its contribution to future decommissioning costs.

Failure to control the costs, the time-frame for completion and the associated provisions with respect to the decommissioning of nuclear facilities for which the EDF Group is liable would have a negative impact on the EDF Group's financial position and reputation.

**Description 5D: in addition to the risk of controlling complex projects (risk factor 4A described above), the success of EPR projects depends on specific industrial, regulatory and financial factors.**

The success of EPR projects determines the performance and reputation of the nuclear industrial sector, and through it, those of the EDF Group.

The Flamanville 3 project is a major industrial, regulatory and financial challenge for the EDF Group.

On-time completion remains conditional, notably on the implementation of the action plan for the 53 welding operations to be carried out on the pipes of the main secondary circuit of the Flamanville EPR, on the success of the start-up tests still to be carried out, as well as on obtaining the various permits that have yet to be issued by the ASN. Within this framework, EDF has requested the amendment of the construction authorisation decree, as a precautionary measure, with the Ministry of Ecological and Solidarity Transition on 11 March 2019 with a view to extend the deadline for commissioning the reactor until 11 April 2023.

The EDF Group might have to cope with new uncertainties. It might not obtain the expected permits or they might be compromised by judicial decisions.

Furthermore, EDF has proposed a specific process to the ASN justifying ten further welding operations to ensure the high level of safety of the facility throughout its operational lifespan. This number was reduced to eight as two of the welding operations initially concerned have since been found to be compliant.

The ASN is expected to issue an opinion on EDF's strategy for the Flamanville 3 welding operations in May 2019. If the ASN's assessment of this strategy is negative, the completion schedule for delivering the work-site would not be met. Any delay in this schedule would result in an increase in the cost of construction beyond the current target<sup>7</sup>. Despite the mobilisation of the teams, the completion schedule remains tight (see section 1.4.1.2.1 "Flamanville 3 EPR Project" of the 2018 *Document de Référence*).

Studies of the EPR 2 Project are continuing in order to establish a competitive reactor for the renewal of the existing nuclear fleet. Failure to meet the competitiveness target, the absence of an appropriate regulatory framework or the failure to obtain the necessary permits to continue the reactor's development could have an impact on the EDF Group's financial position (see section 1.4.1.2.2 "Other "New Nuclear projects" "EPR 2" of the 2018 *Document de Référence*).

In China, the EDF Group has a 30% stake in TNPJVC (Taishan Nuclear Power Joint Venture Company Limited) alongside its Chinese partner CGN. Taishan 1 was the first EPR reactor to be coupled to the grid on 29 June 2018. It was commissioned on 13 December 2018. The Taishan 2 reactor is continuing its start-up tests with a view to commissioning in 2019. CGN's

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<sup>7</sup>

€10.9 billion in 2015, excluding interim interest.

work with the competent Chinese authorities to obtain a buyback tariff may fail to result in a buyback tariff that meets the expected profitability objectives (see sections 1.4.1.2.2 "Other "New Nuclear projects" -Taishan EPR" and 1.4.5.3.6.1 "Activities in China" of the 2018 *Document de Référence*).

In the United Kingdom, control of the design and bringing the manufacturing and the major milestones of the construction site under control will determine the profitability of the Hinkley C project and the financing of any future projects in the United Kingdom. The EDF Group has a 66.5% stake in the Hinkley Point C Project, alongside its Chinese partner CGN with 33.5% (see sections 1.4.1.2.2 "Other "New Nuclear projects" and section 1.4.5.1.2.4 "Nuclear New Build Business" of the 2018 *Document de Référence*). The project's completion costs were estimated in July 2017 at £19.6 billion 2015<sup>8</sup>. This estimate depends on the success of operational action plans, particularly those in partnership with the suppliers. In addition, the risk of a postponement of commercial commissioning is estimated at 15 months for unit 1 and nine months for unit 2. The additional cost of this potential deferral has been estimated at approximately £0.7 billion 2015. The IRR for the project is sensitive to exchange rates and could be reduced if the pound sterling continues to drop in relation to the euro. Furthermore, the conditions for carrying out the project may be affected by the terms and conditions for deploying Brexit (see risk 2H described above), in particular on customs duties, the movement of persons and trade in products and services. Finally, the governance of the project could be affected in the event of misalignment between shareholders. Changes to these different factors could have an impact on the EDF Group's financial position.

EDF has also signed two other agreements with CGN relating to studies on two nuclear construction projects in the United Kingdom: Sizewell C and Bradwell B (see section 1.4.5.1.2.4 "Nuclear New Build Business" of the 2018 *Document de Référence*). EDF's ability to make a final investment decision on Sizewell C and to finance this project beyond the development phase could depend on the control of the Hinkley Point C project, the existence of investors and financiers and an appropriate regulatory and financing framework.

On 10 March 2018, the Chairman and Chief Executive Officer of EDF and the Chairman and Chief Executive Officer of NPCIL (Nuclear Power Corporation of India Limited), which already operates 22 reactors in India, signed an Industrial Way Forward Agreement for the construction of six EPR-type reactors at the Jaitapur site in India. Jaitapur is set to be the biggest nuclear project in the world, with a total power capacity of around 10GW. EDF submitted a non-binding offer on 14 December 2018. As part of this offer, EDF, in association with GE and its subsidiary Framatome, will be the engineering contractor for the entire project and supplier of the EPR technology. EDF will undertake all engineering studies and all component procurement activities for the first two reactors. (See section 1.4.1.2.2 "Other New Nuclear projects - projects under development" and section 1.4.5.3.6.2 "South-East and Southern Asia of the 2018 *Document de Référence*").

A fundamental element for the success of an EPR project and for the operating safety of EPR reactors in which the EDF Group is involved is accounting for the needs of the final operator, who is responsible for operating safety, from the beginning of the design phase and throughout the design and implementation of the EPR project.

Framatome is now a EDF Group subsidiary and as such can expose the EDF Group through its activities for other nuclear operators or customers in France and abroad. Exposure may be financial or involve the EDF Group's reputation. Framatome's industrial performance remains strategic for EDF Nuclear Operator in France and the United Kingdom. The successful completion of an EPR project depends on quality and compliance with contractual clauses in Framatome's production of studies, components or services for each EPR Project.

The success and value creation resulting from Framatome's integration into the EDF Group implies a converging framework for nuclear projects, and the development of resulting synergies. Failure to achieve these objectives could jeopardise the competitiveness of the nuclear sector in

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<sup>8</sup> Excluding interim interest and excluding exchange -rate effects in relation to a reference exchange rate for the project of £1 = €1.23. At 31 December 2018, the exchange rate was €1.12=£1

France and that of the EDF Group in its international development, and the success of all EPR Projects.

These projects require obtaining administrative authorisations, licences, permits and, in certain cases, setting up additional partnerships, particularly for financing. These are large-scale and long-duration projects involving numerous industrial partners and significant investments, for which the financing and pricing conditions may still be subject to confirmation. Given the economic or institutional climate, obtaining such funding may be delayed.

Failure to comply with the EDF Group's contractual commitments, or the EDF Group's potential exposure in the event of a major incident in the execution of these projects or the operation of these reactors, could have a major impact on the EDF Group's exposure, legal and financial position or the EDF Group's reputation.

Finally, consultation and dialogue with all stakeholders, including institutional, local, national and international, industrial and financial stakeholders, on EPR projects contribute directly to the achievement of corporate responsibility goal no. 5 (see section 3.2.5.1 "EDF's commitment to organise a worldwide dialogue and consultation process around our projects (CSRG no. 5)" of the 2018 *Document de Référence*).

***Description 5E: In addition to the control of industrial performance specified in risk factor 4B of category 4, Operational Performance, set out above, the EDF Group is exposed in its nuclear activities to the requirement to control the nuclear fuel cycle.***

The EDF Group's operating costs include nuclear fuel purchases.

EDF is supplied with uranium, conversion and enrichment services, fuel assembly supplies and spent fuel reprocessing operations for its nuclear fleet in France and the United Kingdom.

Prices and volumes are subject to fluctuations due to factors that are inter alia political and economic and that the EDF Group cannot control (in particular, the profitability outlook of mining investments, imbalances between supply and demand or supply shortages associated with, for example, an operating accident in a uranium mine or a combined cycle plant, delays in commissioning new mines or events leading to institutional instability in a uranium-producing country).

The storage and transport of new or spent nuclear fuel is an industrial activity that requires specific safety and security measures. These requirements could become more stringent, generating additional difficulties and costs for the EDF Group.

In the event of the collapse of this industrial logistics system, the EDF Group could reduce or even interrupt all or part of the electricity generation at the affected sites, either due to the non-delivery of new assemblies or to the saturation of intermediate storage facilities, which could have a negative impact on the EDF Group's financial position (see section 1.4.1.1.4 "The nuclear fuel cycle and related issues" of the 2018 *Document de Référence*).

In France, EDF has booked provisions for spent nuclear fuel management operations (transport, processing, conditioning for recycling) (see note 29.1.1 to the consolidated financial statements for the financial year ended 31 December 2018) based on the price and volume conditions of the master agreement signed with Orano in December 2008 and broken down in the successive implementation agreements. The implementation agreement for the period from 2016-2023 was signed in February 2016 (see section 1.4.1.1.4 "The nuclear fuel cycle and related issues"). The amount of provisions currently booked to cover the period not covered by the current agreement should be reassessed if the terms under which this agreement is renewed prove more onerous than those currently applicable.

Note 29.1.5.2 "Analyses of sensitivity to macro-economic assumptions" of note 29.1 "Nuclear provisions in France" to the consolidated financial statements as of 31 December 2018 shows the connection between "costs based on year-end economic conditions", which represent estimated amounts as at 31 December 2018, and "provisions made at present value". As

## **Risk Factors**

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regards spent fuel management, the costs based on year-end economic conditions are estimated at €18,737 million euros and the corresponding provision is €10,698 million.

However, the EDF Group cannot guarantee that its contracts, in France and abroad, will completely protect it from sudden or significant price increases. The EDF Group cannot guarantee that when these long-term contracts expire, it will be able to renew them, in particular at an equivalent price. This could have an adverse impact on the EDF Group's financial position.

### IMPORTANT CONSIDERATIONS

#### ***Credit ratings***

EDF, and EDF's debt, have credit ratings which are the subject of review from time to time by the independent credit rating agencies which assign such credit ratings. In particular, since the publication of a press release by Moody's on 10 May 2018, S&P on 10 October 2019 and Fitch on 25 July 2018, EDF's long-term and short-term ratings have been respectively set at "A3" (stable outlook) and "P-2" by Moody's, "A-" (negative outlook) and "A-2" by S&P and "A-" (stable outlook) and "F2" by Fitch.

In addition, one or more independent credit rating agencies may assign credit ratings to the Notes. The ratings may not reflect the potential impact of all risks related to structure, market, additional factors discussed in this section, and other factors that may affect the value of the Notes.

A credit rating is not a recommendation to buy, sell or hold securities and may be revised, suspended or withdrawn by the rating agency at any time and without notice. Any such revision suspension or withdrawal of any such credit rating could adversely affect the value of the Notes.

In general, European regulated investors are restricted under Regulation (EC) no. 1060/2009 of 16 September 2009 on credit rating agencies, as amended (the "**CRA Regulation**") from using credit ratings for regulatory purposes, unless such ratings are issued by a credit rating agency established in the EU and registered under the CRA Regulation (and such registration has not been withdrawn or suspended), subject to transitional provisions that apply in certain circumstances whilst the registration application is pending. Such general restriction will also apply in the case of credit ratings issued by non-EU credit rating agencies, unless the relevant credit ratings are endorsed by an EU-registered credit rating agency or the relevant non-EU rating agency is certified in accordance with the CRA Regulation (and such endorsement action or certification, as the case may be, has not been withdrawn or suspended).

The relevant Final Terms will specify whether or not such credit ratings are issued by a credit rating agency established in the European Union, and whether or not the relevant credit rating agency is registered (or has applied for registration) under the CRA Regulation and is included in the list of registered credit rating agencies published on the website of the European Securities and Markets Authority ([www.esma.europa.eu](http://www.esma.europa.eu)).

#### ***Taxation***

Potential purchasers and sellers of the Notes should be aware that they may be required to pay taxes or other documentary charges or duties in accordance with the laws and practices of the country where the Notes are transferred or other jurisdictions, including the relevant Issuer's jurisdictions of incorporation, which may have an impact on the income received from the Notes. In some jurisdictions, no official statements of the tax authorities or court decisions may be available for innovative financial instruments such as the Notes. Potential investors are advised to ask for their own tax adviser's advice on their individual taxation with respect to the acquisition, sale and redemption of the Notes. Only these advisers are in a position to duly consider the specific situation of the potential investor.

## FORWARD-LOOKING STATEMENTS

This Base Prospectus (including the documents incorporated by reference and/or supplements thereto from time to time) may contain certain statements that are forward-looking including statements with respect to the Issuer and/or the EDF Group's business strategies, expansion and growth of operations, trends in its business, competitive advantage, and technological and regulatory changes, information on exchange rate risk and generally includes all statements preceded by, followed by or that include the words "**believe**", "**expect**", "**project**", "**anticipate**", "**seek**", "**estimate**" or similar expressions. Such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ materially from those in the forward-looking statements as a result of various factors. Potential investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date hereof.

## RETAIL CASCADES

In the context of any offer of Notes in France and/or in any other Member State of the European Union to which the Base Prospectus has been passported from time to time (the “**Public Offer Jurisdictions**”) that is not within an exemption from the requirement to publish a prospectus under the Prospectus Regulation, as amended, (a “**Public Offer**”), the Issuer consents to the use of the Base Prospectus and the relevant Final Terms (together, the “**Prospectus**”) in connection with a Public Offer of any Notes during the offer period specified in the relevant Final Terms (the “**Offer Period**”) and in the Public Offer Jurisdiction(s) specified in the relevant Final Terms by:

1. subject to conditions set out in the relevant Final Terms, any financial intermediary designated in such Final Terms; or

if so specified in the relevant Final Terms, any financial intermediary which satisfies the following conditions: (a) acts in accordance with all applicable laws, rules, regulations and guidance of any applicable regulatory bodies (the “**Rules**”), from time to time including, without limitation and in each case, Rules relating to both the appropriateness or suitability of any investment in the Notes by any person and disclosure to any potential investor; (b) complies with the restrictions set out under “*Subscription and Sale*” in this Base Prospectus which would apply as if it were a Dealer; (c) complies with the determination of the target market assessment in respect of the Notes and distribution channels identified under the “*MiFID II Product Governance*” legend set out in the relevant Final Terms; (d) ensures that any fee (and any commissions or benefits of any kind) received or paid by that financial intermediary in relation to the offer or sale of the Notes is fully and clearly disclosed to investors or potential investors; (e) holds all licences, consents, approvals and permissions required in connection with solicitation of interest in, or offers or sales of, the Notes under the Rules; (f) retains investor identification records for at least the minimum period required under applicable Rules, and shall, if so requested, make such records available to the relevant Dealer(s) and the Issuer or directly to the appropriate authorities with jurisdiction over the Issuer and/or the relevant Dealer(s) in order to enable the Issuer and/or the relevant Dealer(s) to comply with anti-money laundering, anti-bribery and “know your client” rules applying to the Issuer and/or the relevant Dealer(s); (g) does not, directly or indirectly, cause the Issuer or the relevant Dealer(s) to breach any Rule or any requirement to obtain or make any filing, authorisation or consent in any jurisdiction; and (h) satisfies any further conditions specified in the relevant Final Terms, (in each case an “**Authorised Offeror**”). For the avoidance of doubt, none of the Dealers or the Issuer shall have any obligation to ensure that an Authorised Offeror complies with applicable laws and regulations and shall therefore have no liability in this respect.

The Issuer accepts responsibility, in the Public Offer Jurisdiction(s) specified in the Final Terms, for the content of the Prospectus in relation to any person (an “**Investor**”) in such Public Offer Jurisdiction(s) to whom an offer of any Notes is made by any Authorised Offeror and where the offer is made during the period for which that consent is given. However, none of the Issuer or any Dealer shall have any responsibility for any of the actions of any Authorised Offeror, including compliance by an Authorised Offeror with applicable conduct of business rules or other local regulatory requirements or other securities law requirements in relation to such offer.

**The consent referred to above relates to Offer Periods (if any) ending no later than the date falling 12 months from the date of the approval of this Base Prospectus by the AMF.**

In the event the Final Terms designate financial intermediary(ies) to whom the Issuer has given its consent to use the Prospectus during an Offer Period, the Issuer may also give consent to additional Authorised Offerors after the date of the relevant Final Terms and, if it does so, it will publish any new information in relation to such Authorised Offerors who are unknown at the time of the approval of this Base Prospectus or the filing of the relevant Final Terms at ([www.http://france.edf.com](http://france.edf.com)).

**If the Final Terms specify that any financial intermediary may use the Prospectus during the Offer Period, any such Authorised Offeror is required, for the duration of the Offer**

**Period, to publish on its website that it is using the Prospectus for the relevant Public Offer with the consent of the Issuer and in accordance with the conditions attached thereto.**

Other than as set out above, none of the Issuer or any of the Dealers has authorised the making of any Public Offer by any person in any circumstances and such person is not permitted to use the Prospectus in connection with its offer of any Notes. Any such offers are not made on behalf of the Issuer or by any of the Dealers or Authorised Offerors and none of the Issuer or any of the Dealers or Authorised Offerors shall have any responsibility or liability for the actions of any person making such offers.

**An investor intending to acquire or acquiring any Notes from an Authorised Offeror will do so, and offers and sales of the Notes to an Investor by an Authorised Offeror will be made, in accordance with any terms and other arrangements in place between such Authorised Offeror and such Investor including as to price allocations and settlement arrangements (the “Specific Terms of the Public Offer”). The Issuer will not be a party to any such arrangements with Investors (other than Dealers) in connection with the offer or sale of the Notes and, accordingly, the Base Prospectus and any Final Terms will not contain such information. The Specific Terms of the Public Offer shall be provided to Investors by that Authorised Offeror at the time of the Public Offer. None of the Issuer or any of the Dealers or other Authorised Offerors shall have any responsibility or liability for such information.**



## DOCUMENTS INCORPORATED BY REFERENCE

The following documents (in the French language only) are hereby incorporated by reference in, and form part of, this Base Prospectus, with the exception of the items mentioned below as being excluded from this Base Prospectus:

- (a) the [2018 universal registration document \(URD\)](#) filed with the AMF under no. D.19-0727 on 29 July 2019 prepared by the Issuer;
- (b) the Issuer's half-year management report as at 30 June 2019 (*rapport semestriel d'activité*) (the "[2019 Half-Year Management Report](#)"), which contains the condensed consolidated half-year financial statements of the Issuer as at, and for the period ending on 30 June 2019 (the "[2019 Half-Year Financial Statements](#)") and the statutory auditors' review report on the 2019 interim condensed consolidated financial statements;
- (c) the 2018 *Document de Référence* filed with the AMF under no. D.19-0157 on 15 March 2019 prepared by the Issuer (hereafter the "[2018 Document de Référence](#)") which (a) contains, *inter alia*, the audited consolidated financial statements of the Issuer for the year ended 31 December 2018 and the statutory auditors report on such financial statements and (b) incorporates by reference the annual consolidated financial statements of the Issuer for the year ended 31 December 2017 and the statutory auditors report on such financial statements (as included in the [2017 Document de Référence](#) filed with the AMF under no. D.18-0133 on 15 March 2018), with the full exception of Chapter 8.1.2 of the 2018 *Document de Référence* relating to the EDF Chairman and Chief Executive Officer's declaration of responsibility regarding the content of the 2018 *Document de Référence*;
- (d) the section "Terms and Conditions" contained in the base prospectus of the Issuer dated 14 September 2018 (pages 130 to 169) filed with the AMF under number 18-432 on 14 September 2018 (the "[EMTN 2018 Conditions](#)");
- (e) the section "*Terms and Conditions*" contained in the base prospectus of the Issuer dated 14 September 2016 (pages 127 to 168) filed with the AMF under number 16-433 on 14 September 2016 (the "[EMTN 2016 Conditions](#)");
- (f) the section "*Terms and Conditions*" contained in the base prospectus of the Issuer dated 1 July 2015 (pages 115 to 156) filed with the AMF under number 15-330 on 1 July 2015 (the "[EMTN 2015 Conditions](#)"); and
- (g) the section "*Terms and Conditions*" contained in the base prospectus of the Issuer dated 17 June 2013 (pages 109 to 149) filed with the AMF under number 13-280 on 17 June 2013 (the "[EMTN 2013 Conditions](#)" and together with the EMTN 2015 Conditions, the EMTN 2016 Conditions and the EMTN 2018 Conditions, the "**EMTN Previous Conditions**").

Such documents and sections shall be deemed to be incorporated in, and form part of this Base Prospectus, save that (i) any statement contained in a document or part of a document which is incorporated by reference herein shall be modified or superseded for the purpose of this Base Prospectus to the extent that a statement contained herein modifies or supersedes such earlier statement (whether expressly, by implication or otherwise), and (ii) any statement contained in this Base Prospectus or in a section which is incorporated by reference herein shall be deemed to be modified or superseded for the purpose of this Base Prospectus to the extent that a statement contained in any section which is subsequently incorporated by reference herein by way of a supplement prepared in accordance with Article 23 of the Prospectus Regulation modifies or supersedes such earlier statement (whether expressly, by implication or otherwise). Any statement so modified or superseded shall not, except as so modified or superseded, constitute a part of this Base Prospectus.

For as long as the Programme remains in effect or any Notes are outstanding, copies of this Base Prospectus, documents incorporated by reference in this Base Prospectus, any supplement to this Base Prospectus and the Final Terms related to the Notes will be available

## Documents incorporated by reference

for viewing on the Issuer's website ([www.edf.com](http://www.edf.com)) and may be obtained, free of charge, during normal business hours from Électricité de France, 22-30, avenue de Wagram, 75008 Paris, France and at the specified offices of each of the Paying Agents.

For so long as the Programme remains in effect or any Notes remain outstanding, the following documents will be available on the website of the AMF ([www.amf-france.org](http://www.amf-france.org)):

- (a) the Final Terms for Notes that are listed on Euronext Paris or any other regulated market (for the purposes of MiFID II) in the EEA; and
- (b) this Base Prospectus, any Supplement to this Base Prospectus and any document incorporated by reference therein, except for the 2019 Half-Year Management Report, the 2019 Half-Year Financial Statements and the statutory auditors' review report in connection therewith.

Free English translation of the 2018 *Document de Référence*, the 2019 Half-Year Management Report and the 2019 Half-Year Financial Statements are available on the website of the Issuer for information purposes only.

In addition, if the Notes are listed and admitted to trading on a Regulated Market other than Euronext Paris, the relevant Final Terms will provide whether additional methods of publication are required and what they consist of.

Other than in relation to the documents which are deemed to be incorporated by reference, the information on the websites to which this Base Prospectus refers does not form part of this Base Prospectus and has not been scrutinised or approved by the AMF.

The cross-reference tables below set out the relevant page references for the information incorporated herein by reference:

### Annex VI of Commission Delegated Regulation no. 2019/980

Rule	2018 <i>Document de Référence</i> (DR) / 2019 Half-Year Management Report (HYMR) / 2019 Half-Year Financial Statements (HYFS)
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1.	<b>PERSONS RESPONSIBLE, THIRD PARTY INFORMATION, EXPERTS' REPORTS AND COMPETENT AUTHORITY APPROVAL</b>
1.1	Names of persons responsible for the information given in the registration document N/A
1.2	A declaration by those responsible for the registration document that the information contained in the registration document is, to the best of their knowledge, in accordance with the facts and contains no omission likely to affect its import N/A
1.3	Where a statement or report attributed to a person as an expert is included in the registration document, provide such person's name, business address, qualifications and material interest if any in the issuer. If the statement or report has been produced at the issuer's request, provide a statement that such statement or N/A

report has been included in the registration statement with the consent of the person who has authorised the contents of that part of the registration document for the purpose of the prospectus.

- 1.4 Where information has been sourced from a third party, provide a confirmation that this information has been accurately reproduced and that as far as the issuer is aware and is able to ascertain from information published by that third party, no facts have been omitted which would render the reproduced information inaccurate or misleading. In addition, the issuer shall identify the source(s) of the information. N/A

## 2. STATUTORY AUDITORS

- 2.1 Names and addresses of the Issuer's auditors for the period covered by the historical financial information Chapter 8, Section 8.2 (page 519) (DR)
- 2.2 If auditors have resigned, been removed or not been re-appointed during the period covered by the historical financial information, details if material N/A

## 3. RISK FACTORS

- 3.1 A description of the material risks that are specific to the Issuer and that may affect the Issuer's ability to fulfil its obligations under the securities, in a limited number of categories, in a section headed 'Risk Factors'. Chapter 1, Section 1.3 (pages 12-17) and Section 1.5 (pages 85-102) (DR)
- Chapter 2, Section 2.2 (pages 111-148), Section 2.5.5.3 (page 146) and Section 2.5.6 (pages 146-147) (DR)
- In each category the most material risks, in the assessment of the Issuer, offeror or person asking for admission to trading on a Regulated Market, taking into account the negative impact on the Issuer and the probability of their occurrence, shall be set out first. The risk factors shall be corroborated by the content of the registration document. Chapter 3, Section 3.2 (pages 158-179), Section 3.3.3.4 (pages 192-194), Section 3.4.1 (pages 195-198), Section 3.4.2 (page 199) and Section 3.5.1 (pages 206-210) (DR)
- Chapter 5, Section 5.1.6.1 (pages 299-306) (DR)

## 4. INFORMATION ABOUT THE ISSUER

- 4.1 History and development of the Issuer: Chapter 1, Section 1.1 (pages 8-9) (DR)
- 4.1.1 Legal and commercial name of the Issuer Chapter 7, Section 7.1.1 (page 502) (DR)

## Documents incorporated by reference

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4.1.2	Place of registration of the Issuer, its registration number and legal entity identifier (LEI)	Chapter 7, Section 7.1.2 (page 502) (DR) Chapter 8, Section 8.3 (page 519) (DR)
4.1.3	Date of incorporation and the length of life of the Issuer	Chapter 7, Section 7.1.3 (page 502) (DR)
4.1.4	Domicile and legal form of the Issuer, the legislation under which the Issuer operates, its country of incorporation, the address, telephone number of its registered office and website of the Issuer.	Chapter 7, Section 7.1.4 (page 502) (DR)
4.1.5	Details of any recent events	Chapter 5, Section 5.2 (page 310), Chapter 6, Section 6.1, note 50 (page 425) and Section 6.3, note 42 (page 489) (DR)
4.1.6	Credit ratings assigned to the Issuer at the request or with the cooperation of the Issuer in the rating process. A brief explanation of the meaning of the ratings if this has previously been published by the rating provider.	Chapter 5, Section 5.1.6.1.2 (page 301) (DR)
4.1.7	Information on the material changes in the Issuer's borrowing and funding structure since the last financial year.	Chapter 6, Section 6.1, note 38 (pages 401-404) (DR)
4.1.8	Description of the expected financing of the Issuer's activities.	Chapter 6, Section 6.1, note 38 (pages 401-404) (DR)

## 5. BUSINESS OVERVIEW

### 5.1 **Principal activities:**

5.1.1	A description of the Issuer's principal activities, including (a) the main categories of products sold and/or services performed; (b) an indication of any significant new products or activities; (c) the principal markets in which the Issuer competes.	Chapter 1, Section 1.4 (pages 18-84) (DR)
5.2	Basis for any statements made by the Issuer regarding its competitive position	Chapter 1, Section 1.4.2.1.2 (pages 46-47) and Section 1.4.5.1.2.3 (pages 64-65) (DR)

## 6. ORGANISATIONAL STRUCTURE

6.1	Brief description of the group and of the Issuer's position within it. This may be in the form of, or accompanied by, a diagram of the organisational structure if this helps to clarify the structure.	Chapter 1, Section 1.2 (pages 10-12) (DR)
6.2	If the issuer is dependent upon other entities within the group, this must be clearly stated together with an explanation of this dependence.	Chapter 2, Section 2.3 (pages 136-137) (DR)

## 7. TREND INFORMATION

- 7.1 A description of (a) any material adverse change in the prospects of the Issuer since the date of its last published audited financial statements; (b) any significant change in the financial performance of the Group since the end of the last financial period for which financial information has been published to the date of the registration document.
- Chapter 5, Section 5.2 (page 310), Chapter 6, Section 6.7 (page 495) (DR)
- If neither of the above are applicable, include an appropriate statement to the effect that no such changes exist.
- 7.2 Information on any known trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on the Issuer's prospects for at least the current financial year.
- Chapter 5, Section 5.4 (page 312) (DR)

## 8. PROFIT FORECASTS OR ESTIMATES

- 8.1 Where the Issuer includes on a voluntary basis a profit forecast or a profit estimate, a statement setting out the principal assumptions upon which the Issuer has based its forecast, or estimate and a statement that the profit forecast or estimate has been compiled and prepared on a basis which is both (a) comparable with the historical financial information; (b) consistent with the issuer's accounting policies.
- Chapter 5, Section 5.4 (page 312) (DR)
- Section 11 of the HYMR (page 40) (URD)
- If a profit forecast or profit estimate has been published and is still outstanding, but no longer valid, a statement to that effect and an explanation of why such profit forecast or estimate is no longer valid.
- 8.2 Where the Issuer chooses to include a new profit forecast or a new profit estimate, or where the Issuer includes a previously published profit forecast or a previously published profit estimate pursuant to item 8.1, a statement setting out the principal assumptions upon which the issuer has based its forecast, or estimate.
- Chapter 5, Section 5.1.2 (pages 280-286) and Section 5.1.3 (pages 286-287) (DR)
- Section 11 of the HYMR (page 40) (URD)
- 8.3 A statement that the profit forecast or estimate has been compiled and prepared on a basis which is both (a) comparable with the historical financial information; (b) consistent with the
- N/A

issuer's accounting policies.

**9. ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES**

- |     |  |  |
|-----|--|--|
| 9.1 | Names, business addresses and functions in the Issuer of members of the administrative, management or supervisory bodies | Chapter 4, Section 4.2.1 (pages 240-257) and Section 4.3.1 (page 269) (DR) |
| 9.2 | Administrative, Management and Supervisory bodies' conflicts of interests  | Chapter 4, Section 4.4.1 (page 271) (DR)                                   |
|     | Potential conflicts of interest  |  |

**10. MAJOR SHAREHOLDERS**

- |      |   |   |
|------|---|---|
| 10.1 | To the extent known to the Issuer, state whether the Issuer is directly or indirectly owned or controlled and by whom and describe the nature of such control, and describe the measures in place to ensure that such control is not abused | Chapter 7, Section 7.3 (pages 505-510) (DR) |
| 10.2 | A description of any arrangements, known to the Issuer, the operation of which may at a subsequent date result in a change in control of the Issuer   | Chapter 7, Section 7.3.9 (page 510) (DR)    |

**11. FINANCIAL INFORMATION CONCERNING THE ISSUER'S ASSETS AND LIABILITIES, FINANCIAL POSITION AND PROFITS AND LOSSES**

**11.1 Historical Financial Information**

- |         |  |  |
|---------|--|--|
| 111.1   | Audited historical financial information covering the latest two financial years (or such shorter period as the Issuer has been in operation) and the audit report in respect of each year.  | Chapter 6, Section 6.1 (pages 314-429) and Section 6.2 (pages 430-432) for the year ended 31 December 2018 (DR)<br><br>Chapter 6, Section 6.1 (pages 296-408) and Section 6.2 (pages 409-412) for the year ended 31 December 2017 (DR) |
| 11.1.2  | If the Issuer has changed its accounting reference date during the period for which historical financial information is required, the audited historical financial information shall cover at least 24 months, or the entire period for which the Issuer has been in operation, whichever is shorter.  | N/A  |
| 111.1.3 | The financial information must be prepared according to International Financial Reporting Standards as endorsed in the Union based on Regulation (EC) No 1606/2002.<br><br>If Regulation (EC) No 1606/2002 is not applicable, the financial information must be prepared in accordance with either: (a) a Member State's national accounting standards for issuers from the EEA, as required by the Directive 2013/34/EU; (b) a third country's national accounting standards equivalent to Regulation (EC) No 1606/2002 for third country issuers. If such third country's national accounting standards are not equivalent to Regulation (EC) No 1606/2002, the financial statements shall be restated in compliance with that Regulation. | Chapter 6, Section 6.1 (pages 314-429) for the year ended 31 December 2018 (DR)<br><br>Chapter 6, Section 6.1 (pages 296-408) for the year ended 31 December 2017 (DR)<br><br>Pages 42-96 at 30 June 2019 (URD)                        |
| 11.1.4  | The last audited historical financial information, containing comparative information for the previous year, must be presented and prepared in a form consistent with the accounting standards framework that will be adopted in the Issuer's next published annual financial statements.<br><br>Changes within the Issuer's existing accounting framework do not require the audited financial statements to be restated. However, if the Issuer intends to adopt a new accounting standards framework in its next published financial statements, the latest year of   | Chapter 6, Section 6.1 (pages 314-429) for the year ended 31 December 2018 (DR)<br><br>Chapter 6, Section 6.1 (pages 296-408) for the year ended 31 December 2017 (DR)   |

financial statements must be prepared and audited in line with the new framework.

11.1.5 Where the audited financial information is prepared according to national accounting standards, the financial information required under this heading must include at least the following:

- |  |   |
|--|---|
| (a) balance sheet                                  | Chapter 6, Section 6.1 (page 316) and Section 6.3 (pages 434-435) for the year ended 31 December 2018 (DR)<br><br>Chapter 6, Section 6.1 (page 298) and Section 6.3 (pages 414-415) for the year ended 31 December 2017 (DR)<br><br>Page 44 at 30 June 2019 (URD)               |
| (b) the income statement                           | Chapter 6, Section 6.1 (page 314) and Section 6.3 (pages 433) (DR)<br><br>Chapter 6, Section 6.1 (page 296) and Section 6.3 (page 413) for the year ended 31 December 2017 (DR)<br><br>Page 42 at 30 June 2019 (URD)  |
| (c) cash flow statement; and                       | Chapter 6, Section 6.1 (page 317) and Section 6.3 (pages 436) for the year ended 31 December 2018 (DR)<br><br>Chapter 6, Section 6.1 (page 299) and Section 6.3 (pages 416) for the year ended 31 December 2017 (DR)  |
| (d) the accounting policies and explanatory notes. | Chapter 6, Section 6.1 (pages 323-429) and Section 6.3 (pages 439-489) for the year ended 31 December 2018 (DR)<br><br>Chapter 6, Section 6.1 (pages 304-408) and Section 6.3 (pages 419-464) for the year ended 31 December 2017 (DR)<br><br>Pages 50-96 at 30 June 2019 (URD) |



## Documents incorporated by reference

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- 11.1.6 If the Issuer prepares both stand-alone and consolidated financial statements, include at least the consolidated financial statements in the registration document
- Chapter 6 (pages 314-500) for the year ended 31 December 2018 (DR)
- Chapter 6 (pages 296-474) for the year ended 31 December 2017 (DR)
- Pages 41-96 at 30 June 2019 (URD)
- 11.1.7 The balance sheet date of the last year of audited financial information statements may not be older than 18 months from the date of the registration document
- N/A
- 11.2 **Interim and other financial information**
- 11.2.1 If the Issuer has published quarterly or half yearly financial information since the date of its last audited financial statements, these must be included in the registration document. If the quarterly or half yearly financial information has been reviewed or audited the audit or review report must also be included. If the quarterly or half yearly financial information is unaudited or has not been reviewed state that fact.
- Section II (pages 5-99) (URD)
- If the registration document is dated more than nine months after the date of the last audited financial statements, it must contain interim financial information, which may be unaudited (in which case that fact must be stated) covering at least the first six months of the financial year.
- N/A
- Interim financial information prepared in accordance with either the requirements of the Directive 2013/34/EU or Regulation (EC) No 1606/2002 as the case may be.
- For issuers not subject to either Directive 2013/34/EU or Regulation (EC) No 1606/2002, the interim financial information must include comparative statements for the same period in the prior financial year, except that the requirement for comparative balance sheet information may be satisfied by presenting the year's end balance sheet.

11.3 **Auditing of historical annual financial information**

- 11.3.1 The historical annual financial information must be independently audited. The audit report shall be prepared in accordance with the Directive 2014/56/EU and Regulation (EU) No 537/2014. Where Directive 2014/56/EU and Regulation (EU) No 537/2014 do not apply: (a) the historical financial information must be audited or reported on as to whether or not, for the purposes of the registration document, it gives a true and fair view in accordance with auditing standards applicable in a Member State or an equivalent standard. (b) if audit reports on the historical financial information contain qualifications, modifications of opinion, disclaimers or an emphasis of matter, such qualifications, modifications, disclaimers or emphasis of matter must be reproduced in full and the reasons given.
- Chapter 6, Section 6.2 (pages 430-432) for the year ended 31 December 2018 (DR)
- Chapter 6, Section 6.2 (pages 409-412) for the year ended 31 December 2017 (DR)

- 11.3.2 Indication of other information in the registration document which has been audited by the auditors. N/A

- 11.3.3 Where financial information in the registration document is not extracted from the issuer's audited financial statements state the source of the data and state that the data is not audited. N/A

11.4 **Legal and arbitration proceedings**

- 11.4.1 Information on any governmental, legal or arbitration proceedings
- Chapter 2, Section 2.4 (pages 138-145) (DR)
- Chapter II, Section 9 (pages 37-40) (URD)

11.5 **Significant change in the Issuer's financial position**

- 11.5.1 A description of any significant change in the financial position of the group which has occurred since the end of the last financial period for which either audited financial information or interim financial information have been published, or provide an appropriate negative statement.
- Chapter 6, Section 5.2 (page 310) and Section 6.7 (page 495) (DR)
- Chapter II, Section 2 (pages 11-16) and Section 11 (page 40) (URD)

12. **ADDITIONAL INFORMATION**

12.1 **Share Capital**

- 12.1.1 The amount of the issued capital, the number and classes of the shares of which it is composed with details of their principal characteristics, the part
- Chapter 6, Section 6.1, note 27 (pages 377-378) to the consolidated financial statements for the year ended 31 December 2017,

of the issued capital still to be paid up, with an indication of the number, or total nominal value, and type of the shares not yet fully paid up, broken down where applicable according to the extent to which they have been paid up.

Section 7.3 (pages 505-510) (DR)

**12.2 Memorandum and Articles of Association**

The register and the entry number therein, if applicable, and a description of the Issuer's objects and purposes and where they can be found in the memorandum and articles of association.

Chapter 7, Section 7.1.2 (page 502) and Section 7.2 (pages 502-505) (DR)

**13. MATERIAL CONTRACTS**

13.1 A brief summary of all material contracts

Chapter 7, Section 7.6 (page 515) (DR)

**14. DOCUMENTS AVAILABLE**

A statement that for the term of the registration document the documents can be inspected

Chapter 8, Section 8.3 (page 519) (DR)

Investors should when reading the information incorporated by reference take into account the "Recent Events" section of this Base Prospectus which may modify or supersede the information incorporated by reference.

EMTN Previous Conditions	
EMTN 2018 Conditions	Pages 130 to 169 of the base prospectus of the Issuer dated 14 September 2018
EMTN 2016 Conditions	Pages 127 to 168 of the base prospectus of the Issuer dated 14 September 2016
EMTN 2015 Conditions	Pages 115 to 156 of the base prospectus of the Issuer dated 1 July 2015
EMTN 2013 Conditions	Pages 109 to 149 of the base prospectus of the Issuer dated 17 June 2013

The EMTN Previous Conditions are incorporated by reference in this Base Prospectus for the purpose only of further issues of Notes to be assimilated (*assimilées*) and form a single series with Notes already issued pursuant to the relevant EMTN Previous Conditions. Non-incorporated parts of the base prospectuses of the Issuer dated 14 September 2018, 14 September 2016, 1 July 2015 and 17 June 2013 respectively are not relevant for investors.

**SUPPLEMENT TO THE BASE PROSPECTUS**

If at any time the Issuer shall be required to prepare a supplement to this Base Prospectus pursuant to the provisions of Article 23 of the Prospectus Regulation and Article 212-25 of the General Regulations (*Règlement général*) of the AMF and any legislation in any Member State of the EEA that implements the Prospectus Regulation and subordinated legislation hereto, the Issuer will prepare and make available an appropriate supplement to this Base Prospectus which in respect of any subsequent issue of Notes to be admitted to trading on Euronext Paris or on a Regulated Market, shall amend or supplement this Base Prospectus. Such supplement to this Base Prospectus will be submitted to the AMF for the purposes of obtaining its visa thereon.

In accordance with and pursuant to Article 23.2 of the Prospectus Regulation, where the Notes are offered to the public, investors who have already agreed to purchase or subscribe for Notes before any supplement is published have the right, exercisable within two working days after the publication of such supplement, to withdraw their acceptance provided that the significant new factor, material mistake or material inaccuracy referred to in Article 23.1 of the Prospectus Regulation arose or was noted before the closing of the offer period or the delivery of the Notes, whichever occurs first. The period may be extended by the Issuer or, if any, the relevant Authorised Offeror(s). The final date of the right of withdrawal shall be stated in the supplement.

**TEMPORARY GLOBAL CERTIFICATES ISSUED IN RESPECT OF MATERIALISED  
BEARER NOTES**

**Temporary Global Certificates**

A Temporary Global Certificate, without interest Coupons, will initially be issued in connection with Materialised Bearer Notes. Upon the initial deposit of such Temporary Global Certificate with a common depositary for Euroclear and Clearstream (the “**Common Depositary**”), Euroclear or Clearstream will credit the accounts of each subscriber with a nominal amount of Notes equal to the nominal amount thereof for which it has subscribed and paid.

The Common Depositary may also (if indicated in the relevant Final Terms) credit with a nominal amount of Notes the accounts of subscribers with other clearing systems through direct or indirect accounts with Euroclear and Clearstream held by such other clearing systems. Conversely, a nominal amount of Notes that is initially deposited with any other clearing system may similarly be credited to the accounts of subscribers with Euroclear, Clearstream or other clearing systems.

**Exchange**

Each Temporary Global Certificate issued in respect of Notes will be exchangeable, free of charge to the holder, on or after its Exchange Date (as defined below):

- (i) if the relevant Final Terms indicate that such Temporary Global Certificate is issued in compliance with the C Rules or in a transaction to which TEFRA is not applicable, in whole, but not in part, for the Definitive Materialised Bearer Notes; and
- (ii) otherwise, in whole but not in part upon certification as to non-U.S. beneficial ownership (a form of which shall be available at the specified offices of any of the Paying Agents) for Definitive Materialised Bearer Notes.

**Delivery of Definitive Materialised Bearer Notes**

On or after its Exchange Date, the holder of a Temporary Global Certificate may surrender such Temporary Global Certificate to or to the order of the Fiscal Agent. In exchange for any Temporary Global Certificate, the Issuer will deliver, or procure the delivery of, an equal aggregate nominal amount of duly executed and authenticated Definitive Materialised Bearer Notes.

In this Base Prospectus, “**Definitive Materialised Bearer Notes**” means, in relation to any Temporary Global Certificate, the Definitive Materialised Bearer Notes for which such Temporary Global Certificate may be exchanged (if appropriate, having attached to them all Coupons in respect of interest that have not already been paid on the Temporary Global Certificate and a Talon). Definitive Materialised Bearer Notes will be security printed in accordance with any applicable legal and Regulated Market requirements. Forms of such Definitive Bearer Materialised Notes shall be available at the specified offices of any of the Paying Agent(s).

**Exchange Date**

“**Exchange Date**” means, in relation to a Temporary Global Certificate, the day falling after the expiry of 40 days after its issue date, provided that, in the event any further Materialised Notes are issued prior to such day pursuant to Condition 14(a), the Exchange Date for such Temporary Global Certificate shall be postponed to the day falling after the expiry of 40 days after the issue of such further Materialised Notes.

## TERMS AND CONDITIONS OF THE NOTES

*The following is the text of the terms and conditions that, subject to completion in accordance with the provisions of Part A of the relevant Final Terms, shall be applicable to the Notes. In the case of Dematerialised Notes, the text of the terms and conditions will not be endorsed on physical documents of title but will be constituted by the following text as completed by Part A of the relevant Final Terms. In the case of Materialised Notes, either (i) the full text of these terms and conditions together with the relevant provisions of Part A of the Final Terms or (ii) these terms and conditions as so completed (and subject to simplification by the deletion of non-applicable provisions), shall be endorsed or attached on Definitive Materialised Bearer Notes. All capitalised terms that are not defined in these Conditions will have the meanings given to them in Part A of the relevant Final Terms. References in the Conditions to “Notes” are to the Notes of one Series only, not to all Notes that may be issued under the Programme.*

The Notes are issued by Électricité de France (the “**Issuer**”) with the benefit of an amended and restated agency agreement dated 21 November 2019 between the Issuer, Société Générale as fiscal agent and the other agents named in it (as amended or supplemented from time to time, the “**Amended and Restated Agency Agreement**”). The fiscal agent, the paying agents, the redenomination agent, the consolidation agent and the calculation agent(s) for the time being (if any) are referred to below respectively as the “**Fiscal Agent**”, the “**Paying Agents**” (which expression shall include the Fiscal Agent), the “**Redenomination Agent**”, the “**Consolidation Agent**” and the “**Calculation Agent(s)**”.

References below to “**Conditions**” are, unless the context requires otherwise, to the numbered paragraphs below. Unless otherwise provided for, all references in these Conditions to a “day” shall be to a calendar day.

A copy of the Amended and Restated Agency Agreement is available for inspection during normal business hours at the specified offices of each of the Paying Agents.

For the purpose of these Conditions, “**Regulated Market**” means any regulated market situated in a Member State of the European Economic Area (“**EEA**”) as defined in Directive 2014/65/EU on markets in financial instruments of 15 May 2014, as amended, and as listed on the website of Europa ([http://ec.europa.eu/internal\\_market/securities/isd/mifid\\_fr.htm#reg\\_markets](http://ec.europa.eu/internal_market/securities/isd/mifid_fr.htm#reg_markets)).

### 1. Form, Denomination(s), Title, Redenomination

- (a) **Form:** Notes may be issued either in dematerialised form (“**Dematerialised Notes**”) or in materialised form (“**Materialised Notes**”).
  - (i) Title to Dematerialised Notes will be evidenced in accordance with Articles L.211-3 *et seq.* and R. 211-1 of the French *Code monétaire et financier* by book entries (*inscriptions en compte-titres*). No physical document of title (including *certificats représentatifs* pursuant to Article R.211-7 of the French *Code monétaire et financier*) will be issued in respect of the Dematerialised Notes.

Dematerialised Notes are issued, at the option of the Issuer and as specified in the relevant final terms (“**Final Terms**”), in either bearer dematerialised form (*au porteur*), which will be inscribed in the books of Euroclear France (“**Euroclear France**”) (acting as central depository) which shall credit the accounts of Account Holders, or in registered dematerialised form (*au nominatif*) and, in such latter case, at the option of the relevant Noteholder in either administered registered form (*au nominatif administré*) inscribed in the books of an Account Holder or in fully registered form (*au nominatif pur*) inscribed in an account in the books of Euroclear France maintained by the Issuer or the registration agent (designated in the relevant Final Terms) acting on behalf of the Issuer (the “**Registration Agent**”).

For the purpose of these Conditions, “**Account Holder**” means any authorised financial intermediary institution entitled to hold, directly or indirectly, accounts on behalf of its customers with Euroclear France, and includes Euroclear Bank SA/NV (“**Euroclear**”) and the depositary bank for Clearstream Banking S.A. (“**Clearstream**”).

- (ii) Materialised Notes are issued in bearer form (“**Materialised Bearer Notes**”). Materialised Bearer Notes are serially numbered and are issued with coupons (each, a “**Coupon**”) and, where appropriate, a talon (a “**Talon**”) attached, save in the case of Zero Coupon Notes in which case references to interest (other than in relation to interest due after the Maturity Date), Coupons and Talons in these Conditions are not applicable.

In accordance with Article L.211-3 of the French *Code monétaire et financier*, securities (such as Notes) which are governed by French law and are in materialised form must be issued outside the French territory.

- (b) **Denomination(s)**: Notes shall be issued in the specified denomination(s) set out in the relevant Final Terms (the “**Specified Denomination(s)**”) subject to compliance with the regulations of the relevant central bank (or equivalent body) or any laws or regulations applicable to the relevant Specified Currency and save that the minimum denomination of each Note listed and admitted to trading on a Regulated Market, or offered to the public, in a Member State of the EEA in circumstances which require the publication of a prospectus under Regulation (EU) 2017/1129 (the “**Prospectus Regulation**”) will be Euro 1,000 (or, if the Notes are denominated in a currency other than euro, the equivalent amount in such currency at the issue date). Dematerialised Notes shall be issued in one Specified Denomination only.

- (c) **Title:**

- (i) Title to Dematerialised Notes in bearer dematerialised form (*au porteur*) shall pass upon, and transfer of such Notes may only be effected through, registration of the transfer in the accounts of Account Holders. Title to Dematerialised Notes in fully registered form (*au nominatif pur*) and in administered registered form (*au nominatif administré*) shall pass upon, and transfer of such Notes may only be effected through, registration of the transfer in the accounts of the Issuer or of the Registration Agent.
- (ii) Title to Materialised Bearer Notes in definitive form having, where appropriate, Coupons and/or a Talon attached thereto on issue (“**Definitive Materialised Bearer Notes**”), shall pass by delivery.
- (iii) Except as ordered by a court of competent jurisdiction or as required by law, the holder of any Note (as defined below), Coupon or Talon shall be deemed to be and may be treated as its absolute owner for all purposes, whether or not it is overdue and regardless of any notice of ownership, or an interest in it, any writing on it or its theft or loss and no person shall be liable for so treating the holder.
- (iv) In these Conditions, “**holder of Notes**” or “**holder of any Note**”, or “**Noteholder**” means (i) in the case of Dematerialised Notes, the person whose name appears in the account of the relevant Account Holder or the Issuer or the Registration Agent (as the case may be) as being entitled to such Notes and (ii) in the case of Materialised Notes, the bearer of any Definitive Materialised Bearer Note and the Coupons (“**Couponholder**” being construed accordingly), or Talon relating to it, and capitalised terms have the meanings given to them in the relevant

Final Terms, the absence of any such meaning indicating that such term is not applicable to the Notes.

- (v) Unless expressly excluded in the relevant Final Terms, the Issuer may, in accordance with Article L.228-2 of the French *Code de commerce*, at any time request from the central depository identification information of the Noteholders such as the name or the company name, nationality, date of birth or year of incorporation and mail address or, as the case may be, e-mail address of holders of Dematerialised Notes in bearer dematerialised form (*au porteur*).

(d) **Redenomination**

- (i) The Issuer may (if so specified in the relevant Final Terms), on any Interest Payment Date, without the consent of the holder of any Note, Coupon or Talon, by giving at least 30 days' notice in accordance with Condition 15 (*Notices*) and on or after the date on which the European Member State in whose national currency the Notes are denominated has become a participating Member State in the single currency of the European Economic and Monetary Union (as provided in the Treaty establishing the European Community (the "**EC**"), as amended from time to time (the "**Treaty**")), or events have occurred which have substantially the same effect, redenominate all, but not some only, of the Notes of any Series into Euro and adjust the aggregate principal amount and the Specified Denomination(s) set out in the relevant Final Terms accordingly, as described below. The date on which such redenomination becomes effective shall be referred to in these Conditions as the "**Redenomination Date**".
- (ii) The redenomination of the Notes pursuant to Condition 1(d)(i) (*Redenomination*) shall be made by converting the principal amount of each Note from the relevant national currency into Euro using the fixed relevant national currency Euro conversion rate established by the Council of the European Union pursuant to applicable regulations of the Treaty and rounding the resultant figure to the nearest Euro 0.01 (with Euro 0.005 being rounded upwards). If the Issuer so elects, the figure resulting from conversion of the principal amount of each Note using the fixed relevant national currency Euro conversion rate shall be rounded down to the nearest Euro. The Euro denominations of the Notes so determined shall be notified to Noteholders in accordance with Condition 15 (*Notices*). Any balance remaining from the redenomination with a denomination higher than Euro 0.01 shall be paid by way of cash adjustment rounded to the nearest Euro 0.01 (with Euro 0.005 being rounded upwards). Such cash adjustment will be payable in Euro on the Redenomination Date in the manner notified to Noteholders by the Issuer.
- (iii) Upon redenomination of the Notes, any reference in the relevant Final Terms to the relevant national currency shall be construed as a reference to Euro.
- (iv) The Issuer may, with the prior approval of the Redenomination Agent and the Consolidation Agent, in connection with any redenomination pursuant to this Condition or any consolidation pursuant to Condition 14 (*Further Issues and Consolidation*), without the consent of the holder of any Note, Coupon or Talon, make any changes or additions to these Conditions or Condition 14 (including, without limitation, any change to any applicable business day definition, business day convention, principal financial centre of the country of the Specified Currency, interest accrual basis or benchmark), taking into account market practice in respect of redenominated euromarket debt obligations and which it



believes are not prejudicial to the interests of such holders. Any such changes or additions shall, in the absence of manifest error, be binding on the holders of Notes, Coupons and Talons and shall be notified to Noteholders in accordance with Condition 15 (*Notices*) as soon as practicable thereafter.

- (v) Neither the Issuer nor any Paying Agent shall be liable to the holder of any Note, Coupon or Talon or other person for any commissions, costs, losses or expenses in relation to or resulting from the credit or transfer of Euro or any currency conversion or rounding effected in connection therewith.
- (e) **Method of Issue:** The Notes will be issued on a syndicated or non-syndicated basis. The Notes will be issued in series (each a “**Series**”) having one or more issue dates and on terms otherwise identical (or identical other than in respect of the issue date, issue price, first payment of interest and nominal amount of the Tranche), the Notes of each Series being intended to be interchangeable with all other Notes of that Series. Each Series may be issued in tranches (each a “**Tranche**”) on the same or different issue dates. The specific terms of each Tranche (which will be supplemented, where necessary, with supplemental terms and conditions and, save in respect of the issue date, issue price, first payment of interest and nominal amount of the Tranche, will be identical to the terms of other Tranches of the same Series) will be set out in the relevant Final Terms.

## 2. Conversion and Exchanges of Notes

- (a) **Dematerialised Notes**
  - (i) Dematerialised Notes issued in bearer dematerialised form (*au porteur*) may not be converted into Dematerialised Notes in registered dematerialised form, whether in fully registered form (*au nominatif pur*) or in administered registered form (*au nominatif administré*).
  - (ii) Dematerialised Notes issued in registered dematerialised form (*au nominatif*) may not be converted into Dematerialised Notes in bearer dematerialised form (*au porteur*).
  - (iii) Dematerialised Notes issued in fully registered form (*au nominatif pur*) may, at the option of the Noteholder, be converted into Notes in administered registered form (*au nominatif administré*), and *vice versa*. The exercise of any such option by such Noteholder shall be made in accordance with Article R.211-4 of the French *Code monétaire et financier*. Any such conversion shall be effected at the cost of such Noteholder.
- (b) **Materialised Notes**

Materialised Bearer Notes of one Specified Denomination may not be exchanged for Materialised Bearer Notes of another Specified Denomination.

## 3. Status of the Notes

The Notes and, where applicable, any related Coupons, constitute direct, unconditional, unsubordinated and (subject to the provisions of Condition 4 (*Negative Pledge*)) unsecured obligations of the Issuer and rank and will rank *pari passu* without any preference among themselves and (subject to such exceptions as are from time to time mandatory under French law) equally and rateably with all other present or future unsecured and unsubordinated obligations of the Issuer.

### 4. Negative Pledge

- (a) So long as any of the Notes remains outstanding (as defined in Condition 5 (*Interest and Other Calculations*)), the Issuer has agreed that it will not create or have outstanding any mortgage, charge, pledge or other security interest upon the whole or any part of its undertaking, revenues or assets, present or future, in order to secure any Indebtedness (as defined below), or any guarantee or indemnity in respect of any Indebtedness, without at the same time according to the Notes the same security.
- (b) For the purposes of this Condition 4 and Condition 9 (*Events of Default*), “**Indebtedness**” means any indebtedness of the Issuer which, in each case, is in the form of or represented by any bond, note, debenture, debenture stock, loan stock, certificate or other instrument which is, or is capable of being, listed, quoted or traded on any stock exchange or in any securities market (including, without limitation, any over-the-counter market).

For the avoidance of doubt, the Indebtedness shall include any obligations of the Issuer under dematerialised debt securities that may be issued from time to time by the Issuer and are traded under a book-entry transfer system.

### 5. Interest and other Calculations

- (a) **Definitions:** In these Conditions, unless the context otherwise requires, the following defined terms shall have the meanings set out below. Certain defined terms contained in the June 2013 FBF Master Agreement relating to transactions on forward financial instruments as supplemented by the Technical Schedules published by the *Fédération Bancaire Française* (“**FBF**”) (together, the “**FBF Master Agreement**”) and in the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. (“**ISDA**”), have either been used or reproduced in this Condition 5.

“**Business Day**” means:

- (i) in the case of Euro, a day on which TARGET2 (as defined below) is operating (a “**TARGET Business Day**”); and/or
- (ii) in the case of a specified currency other than Euro, a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments in the principal financial centre for that currency (which, in the case of Renminbi, shall be Hong Kong); and/or
- (iii) in the case of a specified currency and/or one or more Business Centre(s) specified in the relevant Final Terms (the “**Business Centre(s)**”), a day (other than a Saturday or a Sunday) on which commercial banks and foreign exchange markets settle payments in such currency in the Business Centre(s) or, if no currency is indicated, generally in each of the Business Centres so specified.

“**CMS Rate**” shall mean the applicable swap rate for swap transactions in the Reference Currency with a maturity of the Designated Maturity, expressed as a percentage, which appears on the Relevant Screen Page as at the Specified Time on the Interest Determination Date in question, all as determined by the Calculation Agent.

“**CMS Reference Banks**” means (i) where the Reference Currency is Euro, the principal office of five leading swap dealers in the inter-bank market, (ii) where the Reference Currency is Sterling, the principal London office of five leading swap dealers in the London inter-bank market, (iii) where the Reference Currency is United States dollars, the principal New York City office of five leading swap dealers in the New York City inter-bank market, or (iv) in the case of any other Reference Currency, the principal Relevant Financial Centre office

of five leading swap dealers in the Relevant Financial Centre inter-bank market, in each case selected by the Calculation Agent.

**“Designated Maturity”, “Margin”, “Specified Time” and “Relevant Screen Page”** shall have the meaning given to those terms in the applicable Final Terms.

**“Day Count Fraction”** means, in respect of the calculation of an amount of interest on any Note for any period of time (from and including the first day of such period to but excluding the last) (whether or not constituting an Interest Accrual Period or Interest Period, the **“Calculation Period”**):

- (i) if **“Actual/365 – FBF”** is specified in the relevant Final Terms, the fraction whose numerator is the actual number of days elapsed during the Calculation Period and whose denominator is 365. If part of that Calculation Period falls in a leap year, Actual /365 – FBF shall mean the sum of (i) the fraction whose numerator is the actual number of days elapsed during the non-leap year and whose denominator is 365 and (ii) the fraction whose numerator is the number of actual days elapsed during the leap year and whose denominator is 366;
- (ii) if **“Actual/Actual – FBF”** is specified in the relevant Final Terms in respect of each calculation, the fraction whose numerator is the actual number of days elapsed during such period and whose denominator is 365 (or 366 if 29 February falls within the Calculation Period);
- (iii) if **“Actual/Actual”** or **“Actual/Actual – ISDA”** is specified in the relevant Final Terms, the actual number of days in the Calculation Period divided by 365 (or, if any portion of that Calculation Period falls in a leap year, the sum of (A) the actual number of days in that portion of the Calculation Period falling in a leap year divided by 366 and (B) the actual number of days in that portion of the Calculation Period falling in a non-leap year divided by 365);
- (iv) if **“Actual/Actual – ICMA”** is specified in the relevant Final Terms:
  - (A) if the Calculation Period is equal to or shorter than the Determination Period during which it falls, the number of days in the Calculation Period divided by the product of (x) the number of days in such Determination Period and (y) the number of Determination Periods normally ending in any year; and
  - (B) if the Calculation Period is longer than one Determination Period, the sum of:
    - the number of days in such Calculation Period falling in the Determination Period in which it begins divided by the product of (1) the number of days in such Determination Period and (2) the number of Determination Periods normally ending in any year; and
    - the number of days in such Calculation Period falling in the next Determination Period divided by the product of (1) the number of days in such Determination Period and (2) the number of Determination Periods normally ending in any year;

in each case where:

**“Determination Period”** means the period from and including a Determination Date in any year to but excluding the next Determination Date; and

“**Determination Date**” means the date specified in the relevant Final Terms or, if none is so specified, the Interest Payment Date;

- (v) if “**Actual/365 (Fixed)**” is specified in the relevant Final Terms, the actual number of days in the Calculation Period divided by 365;
- (vi) if “**Actual/360**” is specified in the relevant Final Terms, the actual number of days in the Calculation Period divided by 360;
- (vii) if “**30/360**”, “**360/360**” or “**Bond Basis**” is specified in the Final Terms, the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“**Y<sub>1</sub>**” is the year, expressed as a number, in which the first day of the Calculation Period falls;

“**Y<sub>2</sub>**” is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“**M<sub>1</sub>**” is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

“**M<sub>2</sub>**” is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“**D<sub>1</sub>**” is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D<sub>1</sub> will be 30; and

“**D<sub>2</sub>**” is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31 and D<sub>1</sub> is greater than 29, in which case D<sub>2</sub> will be 30.

- (viii) if “**30E/360**” or “**Eurobond Basis**” is specified in the Final Terms, the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“**Y<sub>1</sub>**” is the year, expressed as a number, in which the first day of the Calculation Period falls;

“**Y<sub>2</sub>**” is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“**M<sub>1</sub>**” is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

“**M<sub>2</sub>**” is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“**D<sub>1</sub>**” is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D1 will be 30; and

“**D<sub>2</sub>**” is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31, in which case D2 will be 30.

- (ix) if “**30E/360 (ISDA)**” is specified in the Final Terms, the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“**Y<sub>1</sub>**” is the year, expressed as a number, in which the first day of the Calculation Period falls;

“**Y<sub>2</sub>**” is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“**M<sub>1</sub>**” is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

“**M<sub>2</sub>**” is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“**D<sub>1</sub>**” is the first calendar day, expressed as a number, of the Calculation Period, unless (i) that day is the last day of February or (ii) such number would be 31, in which case D1 will be 30; and

“**D<sub>2</sub>**” is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless (i) that day is the last day of February but not the Maturity Date or (ii) such number would be 31, in which case D2 will be 30.

“**Effective Date**” means, with respect to any Floating Rate to be determined on an Interest Determination Date, the date specified as such in the relevant Final Terms or, if none is so specified, the first day of the Interest Accrual Period to which such Interest Determination Date relates.

“**Euro-zone**” means the region comprised of member states of the European Union that have adopted or adopt the single currency in accordance with the Treaty establishing the European Community, as amended.

“**FBF Definitions**” means the definitions set out in the FBF Master Agreement, as supplemented or amended as at the Issue Date.

“**Interest Accrual Period**” means the period beginning on (and including) the Interest Commencement Date and ending on (but excluding) the first Interest Period Date and each successive period beginning on (and including) an Interest Period Date and ending on (but excluding) the next succeeding Interest Period Date.

“**Interest Amount**” means the amount of interest payable, and in the case of Fixed Rate Notes, means the Fixed Coupon Amount or Broken Amount as specified in the relevant Final Terms, as the case may be.

**“Interest Commencement Date”** means the Issue Date or such other date as may be specified in the relevant Final Terms.

**“Interest Determination Date”** means, with respect to a Rate of Interest and Interest Accrual Period, the date specified as such in the relevant Final Terms or, if none is so specified, (i) the day falling two TARGET Business Days prior to the first day of such Interest Accrual Period if the Specified Currency is Euro or (ii) the first day of such Interest Accrual Period if the Specified Currency is Sterling or (iii) the day falling two Business Days in the city specified in the Final Terms for the Specified Currency prior to the first day of such Interest Accrual Period if the Specified Currency is neither Sterling nor Euro.

**“Interest Payment Date”** means the date(s) specified in the relevant Final Terms.

**“Interest Period”** means the period beginning on (and including) the Interest Commencement Date and ending on (but excluding) the first Interest Payment Date and each successive period beginning on (and including) an Interest Payment Date and ending on (but excluding) the next succeeding Interest Payment Date.

**“Interest Period Date”** means each Interest Payment Date unless otherwise specified in the relevant Final Terms.

**“ISDA Definitions”** means the 2006 ISDA Definitions (a copy of which may be obtained at the registered office of the Issuer during usual business hours), as published by the International Swaps and Derivatives Association, Inc., as amended or supplemented as at the Issue Date.

**“Page”** means such page, section, caption, column or other part of a particular information service (including, but not limited to, Reuters Markets 3000 (**“Reuters”**) and Telerate (**“Telerate”**)) as may be specified for the purpose of providing a Relevant Rate, or such other page, section, caption, column or other part as may replace it on that information service or on such other information service, in each case as may be nominated by the person or organisation providing or sponsoring the information appearing there for the purpose of displaying rates or prices comparable to that Relevant Rate.

**“Rate of Interest”** means the rate of interest payable from time to time in respect of the Notes and that is either specified or calculated in accordance with the provisions of the relevant Final Terms.

**“Reference Banks”** means the institutions specified as such in the relevant Final Terms or, if none, four major banks selected by the Calculation Agent in the interbank market (or, if appropriate, money, swap or over-the-counter index options market) that is most closely connected with the Benchmark (which, if EURIBOR is the relevant Benchmark, shall be the Euro-zone).

**“Relevant Financial Centre”** means, with respect to any Floating Rate to be determined in accordance with a Screen Rate Determination on an Interest Determination Date, the financial centre as may be specified as such in the relevant Final Terms or, if none is so specified, the financial centre with which the relevant Benchmark is most closely connected (which, in the case of EURIBOR, shall be the Euro-zone) or, if none is so connected, Paris.

**“Relevant Rate”** means the Benchmark for a Representative Amount of the Specified Currency for a period (if applicable or appropriate to the Benchmark) equal to the Specified Duration commencing on the Effective Date.

**“Relevant Swap Rate”** means:

- (i) where the Reference Currency is Euro, the mid-market annual swap rate determined on the basis of the arithmetic mean of the bid and offered rates for the annual fixed leg, calculated on a 30/360 day count basis, of a fixed-for-floating euro interest rate swap transaction with a term equal to the Designated Maturity commencing on the first day of the relevant Interest Period and in a Representative Amount with an acknowledged dealer of good credit in the swap market, where the floating leg, in each case calculated on an Actual/360 day count basis, is equivalent to EUR-EURIBOR-Reuters (as defined in the 2006 ISDA Definitions) as published by the International Swaps and Derivatives Association, Inc. and as amended and updated as at the Issue Date of the first Tranche of the Notes with a designated maturity determined by the Calculation Agent by reference to standard market practice and/or the ISDA Definitions;
- (ii) where the Reference Currency is Sterling, the mid-market semi-annual swap rate determined on the basis of the arithmetic mean of the bid and offered rates for the semi-annual fixed leg, calculated on an Actual/365 (Fixed) day count basis, of a fixed-for-floating Sterling interest rate swap transaction with a term equal to the Designated Maturity commencing on the first day of the relevant Interest Period and in a Representative Amount with an acknowledged dealer of good credit in the swap market, where the floating leg, in each case calculated on an Actual/365 (Fixed) day count basis, is equivalent (A) if the Designated Maturity is greater than one year, to GBP-LIBOR- BBA (as defined in the ISDA Definitions) with a designated maturity of six months or (B) if the Designated Maturity is one year or less, to GBP-LIBORBBA with a designated maturity of three months;
- (iii) where the Reference Currency is United States dollars, the mid- market semi-annual swap rate determined on the basis of the mean of the bid and offered rates for the semi-annual fixed leg, calculated on a 30/360 day count basis, of a fixed-for-floating United States dollar interest rate swap transaction with a term equal to the Designated Maturity commencing on the first day of the relevant Interest Period and in a Representative Amount with an acknowledged dealer of good credit in the swap market, where the floating leg, calculated on an Actual/360 day count basis, is equivalent to USD-LIBOR-BBA (as defined in the ISDA Definitions) with a designated maturity of three months; and
- (iv) where the Reference Currency is any other currency, the mid-market swap rate as determined in accordance with the applicable Final Terms.

**“Relevant Time”** means, with respect to any Interest Determination Date, the local time in the Relevant Financial Centre specified in the relevant Final Terms or, if no time is specified, the local time in the Relevant Financial Centre at which it is customary to determine bid and offered rates in respect of deposits in the Specified Currency in the interbank market in the Relevant Financial Centre or, if no such customary local time exists, 11.00 am in the Relevant Financial Centre and for the purpose of this definition, **“local time”** means, with respect to Europe and the Euro zone as a Relevant Financial Centre, Brussels time.

**“Representative Amount”** means, with respect to any Floating Rate to be determined in accordance with a Screen Rate Determination on an Interest Determination Date, the amount specified as such in the relevant Final Terms or, if none is specified, an amount that is representative for a single transaction in the relevant market at the time.

**“Specified Currency”** means the currency specified as such in the relevant Final Terms.

**“Specified Duration”** means, with respect to any Floating Rate to be determined in accordance with a Screen Rate Determination on an Interest Determination Date, the duration specified in the relevant Final Terms or, if none is specified, a period of time equal to the relative Interest Accrual Period, ignoring any adjustment pursuant to Condition 5(c)(ii) (*Business Day Convention*).

**“TARGET2”** means the Trans-European Automated Real-time Gross Settlement Express Transfer system which utilises a single shared platform and which was launched on 19 November 2007, or any successor thereto.

- (b) **Interest on Fixed Rate Notes:** Each Fixed Rate Note bears interest on its outstanding nominal amount from the Interest Commencement Date at the rate per annum (expressed as a percentage) equal to the Rate of Interest, such interest being payable in arrear on each Interest Payment Date. The amount of interest payable shall be determined in accordance with Condition 5(h) (*Calculations*).

If a Fixed Coupon Amount or a Broken Amount is specified in the relevant Final Terms, the amount of interest payable on each Interest Payment Date will amount to the Fixed Coupon Amount or, if applicable, the Broken Amount so specified and in the case of the Broken Amount will be payable on the particular Interest Payment Date(s) specified in the relevant Final Terms.

- (c) **Interest on Floating Rate Notes**

- (i) **Interest Payment Dates:** Each Floating Rate Note bears interest on its outstanding nominal amount from the Interest Commencement Date at the rate per annum (expressed as a percentage) equal to the Rate of Interest, such interest being payable in arrear on each Interest Payment Date. The amount of interest payable shall be determined in accordance with Condition 5(h) (*Calculations*). Such Interest Payment Date(s) is/are either shown in the relevant Final Terms as Specified Interest Payment Dates or, if no Specified Interest Payment Date(s) is/are shown in the relevant Final Terms, Interest Payment Date shall mean each date which falls the number of months or other period shown in the relevant Final Terms as the Interest Period after the preceding Interest Payment Date or, in the case of the first Interest Payment Date, after the Interest Commencement Date.
- (ii) **Business Day Convention:** If any date referred to in these Conditions that is specified to be subject to adjustment in accordance with a Business Day Convention would otherwise fall on a day that is not a Business Day, then, if the Business Day Convention specified is:
- (A) the **“Floating Rate Business Day Convention”**, such date shall be postponed to the next day that is a Business Day unless it would thereby fall into the next calendar month, in which event (x) such date shall be brought forward to the immediately preceding Business Day and (y) each subsequent such date shall be the last Business Day of the month in which such date would have fallen had it not been subject to adjustment;
  - (B) the **“Following Business Day Convention”**, such date shall be postponed to the next day that is a Business Day;
  - (C) the **“Modified Following Business Day Convention”**, such date shall be postponed to the next day that is a Business Day unless it would thereby fall into the next calendar month, in which event



such date shall be brought forward to the immediately preceding Business Day; or

- (D) the “**Preceding Business Day Convention**”, such date shall be brought forward to the immediately preceding Business Day.

- (iii) *Rate of Interest for Floating Rate Notes*: The Rate of Interest in respect of Floating Rate Notes for each Interest Accrual Period shall be determined in the manner specified in the relevant Final Terms and the provisions below relating to either FBF Determination or ISDA Determination or Screen Rate Determination shall apply, depending upon which is specified in the relevant Final Terms.

(A) **FBF Determination for Floating Rate Notes**

Where FBF Determination is specified in the relevant Final Terms as the manner in which the Rate of Interest is to be determined, the Rate of Interest for each Interest Accrual Period shall be determined by the Calculation Agent as a rate equal to the relevant FBF Rate plus or minus (as indicated in the relevant Final Terms) the Margin (if any). For the purposes of this sub-paragraph (A), “**FBF Rate**” for an Interest Accrual Period means a rate equal to the Floating Rate that would be determined by the Calculation Agent under a Transaction under the terms of an agreement incorporating the FBF Definitions and under which:

- (a) the Floating Rate is as specified in the relevant Final Terms; and
- (b) the relevant Floating Rate Determination Date (*Date de Détermination du Taux Variable*) is the first day of that Interest Accrual Period unless otherwise specified in the relevant Final Terms.

For the purposes of this sub-paragraph (A), “**Floating Rate**” (*Taux Variable*), “**Calculation Agent**” (*Agent*), “**Floating Rate Determination Date**” (*Date de Détermination du Taux Variable*) and “**Transaction**” (*Transaction*) have the meanings given to those terms in the FBF Definitions, provided that “**Euribor**” means the rate calculated for deposits in euro which appears on Reuters Page EURIBOR 01, as more fully described in the relevant Final Terms.

In the applicable Final Terms, when the paragraph “Floating Rate” specifies that the rate is determined by linear interpolation, in respect of an Interest Period, the Rate of Interest for such Interest Period shall be calculated by the Calculation Agent by straight line linear interpolation by reference to two rates based on the relevant Floating Rate, one of which shall be determined as if the maturity were the period of time for which rates are available of next shorter length before the length of the relevant Interest Period, and the other of which shall be determined as if the maturity were the period of time for which rates are available of next longer length after the length of the relevant Interest Period.

(B) **ISDA Determination for Floating Rate Notes**

Where ISDA Determination is specified in the relevant Final Terms as the manner in which the Rate of Interest is to be determined, the Rate of Interest for each Interest Accrual Period

shall be determined by the Calculation Agent as a rate equal to the relevant ISDA Rate plus or minus (as indicated in the relevant Final Terms) the Margin (if any). For the purposes of this sub paragraph (B), **"ISDA Rate"** for an Interest Accrual Period means a rate equal to the Floating Rate that would be determined by the Calculation Agent under a Swap Transaction under the terms of an agreement incorporating the ISDA Definitions and under which:

- (a) the Floating Rate Option is as specified in the relevant Final Terms;
- (b) the Designated Maturity is a period specified in the relevant Final Terms; and
- (c) the relevant Reset Date is the first day of that Interest Accrual Period unless otherwise specified in the relevant Final Terms.

For the purposes of this sub-paragraph (B), **"Floating Rate"**, **"Calculation Agent"**, **"Floating Rate Option"**, **"Designated Maturity"**, **"Reset Date"** and **"Swap Transaction"** have the meanings given to those terms in the ISDA Definitions.

In the applicable Final Terms, when the paragraph "Floating Rate Option" specifies that the rate is determined by linear interpolation, in respect of an Interest Period, the Rate of Interest for such Interest Period shall be calculated by the Calculation Agent by straight line linear interpolation by reference to two rates based on the relevant Floating Rate Option, one of which shall be determined as if the Designated Maturity were the period of time for which rates are available of next shorter length before the length of the relevant Interest Period, and the other of which shall be determined as if the Designated Maturity were the period of time for which rates are available of next longer length after the length of the relevant Interest Period.

(C) **Screen Rate Determination for Floating Rate Notes**

(1) LIBOR or EURIBOR

Where "Screen Rate Determination-IBOR" is specified in the relevant Final Terms as the manner in which the Rate of Interest is to be determined, the Rate of Interest for each Interest Accrual Period shall, subject as provided below or (if applicable) in Condition 5(c)(iii)(C)(1)(d) be determined by the Calculation Agent at or about the Relevant Time on the Interest Determination Date in respect of such Interest Accrual Period in accordance with the following:

- (a) if the Primary Source for Floating Rate is a Page, subject as provided below, the Rate of Interest shall be:
  - (i) the Relevant Rate (where such Relevant Rate on such Page is a composite quotation or is customarily supplied by one entity); or
  - (ii) the arithmetic mean of the Relevant Rates of the persons whose Relevant Rates appear on that Page,

in each case appearing on such Page at the Relevant Time on the Interest Determination Date;

- (b) if the Primary Source for the Floating Rate is Reference Banks or if sub paragraph (a)(i) or (a)(ii) applies and the Page is not available at the Relevant Time on the Interest Determination Date, or is sub paragraph (a)(i) applies and no Relevant Rate appears on the Page at the Relevant Time on the Interest Determination Date or if sub-paragraph (a)(ii) applies and fewer than two Relevant Rates appear on the Page at the Relevant Time on the Interest Determination Date, subject as provided below, the Rate of Interest shall be the arithmetic mean of the Relevant Rates that each of the Reference Banks is quoting to leading banks in the Relevant Financial Centre at the Relevant time on the Interest Determination Date, as determined by the Calculation Agent; and
- (c) if paragraph (b) above applies and the Calculation Agent determines that fewer than two Reference Banks are so quoting Relevant Rates, subject as provided below, the Rate of Interest shall be the arithmetic mean of the rates per annum (expressed as a percentage) that the Calculation Agent determines to be the rates (being the nearest equivalent to the Benchmark) in respect of a Representative Amount of the Specified Currency that at least two out of five leading banks selected by the Calculation Agent in the principal financial centre of the country of the Specified Currency or, if the Specified Currency is euro, in the Euro-Zone as selected by the Calculation Agent (the “**Principal Financial Centre**”) are quoting at or about the Relevant Time on the date on which such banks would customarily quote such rates for a period commencing on the Effective Date for a period equivalent to the Specified Duration (I) to leading banks carrying on business in Europe, or (if the Calculation Agent determines that fewer than two of such banks are so quoting to leading banks in Europe (II) to leading banks carrying on business in the Principal Financial Centre; except that, if fewer than two of such banks are so quoting to leading banks in the Principal Financial Centre, the Rate of Interest shall be the Rate of Interest determined on the previous Interest Determination Date (after readjustment for any difference between any Margin, Rate Multiplier or Maximum or Minimum Rate of Interest applicable to the preceding Interest Accrual Period and to the relevant Interest Accrual Period).

In the applicable Final Terms, when the paragraph “Relevant Rate” specifies that the rate is determined by linear interpolation, in respect of an Interest Period, the Rate of Interest for such Interest Period shall be calculated by the Calculation Agent by straight line linear interpolation by reference to two (2) rates based on the relevant Rate, one of which shall be determined as if the maturity were the period of time for which rates are available of next shorter length before the length of the relevant Interest Period, and the other of which shall be determined as if

the maturity were the period of time for which rates are available of next longer length after the length of the relevant Interest Period.

(2) SONIA

Where "Screen Rate Determination – SONIA" is specified in the applicable Final Terms as the manner in which a Rate of Interest or Rate is to be determined, such Rate of Interest or Rate, as the case may be, for each Interest Period will be calculated in accordance with Condition 5(c)(iii)(C)(2)(A) or 5(c)(iii)(C)(2)(B) below subject to the provisions of Condition 5(c)(iii)(C)(2)(D).

- (A) Where the Calculation Method is specified in the applicable Final Terms as being "Compounded Daily", the Rate of Interest or Rate, as the case may be, for each Interest Period will be the Compounded Daily SONIA plus or minus (as indicated in the applicable Final Terms) the Margin (if any), all as determined by the Principal Paying Agent or the Calculation Agent, as applicable.
- (B) Where the Calculation Method is specified in the applicable Final Terms as being "Weighted Average", the Rate of Interest or Rate, as the case may be, for each Interest Period will be the Weighted Average SONIA plus or minus (as indicated in the applicable Final Terms) the Margin (if any), all as determined by the Principal Paying Agent or the Calculation Agent, as applicable, on the Interest Determination Date and the resulting percentage being rounded (if necessary) to the fifth decimal place, with 0.000005 being rounded upwards.
- (C) The following definitions shall apply for the purpose of this Condition 5(c)(iii)(C)(2):

**"Compounded Daily SONIA"** means, with respect to an Interest Period, the rate of return of a daily compound interest investment in Sterling (with the daily Sterling overnight reference rate as the reference rate for the calculation of interest) calculated by the Principal Paying Agent or the Calculation Agent, as applicable, on the Interest Determination Date in accordance with the following formula:

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{\text{SONIA}_{i-\text{PLBD}} \times n_i}{365} \right) - 1 \right] \times \frac{365}{d}$$

where the resulting percentage will be rounded (if necessary) to the fifth decimal place, with 0.000005 being rounded upwards.

"d" means, in respect of an Interest Period, the number of calendar days in such Interest Period;

"d<sub>o</sub>" means, in respect of an Interest Period, the number of London Business Days in the relevant Interest Period;

"i" means a series of whole numbers from one to d<sub>o</sub>, each representing the relevant London Business Days in chronological order from (and including) the first London Business Day in the relevant Interest Period;

**"Lock-out Period"** means, in respect of an Interest Period, the period from (and including) the day following the Interest Determination Date to (but excluding) the Interest Period End Date falling at the end of such Interest Period;

**"London Business Day"** means a day on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealing in foreign exchange and foreign currency deposits) in London;

**"Lookback Period"** or **"p"** means, in respect of an Interest Period where "Lag" is specified as the Observation Method in the applicable Final Terms, the number of London Business Days specified in the applicable Final Terms (or, if no such number is specified, five London Business Days);

**"ni"** means, in respect of a London Business Day i, the number of calendar days from (and including) such London Business Day i up to (but excluding) the following London Business Day;

**"Observation Lookback Period"** means, in respect of an Interest Period, the period from (and including) the date falling p London Business Days prior to the first day of the relevant Interest Period and ending on (but excluding) the date which is p London Business Days prior to the Interest Period End Date falling at the end of such Interest Period;

**"Reference Day"** means each London Business Day in the relevant Interest Period that is not a London Business Day falling in the Lockout Period;

**"SONIA i"** means, in respect of a London Business Day i:

- (x) if "Lag" is specified as the Observation Method in the applicable Final Terms, the SONIA Rate in respect of pLBD in respect of such London Business Day i; or

- (y) if "Lock-out" is specified as the Observation Method in the applicable Final Terms:
  - (1) in respect of any London Business Day  $i$  that is a Reference Day, the SONIA Rate in respect of the London Business Day immediately preceding such Reference Day; otherwise
  - (2) the SONIA Rate in respect of the London Business Day immediately preceding the Interest Determination Date for the relevant Interest Period;

**"SONIA $i$ -pLBD"** means:

- (x) if "Lag" is specified as the Observation Method in the applicable Final Terms, in respect of a London Business Day  $i$ , SONIA  $i$  in respect of the London Business Day falling  $p$  London Business Days prior to such London Business Day  $i$  ("**pLBD**"); or
- (y) if "Lock-out" is specified as the Observation Method in the applicable Final Terms, in respect of a London Business Day  $i$ , SONIA  $i$  in respect of such London Business Day  $i$ .

**"SONIA Rate"** means, in respect of any London Business Day, a reference rate equal to the daily Sterling Overnight Index Average rate for such London Business Day, as provided by the administrator of SONIA to authorised distributors and as then published on the Relevant Screen Page (or, if the Relevant Screen Page is unavailable, as otherwise published by such authorised distributors) on the London Business Day immediately following such London Business Day; and

**"Weighted Average SONIA"** means:

- (x) where "Lag" is specified as the Observation Method in the applicable Final Terms, the sum of the SONIA Rate in respect of each calendar day during the relevant Observation Lookback Period divided by the number of calendar days during such Observation Lookback Period. For these purposes, the SONIA Rate in respect of any calendar day which is not a London Business Day shall be deemed to be the SONIA Rate in respect of the London Business Day immediately preceding such calendar day; or

- (y) where "Lock-out" is specified as the Observation Method in the applicable Final Terms, the sum of the SONIA Rate in respect of each calendar day during the relevant Interest Period divided by the number of calendar days in the relevant Interest Period, provided that, for any calendar day of such Interest Period falling in the Lock-out Period for the relevant Interest Period, the SONIA Rate for such calendar day will be deemed to be the SONIA Rate in respect of the London Business Day immediately preceding the first day of such Lock-out Period. For these purposes, the SONIA Rate in respect of any calendar day which is not a London Business Day shall, subject to the preceding proviso, be deemed to be the SONIA Rate in respect of the London Business Day immediately preceding such calendar day.
- (D) If, in respect of any London Business Day, the SONIA Rate is not available on the Relevant Screen Page (and has not otherwise been published by the relevant authorised distributors), such SONIA Rate shall be:
  - (x) (i) the Bank of England's Bank Rate (the "**Bank Rate**") prevailing at the close of business on the relevant London Business Day; plus (ii) the arithmetic mean of the spread of SONIA to the Bank Rate over the previous five days on which SONIA has been published, excluding the highest spread (or, if there is more than one highest spread, only of those highest spreads) and lowest spread (or, if there is more than one lowest spread, one only of those lowest spreads); or
  - (y) if such Bank Rate is not available, the SONIA Rate published on the Relevant Screen Page (or otherwise published by the relevant authorised distributors) for the immediately preceding London Business Day on which the SONIA Rate was published on the Relevant Screen Page (or otherwise published by the relevant authorised distributors), and

such rate shall be deemed to be the SONIA Rate for such London Business Day.

Notwithstanding the foregoing, in the event of the Bank of England publishing guidance as to (i) how the SONIA Rate is to be determined or (ii) any rate that is to replace the SONIA Rate, the Principal Paying Agent or the Calculation Agent, as applicable, shall follow

such guidance to determine the SONIA Rate for so long as the SONIA Rate is not available or has not been published by the authorised distributors.

In the event that the Rate of Interest or Rate, as applicable, cannot be determined in accordance with the foregoing provisions in respect of an Interest Period, the Rate of Interest or Rate, as applicable, shall be (i) that determined as at the immediately preceding Interest Determination Date (though substituting, where a different Margin, Maximum Rate of Interest and/or Minimum Rate of Interest is to be applied to the relevant Interest Period from that which applied to the immediately preceding Interest Period, the Margin, Maximum Rate of Interest and/or Minimum Rate of Interest relating to the relevant Interest Period, in place of the Margin, Maximum Rate of Interest and/or Minimum Rate of Interest relation to the immediately preceding Interest Period); or (ii) if there is no such preceding Interest Determination Date, the initial Rate of Interest or Rate, as applicable, which would have been applicable to such Series of Notes for the first Interest Period had the Notes been in issue for a period equal in duration to the scheduled first Interest Period but ending on (and excluding) the Interest Commencement Date (subject to the application of the relevant Margin or Maximum Rate of Interest or Minimum Rate of Interest in respect of such Interest Period).

(3) *CMS Rate Notes:*

Where Screen Rate Determination is specified in the applicable Final Terms as the manner in which the Rate of Interest is to be determined and the Benchmark in respect of the Floating Rate Notes is specified as being CMS Rate, the Rate of Interest for each Interest Accrual Period will, subject as provided below, be determined by the Calculation Agent by reference to the following formula:

CMS Rate + Margin

If the Relevant Screen Page is not available, the Calculation Agent shall request each of the CMS Reference Banks to provide the Calculation Agent with its quotation for the Relevant Swap Rate at approximately the Specified Time on the Interest Determination Date in question. If at least three of the CMS Reference Banks provide the Calculation Agent with such quotations, the CMS Rate for such Interest Accrual Period shall be the arithmetic mean of such quotations, eliminating the highest quotation (or, in the event of equality, one of the highest and the lowest quotation (or, in the event of equality, one of the lowest)).

If on any Interest Determination Date less than two or none of the CMS Reference Banks provides the Calculation Agent with such quotations as provided in the preceding paragraph, the CMS



Rate shall be determined by the Calculation Agent on such commercial basis as considered appropriate by the Calculation Agent in its absolute discretion, in accordance with standard market practice.

(4) *Benchmark discontinuation*

Where Screen Rate Determination is specified in the relevant Final Terms as the manner in which the Rate of Interest is to be determined, this Condition 5(c)(iii)(C)(4) will apply unless "Benchmark Replacement" is specified to be "Not Applicable" in the applicable Final Terms.

Notwithstanding Conditions 5(c)(iii)(C)(1)(b), 5(c)(iii)(C)(1)(c), 5(c)(iii)(C)(2) and 5(c)(iii)(C)(3) above, unless "Benchmark Replacement" is specified to be "Not Applicable" in the applicable Final Terms, if a Benchmark Event occurs in relation to an Original Reference Rate at any time when the Terms and Conditions of any Notes provide for any rate of interest (or any component part thereof) to be determined by reference to such Original Reference Rate, then the following provisions shall apply and prevail over the other fallbacks specified in 5(c)(iii)(C)(1)(b), 5(c)(iii)(C)(1)(c), 5(c)(iii)(C)(2) and 5(c)(iii)(C)(3).

(i) Independent Adviser

The Issuer shall use reasonable endeavours to appoint an Independent Adviser, as soon as reasonably practicable, to determine a Successor Rate, failing which an Alternative Rate (in accordance with Condition 5(c)(iii)(C)(4)(ii)) and, in either case, an Adjustment Spread, if any (in accordance with Condition 5(c)(iii)(C)(4)(iii)) and any Benchmark Amendments (in accordance with Condition 5(c)(iii)(C)(4)(iv)).

An Independent Adviser appointed pursuant to this Condition 5(c)(iii)(C)(4) shall act in good faith as an expert and (in the absence of manifest error or fraud) shall have no liability whatsoever to the Issuer, the Fiscal Agent, the Paying Agents, the Calculation Agent or any other party responsible for determining the Rate of Interest specified in the applicable Final Terms, or the Noteholders for any determination made by it pursuant to this Condition 5(c)(iii)(C)(4).

(ii) Successor Rate or Alternative Rate

If the Independent Adviser determines in good faith that:

- (I) there is a Successor Rate, then such Successor Rate shall (subject to adjustment as provided in Condition 5(c)(iii)(C)(4)(iii)) subsequently be used in place of the Original Reference Rate to determine the relevant Rate(s) of Interest (or the relevant component part(s) thereof) for all relevant future payments of interest on the Notes (subject to the further operation of this Condition 5(c)(iii)(C)(4)); or

- (II) there is no Successor Rate but that there is an Alternative Rate, then such Alternative Rate shall (subject to adjustment as provided in Condition 5(c)(iii)(C)(4)(iii)) subsequently be used in place of the Original Reference Rate to determine the relevant Rate(s) of Interest (or the relevant component part(s) thereof) for all relevant future payments of interest on the Notes (subject to the further operation of this Condition 5(c)(iii)(C)(4)).

(iii) Adjustment Spread

If the Independent Adviser determines in good faith (i) that an Adjustment Spread is required to be applied to the Successor Rate or the Alternative Rate (as the case may be) and (ii) the quantum of, or a formula or methodology for determining, such Adjustment Spread, then such Adjustment Spread shall be applied to the Successor Rate or the Alternative Rate (as the case may be) for each subsequent determination of a relevant Rate of Interest (or a relevant component part thereof) by reference to such Successor Rate or Alternative Rate (as applicable).

(iv) Benchmark Amendments

If any Successor Rate, Alternative Rate or Adjustment Spread is determined in accordance with this Condition 5(c)(iii)(C)(4) and the Independent Adviser determines in good faith (A) that amendments to the Terms and Conditions of the Notes (including, without limitation, amendments to the definitions of Day Count Fraction, Business Days or Relevant Screen Page) are strictly necessary to ensure the proper operation of such Successor Rate, Alternative Rate and/or Adjustment Spread (such amendments, the "**Benchmark Amendments**") and (B) the terms of the Benchmark Amendments, then the Issuer shall, subject to giving notice thereof in accordance with Condition 5(c)(iii)(C)(4)(v), without any requirement for the consent or approval of Noteholders, vary the Terms and Conditions of the Notes to give effect to such Benchmark Amendments with effect from the date specified in such notice.

In connection with any such variation in accordance with this Condition 5(c)(iii)(C)(4)(iv), the Issuer shall comply with the rules of any stock exchange on which the Notes are for the time being listed or admitted to trading.

(v) Notices, etc.

The Issuer shall, after receiving such information from the Independent Adviser, notify the Fiscal Agent, the Calculation Agent, the Paying Agents, the Representative (if any) and, in accordance with Condition 15, the Noteholders, promptly of any Successor Rate, Alternative Rate, Adjustment Spread and of the specific terms of any Benchmark

Amendments, determined under this Condition 5(c)(iii)(C)(4). Such notice shall be irrevocable and shall specify the effective date of the Benchmark Amendments, if any.

(vi) Fallbacks

If, following the occurrence of a Benchmark Event and in relation to the determination of the Rate of Interest on the immediately following Interest Determination Date, no Independent Adviser has been appointed or no Successor Rate or Alternative Rate (as applicable) is determined pursuant to this provision, the Original Reference Rate will continue to apply for the purpose of determining such Rate of Interest on such Interest Determination Date, with the effect that the fallback provisions provided in Conditions 5(c)(iii)(C)(1), 5(c)(iii)(C)(2) and 5(c)(iii)(C)(3) will continue to apply to such determination, provided that such fallbacks may in certain circumstances, lead to apply the Rate of Interest determined as at the last preceding Interest Determination Date.

In such circumstances, the Issuer will be entitled (but not obliged), at any time thereafter, to elect to re-apply the provisions of this Condition 5(c)(iii)(C)(4), *mutatis mutandis*, on one or more occasions until a Successor Rate or Alternative Rate (and, if applicable, any associated Adjustment Spread and/or Benchmark Amendments) has been determined and notified in accordance with this Condition 5(c)(iii)(C)(4) (and, until such determination and notification (if any), the fallback provisions provided elsewhere in these Terms and Conditions, that is, for the avoidance of doubt, the fallbacks specified in Conditions 5(c)(iii)(C)(1), 5(c)(iii)(C)(2) and 5(c)(iii)(C)(3) will continue to apply).

(vii) Definitions

In this Condition 5(c)(iii)(C)(4):

**"Adjustment Spread"** means either a spread (which may be positive or negative), or the formula or methodology for calculating a spread, in either case, which the Independent Adviser determines and which is required to be applied to the Successor Rate or the Alternative Rate (as the case may be) to reduce or eliminate, to the fullest extent reasonably practicable in the circumstances, any economic prejudice or benefit (as the case may be) to Noteholders as a result of the replacement of the Original Reference Rate with the Successor Rate or the Alternative Rate (as the case may be) and is the spread, formula or methodology which:

- a) in the case of a Successor Rate, is formally recommended, or formally provided as an option for parties to adopt, in relation to the replacement of the Original Reference Rate with the Successor Rate by any Relevant Nominating Body;

- b) in the case of an Alternative Rate (or in the case of a Successor Rate where (a) above does not apply), is in customary market usage in the international debt capital market for transactions which reference the Original Reference Rate, where such rate has been replaced by the Alternative Rate (or, as the case may be, the Successor Rate); or
- c) if no such recommendation or option has been made (or made available), or the Independent Adviser determines there is no such spread, formula or methodology in customary market usage, the Independent Adviser, acting in good faith, determines to be appropriate.

**"Alternative Rate"** means, in the absence of Successor Rate, an alternative benchmark or screen rate which the Independent Adviser determines in accordance with this Condition 5(c)(iii)(C)(4) and which is customary market usage in the international debt capital markets for the purposes of determining rates of interest (or the relevant component part thereof) for a commensurate interest period (if there is such a customary market usage at such time) and in the same Specified Currency as the Notes.

**"Benchmark Event"** means, with respect to an Original Reference Rate:

- a) the Original Reference Rate ceasing to exist or be published;
- b) the later of (i) the making of a public statement by the administrator of the Original Reference Rate that it will, on or before a specified date, cease publishing the Original Reference Rate permanently or indefinitely (in circumstances where no successor administrator has been appointed that will continue publication of the Original Reference Rate) and (ii) the date falling six (6) months prior to the specified date referred to in (b)(i);
- c) the making of a public statement by the supervisor of the administrator of the Original Reference Rate that the Original Reference Rate has been permanently or indefinitely discontinued;
- d) the later of (i) the making of a public statement by the supervisor of the administrator of the Original Reference Rate that the Original Reference Rate will, on or before a specified date, be permanently or indefinitely discontinued and (ii) the date falling six (6) months prior to the specified date referred to in (d)(i);

- e) the making of a public statement by the supervisor of the administrator of the Original Reference Rate that means the Original Reference Rate will be prohibited from being used or that its use will be subject to restrictions or adverse consequences, in each case within the following six (6) months;
- f) it has or will prior to the next Interest Determination Date, become unlawful for the Issuer, the party responsible for determining the Rate of Interest (being the Calculation Agent or such other party specified in the applicable Final Terms, as applicable), or any Paying Agent to calculate any payments due to be made to any Noteholder using the Original Reference Rate (including, without limitation, under Regulation (EU) 2016/1011 (the "**Benchmarks Regulation**"), if applicable);
- g) that a decision to withdraw the authorisation or registration pursuant to Article 35 of the Benchmarks Regulation of any benchmark administrator previously authorised to publish such Original Reference Rate has been adopted; or
- h) the making of a public statement by the supervisor of the administrator of the Original Reference Rate that, in the view of such supervisor, such Original Reference Rate is no longer representative of an underlying market or its methodology has materially changed.

**"Independent Adviser"** means an independent financial institution of international repute or an independent adviser of recognised standing with appropriate expertise, at all times acting in good faith and in a commercially reasonable manner, appointed by the Issuer at its own expense under Condition 5(c)(iii)(C)(4)(i).

**"Original Reference Rate"** means the benchmark or screen rate (as applicable) originally specified for the purpose of determining the relevant Rate of Interest (or any relevant component part(s) thereof) on the Notes.

**"Relevant Nominating Body"** means, in respect of a benchmark or screen rate (as applicable):

- a) the central bank for the currency to which the benchmark or screen rate (as applicable) relates, or any central bank or other supervisory authority which is responsible for supervising the administrator of the benchmark or screen rate (as applicable); or

- b) any working group or committee sponsored by, chaired or co-chaired by or constituted at the request of (i) the central bank for the currency to which the benchmark or screen rate (as applicable) relates, (ii) any central bank or other supervisory authority which is responsible for supervising the administrator of the benchmark or screen rate (as applicable), (iii) a group of the aforementioned central banks or other supervisory authorities or (iv) the Financial Stability Board or any part thereof.

**"Successor Rate"** means a successor to or replacement of the Original Reference Rate which is formally recommended by any Relevant Nominating Body. If, following a Benchmark Event, more than one successor or replacement rates are recommended by any Relevant Nominating Body, the Independent Adviser will determine, among those successor or replacement rates, the one which is the most appropriate, taking into consideration, without limitation, the particular features of the relevant Notes.

- (d) **Zero Coupon Notes:** Where a Note the Interest Basis of which is specified to be Zero Coupon and is repayable prior to the Maturity Date is not paid when due, the amount due and payable prior to the Maturity Date shall be the Early Redemption Amount of such Note. As from the Maturity Date, the Rate of Interest for any overdue principal of such a Note shall be a rate per annum (expressed as a percentage) equal to the Amortisation Yield (as described in Condition 6(f)(i) (*Zero Coupon Notes*)).
- (e) **Fixed/Floating Rate Notes:** Fixed/Floating Rate Notes may bear interest at a rate (i) that the Issuer may elect to convert on the date set out in the Final Terms from a Fixed Rate to a Floating Rate, or from a Floating Rate to a Fixed Rate or (ii) that will automatically change from a Fixed Rate to a Floating Rate, or from a Floating Rate to a Fixed Rate at the date(s) set out in the Final Terms.
- (f) **Accrual of interest:** Interest shall cease to accrue on each Note on the due date for redemption unless (i) in the case of Dematerialised Notes, on such due date or (ii) in the case of Materialised Notes, upon due presentation, payment is improperly withheld or refused, in which event interest shall continue to accrue (as well after as before judgment) at the Rate of Interest in the manner provided in this Condition 5 to the Relevant Date (as defined in Condition 8(b) (*Additional Amounts*)).
- (g) **Margin, Maximum/Minimum Rates of Interest and Redemption Amounts and Rounding**
  - (i) If any Margin is specified in the relevant Final Terms (either (x) generally, or (y) in relation to one or more Interest Accrual Periods), an adjustment shall be made to all Rates of Interest, in the case of (x), or the Rates of Interest for the specified Interest Accrual Periods, in the case of (y), calculated in accordance with (c) above by adding (if a positive number) or subtracting the absolute value (if a negative number) of such Margin, subject always to the next paragraph.
  - (ii) If any Maximum or Minimum Rate of Interest or Redemption Amount is specified in the relevant Final Terms, then any Rate of Interest or Redemption Amount shall be subject to such maximum or minimum, as

the case may be. Unless a higher rate is stated in the applicable Final Terms, the Minimum Rate of Interest (including any applicable margin) shall be deemed to be zero.

- (iii) For the purposes of any calculations required pursuant to these Conditions (unless otherwise specified), (x) all percentages resulting from such calculations shall be rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with halves being rounded up), (y) all figures shall be rounded to seven significant figures (with halves being rounded up) and (z) all currency amounts that fall due and payable shall be rounded to the nearest unit of such currency (with halves being rounded up), save in the case of yen, which shall be rounded down to the nearest yen. For these purposes “**unit**” means the lowest amount of such currency that is available as legal tender in the country(ies) of such currency.
- (h) **Calculations:** The amount of interest payable in respect of any Note for any period shall be calculated by multiplying the product of the Rate of Interest and the outstanding nominal amount of such Note by the Day Count Fraction, unless an Interest Amount is specified in respect of such period in the Final Terms, in which case the amount of interest payable in respect of such Note for such period shall equal such Interest Amount. Where any Interest Period comprises two or more Interest Accrual Periods, the amount of interest payable in respect of such Interest Period shall be the sum of the amounts of interest payable in respect of each of those Interest Accrual Periods.
- (i) **Determination and Publication of Rates of Interest, Interest Amounts, Final Redemption Amounts, Optional Redemption Amounts, Early Redemption Amounts and Make-Whole Redemption Amounts:** The Calculation Agent shall, as soon as practicable on such date as the Calculation Agent may be required to calculate any rate or amount, obtain any quotation or make any determination or calculation, it shall determine such rate and calculate the Interest Amounts in respect of each Specified Denomination of the Notes for the relevant Interest Accrual Period, Optional Redemption Amount, Early Redemption Amount or Make-Whole Redemption Amount, obtain such quotation or make such determination or calculation, as the case may be, and cause the Rate of Interest and the Interest Amounts for each Interest Period and the relevant Interest Payment Date and, if required to be calculated, the Final Redemption Amount, Optional Redemption Amount, Early Redemption Amount or Make-Whole Redemption Amount to be notified to the Issuer, the Fiscal Agent, each of the Paying Agents, the Noteholders, any other Calculation Agent appointed in respect of the Notes that is to make a further calculation upon receipt of such information and, if the Notes are admitted to trading on a Regulated Market and the rules of, or applicable to, such Regulated Market so require, such Regulated Market as soon as possible after their determination but in no event later than (i) the commencement of the relevant Interest Period, if determined prior to such time, in the case of notification to such Regulated Market of a Rate of Interest and Interest Amount, or (ii) in all other cases, the fourth Business Day after such determination. Where any Interest Payment Date or Interest Period Date is subject to adjustment pursuant to Condition 5(c)(ii) (Business Day Convention), the Interest Amounts and the Interest Payment Date so published may subsequently be amended (or appropriate alternative arrangements made by way of adjustment) without notice in the event of an extension or shortening of the Interest Period. The determination of any rate or amount, the obtaining of each quotation and the making of each determination or calculation by the Calculation Agent(s) shall (in the absence of manifest error) be final and binding upon all parties.
- (j) **Calculation Agent:** The Issuer shall use its best efforts to procure that there shall at all times one or more Calculation Agents if provision is made for them in the relevant Final Terms and for so long as any Note is outstanding (as defined

below). Where more than one Calculation Agent is appointed in respect of the Notes, references in these Conditions to the Calculation Agent shall be construed as each Calculation Agent performing its respective duties under the Conditions. If the Calculation Agent is unable or unwilling to act as such or if the Calculation Agent fails duly to establish the Rate of Interest for an Interest Period or Interest Accrual Period or to calculate any Interest Amount, Final Redemption Amount, Early Redemption Amount, Optional Redemption Amount or Make-Whole Redemption Amount, as the case may be, or to comply with any other requirement, the Issuer shall appoint a leading bank or investment banking firm engaged in the interbank market (or, if appropriate, money, swap or over-the-counter index options market) that is most closely connected with the calculation or determination to be made by the Calculation Agent (acting through its principal Paris office or any other office actively involved in such market) to act as such in its place. The Calculation Agent may not resign its duties without a successor having been appointed as aforesaid. So long as the Notes are admitted to trading on a Regulated Market and the rules of, or applicable to, that Regulated Market so require, notice of any change of Calculation Agent shall be given in accordance with Condition 15 (*Notices*).

For the purpose of these Conditions:

“**outstanding**” means, in relation to the Notes of any Series, all the Notes issued other than (a) those that have been redeemed in accordance with these Conditions, (b) those in respect of which the date for redemption has occurred and the redemption moneys (including all interest accrued on such Notes to the date for such redemption and any interest payable after such date) have been duly paid (i) in the case of Dematerialised Notes in bearer form and in administered registered form, to the relevant Account Holders on behalf of the Noteholder as provided in Condition 7(a) (*Dematerialised Notes*), (ii) in the case of Dematerialised Notes in fully registered form, to the account of the Noteholder as provided in Condition 7(a) and (iii) in the case of Materialised Notes, to the relevant account with, or, by check drawn on, a Bank as provided in Condition 7(b) (*Materialised Bearer Notes*) and remain available for payment against presentation and surrender of Bearer Materialised Notes and/or Coupons, as the case may be, (c) those which have become void or in respect of which claims have become prescribed, (d) those which have been purchased and cancelled as provided in these Conditions, (e) in the case of Materialised Notes (i) those mutilated or defaced Bearer Materialised Notes that have been surrendered in exchange for replacement Bearer Materialised Notes, (ii) (for the purpose only of determining how many such Bearer Materialised Notes are outstanding and without prejudice to their status for any other purpose) those Bearer Materialised Notes alleged to have been lost, stolen or destroyed and in respect of which replacement Bearer Materialised Notes have been issued and (iii) any Temporary Global Certificate to the extent that it shall have been exchanged for one or more Definitive Bearer Materialised Notes, pursuant to its provisions.

### 6. Redemption, Purchase and Options

- (a) **Final Redemption:** Unless previously redeemed, purchased and cancelled as provided below, each Note shall be finally redeemed on the Maturity Date specified in the relevant Final Terms at its Final Redemption Amount (which is its nominal amount).
- (b) **Redemption at the Option of the Issuer and Partial Redemption:** If a Call Option is specified in the relevant Final Terms as applicable, the Issuer may, subject to compliance by the Issuer with all relevant laws, regulations and directives and on giving not less than 15 nor more than 30 days' irrevocable notice in accordance with Condition 15 (*Notices*) to the Noteholders (or such other notice period as may be specified in the relevant Final Terms), redeem all, or, if so provided, some, of the Notes on any Optional Redemption Date. Any such redemption of Notes shall be at their Optional Redemption Amount



together with interest accrued to the date fixed for redemption. Any such redemption must relate to Notes of a nominal amount at least equal to the Minimum Redemption Amount to be redeemed specified in the relevant Final Terms and no greater than the Maximum Redemption Amount to be redeemed specified in the relevant Final Terms.

All Notes in respect of which any such notice is given shall be redeemed on the date specified in such notice in accordance with this Condition.

In the case of a partial redemption in respect of Materialised Notes, the notice to holders of such Materialised Notes shall also contain the number of the Definitive Materialised Bearer Notes to be redeemed, which shall have been drawn in such place and in such manner as may be fair and reasonable in the circumstances, taking account of prevailing market practices, subject to compliance with any applicable laws and Regulated Market requirements.

In the case of a partial redemption in respect of Dematerialised Notes, the redemption may be effected, at the option of the Issuer, by reducing the nominal amount of all such Dematerialised Notes in a Series in proportion to the aggregate nominal amount redeemed, subject to compliance with any other applicable laws and Regulated Market requirements.

So long as the Notes are admitted to trading on a Regulated Market and the rules of, or applicable to, such Regulated Market require, the Issuer shall, each time there has been a partial redemption of the Notes, cause to be published in accordance with Articles 221-3 and 221-4 of the General Regulations (*Règlement Général*) of the Autorité des marchés financiers and on the website of any other competent authority and/or Regulated Market of the EEA Member State where the Notes are admitted to trading, a notice specifying the aggregate nominal amount of Notes outstanding and, in the case of Materialised Notes, a list of any Definitive Materialised Bearer Notes drawn for redemption but not surrendered.

(c) ***Make-Whole Redemption by the Issuer:***

- (i) If a Make-Whole Redemption by the Issuer is specified in the relevant Final Terms as applicable, the Issuer may, having given:
  - (A) not less than 15 nor more than 30 calendar days' notice to the Noteholders in accordance with Condition 15; and
  - (B) not less than 15 calendar days before the giving of the notice referred to in paragraph (A) above, notice to the Fiscal Agent, the Calculation Agent and such other parties as may be specified in the Final Terms,

(which notices shall be irrevocable and shall specify the date fixed for redemption (each such date, a "**Make-whole Redemption Date**") ) redeem all (but not some only) of the Notes then outstanding at any time prior to their Maturity Date at their relevant Make-whole Redemption Amount. For the avoidance of doubt, if a Residual Maturity Call Option is specified in the relevant Final Terms and if the Issuer decides to redeem the Notes pursuant to this Condition 6(c) before the Residual Maturity Call Option Date (as specified in the relevant Final Terms), the Make-whole Redemption Amount in respect of the Make Whole Redemption by the Issuer will be calculated taking into account the Residual Maturity Call Option Date pursuant to Condition 6(e) below and not the Maturity Date.

- (ii) For the purposes of this Condition, the following defined terms shall have the meanings set out below:

**“Make-whole Redemption Amount”** means an amount calculated by the Calculation Agent and equal to the greater of (x) 100 per cent. of the principal amount of the Notes so redeemed and (y) the sum of the then present values of the remaining scheduled payments of principal and interest on such Notes (excluding any interest accrued on the Notes to, but excluding, the relevant Make-whole Redemption Date) discounted to the relevant Make-whole Redemption Date on an annual basis at the Make-whole Redemption Rate plus a Make-whole Redemption Margin, plus in each case, any interest accrued on the Notes to, but excluding, the Make-whole Redemption Date.

**“Make-whole Redemption Margin”** means the margin specified as such in the relevant Final Terms.

**“Make-whole Redemption Rate”** means (i) the average of the four quotations given by the Reference Dealers of the mid-market annual yield to maturity of the Reference Security on the fourth Business Day preceding the Make-whole Redemption Date at 11:00 a.m. (Central European Time (“CET”)) (**“Reference Dealer Quotation”**) or (ii) the Reference Screen Rate, as specified in the relevant Final Terms.

**“Reference Dealers”** means each of the four banks selected by the Calculation Agent which are primary European government security dealers, and their respective successors, or market makers in pricing corporate bond issues, or such other banks or method of selection of such banks as specified in the Final Terms.

**“Reference Screen Rate”** means the screen rate specified as such in the relevant Final Terms.

**“Reference Security”** means the security specified as such in the relevant Final Terms.

If the Reference Security is no longer outstanding, a Similar Security will be chosen by the Calculation Agent at 11:00 a.m. (CET) on the third Business Day preceding the Make-whole Redemption Date, quoted in writing by the Calculation Agent to the Issuer and published in accordance with Condition 15.

**“Similar Security”** means a reference bond or reference bonds issued by the same issuer as the Reference Security having an actual or interpolated maturity comparable with the remaining term of the Notes that would be utilised, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the Notes.

The Make-whole Redemption Rate will be published by the Issuer in accordance with Condition 15.

The determination of any rate or amount, the obtaining of each quotation and the making of each determination or calculation by the Calculation Agent shall (in the absence of manifest error) be final and binding upon all parties.

So long as the Notes are listed and admitted to trading on Euronext Paris and the rules of that stock exchange so require, the Issuer shall, once in each year in which there has been a partial redemption of the Notes, cause to be published in accordance with Articles 221-3 and 221-4 of the General Regulations (*Règlement Général*) of the *Autorité des marchés financiers* and on the website

of any other competent authority and/or Regulated Market of the EEA Member State where the Notes are listed and admitted to trading, a notice specifying the aggregate nominal amount of Notes outstanding and, in the case of Materialised Notes a list of any Definitive Materialised Bearer Notes drawn for redemption but not surrendered.

- (d) **Redemption at the Option of Noteholders:** If a Put Option is specified in the relevant Final Terms as applicable, the Issuer shall, at the option of the Noteholder, upon the Noteholder giving not less than 15 nor more than 30 days' notice to the Issuer (or such other notice period as may be specified in the relevant Final Terms) redeem such Note on the Optional Redemption Date(s) at its Optional Redemption Amount together with interest accrued to the date fixed for redemption.

To exercise such option the Noteholder must deposit with any Paying Agent at its specified office during usual business hours a duly completed option exercise notice (the "**Exercise Notice**") in the form obtainable during usual business hours from any Paying Agent or the Registration Agent, as the case may be, within the notice period. Such notice shall, in the case of Materialised Bearer Notes, have attached to it such Note (together with all unmatured Coupons and unexchanged Talons). In the case of Dematerialised Notes, the Noteholder shall transfer, or cause to be transferred, the Dematerialised Notes to be redeemed to the account of the Paris Paying Agent specified in the Exercise Notice. No option so exercised and, where applicable, no Note so deposited or transferred may be withdrawn without the prior consent of the Issuer.

- (e) **Residual Maturity Call Option:** If a Residual Maturity Call Option is specified in the relevant Final Terms as applicable, the Issuer may, on giving not less than 15 nor more than 30 days' irrevocable notice in accordance with Condition 15 (*Notices*) to the Noteholders redeem the Notes, in whole but not in part, at par together with interest accrued to, but excluding, the date fixed for redemption, at any time as from the Residual Maturity Call Option Date (as specified in the relevant Final Terms) which Residual Maturity Call Option Date shall be no earlier than six (6) months before the Maturity Date of the Notes.

All Notes in respect of which any such notice is given shall be redeemed on the date specified in such notice in accordance with this Condition.

- (f) **Early Redemption**

- (i) *Zero Coupon Notes:*

- (A) The Early Redemption Amount payable in respect of any Zero Coupon Note, upon redemption of such Note pursuant to Condition 6(g) (*Redemption for Taxation Reasons*) or Condition 6(h) (*Illegality*) or upon it becoming due and payable as provided in Condition 9 (*Events of Default*) shall be the Amortised Nominal Amount (calculated as provided below) of such Note.
- (B) Subject to the provisions of sub-paragraph (C) below, the Amortised Nominal Amount of any such Note shall be the scheduled Final Redemption Amount of such Note on the Maturity Date discounted at a rate per annum (expressed as a percentage) equal to the Amortisation Yield (which, if none is shown in the relevant Final Terms, shall be such rate as would produce an Amortised Nominal Amount equal to the issue price of the Notes if they were discounted back to their issue price on the Issue Date) compounded annually.
- (C) If the Early Redemption Amount payable in respect of any such Note upon its redemption pursuant to Condition 6(f) or Condition

6(g) or upon it becoming due and payable as provided in Condition 9 is not paid when due, the Early Redemption Amount due and payable in respect of such Note shall be the Amortised Nominal Amount of such Note as defined in sub-paragraph (B) above, except that such sub-paragraph shall have effect as though the date on which the Amortised Nominal Amount becomes due and payable were the Relevant Date. The calculation of the Amortised Nominal Amount in accordance with this sub-paragraph shall continue to be made (both before and after judgment) until the Relevant Date, unless the Relevant Date falls on or after the Maturity Date, in which case the amount due and payable shall be the scheduled Final Redemption Amount of such Note on the Maturity Date together with any interest that may accrue in accordance with Condition 5(d) (*Zero Coupon Notes*).

Where such calculation is to be made for a period of less than one year, it shall be made on the basis of the Day Count Fraction shown in the relevant Final Terms.

(ii) ***Other Notes:***

The Early Redemption Amount payable in respect of any Note (other than Notes described in (i) above), upon redemption of such Note pursuant to Condition 6(f) or Condition 6(g), or upon it becoming due and payable as provided in Condition 9 shall be the Final Redemption Amount together with interest accrued to the date fixed for redemption.

(g) ***Redemption for Taxation Reasons:***

- (i) If, by reason of any change in French law or published regulations becoming effective after the Issue Date, the Issuer would on the occasion of the next payment of principal or interest due in respect of the Notes, not be able to make such payment without having to pay additional amounts as specified under Condition 8(b) (*Additional Amounts*) below, the Issuer may, at its option, on any Interest Payment Date (if this Note is not a Floating Rate Note) or, at any time (if this Note is not a Floating Rate Note), subject to having given not more than 60 nor less than 30 days' notice to the Noteholders (which notice shall be irrevocable), in accordance with Condition 15 (*Notices*), redeem all, but not some only, of the Notes at their Early Redemption Amount together with any interest accrued to the date set for redemption provided that the due date for redemption of which notice hereunder may be given shall be no earlier than the latest practicable date on which the Issuer could make payment of principal and interest without withholding for French taxes.
- (ii) If the Issuer would on the next payment of principal or interest in respect of the Notes be prevented by French law from making payment to the Noteholders or, if applicable, Couponholders of the full amounts then due and payable, notwithstanding the undertaking to pay additional amounts contained in Condition 8(b) below, then the Issuer shall forthwith give notice of such fact to the Fiscal Agent and the Issuer shall upon giving not less than seven days' prior notice to the Noteholders in accordance with Condition 15, redeem all, but not some only, of the Notes then outstanding at their Redemption Amount together with any interest accrued to the date set for redemption on (A) the latest practicable Interest Payment Date on which the Issuer could make payment of the full amount then due and payable in respect of the Notes, provided that if such notice would expire after such Interest Payment Date the date for redemption pursuant to such notice of Noteholders

shall be the later of (i) the latest practicable date on which the Issuer could make payment of the full amount then due and payable in respect of the Notes and (ii) 14 days after giving notice to the Fiscal Agent as aforesaid or (B) if so specified in the relevant Final Terms, at any time, provided that the due date for redemption of which notice hereunder shall be given shall be the latest practicable date at which the Issuer could make payment of the full amount payable in respect of the Notes, or, if applicable, Coupons or, if that date is passed, as soon as practicable thereafter.

- (h) **Purchases:** The Issuer shall have the right at all times to purchase Notes (provided that, in the case of Materialised Notes, all unmatured Coupons and unexchanged Talons relating thereto are attached thereto or surrendered therewith) in the open market or otherwise (including by tender offer) at any price, subject to the applicable laws and/or regulations.

The Notes purchased by the Issuer may be held and resold in such amount as may be permitted by and in accordance with applicable laws and regulations.

- (i) **Cancellation:** All Notes purchased by or on behalf of the Issuer, to the extent that the Issuer is not permitted to hold and resell such Notes in accordance with applicable laws and regulations, and all Notes cancelled at the option the Issuer, shall be cancelled, in the case of Dematerialised Notes, by transfer to an account in accordance with the rules and procedures of Euroclear France and, in the case of Materialised Bearer Notes, by surrendering to the Fiscal Agent the Temporary Global Certificate and the Definitive Materialised Bearer Notes in question together with all unmatured Coupons and all unexchanged Talons and, in each case, if so transferred or surrendered, shall, together with all Notes redeemed by the Issuer, be cancelled forthwith (together with, in the case of Dematerialised Notes, all rights relating to payment of interest and other amounts relating to such Dematerialised Notes and, in the case of Materialised Notes, all unmatured Coupons and unexchanged Talons attached thereto or surrendered therewith). Any Notes so cancelled or, where applicable, transferred or surrendered for cancellation may not be re-issued or resold and the obligations of the Issuer in respect of any such Notes shall be discharged.
- (j) **Illegality:** If, by reason of any change in French law or published regulations becoming effective after the Issue Date, it will become unlawful for the Issuer to perform or comply with one or more of its obligations under the Notes, the Issuer will, subject to having given not more than 45 nor less than 30 days' notice to the Noteholders (which notice shall be irrevocable), in accordance with Condition 15 (*Notices*), redeem all, but not some only, of the Notes at their Early Redemption Amount together with any interest accrued to the date set for redemption.

## 7. Payments and Talons

- (a) **Dematerialised Notes:** Payments of principal and interest in respect of Dematerialised Notes shall (in the case of Dematerialised Notes in bearer dematerialised form or administered registered form) be made by transfer to the account denominated in the relevant currency of the relevant Account Holders for the benefit of the Noteholders and, (in the case of Dematerialised Notes in fully registered form), to an account denominated in the relevant currency with a Bank (as defined below) designated by the Noteholders. All payments validly made to such Account Holders will be an effective discharge of the Issuer in respect of such payments.
- (b) **Materialised Bearer Notes:** Payments of principal and interest in respect of Materialised Bearer Notes shall, subject as mentioned below, be made against presentation and surrender during usual business hours of the Materialised Bearer Notes (in the case of all other payments of principal and, in the case of interest, as specified in Condition 7(f)(v) (*Unmatured Coupons and unexchanged*

*Talons*)) or Coupons (in the case of interest, save as specified in Condition 7(f)(v)), as the case may be, at the specified office of any Paying Agent outside the United States by a cheque payable in the relevant currency drawn on, or, at the option of the Noteholder, by transfer to an account denominated in such currency with, a bank in the principal financial centre for such currency or, in the case of Euro, in a city in which banks have access to TARGET2 (a “**Bank**”).

- (c) **Payments in the United States:** Notwithstanding the foregoing, if any Materialised Bearer Notes are denominated in U.S. Dollars, payments in respect thereof may be made at the specified office of any Paying Agent in New York City in the same manner as aforesaid if (i) the Issuer shall have appointed Paying Agents with specified offices outside the United States with the reasonable expectation that such Paying Agents would be able to make payment of the amounts on the Notes in the manner provided above when due, (ii) payment in full of such amounts at all non-U.S. offices is illegal or effectively precluded by exchange controls or other similar restrictions on payment or receipt of such amounts and (iii) such payment is then permitted by United States law, without involving, in the opinion of the Issuer, any adverse tax consequence to the Issuer.
- (d) **Payments Subject to Fiscal Laws:** All payments are subject in all cases to any applicable fiscal or other laws, regulations and directives in the place of payment but without prejudice to the provisions of Condition 8 (*Taxation*). No commission or expenses shall be charged to the Noteholders or Couponholders in respect of such payments.
- (e) **Appointment of Agents:** The Fiscal Agent, the Paying Agents, the Calculation Agent, the Redenomination Agent and the Consolidation Agent initially appointed by the Issuer and their respective specified offices are listed below. The Fiscal Agent, the Paying Agents, the Redenomination Agent, the Consolidation Agent and the Registration Agent act solely as agents of the Issuer and the Calculation Agent(s) act(s) as independent experts(s) and, in each case such, do not assume any obligation or relationship of agency for any Noteholder or Couponholder. The Issuer reserves the right at any time to vary or terminate the appointment of the Fiscal Agent, any other Paying Agent, the Redenomination Agent, the Consolidation Agent and the Registration Agent or the Calculation Agent(s) and to appoint additional or other Paying Agents, provided that the Issuer shall at all times maintain:
  - (i) a Fiscal Agent;
  - (ii) one or more Calculation Agent(s) where the Conditions so require;
  - (iii) a Redenomination Agent and a Consolidation Agent where the Conditions so require;
  - (iv) Paying Agents having specified offices in at least two major European cities (including Paris so long as Notes are admitted to trading on Euronext Paris and, in either case, so long as the rules of, or applicable to, the relevant Regulated Market so require);
  - (v) in the case of Materialised Notes, a Paying Agent with a specified office in a European Union Member State (which may be any of the Paying Agents referred to in (iv) above);
  - (vi) in the case of Dematerialised Notes, in fully registered form, a Registration Agent; and
  - (vii) such other agents as may be required by any other Regulated Market on which the Notes may be admitted to trading.

In addition, the Issuer shall forthwith appoint a Paying Agent in New York City in respect of any Materialised Bearer Notes denominated in U.S. Dollars in the circumstances described in paragraph (c) above.

On a redenomination of the Notes of any Series pursuant to Condition 1(d) (*Redenomination*) with a view to consolidating such Notes with one or more other Series of Notes, in accordance with Condition 14 (*Further Issues and Consolidation*), the Issuer shall ensure that the same entity shall be appointed as both Redenomination Agent and Consolidation Agent in respect of both such Notes and such other Series of Notes to be so consolidated with such Notes.

Notice of any such change or any change of any specified office shall promptly be given to the Noteholders in accordance with Condition 15 (*Notices*).

(f) ***Unmatured Coupons and unexchanged Talons***

- (i) Upon the due date for redemption, Materialised Bearer Notes which comprise Fixed Rate Notes should be surrendered for payment together with all unexpired Coupons (if any) relating thereto, failing which an amount equal to the face value of each missing unexpired Coupon (or, in the case of payment not being made in full, that proportion of the amount of such missing unexpired Coupon that the sum of principal so paid bears to the total principal due) shall be deducted from the Final Redemption Amount, Amortised Nominal Amount, Early Redemption Amount, Optional Redemption Amount or Make-Whole Redemption Amount, as the case may be, due for payment. Any amount so deducted shall be paid in the manner mentioned above against surrender of such missing Coupon within a period of 10 years from the Relevant Date for the payment of such principal (whether or not such Coupon has become void pursuant to Condition 10 (*Prescription*)).
- (ii) Upon the due date for redemption of any such Materialised Bearer Note comprising a Floating Rate Note, unexpired Coupons relating to such Note (whether or not attached) shall become void and no payment shall be made in respect of them.
- (iii) Upon the due date for redemption of any Materialised Bearer Note, any unexchanged Talon relating to such Note (whether or not attached) shall become void and no Coupon shall be delivered in respect of such Talon.
- (iv) Where any Materialised Bearer Note that provides that the relative unexpired Coupons are to become void upon the due date for redemption of those Notes is presented for redemption without all unexpired Coupons, and where any Bearer Note is presented for redemption without any unexchanged Talon relating to it, redemption shall be made only against the provision of such indemnity as the Issuer may require.
- (v) If the due date for redemption of any Materialised Bearer Note is not a due date for payment of interest, interest accrued from the preceding due date for payment of interest or the Interest Commencement Date, as the case may be, shall only be payable against presentation (and surrender if appropriate) of the relevant Definitive Materialised Bearer Note. Interest accrued on a Materialised Bearer Note that only bears interest after its Maturity Date shall be payable on redemption of such Note against presentation of the relevant Materialised Bearer Notes.

- (g) ***Talons:*** On or after the Interest Payment Date for the final Coupon forming part of a Coupon sheet issued in respect of any Materialised Bearer Note, the Talon forming part of such Coupon sheet may be surrendered at the specified office of the Fiscal Agent in exchange for a further Coupon sheet (and if necessary

another Talon for a further Coupon sheet) (but excluding any Coupons that may have become void pursuant to Condition 10), provided that, in respect of Notes listed and admitted to trading on Euronext Paris, such exchange shall always take place at the specified office of the Fiscal Agent or of the Paying Agent, as a case may be, in Paris.

- (h) **Non-Business Days:** If any date for payment in respect of any Note, Coupon is not a business day, the Noteholder shall not be entitled to payment until the next following business day nor to any interest or other sum in respect of such postponed payment. In this paragraph, “**business day**” means a day (other than a Saturday or a Sunday) (A) (i) in the case of Dematerialised Notes, on which Euroclear France is open for business or (ii) in the case of Materialised Notes, on which banks and foreign exchange markets are open for business in the relevant place of presentation, in such jurisdictions as shall be specified as “**Financial Centres**” in the relevant Final Terms and (B) (i) (in the case of a payment in a currency other than Euro), where payment is to be made by transfer to an account maintained with a bank in the relevant currency, on which foreign exchange transactions may be carried on in the relevant currency in the principal financial centre of the country of such currency or (ii) (in the case of a payment in Euro), which is a TARGET Business Day.
- (i) **Alternative Payment in U.S. Dollar:** if by reason of Inconvertibility, Non-transferability or Illiquidity, the Issuer is not able, or it would be impracticable for it, to satisfy payments of principal or interest (in whole or in part) in respect of RMB Notes when due, the Issuer, on giving not less than five nor more than 30 days irrevocable notice in accordance with Condition 15 “Notices” to the Noteholders prior to the due date for payment, shall be entitled to satisfy its obligations in respect of such payment by making such payment in U.S. dollars on the basis of the Spot Rate on the second FX Business Day prior to such payment or, if such rate is not available on such second FX Business Day, on the basis of the rate most recently available prior to such second FX Business Day.

Any payment made under such circumstances in U.S. dollars will constitute valid payment, and will not constitute a default in respect of the Notes.

**FX Business Day** shall mean a day (other than a Saturday, Sunday or public holiday) on which commercial banks and foreign exchange markets settle payments in U.S. dollars in Hong Kong and New York.

**Governmental Authority** means any *de facto* or *de jure* government (or any agency or instrumentality thereof), court, tribunal, administrative or other governmental authority or any other entity (private or public) charged with the regulation of the financial markets (including the central bank) of Hong Kong.

**Illiquidity** means the general Renminbi exchange market in Hong Kong becomes illiquid as a result of which the Issuer cannot obtain sufficient Renminbi in order to satisfy its obligation to pay interest and principal (in whole or in part) in respect of the RMB Notes as determined by the Issuer in good faith and in a commercially reasonable manner following consultation with two RMB Dealers.

**Inconvertibility** means the occurrence of any event that makes it impossible for the Issuer to convert any amount due in respect of the RMB Notes in the general Renminbi exchange market in Hong Kong, other than where such impossibility is due solely to the failure of the Issuer to comply with any law, rule or regulation enacted by any Governmental Authority (unless such law, rule or regulation becomes effective on or after the issue date of such RMB Notes and it is impossible for the Issuer, due to an event beyond its control, to comply with such law, rule or regulation).



**Non-transferability** means the occurrence of any event that makes it impossible for the Issuer to deliver Renminbi between accounts inside Hong Kong or from an account inside Hong Kong to an account outside Hong Kong, other than where such impossibility is due solely to the failure of the Issuer to comply with any law, rule or regulation enacted by any Governmental Authority (unless such law, rule or regulation becomes effective on or after the issue date of the relevant RMB Notes and it is impossible for the Issuer, due to an event beyond its control, to comply with such law, rule or regulation).

**RMB Dealer** means an independent foreign exchange dealer of international repute active in the Renminbi exchange market in Hong Kong.

**Spot Rate** means the spot U.S. dollar/RMB exchange rate for the purchase of U.S. dollars with RMB in the over-the-counter Renminbi exchange market in Hong Kong for settlement in two Business Days, as determined by the Calculation Agent in good faith and in a commercially reasonable manner at or around 11.00 a.m. (Hong Kong time) on the date of determination, on a deliverable basis by reference to Reuters Screen Page TRADCNY3, or if no such rate is available, on a non-deliverable basis by reference to Reuters Screen Page TRADNDF. If neither rate is available, the Calculation Agent in good faith and in a commercially reasonable manner will determine the Spot Rate at or around 11:00 a.m. (Hong Kong time) on the date of determination as the most recently available U.S. dollar/RMB official fixing rate for settlement in two FX Business Days reported by The State Administration of Foreign Exchange of the PRC, which is reported on Reuters Screen Page CNY=SAEC. Reference to a page on the Reuters Screen means the display page so designated on the Reuters Monitor Money Rates Service (or any successor service) or such other page as may replace that page for the purpose of displaying a comparable currency exchange rate.

The Calculation Agent will not be responsible or liable to the Issuer or any holder of the Notes for any determination of any Spot Rate determined in accordance with this provision in the absence of its own gross negligence, bad faith or wilful misconduct.

All notifications, opinions, determinations, certificates, calculations, quotations and decisions given, expressed, made or obtained for the purposes of this Condition 7 by the Calculation Agent, will (in the absence of manifest error) be binding on the Issuer, the Paying Agents and all Noteholders.

## 8. Taxation

- (a) **Tax exemption:** all payments of principal, interest and other revenues by or on behalf of the Issuer in respect of the Notes shall be made free and clear of, and without withholding or deduction for, any taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or within France or any authority therein or thereof having power to tax, unless such withholding or deduction is required by law.
- (b) **Additional Amounts:** If French law should require that payments of principal or interest in respect of any Note or Coupon be subject to deduction or withholding in respect of any present or future taxes or duties whatsoever, the Issuer will, to the fullest extent then permitted by law, pay such additional amounts as shall result in receipt by the Noteholders or, if applicable, the Couponholders, as the case may be, of such amounts as would have been received by them had no such withholding or deduction been required, except that no such additional amounts shall be payable with respect to any Note or Coupon, as the case may be:
  - (i) **Other connection:** to, or to a third party on behalf of, a Noteholder or, if applicable, a Couponholder, as the case may be, who is liable to such

taxes, duties, assessments or governmental charges in respect of such Note or Coupon by reason of his having some present or former connection with the Republic of France other than the mere holding of the Note or Coupon; or

- (ii) *Presentation more than 30 days after the Relevant Date*: in the case of Materialised Notes, more than 30 days after the Relevant Date except to the extent that the Noteholder or, if applicable, a Couponholder, as the case may be, would have been entitled to such additional amounts on presenting it for payment on the thirtieth such day; or
- (iii) *Payment by another Paying Agent*: in respect of Definitive Materialised Notes in bearer form, presented for payment by or on behalf of a holder of any Note or Coupon, as the case may be, who would be able to avoid such withholding or deduction by presenting the relevant Note or Coupon to another Paying Agent in a Member State of the EU; or
- (iv) Any combination of the items (i) to (iii) above.

In addition, any amounts to be paid on any Notes or Coupons will be paid net of any deduction or withholding imposed or required pursuant to FATCA, which refers to (1) sections 1471 to 1474 of the United States Internal Revenue Code or any associated regulations or other official guidance; (2) any treaty, law, regulation or other official guidance enacted in any other jurisdiction, or relating to an intergovernmental agreement between the United States and any other jurisdiction, which (in either case) facilitates the implementation of (1) above; or (3) any agreement pursuant to the implementation of (1) or (2) above with the United States Internal Revenue Service, the United States government or any governmental or taxation authority in any other jurisdiction, and the Issuer will have no obligation to pay additional amounts or otherwise indemnify an investor for any such FACTA deduction or withholding deducted or withheld by the Issuer, any paying agent or any other party.

As used in these Conditions, “**Relevant Date**” in respect of any Note or Coupon means the date on which payment in respect of it first becomes due or (if any amount of the money payable is improperly withheld or refused) the date on which payment in full of the amount outstanding is made or, in the case of Materialised Notes (if earlier) the date seven days after that on which notice is duly given to the Noteholders that, upon further presentation of the Note or Coupon being made in accordance with the Conditions, such payment will be made, provided that payment is in fact made upon such presentation.

References in these Conditions to (i) “**principal**” shall be deemed to include any premium payable in respect of the Notes, all Final Redemption Amounts, Early Redemption Amounts, Optional Redemption Amounts, Make-Whole Redemption Amounts, Amortised Nominal Amounts and all other amounts in the nature of principal payable pursuant to Condition 6 (*Redemption, Purchase and Options*) or any amendment or supplement to it, (ii) “**interest**” shall be deemed to include all Interest Amounts and all other amounts payable pursuant to Condition 5 (*Interest and other Calculations*) or any amendment or supplement to it and (iii) “**principal**” and/or “**interest**” shall be deemed to include any additional amounts that may be payable under this Condition.

## 9. Events of Default

The Representative (as defined in Condition 11 (*Representation of Noteholders*)), upon request of any Noteholder, may, upon written notice to the Issuer and the Fiscal Agent given before all defaults shall have been cured, cause all the Notes (but not some only)

of such Noteholders to become immediately due and payable at their principal amount, together with any accrued interest thereon, as of the date on which such notice for payment is received by the Fiscal Agent without further formality, if any of the following events (each an “**Event of Default**”) shall occur:

- (i) the Issuer (a) fails to pay principal in respect of the Notes of the relevant Series or any of them within 15 days following the Maturity Date or date of redemption thereof or (b) fails to pay interest in respect of the Notes of the relevant Series or any of them within 15 days of the due date for payment thereof; or
- (ii) the Issuer defaults in the performance or observance of any of its other obligations under or in respect of the Notes of the relevant Series which default is continuing (except in any case where such default is incapable of remedy when no such continuation or notice, as is hereinafter mentioned, will be required) for a period of 30 days after the Issuer receives written notice specifying such default at the specified office of the Fiscal Agent by the Holder of any such Note; or
- (iii) (a) any Indebtedness (as defined in Condition 4 (*Negative Pledge*)) of the Issuer (being Indebtedness having an outstanding aggregate principal amount in excess of €100,000,000 or its equivalent in any other currency) is not paid within 30 days after its stated maturity or earlier redemption date, as the case may be, or within any longer applicable grace period, as the case may be, (b) any Indebtedness of the Issuer (being Indebtedness having an outstanding aggregate principal amount in excess of €100,000,000 or its equivalent in any other currency) becomes due and payable prior to its stated maturity as a result of a default thereunder which is not remedied within the relevant grace period or (c) the Issuer fails to pay when due any amount payable by it under any guarantee of Indebtedness (being Indebtedness having an outstanding aggregate principal amount in excess of €100,000,000 or its equivalent in any other currency) unless, in each case, the Issuer is contesting in good faith its obligations to make payment or repayment of any such amount; or
- (iv) a judgment is issued for judicial liquidation (*liquidation judiciaire*) of the Issuer or for a transfer of the whole of its business (*cession totale de l'entreprise à la suite d'un plan de cession*) pursuant to a judicial reorganisation (*redressement judiciaire*), or the Issuer is subject to equivalent legal proceedings, or in the absence of legal proceedings the Issuer makes a voluntary conveyance, assignment or other arrangement for the benefit of its creditors or enters into a composition with its creditors or the Issuer is voluntarily wound up or dissolved (*dissolution or liquidation amiable*).

### 10. Prescription

Claims against the Issuer for payment in respect of the Notes and Coupons (which for this purpose shall not include Talons) shall be prescribed and become void unless made within five years (in the case of both principal and interest) from the appropriate Relevant Date in respect of them.

### 11. Representation of Noteholders

The Noteholders will, in respect of all Tranches of the relevant Series, be grouped automatically for the defence of their common interests in a masse (the “**Masse**”) which will be governed by the provisions of Articles L.228-46 *et seq.* of the French *Code de commerce* as amended by this Condition 11.

#### 11.1 Legal Personality

The Masse will be a separate legal entity and will act in part through a representative (the “**Representative**”) and in part through collective decisions of the Noteholders (the “**Collective Decisions**”).

The Masse alone, to the exclusion of all individual Noteholders, shall exercise the common rights, actions and benefits which may accrue with respect to the Notes.

### 11.2 Representative

The names and addresses of the initial Representative and its alternate, if any, will be set out in the relevant Final Terms. The Representative appointed in respect of the first Tranche of any Series of Notes will be the single Representative of all subsequent Tranches in such Series.

The Representative will be entitled to such remuneration in connection with its functions or duties as set out in the relevant Final Terms. No additional remuneration is payable in relation to any subsequent Tranche of any given Series.

In the event of death, liquidation, dissolution, retirement, resignation or revocation of the Representative, such Representative will be replaced by its alternate, if any, or another Representative may be appointed. Collective Decisions in relation to the appointment or replacement of the Representative shall be published in accordance with Condition 11.8.

All interested parties will at all times have the right to obtain the names and addresses of the Representative and the alternate Representative, if any, at the registered office of the Issuer.

### 11.3 Powers of the Representative

The Representative shall (in the absence of any Collective Decision to the contrary) have the power to take all acts of management necessary in order to defend the common interests of the Noteholders, with the capacity to delegate its powers.

All legal proceedings against the Noteholders or initiated by them, must be brought by or against the Representative.

The Representative may not be involved in the management of the affairs of the Issuer.

### 11.4 Collective Decisions

Collective Decisions are adopted either (i) in a general meeting (the "**General Meeting**") or (ii) by unanimous consent of the Noteholders following a written consultation (the "**Written Unanimous Resolutions**", as further described in Condition 11.4.1 below), or (iii) by consent of one or more Noteholders holding together at least seventy-five (75) per cent. of the principal amount of the Notes outstanding, following a written consultation (the "**Written Majority Resolutions**", as further described in Condition 11.4.2 below and together with the Written Unanimous Resolutions, the "**Written Resolutions**").

In accordance with Article R.228-71 of the French *Code de commerce*, the rights of each Noteholder to participate in Collective Decisions will be evidenced by entries in the books of the relevant Account Holder or the Issuer or the Registration Agent (as the case may be) of the name of such Noteholder as of 0:00 Paris time, on the second (2<sup>nd</sup>) business day in Paris preceding the date set for the Collective Decision.

Collective Decisions must be published in accordance with Condition 11.8.

The Issuer shall hold a register of the Collective Decisions and shall make it available, upon request, to any subsequent holder of any of the Notes of such Series.

#### 11.4.1 General Meeting

A General Meeting may be called at any time, either by the Issuer or by the Representative. One or more Noteholders, holding together at least one-thirtieth (1/30) of the principal amount of Notes outstanding, may address to the Issuer and the

Representative a demand for the General Meeting to be called. If such General Meeting has not been called within two (2) months after such demand, the Noteholders may commission one of them to petition the competent court in Paris to appoint an agent (*mandataire*) who will call the General Meeting.

General Meetings may deliberate validly on first convocation only if the Noteholders present or represented hold at least one fifth (1/5) of the principal amount of the Notes then outstanding. On second convocation, no quorum shall be required. The decisions of the General Meeting shall be taken by a simple majority of votes cast by Noteholders attending such General Meeting or represented thereat.

Notice of the date, time, place and agenda of any General Meeting will be published in accordance with Condition 11.8 not less than fifteen (15) calendar days prior to the date of the General Meeting on first convocation and not less than five (5) calendar days prior to the date of the General Meeting on second convocation.

Each Noteholder has the right to participate in a General Meeting in person, by proxy, by correspondence or by visioconference or by any other means of telecommunications allowing the identification of participating Noteholders.

Each Noteholder or Representative thereof will have the right, during the fifteen (15) calendar day period on the first convocation and five (5) calendar day period on the second convocation preceding the holding of each General Meeting, to consult or make a copy of the text of the resolutions which will be proposed and of the reports, if any, which will be presented at the General Meeting, all of which will be available for inspection by the relevant Noteholders at the registered office of the Issuer and at any other place specified in the notice of the General Meeting.

The General Meeting is chaired by the Representative. In the event of the absence of a representative at the start of a General Meeting and if no Noteholder is present or represented at the General Meeting, the Issuer may, notwithstanding the provisions of Article L.228-64 of the French Code de commerce, designate a provisional chairman until a new Representative has been appointed.

### 11.4.2 Written Resolution and Electronic Consent

Pursuant to Article L. 228-46-1 of the French *Code de commerce*, the Issuer shall be entitled in lieu of the holding of a General Meeting to seek approval of a resolution from the Noteholders by way of a Written Unanimous Resolution or a Written Majority Resolution.

#### (a) Written Unanimous Resolution

Written Unanimous Resolutions shall be signed by or on behalf of all Noteholders and shall not have to comply with formalities and time limits referred to in Condition 11.4.1. Pursuant to Articles L. 228-46-1 and R. 225-97 of the French *Code de commerce*, approval of a Written Unanimous Resolution may also be given by way of electronic communication allowing the identification of Noteholders ("**Electronic Consent**"). Any Written Unanimous Resolution shall, for all purposes, have the same effect as a resolution passed at a General Meeting of such Noteholders. Such Written Unanimous Resolution may be contained in one document, or in several documents in like form each signed by or on behalf of one or more of such Noteholders, and shall be published in accordance with Condition 11.8.

#### (b) Written Majority Resolution

Notices seeking the approval of a Written Majority Resolution, which shall include the text of the proposed resolutions together with any report thereon, will be published as provided under Condition 11.4.1 no less than fifteen (15) calendar days prior to the date fixed for the passing of such Written Majority Resolution (the "**Written Majority Resolution Date**"). Notices seeking the

approval of a Written Majority Resolution will contain the conditions of form and time limits to be complied with by the Noteholders who wish to express their approval or rejection of such proposed Written Majority Resolution. Noteholders expressing their approval or rejection before the Written Majority Resolution Date will undertake not to dispose of their Notes until after the Written Majority Resolution Date.

Written Majority Resolutions shall be signed by one or more Noteholders holding together at least seventy-five (75) per cent. of the nominal amount of the Notes outstanding. Approval of a Written Majority Resolution may also be given by Electronic Consent. Any Written Majority Resolution shall, for all purposes, have the same effect as a resolution passed at a General Meeting of such Noteholders. Such Written Majority Resolution may be contained in one document, or in several documents in like form each signed by or on behalf of one or more of such Noteholders, and shall be published in accordance with Condition 11.8.

### 11.4.3 Exclusion of certain provisions of the French *Code de commerce*

The Masse will be governed by the provisions of the French *Code de commerce* with the exception of Articles L.228-48, L.228-59, the second sentence of Articles L.228-65 II, R.228-63, R.228-67 and R.228-69.

The provisions of Article L.228-65 I. 1° and 4° of the French *Code de commerce* (respectively providing for a prior approval of the General Meeting of the Noteholders of any change in corporate purpose or form of the Issuer or of an issue of bonds benefiting from a security (*sûreté réelle*)) and the related provisions of the French *Code de commerce* shall not apply to the Notes.

The provisions of Article L.228-65 I. 3° of the French *Code de commerce* (providing for a prior approval of the Noteholders in relation to any proposal to merge or demerge the Issuer in the cases referred to in Articles L. 236-13 and L. 236-18 of the French *Code de commerce*) shall apply to the Notes only to the extent that such proposal does not relate to a merger or demerger with another entity of the EDF Group.

### 11.5 Expenses

The Issuer shall pay all the reasonable and duly documented expenses relating to the operations of the Masse, including the reasonable and duly documented expenses relating to the calling and holding of Collective Decisions and, more generally, all reasonable and duly documented administrative expenses resolved upon by Collective Decisions, it being expressly stipulated that no expenses may be imputed against interest payable under the Notes.

### 11.6 Single Masse

The holders of Notes of the same Series, and the holders of Notes of any other Series which have been assimilated with the Notes of such first mentioned Series in accordance with Condition 14 (*Further Issues and Consolidation*), shall, for the defence of their respective common interests, be grouped in a single Masse. The Representative appointed in respect of the first Tranche of any Series of Notes will be the single Representative of all such Series.

### 11.7 Sole Noteholder

If and for so long as the Notes of any Series are held by a sole Noteholder (the "**Sole Noteholder**") and unless a Representative has been appointed in relation to such Series, such Noteholder shall exercise all powers, rights and obligations entrusted to the Masse by the provisions of the French *Code de commerce*. The Issuer shall hold a register of the decisions taken by the Sole Noteholder in this capacity and shall make it available, upon request, to any subsequent holder of any of the Notes of such Series.

### 11.8 Notices to Noteholders

Notices to Noteholders pursuant to this Condition 11 shall be (a) given by delivery of the relevant notice to Euroclear France, Euroclear, Clearstream and any other clearing system through which the Notes are for the time being cleared and, if such publication is not practicable in respect of Dematerialised Notes in registered form (*au nominatif*), by mail to the Noteholders at their respective addresses, in which case they will be deemed to have been given notice on the fourth (4<sup>th</sup>) weekday (being a day other than a Saturday or a Sunday) after the mailing and (b) published on the website of the Issuer ([www.edf.com](http://www.edf.com)). For the avoidance of doubt, Conditions 15(a), (b), (c), (d) shall not apply to such notices.

### 11.9 Outstanding Notes

For the avoidance of doubt, in this Condition 11, the term "**outstanding**" shall not include those Notes purchased by the Issuer, or on its behalf, or by any of its subsidiaries pursuant to applicable laws and regulations.

### 11.10 Notes with a denomination of less than €100,000 issued outside France

For Notes issued with a denomination of less than €100,000 (or its equivalent in any other currency) that are issued outside France within the meaning of Article L.228-90 of the French *Code de commerce*, Conditions 11.1 to 11.9 above shall apply to the Notes, to the fullest extent possible in accordance with applicable laws and regulations.

### 11.11 Notes with a denomination of less than €100,000 issued inside France

For Notes issued with a denomination of less than €100,000 (or its equivalent in any other currency) that are not issued outside France within the meaning of Article L.228-90 of the French *Code de commerce*, Condition 11 shall apply to the Notes subject to the following modifications:

- (i) the second paragraph of Condition 11.4.1 shall be deleted and replaced by the following paragraph:

"General Meetings may deliberate validly on first convocation only if the Noteholders present or represented hold at least one-fifth (1/5) of the principal amount of the Notes then outstanding. On second convocation, no quorum shall be required. The decisions of the General Meeting shall be taken by a two-third (2/3) majority of votes cast by the Noteholders attending such General Meeting or represented thereat."

- (ii) Condition 11.4.3 shall not apply to the Notes.
- (iii) Condition 11.5 shall be deleted and replaced by the following:

#### "11.5 Expenses

The Issuer shall pay all expenses relating to the operations of the Masse, including all expenses relating to the calling and holding of Collective Decisions and, more generally, all administrative expenses resolved upon by Collective Decisions."

## 12. Final Terms

These Conditions may be completed in relation to any Series of Notes by the terms of the relevant Final Terms in relation to such Series.

## 13. Replacement of definitive Notes, Coupons and Talons

If, in the case of any Materialised Bearer Notes, a Definitive Materialised Bearer Note, Coupon or Talon is lost, stolen, mutilated, defaced or destroyed, it may be replaced,

subject to applicable laws, regulations and Regulated Market regulations, at the specified office of the Fiscal Agent or such other Paying Agent as may from time to time be designated by the Issuer for the purpose and notice of whose designation is given to Noteholders, in each case on payment by the claimant of the fees and costs incurred in connection therewith and on such terms as to evidence, security and indemnity (which may provide, *inter alia*, that if the allegedly lost, stolen or destroyed Definitive Materialised Bearer Note, Coupon or Talon is subsequently presented for payment or, as the case may be, for exchange for further Coupons, there shall be paid to the Issuer on demand the amount payable by the Issuer in respect of such Definitive Materialised Bearer Notes, Coupons or further Coupons) and otherwise as the Issuer may require. Mutilated or defaced Materialised Bearer Notes, Coupons or Talons must be surrendered before replacements will be issued.

### 14. Further Issues and Consolidation

- (a) **Further Issues:** The Issuer may from time to time without the consent of the Noteholders or Couponholders create and issue further notes to be assimilated (*assimilées*) and form a single series with the Notes provided such Notes and the further notes carry rights identical in all respects (or in all respects save for the principal amount thereof and the first payment of interest in the relevant Final Terms) and that the terms of such further notes provide for such assimilation and references in these Conditions to “Notes” shall be construed accordingly.
- (b) **Consolidation:** The Issuer may, with the prior approval (which shall not be unreasonably withheld) of the Redenomination and Consolidation Agent, from time to time on any Interest Payment Date occurring on or after the Redenomination Date on giving not less than 30 days’ prior notice to the Noteholders in accordance with Condition 15 (*Notices*), without the consent of the Noteholders or Couponholders, consolidate the Notes of one Series with the Notes of one or more other Series issued by it, whether or not originally issued in one of the European national currencies or in Euro, provided such other Notes have been redenominated in Euro (if not originally denominated in Euro) and which otherwise have, in respect of all periods subsequent to such consolidation, the same terms and conditions as the Notes.

### 15. Notices

- (a) Notices to the holders of Dematerialised Notes in registered form (*au nominatif*) shall be valid if either (i) they are mailed to them at their respective addresses, in which case they will be deemed to have been given on the fourth weekday (being a day other than a Saturday or Sunday) after the mailing, or (ii) at the option of the Issuer, they are published in a leading daily newspaper with general circulation in Europe (which is expected to be the *Financial Times*) and, so long as such Notes are listed and admitted to trading on any Regulated Market and the rules of, or applicable to, such Regulated Market so require, in a leading daily newspaper with general circulation in the city where the Regulated Market on which such Notes are listed and admitted to trading is located, which in the case of Euronext Paris is expected to be *Les Echos*.
- (b) Notices to the holders of Materialised Bearer Notes and Dematerialised Notes in bearer form (*au porteur*) shall be valid if published in a daily leading newspaper with general circulation in Europe (which is expected to be the *Financial Times*) and so long as such Notes are listed and admitted to trading on any Regulated Market, in a leading daily newspaper with general circulation in the city where the Regulated Market on which such Notes are listed and admitted to trading is located, which in the case of Euronext Paris is expected to be *Les Echos*.
- (c) If any such publication is not practicable, notice shall be validly given if published in another leading daily English language newspaper with general circulation in Europe. Any such notice shall be deemed to have been given on the date of such publication or, if published more than once or on different dates, on the



date of the first publication as provided above. Couponholders shall be deemed for all purposes to have notice of the contents of any notice given to the holders of Materialised Bearer Notes in accordance with this Condition.

- (d) Notices required to be given to the holders of Dematerialised Notes (whether in registered or in bearer form) pursuant to these Conditions may be given by delivery of the relevant notice to Euroclear France, Euroclear, Clearstream and any other clearing system through which the Notes are for the time being cleared in substitution for the mailing and publication as required by Conditions 15(a), (b) and (c) above; except that notices relating to the convocation and decision(s) of the General Meetings pursuant to Condition 11 (*Representation of Noteholders*) shall also be published in a leading daily newspaper of general circulation in Europe.

### 16. **Governing Law and Jurisdiction**

#### 16.1 **Governing Law**

The Notes (and, where applicable, the Coupons and the Talons) are governed by, and shall be construed in accordance with, French law.

#### 16.2 **Jurisdiction**

- (a) The Paris Commercial Court (*Tribunal de Commerce de Paris*) has jurisdiction to settle any disputes arising out of or in connection with the Notes (and, where applicable, the Coupons and the Talons) (including a dispute relating to the existence, validity or termination of the Notes (and, where applicable, the Coupons and the Talons)) and accordingly, any legal action or proceedings arising out of or in connection therewith may be brought in such courts.
- (b) Any claim against the Issuer in connection with the Notes (and, where applicable, the Coupons and the Talons) will be brought before the said Paris Commercial Court (*Tribunal de Commerce de Paris*).

### USE OF PROCEEDS

The net proceeds of the issue of each Tranche will (as specified in the applicable Final Terms) be applied by the Issuer to:

- (i) meet part of its general financing requirements; or
- (ii) finance (a) the construction of new green assets or (b) investments to renovate and/or upgrade existing green assets, as further described in the EDF Green Bond Framework as of September 2016 available on the website of the Issuer ([https://www.edf.fr/sites/default/files/contrib/groupe-edf/espaces-dedies/espace-finance-fr/investisseurs-et-analystes/espace%20obligataire/Green-Bond/edf\\_green\\_bond\\_framework-september\\_2016.pdf](https://www.edf.fr/sites/default/files/contrib/groupe-edf/espaces-dedies/espace-finance-fr/investisseurs-et-analystes/espace%20obligataire/Green-Bond/edf_green_bond_framework-september_2016.pdf)) (the "**Green Bond Framework**"); or
- (iii) to finance any other particular identified use of proceeds as stated in the applicable Final Terms.

In respect of (ii) above, the Green Bond Framework describes the eligible projects to which the net proceeds of a Tranche of Notes may be allocated. The Green Bond Framework is fully compliant with the following four components of the Green Bond Principles published by the International Capital Markets Association (as they may be further updated): (1) the use of proceeds, (2) the process for project evaluation and selection, (3) the management of proceeds and (4) reporting obligations.

The Issuer also applies the recommendation to use the services of an external second opinion provider (Vigeo Eiris) and commits to an annual certification by its external auditors. Any such external second opinion and annual certification by external auditors relating, notably, to the allocation of green bond proceeds, will be made available in the green bond section of the Issuer's website until the net proceeds of the relevant green bond issue are used in full or the maturity date of the relevant green bonds, whichever comes first.

The Green Bond Framework may be amended and supplemented from time to time. Any such change or supplement shall be notified to Noteholders in accordance with Condition 15 of the Terms and Conditions as soon as practicable thereafter.

Prior to any investment in Notes in which the net proceeds are to be used to finance investments in eligible projects, as further specified in the applicable Final Terms, investors are advised to consult the Green Bond Framework for further information.

## **DESCRIPTION OF THE ISSUER**

For a general description of the Issuer and the EDF Group, please refer to the documents incorporated by reference and the cross-reference table of the section "Documents Incorporated by Reference" of this Base Prospectus.

The profit forecast and estimates set forth in Section 11 (*Outlook*) of the 2019 Half-Year Management Report as, when applicable, updated by the press release of the Issuer dated 9 October 2019, and then confirmed by the press release of the Issuer dated 14 November 2019, reproduced in the section "Recent Events" of this Base Prospectus, have been prepared and consolidated on a basis which is comparable with the 2019 financial information and consistent with EDF group's accounting policies, as described in the consolidated financial statements of the Issuer for the year ended on 31 December 2018 and updated in the 2019 Half-Year Financial Statements (in particular concerning the application of IFRS 16 accounting standard).

## RECENT EVENTS



Press release  
6 September 2019

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### The second EPR reactor at China's Taishan nuclear power plant about to enter into commercial operation

Unit 2 of the Taishan nuclear power plant will enter into commercial operation on Saturday the 7<sup>th</sup> of September 2019, following statutory functional test of continuous operation at full power for 168 hours, which started on Saturday the 30<sup>th</sup> of August at 17:15 local time. This step marks the achievement of all prerequisite conditions for the second reactor's safe operation just nine months after Unit 1 was commissioned.

Comprising two 1750-MW EPR reactors, Taishan nuclear power plant is the biggest cooperation project to have taken place between China and France in the energy sector. Taishan's two reactors are capable of supplying the Chinese power grid with up to 24 TWh of CO<sub>2</sub>-free electricity a year, tantamount to the annual electricity consumption of 5 million Chinese users, whilst at the same time preventing the emission of 21 million tons of CO<sub>2</sub> a year.

The Taishan project is led by TNPJVC, a joint-venture founded by CGN (51%), EDF (30%) and the Chinese utility Guangdong Energy Group (19%). The EDF Group and its subsidiary Framatome supplied the EPR technology for the plant. The project capitalised on 35 years of strategic cooperation between EDF and CGN, as well as operating experience from the Flamanville 3 EPR and the complementarity between the French and Chinese nuclear sectors.

Experience acquired through the commissioning of the first reactor on 13 December 2018 allowed to reduce by 3 months the period between the fuel loading and the plant's entry into commercial operation, whilst sustaining identical safety conditions. This performance demonstrates the potential to optimise future EPR construction sites. Since it was commissioned, reactor No.1 has achieved excellent operational results.

The Taishan project is providing EPR reactors around the world with its experience in project management and technological expertise. The first reactors to benefit from this experience are the two Hinkley Point C units currently being built in the UK. The two companies are also partners in the Sizewell C EPR project, as well as in the Bradwell B project which is based on Hualong technology.

Jean-Bernard Lévy, the EDF Chairman and CEO stated: "Start-up of the world's second EPR at the Taishan site, combined with the excellent operational performances achieved at Unit 1, are testament to the quality of the reactor design and confirm the industrial feasibility of projects undergoing development. The success of the Taishan project is the result of a long and fruitful cooperation between EDF and CGN and more widely in the French and Chinese nuclear sectors. Safe and competitive, EPR technology is an increasingly important asset to make the global energy mix totally carbon free."

#### Construction of the Taishan nuclear power plant: latest key milestones

10 April 2018: authorisation for fuelling of Unit 1  
6 June 2018: first chain reaction in Unit 1  
29 June 2018: Unit 1 connected to the grid for first time  
13 December 2018: start of commercial operation of Unit 1

12 April 2019: authorisation for fuelling of Unit 2  
30 May 2019: first chain reaction in Unit 2  
23 June 2019: Unit 2 connected to the grid for first time

7 September 2019: start of commercial operation of Unit 2

**Key figures for the Taishan Nuclear Power Plant:**

**2 1750-MW EPR reactors, the most powerful in the world**

The plant will be able to generate up to **24TWh** of electricity per year, tantamount to the power consumed by **5 million Chinese users**

The plant will prevent the emission of around **21 million tonnes of CO2** per year.

**More than 200 French engineers** were involved throughout the project's duration

**More than 15 000 workers** were mobilised during the busiest periods of the construction phase

Nearly **800 people** will be required to operate both reactors

Nearly **40 French companies** were involved in the construction of the reactor. Revenue generated for the French sector is estimated at around **€2.4 billion**.

The site covers a surface area of **400 hectares**.

***This press release is certified. Check its authenticity at [medias.edf.com](https://medias.edf.com)***

**About EDF**

A key player in energy transition, the EDF Group is an integrated electricity company, active in all areas of the business: generation, transmission, distribution, energy supply and trading, energy services. A global leader in low-carbon energies, the Group has developed a diversified generation mix based on nuclear power, hydropower, new renewable energies and thermal energy. The Group is involved in supplying energy and services to approximately 39.8 million customers, of which 29.7 million in France. The Group generated consolidated sales of €69 billion in 2017. EDF is listed on the Paris Stock Exchange.

(1) Customers are accounted for as at end of 2018 per delivery site, whereby a customer may have 2 simultaneous delivery points: one for power and the other one for gas.

**About Framatome:**

Framatome is a major international player in the nuclear sector, recognized for its innovative solutions and its technologies that provide massive added-value for the design, construction, maintenance and development of the global nuclear fleet. The company designs and manufactures components, fuel, I&C systems and offers a full range of tailor-made services for reactors. With some 14,000 staff across the globe, Framatome customers enjoy its expertise on a daily basis, helping them improve the safety and performance levels at their nuclear power plants and meet their economic and societal objectives. Framatome is owned by the EDF Group (75,5 %), Mitsubishi Heavy Industries (MHI 19,5 %) and Assystem (5 %).

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### CONTACTS

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Press release  
10 September 2019

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## Deviation in technical standards governing the manufacture of nuclear-reactor components by Framatome

Framatome has informed EDF of a deviation from technical standards governing the manufacture of nuclear-reactor components.

Relating to standards associated with the manufacturing process, the deviation concerns an excursion from temperature ranges in certain areas during manufacturing operations, more specifically involving detensioning heat treatment on some steam generator welds.

It concerns in-service components as well as new components which have not yet been installed on any sites.

From the time it was informed of the deviation, EDF – along with Framatome – has been conducting in-depth investigations to identify all affected components and reactors, as well as to ascertain their fitness for service.

On the 9<sup>th</sup> of September 2019, EDF informed the French nuclear regulatory authority of its initial investigations.

EDF will provide additional information as characterisation work progresses.

Additional information will be posted on the EDF website (<https://www.edf.fr/groupe-edf/nos-energies/nucleaire/non-qualites-de-fabrication>) in due time.

*This press release is certified. You can check that it's genuine at [medias.edf.com](https://medias.edf.com)*

A key player in energy transition, the EDF Group is an integrated electricity company, active in all areas of the business: generation, transmission, distribution, energy supply and trading, energy services. A global leader in low-carbon energies, the Group has developed a diversified generation mix based on nuclear power, hydropower, new renewable energies and thermal energy. The Group is involved in supplying energy and services to approximately 39.8 million customers, of which 29.7 million in France. The Group generated consolidated sales of €69 billion in 2017. EDF is listed on the Paris Stock Exchange.

(1) Customers are accounted for as at end of 2018 per delivery site, whereby a customer may have 2 simultaneous delivery points: one for electricity and the other one for gas.

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PRESS RELEASE  
18 September 2019

### Update on Framatome's deviation from technical standards governing the manufacture of nuclear-reactor components

On the 9th of September 2019, EDF informed France's nuclear regulatory authority of its initial investigations concerning the deviation from a post-weld detensioning heat-treatment process applied to certain nuclear-reactor components.

EDF and Framatome have since identified 16 steam generators installed on six operating reactor units: reactors no. 3 and 4 at Blayais, reactor no. 3 at Bugey, reactor no. 2 at Fessenheim, reactor no. 4 at Dampierre-en-Burly and reactor no. 2 at Paluel.

At this stage of the technical investigations being carried out on these components, EDF believes that the observed deviations do not adversely affect the components' fitness for service and do not require immediate action.

The components that are not yet in service are the 4 steam generators and the pressuriser at the Flamanville-3 EPR, as well as 3 new steam generators that have not yet been installed and that were manufactured for the purpose of replacing the steam generators on reactor units no. 5 and 6 at Gravelines.

EDF and FRAMATOME are continuing to conduct their technical investigations with extreme diligence and will keep the nuclear regulatory authority informed on a regular basis.

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<sup>(1)</sup>The customers were counted at the end of 2018 per delivery site; a customer can have two delivery points: one for electricity and another for gas

Only print this message if absolutely necessary:

EDF SA  
French code: anonyme  
With a share capital of €25 484 819 euros  
Registered office: 22-26, avenue de Wagram  
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PRESS RELEASE  
25 September 2019

## Update on Hinkley Point C project

The Hinkley Point C project successfully delivered J-0, the completion of the nuclear island "common raft" for its first unit in June 2019, in line with the schedule announced in September 2016.

Following this major milestone a detailed review of the project's costs, schedule and organisation was performed. The review has concluded that:

- The next milestone of completing the common raft for Unit 2 in June 2020, which was announced earlier this year, is confirmed;
- The previously communicated risk of COD delay of unit one and two (of 15 months and nine months respectively) has increased<sup>(1)</sup>
- The project completion cost<sup>(2)</sup> is now estimated between £21.5bn and £22.5bn, an increase of £1.9bn to £2.9bn<sup>(3)</sup> compared to the previous estimate.

The range depends on the effectiveness of action plans to be delivered in partnership with contractors.

Cost increases reflect challenging ground conditions which made earthworks more expensive than anticipated, revised action plan targets and extra costs needed to implement the completed functional design, which has been adapted for a first-of-a-kind application in the UK context.

Under the terms of the Contract for Difference, there is no impact for UK consumers or taxpayers.

EDF's project rate of return for Hinkley Point C (IRR)<sup>(4)</sup> is now estimated between 7.6% and 7.8%.

The management of the project remains mobilised to begin generating power from Unit 1 at the end of 2025. To achieve this, operational action plans overseen by the project management are being put in place. These involve the EDF Group's engineering teams in Great Britain and France, buildings and ancillary works contractors, and suppliers of equipment and systems throughout the supply chain.

(1) As previously communicated in July 2017, if this risk were to materialise, it would entail an additional cost of around £0.7bn in 2015 sterling. Under this assumption the IRR for EDF would be lower by 0.3%.

(2) In 2015 sterling, excluding Interim Interest and excluding forex effect versus the reference exchange rate for the project of 1 sterling = 1.23 euro.

(3) Additional costs net of action plans.

(4) EDF equity IRR calculated at the exchange rate 1 sterling = 1.15 euro and including the capped compensation mechanism in place between shareholders.

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(1) The customers were counted at the end of 2018 per delivery site; a customer can have two delivery points: one for electricity and another for gas

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## CLOSURE OF FESSENHEIM NUCLEAR POWER PLANT

EDF has submitted an application to the regulator and to France's minister in charge of the energy and solidarity transition, in which it has requested approval for the termination of operations and permanent shutdown of both reactors at Fessenheim nuclear power plant (NPP). The shutdown of reactor no. 1 is planned for the 22<sup>nd</sup> of February 2020, whilst the shutdown of reactor no. 2 is planned for the 30<sup>th</sup> of June of the same year.

This submission follows on from the signing, on the 27<sup>th</sup> of September 2019, by the State and by EDF, of a protocol agreement whereby the State will compensate EDF for the early closure of Fessenheim NPP, resulting from the limitation of nuclear power output set by a law passed on the 17<sup>th</sup> of August 2015, pertaining to the energy transition in support of green growth.

According to the terms of this protocol, compensation will comprise:

- Initial instalments to compensate for expenses incurred by the closure of the plant (post-operational expenditure, BNI taxes, dismantling and staff redeployment costs), which will be paid over a 4-year period following closure of the plant. These payments are expected to amount to a total of nearly 400 million Euros.
- Subsequent payments in compensation for any loss of earnings, i.e. income from future power generation, based on Fessenheim's previous output figures, up until 2041, calculated "ex post" on the basis of nuclear output selling prices, including observed market prices.

With these arrangements in place, EDF has been able to rationalise the redeployment of the station's personnel, within the scope of the agreement signed on the 17<sup>th</sup> of May 2018 between the company and the trade-union organisations.

**Jean-Bernard Lévy, EDF Chairman and Chief Executive Officer:** *"I would like to celebrate the efforts of Fessenheim personnel and contract staff, who have continued to operate our facility safely while maintaining extremely high levels of performance. I have already ensured them that the company holds them in high esteem and that they will continue to receive all the company's support during the redeployment process".*

*This press release is certified. Its authenticity can be checked on [medias.edf.com](https://medias.edf.com)*

A key player in energy transition, the EDF Group is an integrated electricity company, active in all areas of the business: generation, transmission, distribution, energy supply and trading, energy services. A global leader in low-carbon energies, the Group has developed a diversified generation mix based on nuclear power, hydropower, new renewable energies and thermal energy. The Group is involved in supplying energy and services to approximately 39.8 million customers<sup>(1)</sup>, 29.7 million of which are in France. It generated consolidated sales of €69 billion in 2018. EDF is listed on the Paris Stock Exchange.

<sup>(1)</sup> The customers were counted at the end of 2018 per delivery site; a customer can have two delivery points: one for electricity and another for gas

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**Flamanville EPR: EDF has adopted a scenario for upgrading the main secondary system penetration welds with robots and has adjusted the construction schedule and estimated cost accordingly<sup>(1)</sup>. The second hot functional test phase has started on site.**

In the letter of 19 June 2019, the Nuclear Safety Authority (ASN) asked EDF to repair the eight containment penetration welds for Flamanville EPR, not compliant with the break preclusion principle<sup>(2)</sup>. Within this framework, EDF has assessed three repair scenarios.

This work resulted in discussions with the ASN, who sent EDF a letter on 4 October concerning technical feasibility of these three scenarios.

The penetration weld rework scenario preferred by EDF is the use of remote-operated robots, designed to conduct high precision operations inside the piping concerned. This technology has been developed for nuclear power plants in operation and shall be qualified for penetration weld rework. The aim is to qualify this scenario with validation by the ASN by the end of 2020, date on which EDF will be able to initiate the repair works. The second scenario, based on extraction and realignment works in the Safeguard Auxiliary Buildings, is kept at this stage as a fall-back solution.

Based on this penetration weld repair strategy, the EDF Board of Directors approved continuation of the Flamanville EPR construction at a meeting held on the 8<sup>th</sup> of October 2019.

Within this context, the Group has had to adjust the schedule and the estimated construction cost <sup>(1)</sup> for Flamanville EPR accordingly <sup>(3)</sup>.

The provisional schedule for implementation of the preferred penetration weld repair scenario, if the target for validation by the ASN is complied with, results in the date of fuel loading at the end 2022 and reassessment of the construction cost at 12.4 billion Euros <sup>(1)</sup>, representing an increase of 1.5 billion Euros. These additional costs will be presented mainly as other income and expenses<sup>(4)</sup> and not as CAPEX.

In addition, due to postponement of the date of fuel loading, no revenue that should have been deducted from net investments<sup>(5)</sup> will be generated by the plant during test phase in 2020. In this context, the Group has adjusted its net total investment target <sup>(6)</sup> to around 15.5 billion Euros for 2020, instead of the initial target of around 15 billion Euros.

The process of realignment of the 58 welds on the secondary system with quality deviations or not in compliance with the break preclusion principle requirements defined by EDF is being continued on site.

At the same time, the second hot functional test phase was started on 21 September 2019 and will last until the end of 2019. These tests are performed on the plant in normal operating conditions.

1) In 2015 Euros and excluding interim interest

2) Break preclusion principal is a very high standard of quality going beyond the nuclear pressure equipment regulations. It involves reinforcement of the design, manufacturing and in-service monitoring requirements for certain items of equipment. This

## Description of the Issuer

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reinforcement shall be sufficient to consider that rupture of this equipment is highly unlikely. (This standard is applied so that the consequences of rupture of this piping do not need to be completely studied for plant safety case).

3) The issue of deviation from the technical manufacturing baseline for Framatome reactor components (stress-relieving heat treatment process for the welds with electrical resistance) (see EDF press release of 18 September 2019), which concerns the four steam generators and pressuriser at Flamanville 3 EPR, is not covered in this press release.

4) IAS 16 section 22 concerning abnormal costs presented for self-constructed assets. These costs will affect 2020, 2021 and 2022. For 2020, impact on net income Group share is estimated, all things being equal, at -0.4 billion Euros, without affecting current net income.

5) IAS 16 section 17.

6) Excluding acquisitions and "2019-2020 Group disposals"

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## INAUGURATION OF THE "LA COCHE" HYDRO PLANT (SAVOIE): 20% OF ADDITIONAL POWER IN SUPPORT OF ENERGY STORAGE

This morning, the new La Coche power plant (Savoie) was inaugurated by Jean-Bernard Lévy, the EDF Group's Chairman and Chief Executive. The event was attended by members of local government and by representatives of the local and regional authorities. The new plant will increase the total capacity of the La Coche pumped-storage hydro facility by 20%. Amounting to 150 million Euros in capital expenditure, this investment confirms the Group's commitment to the development of hydro power, which is the world's main source of renewable energy whilst accounting for 12.4% of France's electrical output<sup>1</sup>.

The commissioning of this new facility, combined with upgrades being made to the existing pumped-storage plant, is also helping to further develop electrical power storage technologies, an area which is being strongly supported by the EDF Group via its Storage Plan.

The second biggest hydro project in France after the one currently underway at Romanche-Gavet (Isère), this new facility features France's most powerful Pelton wheel (240 MW). It comes in addition to La Coche's underground power plant, which is already in operation. Commissioned in 1976, this pumped-storage plant pumps water from the Aigueblanche dam towards the La Coche impoundment, where it stores energy that is constantly available to meet demand spikes. It therefore plays a strategic role in balancing the power grid, more specifically supporting the integration of variable renewable-energy sources.

With this new plant, La Coche's hydro facilities will now generate as much power as that annually used by 270 000 inhabitants (tantamount to the size of a city like Strasbourg) thanks to a renewable, flexible and storable energy source.

Of the 150 million Euros spent on this asset, 84 million Euros have gone towards supporting regional businesses including nearly 30 million Euros for Savoie. 500 local jobs have been created or maintained in the region thanks to project-related investments whilst 11 jobs have been created to support labour-market integration.

Innovation has been an outstanding feature of the project. EDF-designed robots have been used for work being performed in inaccessible areas so as to keep workers safe and to protect the environment. Furthermore, the Pelton wheel is a product of additive manufacturing, which entails adding material by means of laser metal deposition.

Jean-Bernard Lévy, Chairman and Chief Executive of the EDF Group: *"This new power plant bears testimony to EDF's long-term presence across all of our regions, as well as its commitment to the development of renewable energy sources in line with our CAP 2030 strategy, which seeks to double the Group's global installed renewable capacity by 2030. This facility also forms part of the Group's Electrical Storage Plan, which aims to develop 10 GW of additional storage capacity world-wide by 2035".*

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<sup>1</sup> Figure for year 2018

### France's most powerful Pelton wheel

Measuring 3.6 metres in diameter and weighing 15 tons, the Pelton wheel is the generation facility's key component. It is rotated by water that is jetted at a rate of nearly 500 km/h by five surrounding injectors, causing it to drive the main generator. The main generator's impressively sized components are housed inside an 80-cm thick reinforced-concrete enclosure. Featuring a special liner, the wheel is more resistant to abrasion from sediment-loaded water. It is also easier to maintain and replace than "reversible" pumped-storage Francis turbines used by the underground plant.

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## Update on EDF's nuclear plants

### 1. Discrepancies in relation to the technical framework for the production of nuclear reactor components by Framatome

Following on from yesterday's publication by the ASN (French nuclear safety authority) of the briefing note entitled "Production discrepancies at Framatome: stress relief heat treatment for welding", EDF acknowledges that the reactors involved can continue to function as they are, and that they do not need to be shut down in order for the checks required to deal with the discrepancies to be carried out. EDF has continued to discuss the technical issues of this case with the Autorité de Sûreté Nucléaire (French nuclear safety authority) over the last few weeks.

Physical checks have been carried out on the seals in question in the new steam generators currently being assembled at Gravelines 5 and steam generators for the Blayais 4 reactor, which has been shut down for fuel reloading. These same checks will be carried out on the seals in question in the steam reactors at Blayais 3 (May 2020), Bugey 3 (April 2020), Dampierre 4 (January 2020) and Paluel 2 (26 October 2019), during their next scheduled shutdown for fuel reloading, without any need to expect these shutdowns to last any longer to carry out these checks. When it comes to Fessenheim 2, additional elements confirming the integrity of the equipment in question will be submitted to the ASN in due course. For the Flamanville 3 EPR equipment, these checks will be carried out after the hot tests currently under way.

### 2. Outlook for nuclear production in France for 2019

The 2019 industrial campaign was hailed as being particularly complex, with the completion of seven ten-year inspections. The overlapping of some intensive operations planned for the second half of the year affecting all plants is resulting in extensions to scheduled shutdowns, including in particular for the reactors at Flamanville 2 and Paluel 4. Combined with the fortuitous shutdown of Flamanville 1 to carry out maintenance work on the diesel generators and weather conditions resulting in greater modulations than planned for the reactors, this situation has led EDF to review its forecast annual output for 2019 to approximately 390 TWh, compared with an initial hypothesis of approximately 395 TWh. The financial targets for 2019 and ambitions for 2020<sup>1</sup> remain unchanged.

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(1) Customer numbers for the close of year 2018 are provided per delivery point. One customer may have two delivery points: one for electricity and another for gas.

<sup>1</sup> See Press releases dated 15 February 2019 and 9 October 2019

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Press release

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## **United Kingdom: EDF Group accelerates its development of battery storage and electric vehicle (EV) charging infrastructure by acquiring Pivot Power**

Paris, November 4<sup>th</sup>, 2019 – EDF Group is announcing the acquisition of a British start up called Pivot Power, specialising in battery storage and infrastructure for electric vehicle charging. This move will allow EDF, already the largest low carbon electricity producer in the UK, to become a leader in battery storage.

Now a wholly owned subsidiary of EDF Renewables, Pivot Power has an extensive portfolio of projects across more than 40 locations throughout the country. There are plans to install batteries connected directly to the high-voltage transmission system - with a total capacity of up to 2 GW. The first two storage projects at Kemsley (Kent) and Cowley (Oxford) have land, planning and grid connection agreements in place and are expected to be commissioned in 2020. As part of its projects, Pivot Power will develop a private wire infrastructure to enable, among other opportunities, the development of mass rapid charging points across the UK.

Each of Pivot Power's projects has the potential to host a battery capable of exporting 50 MW of power and to provide support for hundreds of rapid EV chargers, potentially suitable for large retail sites, logistics centres, bus depots and park and rides.

Battery storage and EV rapid charging infrastructure are two significant enablers for the UK's goals to reach net zero by 2050. Battery storage integration in the electricity transmission grid will also provide flexible capacity which will enhance the reliability of the network and boost the integration of renewable electricity. Providing the nationwide connections to power rapid charging stations supports the uptake of electric vehicles instead of the internal combustion engine.

As part of the Electricity Storage Plan, this acquisition contributes to EDF's target of being the leader in Europe with 10 GW of additional storage by 2035. The acquisition is also in line with the EDF Electric Mobility Plan, to become the leading electric mobility company by 2022 in the UK, France, Italy and Belgium. Beyond this 2022 date, the Group's goal is to provide power for 600,000 electric vehicles and providing 75,000 charging points.

**Bruno Bensasson**, EDF Group's Senior Executive Vice President, Renewable Energies and Chairman & CEO of EDF Renewables, said: "Following PowerFlex Systems recent acquisition in the United States, this new acquisition of smart electricity storage and electric vehicle charging systems player is strengthening our expertise globally. Thanks to the skills developed within this specific field of new uses of electricity, the Pivot Power team will be a great addition to EDF. This is another positive step in the rollout of the Group's Electricity Storage and Mobility Plans."

**Simone Rossi**, EDF Energy CEO said: "Battery storage and electric vehicles are two key technologies which will help lower carbon emissions, alongside generation from renewables and nuclear. The acquisition

of Pivot Power shows EDF is investing in a wide range of projects to deliver the huge shift to low carbon energy the UK will need to reach net zero by 2050."

**Matt Allen, co-founder and CEO of Pivot Power, said:** "Pivot Power's purpose from the start has always been to accelerate the UK's transition to a cost-effective, reliable, low-carbon energy system and in parallel fast-track the rapid adoption of clean transport. EDF Renewables shares our vision and of course brings the expertise, resources and platform to make this a reality."

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### About EDF:

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(1) The customers were counted at the end of 2018 per delivery site; a customer can have two delivery points: one for electricity and another for gas

### About EDF Renewables:

EDF Renewables is a leading international player in renewable energies, with gross installed capacity of 12.5 GW worldwide. Its development is mainly focused on wind and solar photovoltaic power. EDF Renewables operates mostly in Europe and North America but is continuing to grow by moving into promising emerging regions such as Brazil, China, India, South Africa and the Middle East. The company has strong positions in offshore wind power, but also in other areas of the renewable energies industry such as distributed energy and energy storage. EDF Renewables develops, builds, operates and maintains renewable energies projects, both for itself and for third parties. Most of its international subsidiaries bear the EDF Renewables brand. EDF Renewables is the EDF Group subsidiary specialising in developing solar and wind power.

For more information, visit: [www.edf-renewables.com](https://www.edf-renewables.com)

Follow us on LinkedIn and on Twitter ([@EDF\\_RE](https://twitter.com/EDF_RE) in French and [@EDF\\_Renewables](https://twitter.com/EDF_Renewables) in English).

### About EDF Renewables in the UK:

EDF Renewables in the UK is bringing down costs for consumers and bringing significant benefits for communities. With our operating portfolio of 36 wind farms and battery storage unit (almost 1 GW) we are providing some of the much needed new affordable, low carbon electricity to the UK.

Work is well underway on the 450 MW [Neart Na Gaoithe](#) offshore wind farm project which is in the Firth of Forth and we've extended our Edinburgh office to accommodate around 60 new team members.

We have more than 1 GW of renewables projects in planning and development and half of those are consented. We also have offices in [Rainton](#) Bridge near Durham and in London.

EDF Renewables is a joint venture between EDF [Renouvelables](#) and EDF Energy.

Find out more at [www.edf-re.uk](https://www.edf-re.uk)

### About Pivot Power:

Pivot Power set up to develop and operate grid-scale batteries and provide power infrastructure required for EV charging throughout the UK.

Its dual mission is to support an energy system that is clean, affordable and secure by providing valuable flexibility, and to accelerate the EV revolution by creating a nationwide private wire network to operators of rapid charging that is low-cost, rapid and scalable. Pivot Power is now a wholly owned subsidiary of EDF Renewables UK.

Find out more at [www.pivot-power.co.uk](https://www.pivot-power.co.uk)

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## Earthquake in Drôme-Ardèche: assessment of the reactors in the Rhône valley

Further to the earthquake recorded on 11 November 2019, EDF has continued to operate Bugey, Saint-Alban and Tricastin nuclear power plants.

Initial inspections at Cruas-Meyssac NPP have not highlighted any apparent damage. However, vibration was recorded requiring additional preventive testing. Erring on the side of caution, EDF has decided to suspend operation of Cruas-Meyssac units 2, 3 and 4 on a temporary basis in order to perform these tests.

These units will be successively shut down from 18.00 this evening, apart from unit 1, which is already shut down for scheduled maintenance.

The Nuclear Safety Authority and Ardèche Prefecture have been informed of the situation.

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PRESS RELEASE  
14 November 2019

## UPDATE ON THE OUTLOOK FOR NUCLEAR ANNUAL OUTPUT FOR 2019

Following the earthquake in southern France on 11 November 2019, EDF is continuing to carry out checks on the reactors of Cruas power plant (Ardèche) with the objective to complete them within a week time. The results will be submitted for instruction to the ASN (French nuclear safety authority) and, as of today, EDF anticipates a gradual return to service for the reactors at Cruas plant during the first half of December.

This situation has led EDF to adjust its assumption for 2019 nuclear annual output, which should be between 384 and 388 TWh.

All the financial targets for the EDF Group remain unchanged.

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## Quarterly Financial Information at 30 September 2019

Sales up 2.9%<sup>(1)</sup>

## Confirmation of 2019 targets and 2019-2020 ambitions

## Group sales

€50.9bn  
+2.9% org. <sup>(1)</sup>

## Highlights

- New developments in renewable energies

- Record level of EDF Renewables' portfolio of projects under construction: 4.7GW gross (x2 vs end of December 2018)
- Wind power & Offshore: launch of construction of the first French offshore wind farm in Saint-Nazaire (480MW) acquisition of a 300MW portfolio of wind projects in Germany
- Solar: commissioning of 2 solar power plants in Benban, Egypt (130MWp) with a 25-year PPA

- Storage and Electric Mobility Plans

- Acquisition of the British start up Pivot Power, specialised in battery storage and infrastructure for electric vehicle charging (portfolio of projects with a potential capacity of up to 2GW)
- Acquisition of PowerFlex Systems in the United States, a company combining solar energy generation and storage with smart charging solutions for electric vehicles or building load
- Nissan and the EDF group partner up to accelerate adoption of electric vehicles (smart charging solutions)

- Regulatory developments

- ARENH: volume ceiling maintained for 2020 and price unchanged at this stage
- Energy savings certificates (CEE): one-year extension until 2021 of the 4<sup>th</sup> period (draft decree from the French Ministry of Ecological and Solidarity Transition submitted to the French State Council)
- Capacity mechanism in the United Kingdom: positive decision by the European Commission with the British government reinstating the Capacity mechanism

- Customers and services

- Sales offensive : 460,000 residential electricity customers under market offers signed-up in France more than 1.5 million residential gas customers in France
- Dalkia: continued commercial development with the renewal or signing of new contracts (energy network at La Grande Motte and energy facilities for the Regional Council of Nouvelle Aquitaine)

- Nuclear

- Taishan (EPR in China): commercial commissioning on 7 September 2019 of the unit 2 generation of more than 10TWh since the commissioning by the unit 1
- Hinkley Point C<sup>(2)</sup>: project completion costs revised to £21.5 - 22.5bn <sup>(2)</sup>
- Flamanville 3<sup>(3)</sup>: estimated construction cost revised to €12.4bn <sup>(2)</sup> with fuel loading expected at end-2022 start of the second hot functional test phase on site
- Fessenheim<sup>(4)</sup>: protocol agreement whereby the State will compensate EDF for the early closure of the power plant. This compensation will comprise initial instalments for a total of nearly €400m

- Enedis

- Linky : installation of the 21 millionth smart meter at end September

## 2019 targets

Including IFRS 16 Impact

- EBITDA <sup>(7)</sup>: €16.0 - 16.7 bn
- Reduction in operating expenses <sup>(8)</sup>: ~€1.1bn vs. 2015
- Cash flow excluding HPC and Linky: >€600m <sup>(9)</sup>

## 2019-2020 ambitions


Including IFRS 16 Impact

- Total net investments <sup>(10)</sup> excluding acquisitions and "Group 2019-2020 disposals": ~€15bn in 2019 ~€15.5bn in 2020
- Group 2019-2020 disposals: €2 to 3 bn
- Net financial debt/EBITDA <sup>(7) (10)</sup>: ≤ 2.7x
- Dividend: Target payout ratio of Net income excluding non-recurring items <sup>(11)</sup>: 45 – 50%

The French State has committed to scrip dividends relating to FY2019 and FY2020



### Change in EDF group sales

 (in millions of Euros)	9M 2018 <sup>(12)</sup> restated	9M 2019	%	% organic
France - Generation and supply activities	18,942	20,079	+6.0	+5.7
France - Regulated activities	11,571	11,437	-1.2	-1.2
EDF Renewables	1,090	1,163	+6.7	+1.4
Dalkia	2,760	2,903	+5.2	+4.6
Framatome	2,290	2,346	+2.4	+1.2
United Kingdom	6,466	6,392	-1.1	-1.2
Italy	5,736	5,659	-1.3	-3.6
Other international	1,667	1,938	+16.3	+15.1
Other activities	2,055	2,159	+5.1	+8.9
Inter-segment eliminations	(3,301)	(3,135)	-5.0	-5.0
<b>Total Group</b>	<b>49,276</b>	<b>50,941</b>	<b>+3.4</b>	<b>+2.9</b>

Group sales amounted to €50.9 billion, up 2.9% in organic terms compared to the first nine months of 2018. This trend was mainly driven by the Generation and supply activities in France, in connection with favourable market conditions, the growth of the Group's energy services activities, the strong performance of EDF Trading and activities in Belgium and Brazil, as well as by better use of the Group's gas capacities.

### Footnotes to the first and second pages

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

(2) See press release of 26 September 2019.

(3) In 2016 pound sterling, excluding Interim Interest and excluding foreign exchange compared to a reference exchange rate for the project of 1 pound = 1.23 euros.

(4) See press release of 09 October 2019.

(5) In 2016 euros, excluding Interim Interest.

(6) See press release of 30 September 2019.

(7) On the basis of the scope and exchange rates at 01/01/2019 and of an assumption of a 384-388TWh range for France nuclear output.

(8) Sum of personnel expenses and other external expenses. At comparable scope, IFRS 16 standard and exchange rates. At constant pension discount rates.

Excluding change in operating expenses of the service activities.

(9) The impact of IFRS 16 on cash-flow corresponds to the increase in EBITDA, less the financial interests on the IFRS 16 net financial debt.

(10) For 2020: in accordance with the scenario adopted by the Group concerning the construction costs and schedule of the Flamanville 3 project (see press release of 09 October 2019).

(11) Adjusted for the remuneration of hybrid bonds accounted for in equity.

(12) Edison's Exploration and Production (E&P) business was classified as a discontinued operation within the meaning of IFRS 5 as of 1 January 2019. The comparative figures for 2018 have been restated to reflect the impact of the presentation of the E&P activities that are being sold.

Change in Group sales <sup>(1)</sup> by segment

## France – Generation and supply activities

<i>(in millions of Euros)</i>	9M 2018	9M 2019	% organic
Sales	18,942	20,079	+5.7

Sales in France - Generation and supply activities amounted to €20.1 billion, up 5.7% in organic terms compared to the first nine months of 2018.

Nuclear output amounted to 288.2TWh, down 1.8TWh compared to the first nine months of 2018 due to a higher number of planned outages and extended outages.

Hydropower output <sup>(2)</sup> stood at 27.5TWh, down 27.6% (-10.5TWh) compared to the first nine months of 2018 due to less favourable and lower-than-normal hydrological conditions.

The positive weather effect on sales is estimated at +€48 million compared to the first nine months of 2018 in connection with temperatures closer to normal than in 2018.

The change of regulated sale tariffs for electricity <sup>(3)</sup> (for the part excluding the distribution component) had a positive effect of approximately €126 million, considering the 2019 tariff increase on 1 June and a negative comparison effect related to the end of the tariff catch-up until the 1 August 2018 (in relation with 2012 and 2013 tariff increases).

Downstream market conditions <sup>(4)</sup> had a positive impact estimated at €588 million. The negative impact of the loss of market share was more than offset by the positive energy and capacity price effects, as well as by sales growth in gas.

The balance of purchases and sales on the wholesale market had a negative impact estimated at -€73 million compared to the first nine months of 2018. This impact is due primarily to the lower nuclear and hydroelectric output. Moreover, the decline in sales to end customers was not fully offset by the increase in ARENH sales. At the same time, the positive effect of the increase in the price of capacity certificates on the wholesale markets should be noted.

The increase in the price of energy savings certificates led to an increase in sales for an estimated +€155 million, without equivalent in the margin.

The resale of purchase obligations benefited from a positive price effect, mainly in the first quarter of 2019, for an estimated €47 million (EBITDA neutral effect with the CSPE compensation mechanism for expenses related to purchase obligations).

Finally, sales benefited from other favourable developments in the amount of €126 million.

(1) Breakdown of sales across the segments, before inter-segment eliminations.

(2) Hydropower, excluding island activities before deduction of pumped volumes. For information, after deduction of pumped-storage hydropower volumes: 32.7TWh over 9M 2018 and 23.0TWh over 9M 2019.

(3) Price effects on customers at regulated sales tariffs, excluding the Energy Savings Certificates (ESCs) component in the tariff "stacking". Tariff change at 1 August 2018 of -0.6% (including the end of the tariff catch up) and +7.7% on 1 June 2019.

(4) Excluding the EEC component in the market offering.



### France – Regulated activities <sup>(1)</sup>

<i>(in millions of Euros)</i>	9M 2018	9M 2019	% organic
Sales	11,571	11,437	-1.2

Sales in France - Regulated activities amounted to €11.4 billion, down 1.2% in organic terms compared to the first nine months of 2018.

The drop in volumes delivered, in connection with climatic conditions, had an estimated negative impact of €82 million compared to the first nine months of 2018.

The change in tariffs <sup>(2)</sup> had a negative impact estimated at €91 million, mainly due to the effect of the optimisation of the distribution tariff by suppliers.

In addition, sales benefited from other positive effects for an estimated €39 million, notably with the growth of connection services.

<sup>(1)</sup> Regulated activities including *Grédos*, *Electricité de Strasbourg* and *Island activities*

<sup>(2)</sup> Including adjustment of the tariffs of the low voltage customers domain at 35kVA of 1.16% and indexation of TURPE 5 distribution of +3.04% and TURPE 5 Transmission of 2.16% as of 1 August 2019 (vs. respectively -0.21% and +3% in 2018).



## Renewable Energies

## EDF Renewables

(in millions of Euros)	9M 2018	9M 2019	% organic
Sales	1,090	1,163	+1.4

Sales for EDF Renewables amounted to €1.2 billion, up 1.4% in organic terms compared to the first nine months of 2018.

Sales growth was driven by generation, which benefited from positive price effects, whereas the generated volumes were down -0.6TWh (-5.4%) compared to September 2018 due to disposals carried out at the end of 2018 and beginning of 2019.

Gross installed capacity during the first nine months amounted to 1GW, mostly in solar energy. Net installed capacity, at 8.2GW, was broadly stable compared to the end of December 2018.

Group Renewables<sup>(1)</sup>

(in millions of Euros)	9M 2018	9M 2019	%	% organic
Sales <sup>(2)</sup>	3,292	2,932	-11	-15

Sales from all Group Renewable activities amounted to €2.9 billion, an organic decrease of 15% compared to the first nine months of 2018, mainly due to lower hydro generation in France.

(1) Group Renewables includes EDF Renewables and the Group hydraulic generation, as well as the renewable activities of Lumina and Edison.

(2) For renewable energy generation optimised within a larger portfolio of generation assets, in particular relating to the French hydro fleet, sales are estimated, by convention, as the valuation of the output generated at spot market prices (or at purchase obligation tariff) without taking into account hedging effects, and include the valuation of the capacity, if applicable.





## Energy Services

Dalkia

<i>(in millions of Euros)</i>	9M 2018	9M 2019	% organic
Sales	2,760	2,903	+4.6

Dalkia's sales amounted to nearly €2.9 billion, up 4.6% in organic terms compared to the first nine months of 2018. This improvement mainly reflects the growth in sales of services, mainly in France and, to a lesser extent, the positive trends in the indices for revising service contracts and the rise in fuel prices.

Group Energy Services<sup>(1)</sup>

<i>(in millions of Euros)</i>	9M 2018	9M 2019	%	% organic
Sales	3,671	3,977	+8	+5

Sales in Group Energy Services amounted to €4.0 billion, up 5% in organic terms compared to the first nine months of 2018. In particular, it benefited from sustained growth of the service activities in the United Kingdom and Belgium.

<sup>(1)</sup> Group Energy Services include **Dalkia**, **Citium**, CHAM and service activities of EDF Energy, Edison, EDF **Lumious** and EDF SA. They consist in particular of street lighting, heating networks, decentralised low-carbon generation based on local resources, energy consumption management and electric mobility.





Framatome

(in millions of Euros)	9M 2018	9M 2019	% organic
Sales	2,290	2,346	+1.2
Sales EDF group contribution	1,330	1,296	-4.7

Framatome's sales amounted to €2.3 billion, up 1.2% in organic terms compared to the first nine months of 2018. This growth stemmed mainly from service activities in the Installed Base, particularly in Canada.

Large projects activity is being ramped up thanks to the construction of the Hinkley Point C project, which is taking over from Taishan following the commissioning of its two EPRs.

In addition, on the commercial front Framatome won in October with Rosatom the contract for the main instrumentation and control system for the Hanhikivi-1 nuclear power plant in Finland and for the PAKS2 nuclear power plant in Hungary. Framatome also completed the acquisition of FoxGuard Solutions, a specialist in the fields of cybersecurity and industrial computing in the US.

In November, Framatome and CNEIC/CJNF (CNNC Group) signed a letter of intent concerning the supply of components for manufacturing fuel assemblies reloads in China.



### United Kingdom

<i>(in millions of Euros)</i>	9M 2018	9M 2019	% organic
Sales	6,466	6,392	-1.2

In the United Kingdom, sales of €6.4 billion were down by 1.2% in organic terms compared to the first nine months of 2018.

Nuclear output amounted to 36.8TWh, down by 9.1TWh compared to the first nine months of 2018 due to the Hunterston B and Dungeness B outages.

Sales decrease mainly driven by the fall in nuclear generation, the suspension of the capacity market and the SVT price cap (Standard Variable Tariff) since 1 January 2019.

Downstream, the resilience of supply activities should be noted: the residential customer portfolio is stable in a still very competitive environment and the volumes sold in the business customer segment are increasing.

### Italy

<i>(in millions of Euros)</i>	9M 2018 <sup>(1)</sup>	9M 2019	% organic
Sales	5,736	5,659	-3.6

In Italy, sales amounted to €5.7 billion, down by 3.6% in organic terms compared to the first nine months of 2018.

In gas activities, sales were down (-€525 million in organic terms) due in particular to lower prices across all markets (this change has no effect on the margin) and to a drop in the volumes sold on the wholesale markets. This change was partially offset by an increase in volumes sold to industrial customers.

Sales in Electricity activities (+€305 million in organic terms) were up thanks to higher sales volumes and to favourable price effects in the residential and industrial customers segments.

<sup>(1)</sup> Edison's Exploration and Production (E&P) business was classified as a discontinued operation within the meaning of IFRS 5 as of 1 January 2019. The comparative figures for 2018 have been restated to reflect the impact of the presentation of the E&P activities that are being sold.



## Other international

(in millions of Euros)	9M 2018	9M 2019	% organic
Sales	1,667	1,938	+15.1

Sales in Other international amounted to €1.9 billion, down 15.1% in organic terms compared to the first nine months of 2018.

In Belgium, sales were up €83 million in organic terms (+6.6%). This improvement reflects in particular an increase in electricity and gas prices, which was partially offset by a drop in the volumes sold to residential customers due to mild weather. In addition, renewable and service activities continued to develop. Net wind capacity increased to 503MW, or +14.3% compared to the end of December 2018.

In Brazil, sales increased by €144 million in organic terms due on the one hand to the positive effect of the contractual revision of EDF Norte Fluminense's power purchase agreement tariff that occurred at the end of 2018, and on the other hand to the impact of the change (without impact on EBITDA) of the ICMS<sup>(1)</sup> tax.

## Other activities

(in millions of Euros)	9M 2018	9M 2019	% organic
Sales	2,055	2,159	+8.9
Including EDF Trading Group	832	846	+6.7

Sales in Other activities amounted to nearly €2.2 billion, up 8.9% in organic terms compared to the first nine months of 2018.

EDF Trading's sales were up €56 million organically (+6.7%). It benefited from volatility since the beginning of the year and from favourable positions on the European electricity and gas markets. Trading and optimisation activities on LNG (Liquefied Natural Gas) and LPG (Liquefied Petroleum Gas) activities also contributed to this performance.

The favourable context of the LNG (Liquefied Natural Gas) business and better use of the Group's capacities led to an increase in gas sales of more than €391 million in organic terms (+64.3%).

(1) Tax on the Movement of Goods and Services in Brazil.



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### Main events <sup>(1)</sup> since the press release of 26 July 2019

#### Major Events

- Inauguration of the "La Coche" hydro plant (Savoie): 20% of additional power in support of energy storage (see press release of 14 October 2019).

#### Nuclear

- Update on EDF's nuclear plants (see press release of 25 October 2019):
  - Discrepancies in relation to the technical framework for the production of nuclear reactor components by Framatome;
  - Outlook for nuclear production in France for 2019
- Flamanville EPR: EDF has adopted a scenario for upgrading the main secondary system penetration welds with robots and has adjusted the construction schedule and estimated cost accordingly. The second hot functional test phase has started on site (see press release of 9 October 2019).
- Closure of Fessenheim nuclear power plant (see press release of 30 September 2019).
- Update on the Hinkley Point C project (see press release of 25 September 2019).
- CEA, EDF and Westinghouse Electric Company, nuclear industry leaders, to explore cooperation on a Small Modular Reactor (see press release of 18 September 2019).
- CEA, EDF, Naval Group and TechnicAtome unveil NUWARD<sup>TM</sup>: a jointly developed Small Modular Reactor (SMR) project (see press release of 17 September 2019).
- The second EPR reactor at China's Taishan nuclear power plant is about to enter into commercial operation (see press release of 6 September 2019). Commercial commissioning on 7 September 2019.

#### New investments, partnerships and investment projects

##### Development of renewable energies, EDF Énergies Renewables<sup>(2)</sup>

- EDF Renewables signed agreements with Tesco in the United Kingdom to provide power from roof-mounted solar panels and wind farms (see press release of 28 October 2019).
- EDF Renewables commissioned 130MWp in solar energy capacity in Egypt, stepping up the pace of its development in North Africa (see press release of 14 October 2019).
- The EDF group inaugurated the Aramon photovoltaic plant and the "Cleantech Booster", a business accelerator for the innovative Cleantech companies (see press release of 26 September 2019).
- EDF Renewables acquired a significant pipeline of 300MW wind projects under development in Germany (see press release of 12 September 2019).
- EDF Renewables acquired PowerFlex Systems to accelerate deployment of large-scale electric vehicle infrastructure in the United States (see press release of 3 September 2019).

#### Other significant events

- United Kingdom: EDF Group accelerates its development of battery storage and electric vehicle (EV) charging infrastructure by acquiring Pivot Power (see press release of 4 November 2019).
- Nissan and EDF Group partner to accelerate Electric Vehicle adoption and grid integration across Europe (see press release of 18 September 2019).
- Masdar and EDF to establish joint venture energy services company (see press release of 11 September 2019).
- EDF and Nexity signed an agreement to decarbonise the construction sector (see press release of 5 September 2019).

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<sup>(1)</sup> The complete list of press releases is available on the EDF website: [www.edf.fr](http://www.edf.fr)

<sup>(2)</sup> The complete list of EDF Renewables' press releases is available on the website [www.edf-renouvelables.com](http://www.edf-renouvelables.com)



PRESS RELEASE  
14 November 2019



A key player in energy transition, the EDF Group is an integrated electricity company, active in all areas of the business: generation, transmission, distribution, energy supply and trading, energy services. A global leader in low-carbon energies, the Group has developed a diversified generation mix based on nuclear power, hydropower, new renewable energies and thermal energy. The Group provides energy and services to approximately 39.8 million customers<sup>(1)</sup>, including 29.7 million in France. It generated consolidated sales of €69 billion in 2018. EDF is listed on the Paris Stock Exchange.

<sup>(1)</sup> Customers are counted at the end of 2018 per delivery site; a customer can have two delivery points: one for electricity and another for gas.

### Disclaimer

This presentation does not constitute an offer to sell securities in the United States or any other jurisdiction. No reliance should be placed on the accuracy, completeness or correctness of the information or opinions contained in this presentation, and none of EDF representatives shall bear any liability for any loss arising from any use of this presentation or its contents. The quarterly financial information is not subject to an auditor's report. The present document may contain forward-looking statements and targets concerning the Group's strategy, financial position or results. EDF considers that these forward-looking statements and targets are based on reasonable assumptions as of the present document publication, which can be however inaccurate and are subject to numerous risks and uncertainties. There is no certainty that the forecast events will take place or that the expected results will actually be achieved. Important factors that could cause actual results, performance or achievements of the Group to differ materially from those contemplated in this document include in particular the successful implementation of EDF strategy, financial and operational initiatives based on its current business model as an integrated operator, changes in the competitive and regulatory framework of the energy markets, as well as risk and uncertainties relating to the Group's activities, its international scope, the climatic environment, the volatility of raw materials prices and currency exchange rates, technological changes, changes in the general economic situation. Detailed information regarding these uncertainties and potential risks are available in EDF's Universal Reference Document (URD) filed with the Autorité des marchés financiers on 22 July 2019 which is available on the AMF's website at [www.amf-france.org](http://www.amf-france.org) and on EDF's website at [www.edf.com](http://www.edf.com). EDF does not undertake nor does it have any obligation to update forward-looking information contained in this presentation to reflect any unexpected events or circumstances arising after the date of this presentation.

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Press Release  
19 November 2019

## Interim dividend distribution for fiscal year 2019, with option of payment in new shares

At its meeting today, the Board of Directors of EDF declared a 2019 interim dividend of €0.15 per share and offered, under the conditions set by the fourth resolution at the Combined Shareholders' Meeting of 16 May 2019, the option for shareholders to receive the 2019 interim dividend in cash or in new shares of the Company.

The share price for the new shares which will be issued as payment of the 2019 interim dividend is set by the Board of Directors at €8.16. This price is equal to the average opening price on the Euronext Paris market for the twenty trading days preceding 19 November 2019, reduced by the net amount of the interim dividend, with a 10% discount, rounded up to the nearest cent. The new shares will be issued with immediate dividend rights and will confer the same rights ("jouissance courante") and restrictions as existing common shares, as described in the Company's Articles of Association and the 2018 reference document Report available on the [Company's website](#).

The ex-dividend date for the 2019 interim dividend is set for 26 November 2019. The period for exercising the option will begin on 28 November 2019, and will end on 11 December 2019, both dates inclusive<sup>(1)</sup>.

Any shareholder who does not exercise this option within the specified time period will receive the whole of the interim dividend due to them in cash. The date for the payment in cash is set for 17 December 2019.

For shareholders who elect to receive the 2019 interim dividend in shares, the date for the delivery of shares is set for 17 December 2019. If the amount of the 2019 interim dividend for which the option of payment in shares is exercised does not correspond to a whole number of shares, the shareholder will receive the number of shares immediately below, plus a balancing cash adjustment.

(1) Subsequent to regulatory changes and the harmonisation of European standards on the payment process for optional dividends, **the date of the end of the option period may vary from one financial intermediary to the next**. For pure registered shareholders, BNP Paribas Securities Services, as the institution in charge of the securities service of the EDF company, has set this date at **9 December 2019** at the latest in order to supervise and centralise the responses of pure registered shareholders.

A key player in energy transition, the EDF Group is an integrated electricity company, active in all areas of the business: generation, transmission, distribution, energy supply and trading, energy services. A global leader in low-carbon energies, the Group has developed a diversified generation mix based on nuclear power, hydropower, new renewable energies and thermal energy. The Group provides energy and services to approximately 39.8 million customers<sup>(\*)</sup>, including 29.7 million in France. It generated consolidated sales of €69 billion in 2018. EDF is listed on the Paris Stock Exchange.

(\*) Customers are counted at the end of 2018 per delivery site: a customer can have two delivery points: one for electricity and another for gas.

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Press release  
20 November 2019

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## EDF notifies the exercise of its put option on its participation in CENG

Pursuant to the set of agreements concluded with Exelon in 2014<sup>(1)</sup>, EDF notified Exelon today of the exercise of its put option on 49.99% of the membership interests of CENG.

CENG owns five nuclear reactors across three nuclear power plants located in the states of New York and Maryland for a total capacity of 4041 MW (company-owned capacity).

This put option can be exercised by EDF from January 1st 2016 to June 30 2022. The transaction price will follow from the determination of the fair market value of CENG shares pursuant to the contractual provisions of the put option agreement.

The closing of the transaction is conditional upon obtaining the required regulatory approvals.

The disposal of CENG shares is part of the disposal plan of non-core assets announced by EDF Group.

*(1) EDF Press Release of April 1st 2014 « EDF and Exelon finalize agreement on CENG »*

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(1) The customers were counted at the end of 2018 per delivery site; a customer can have two delivery points: one for electricity and another for gas.

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## FORM OF FINAL TERMS

*The Final Terms in respect of each Tranche will be substantially in the following form, duly completed to reflect the particular terms of the relevant Notes and their issue.*

**[PRIIPs Regulation / PROHIBITION OF SALES TO EUROPEAN ECONOMIC AREA RETAIL INVESTORS]** - The Notes are not intended to be offered, sold or otherwise made available to and, with effect from such date, should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (“EEA”). For these purposes, a “retail investor” means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, “**MiFID II**”); (ii) a customer within the meaning of Directive (EU) 2016/97, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (the “**Prospectus Regulation**”). Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the “**PRIIPs Regulation**”) for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.<sup>1</sup>

**[MiFID II Product Governance / Target Market assessment]** – Solely for the purposes of [the/each] manufacturer’s product approval process, the target market assessment in respect of the Notes, taking into account the five categories in item 18 of the Guidelines published by ESMA on 5 February 2018, has led to the conclusion that: (i) the target market for the Notes is eligible counterparties[,] [and] professional clients [and retail clients], each as defined in [Directive 2014/65/EU (as amended, “**MiFID II**”)]/[MiFID II]; [and (ii) all channels for distribution of the Notes are appropriate, [including investment advice, portfolio management, non-advised sales and pure execution services]]/[(ii) all channels for distribution to eligible counterparties and professional clients are appropriate; and (iii) the following channels for distribution of the Notes to retail clients are appropriate – [investment advice][./ and] [portfolio management][./ and] [non-advised sales] [and pure execution services], [subject to the distributor’s suitability and appropriateness obligations under MiFID II, as applicable]]. [*Consider any negative target market*]. Any person subsequently offering, selling or recommending the Notes (a “**distributor**”) should take into consideration the manufacturer[‘s/s’] target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the manufacturer[‘s/s’] target market assessment) and determining appropriate distribution channels, [subject to the distributor’s suitability and appropriateness obligations under MiFID II, as applicable]].]

**Final Terms dated [•]**

**[Logo, if document is printed]**

**Électricité de France**

Issue of [Aggregate Nominal Amount of Tranche] [Title of Notes]

under the €45,000,000,000 Euro Medium Term Note Programme

of **Électricité de France**

**SERIES NO: [•]**

**TRANCHE NO: [•]**

[The Base Prospectus referred to below (as completed by these Final Terms) has been prepared on the basis that, except as provided in sub-paragraph (ii) below, any offer of Notes in any Member State will be made pursuant to an exemption under the Prospectus Regulation

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<sup>1</sup> Delete legend if the Notes do not constitute “packaged” products, in which case, insert “Not Applicable” in paragraph 10(vii) of Part B below. Include legend if the Notes may constitute “packaged” products and the Issuer intends to prohibit the Notes being offered, sold or otherwise made available to EEA retail investors. In this case insert “Applicable” in paragraph 10(vii) of Part B below.



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from the requirement to publish a prospectus for offers of the Notes. Accordingly any person making or intending to make an offer of the Notes may only do so in:

- (i) in circumstances in which no obligation arises for the Issuer or any Dealer to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation, in each case, in relation to such offer; or
- (ii) in the Public Offer Jurisdiction mentioned in Paragraph 9 of Part B below, provided such person is one of the persons mentioned in Paragraph 9 of Part B below and that such offer is made during the Offer Period specified for such purpose therein.

## PART A – CONTRACTUAL TERMS

Terms used herein shall be deemed to be defined as such for the purposes of the conditions (the “**Conditions**”) set forth in the base prospectus dated 21 November 2019 which received visa no 19-540 from the *Autorité des Marchés Financiers* (the “**AMF**”) in France on 21 November 2019 (the “**Base Prospectus**”) [and the supplemental Base Prospectus dated [•] which received visa no [•] from the AMF in France on [•]]<sup>2</sup> which [together] constitute[s] a prospectus for the purposes of Regulation (EU)2017/1129 (the “**Prospectus Regulation**”). This document constitutes the Final Terms of the Notes described herein for the purposes of Article 8 of the Prospectus Regulation and must be read in conjunction with such Base Prospectus [as so supplemented]. Full information on the Issuer and the offer of the Notes is only available on the basis of the combination of these Final Terms and the Base Prospectus. [However, a summary of the issue of the Notes is annexed to these Final Terms.]<sup>3</sup> For so long as any Notes are outstanding, copies of the Base Prospectus [and the supplemental Base Prospectus] (i) may be inspected and obtained, free of charge, during normal business hours at the specified offices of each of the Paying Agents, (ii) are available for viewing on the website of the AMF ([www.amf-france.org](http://www.amf-france.org)) and on the Issuer’s website ([www.edf.com](http://www.edf.com)) and (iii) may be obtained, free of charge, during normal business hours from Électricité de France, 22-30, avenue de Wagram, 75008 Paris, France. [In addition<sup>4</sup>, the Base Prospectus [and the supplement(s) to the Base Prospectus] [is/are] available for viewing [at/on] [•]].

*The following alternative language applies if the first tranche of an issue which is being increased was issued under a base prospectus with an earlier date.*

Terms used herein shall be deemed to be defined as such for the purposes of the conditions which are the [EMTN 2013 Conditions/ EMTN 2015 Conditions/ EMTN 2016 Conditions/ EMTN 2018 Conditions]. This document constitutes the Final Terms of the Notes described herein for the purposes of Article 8 of Regulation (EU) 2017/1129 (the “**Prospectus Regulation**”) and must be read in conjunction with the base prospectus dated 21 November 2019 which received visa no. 19-540 from the AMF in France on 21 November 2019 (the “**Base Prospectus**”) [and the supplement to the Base Prospectus dated [•] which received visa no [•] from the AMF in France on [•]], which [together] constitute[s] a prospectus for the purposes of the Prospectus Regulation, save in respect of the [EMTN 2013 Conditions/ EMTN 2015 Conditions/ EMTN 2016 Conditions/ EMTN 2018 Conditions]. Full information on the Issuer and the offer of the Notes is only available on the basis of the combination of these Final Terms and the Base Prospectus dated 21 November 2019 and the Base Prospectus dated [•] [and the supplement(s) to the Base Prospectus dated [•]]. [However, a summary of the issue of the Notes is annexed to these Final Terms].<sup>5</sup> For so long as any Notes are outstanding, copies of the base prospectus dated 14 September 2018 [and the supplement(s) to that base prospectus] and the base prospectus dated [•] [and the supplement(s) to that base prospectus] (i) may be inspected and obtained, free of charge, during normal business hours at the specified offices of each of the Paying Agents, (ii) are available for viewing on the website of the AMF ([www.amf-france.org](http://www.amf-france.org)) and on the Issuer’s website ([www.edf.com](http://www.edf.com)) and (iii) may be obtained, free of charge, during

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<sup>2</sup> Delete if no supplement is published.

<sup>3</sup> Insert where an issue of Notes with a denomination of less than €100,000 (or its equivalent in another currency as at the date of issue of the relevant Notes) is anticipated.

<sup>4</sup> If the Notes are admitted to trading on a Regulated Market other than Euronext Paris.

<sup>5</sup> Insert where an issue of Notes with a denomination of less than €100,000 (or its equivalent in another currency as at the date of issue of the relevant Notes) is anticipated.

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normal business hours from Électricité de France, 22-30, avenue de Wagram, 75008 Paris, France. [In addition<sup>6</sup>, the Base Prospectus [and the supplement(s) to the Base Prospectus] [is/are] available for viewing [at/on] [•]].

*[The following alternative language applies in respect of issues of Notes where the public offer period spans a supplement to the Base Prospectus or an update to the Base Prospectus.]*

[Terms used herein shall be deemed to be defined as such for the purposes of the conditions (the “**Conditions**”) set forth under the section[s] entitled “Terms and Conditions of the Notes” in the base prospectus dated 21 November 2019 which received visa no 19-540 from the *Autorité des marchés financiers* (“**AMF**”) on 21 November 2019 [and the supplement[s] to the Base Prospectus dated [•] (together, the “**2019 Base Prospectus**”)] notwithstanding the approval of an updated base prospectus which will replace the 2019 Base Prospectus (the “**2020 Base Prospectus**”). This document constitutes the Final Terms of the Notes described herein for the purposes of Article 8 of Regulation (EU) 2017/1129 (the “**Prospectus Regulation**”) and (i) prior to the approval date by the AMF of the 2020 Base Prospectus (the “**Approval Date**”), must be read in conjunction with the 2019 Base Prospectus, and (ii) on and after the Approval Date, must be read in conjunction with the 2020 Base Prospectus, save in respect of the Conditions which are extracted from the 2019 Base Prospectus. The 2019 Base Prospectus constitutes, and the 2020 Base Prospectus will constitute, a base prospectus for the purposes of the Prospectus Regulation. Full information on the “Issuer” and the offer of the Notes is only available on the basis of the combination of these Final Terms and either (i) prior to the Approval Date, the 2019 Base Prospectus, or (ii) on or after the Approval Date, the 2019 Base Prospectus and the 2020 Base Prospectus [and any supplement[s] thereto]. [The Issuer has in the 2019 Base Prospectus given consent to the use of the 2019 Base Prospectus in connection with the offer of the Notes. Such consent will be valid until the date that is twelve (12) months following the date of the 2019 Base Prospectus. The Issuer will in the 2020 Base Prospectus give consent to the use of the 2020 Base Prospectus in connection with the offer of the Notes.] [For so long as any Notes are outstanding, copies of the 2019 Base Prospectus and the 2020 Base Prospectus [and any supplement[s] thereto] (i) [is] [are] [will be] available (a) for viewing, free of charge, during normal business hours at the specified offices of each of the Paying Agents, (b) on the website of the AMF ([www.amf-france.org](http://www.amf-france.org)) and on the Issuer’s website ([www.edf.com](http://www.edf.com)), and (ii) may be obtained, free of charge, during normal business hours from Électricité de France, 22-30, avenue de Wagram, 75008 Paris, France. [In addition<sup>7</sup>, the 2019 Base Prospectus and the 2020 Base Prospectus [and any supplement[s] thereto] [is] [are] [will be] available for viewing [at/on] [•]].

*[Include whichever of the following apply or specify as “Not Applicable” (N/A). Note that the numbering should remain as set out below, even if “Not Applicable” is indicated for individual paragraphs (in which case the subparagraphs of the paragraphs. which are not applicable can be deleted). Italics denote guidance for completing the Final Terms.]*

- |    |  |  |
|----|--|--|
| 1. | [(i)] Issuer:                                    | Électricité de France  |
| 2. | [(i)] Series Number:                             | [•]  |
|    | (ii) Tranche Number:                             | [•]  |
|    | [(iii)] Date on which the Notes become fungible: | [Not Applicable/ The Notes will be assimilated ( <i>assimilées</i> ) and form a single series with the existing [insert description of the Series] issued by the Issuer on [insert date] (the “ <b>Existing Notes</b> ”) [as from the date of assimilation which is expected to be on or about 40 days after the Issue Date (the “ <b>Assimilation Date</b> ”) of this Tranche]/[as from the Issue Date of this Tranche].] ( <i>This item applies to fungible issues</i> ) |

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<sup>6</sup> If the Notes are admitted to trading on a Regulated Market other than Euronext Paris.

<sup>7</sup> If the Notes are admitted to trading on a Regulated Market other than Euronext Paris.

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		only)
3.	Specified Currency or Currencies:	[•]
4.	Aggregate Nominal Amount:	<i>[insert amount or, in case of public offer, manner [the Issuer's website and free availability at the Issuer's head office] in and date on which such amount to be made public]</i>
	[(i) Series:	[•]]
	[(ii) Tranche:	[•]]
5.	Issue Price:	[•] per cent. of the Aggregate Nominal Amount [plus an amount corresponding to accrued interest from and including <i>[insert date]</i> to, but excluding, [the Issue Date/ <i>insert other date</i> ] ( <i>in the case of fungible issues only if applicable</i> )]
6.	Specified Denominations: (Condition 1 (b))	[•] <sup>8</sup> ( <i>one (1) denomination only for Dematerialised Notes</i> ) ( <i>For Materialised Notes, attention should be paid to the rules and procedures of the relevant Regulated Market(s) and/or clearing system(s).</i> ) [•]
7.	[(i) Issue Date:	[•]]
	[(ii) Interest Commencement Date:	[Specify/Issue Date/Not Applicable]]
8.	Maturity Date:	[•] <i>[specify date or (for Floating Rate Notes) Interest Payment Date falling in or nearest to the relevant month and year]</i>
9.	Interest Basis:	[[•] % Fixed Rate]  [[LIBOR/EURIBOR/CMS Rate/SONIA] +/- [•] % Floating Rate]  [Zero Coupon]  [Fixed/Floating Rate]
10.	Redemption/Payment Basis:	[Redemption at par]
11.	Change of Interest Basis:	<i>[Applicable / Not Applicable] (Specify details of any provision for convertibility of Notes into another interest or redemption/ payment basis)</i>
12.	Put/Call Options:	[Investor Put] [Issuer Call] [Make-Whole Redemption by the Issuer] [Residual Maturity Call Option] [(further particulars specified below)]
13.	Date of corporate authorisations for issuance of Notes obtained:	Resolution of the Board of Directors of the Issuer dated [•], and decision of [Jean-Bernard Lévy, <i>Président-Directeur Général</i> ], to issue the

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<sup>8</sup> Notes (including Notes denominated in Sterling) in respect of which the issue proceeds are to be accepted by the issuer in the United Kingdom or whose issue otherwise constitutes a contravention of S 19 FSMA and which have a maturity of less than one year must have a minimum redemption value of £100,000 (or its equivalent in other currencies).

Notes dated [•] and delegating to [•] the authority to sign the documentation relating to the Notes.

## PROVISIONS RELATING TO INTEREST (IF ANY) PAYABLE

14. **Fixed Rate Note Provisions** [Applicable/Not Applicable]
- (If not applicable, delete the remaining sub-paragraphs of this paragraph)*
- (i) Rate[(s)] of Interest: [•] per cent. per annum (payable [annually/quarterly/monthly] in arrear on each Interest Payment Date]
  - (ii) Interest Payment Date(s): [•] in each year [adjusted in accordance with *[specify Business Day Convention and any applicable Additional Business Centre(s) for the definition of "Business Day"]*/not adjusted]
  - (iii) Fixed Coupon Amount[(s)]: [•] per [•] in Nominal Amount
  - (iv) Broken Amount(s): [[•]] per [•] in Nominal Amount payable on the Interest Payment Date falling [in/on] [•] *(Insert particulars of any initial or final broken interest amounts which do not correspond with the Fixed Coupon Amount [(s)])*
  - (v) Day Count Fraction: [•] [Actual/365 – FBF / Actual/Actual – FBF / 30/360 / 360/360 / Bond Basis / Actual/Actual / Actual/Actual – ICMA / Actual/Actual – ISDA / Actual/365 (Fixed) / Actual/360 / 30E/360 / Eurobond Basis / 30E/360 (ISDA)]
  - (vi) Determination Dates: [•] in each year *(insert regular interest payment dates, ignoring issue date or maturity date in the case of a long or short first or last coupon. N.B. only relevant where Day Count Fraction is Actual/Actual ([ICMA]))*
15. **Floating Rate Note Provisions** [Applicable/Not Applicable]
- (If not applicable, delete the remaining sub-paragraphs of this paragraph)*
- (i) Interest Period(s): [•]
  - (ii) Specified Interest Payment Dates/Interest Period Date: [•] in each year, subject to adjustment in accordance with the Business Day Convention set out in (iii) below]
  - (iii) Business Day Convention: [Floating Rate Business Day Convention/ Following Business Day Convention/Modified Following Business Day Convention/Preceding Business Day Convention]
  - (iv) Business Centre(s): [•]
  - (v) Manner in which the Rate(s) of Interest is/are to be determined: [Screen Rate Determination/ FBF Determination] Determination/ISDA
  - (vi) Party responsible for [•]

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	calculating the Rate(s) of Interest and Interest Amount(s) (if not the [Calculation Agent]):	
(vii)	FBF Determination:	[Applicable/Not Applicable]
	— Floating Rate:	[•]
		<i>[If the Rate of Interest is determined by linear interpolation in respect of an interest period (as per Condition 5(c)(iii)(A), insert the relevant interest period(s) and the relevant two rates used for such determination]</i>
	— Floating Rate Determination Date ( <i>Date de Détermination du Taux Variable</i> ):	[•]
	— FBF Definitions (if different from those set out in the Conditions):	[•]
(viii)	ISDA Determination:	[Applicable/Not Applicable]
	— Floating Rate Option:	[•]
		<i>[If the Rate of Interest is determined by linear interpolation in respect of an interest period (as per Condition 5(c)(iii)(B), insert the relevant interest period(s) and the relevant two rates used for such determination]</i>
	— Designated Maturity:	[•]
	— Reset Date:	[•]
	— ISDA Definitions (if different from those set out in the Conditions):	[•]
(ix)	Screen Rate Determination:	[Applicable] / [Not Applicable]
	— Relevant Time:	[•]
	— Interest Determination Date:	[[•] [TARGET2] Business Days in [specify city] for [specify currency] prior to [the first day in each Interest Accrual Period/each Interest Payment Date]]
		<i>(Where the Reference Rate is SONIA, include the below wording)</i>
		[[•] London Business Days prior to each Interest Payment Date]

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—	Primary Source for Floating Rate/Relevant Screen Page:	[Specify relevant screen page or “Reference Banks”]
—	[Calculation Method:	[Compounded Daily]/[Weighted Average]
—	Observation Method:	[Lag]/[Lock-out]
—	Lookback Period:	[[specify] London Business Days]/[As per the Conditions]/[Not Applicable]
		(Include where the Reference Rate is SONIA and ensure that any Early Redemption Amounts include amounts in respect of accrued interest)
—	Reference Banks (if Primary Source is “Reference Banks”):	[Specify four]
—	Relevant Financial Centre:	[The financial centre most closely connected to the benchmark—specify if not London]
—	Benchmark:	[LIBOR/EURIBOR/CMS Rate/SONIA]
		[If the Rate of Interest is determined by linear interpolation in respect of an interest period (as per Condition 5(c)(iii)(C), insert the relevant interest period(s) and the relevant two rates used for such determination]
—	Representative Amount:	[Specify if screen or Reference Bank quotations are to be given in respect of a transaction of a specified notational amount]
—	Effective Date:	[Specify if quotations are not to be obtained with effect from commencement of Interest Accrual Period]
—	Specified Duration:	[Specify period for quotation if not duration of Interest Accrual Period]
—	Reference Currency:	[•]
—	Designated Maturity:	[•]
—	Specified Time:	[•]
(x)	Margin(s):	[+/-][•] per cent. per annum
(xi)	Minimum Rate of Interest:	[zero/[•] per cent. per annum] <sup>9</sup>
(xii)	Maximum Rate of Interest:	[•] per cent. per annum
(xiii)	Day Count Fraction:	[•]

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<sup>9</sup>

The Minimum Rate of Interest (including any applicable margin) shall not be less than zero.

—	[Benchmark Replacement:	Not Applicable]
16.	<b>Zero Coupon Note Provisions</b>	[Applicable/Not Applicable]  <i>(If not applicable, delete the remaining sub-paragraphs of this paragraph)</i>
	(i) Amortisation Yield:	[•] per cent. per annum
	(ii) Day Count Fraction:	[•]
<b>PROVISIONS RELATING TO REDEMPTION</b>		
17.	<b>Call Option</b>	[Applicable/Not Applicable]  <i>(If not applicable, delete the remaining sub-paragraphs of this paragraph)</i>
	(i) Optional Redemption Date(s):	[•]
	(ii) Optional Redemption Amount(s) of each Note:	[•] per Note of [•] Specified Denomination
	(iii) If redeemable in part:	
	(a) Minimum Redemption Amount:	[•]
	(b) Maximum Redemption Amount:	[•]
	(iv) Notice period (if other than as set out in the Conditions):	[•]
18.	<b>Put Option</b>	[Applicable/Not Applicable]  <i>(If not applicable, delete the remaining sub-paragraphs of this paragraph)</i>
	(i) Optional Redemption Date(s):	[•]
	(ii) Optional Redemption Amount(s) of each Note:	[•] per Note of [•] Specified Denomination
	(iii) Notice period (if other than as set out in the Conditions):	[•]
19.	<b>Final Redemption Amount of each Note</b>	[•] per Note of [•] Specified Denomination
20.	<b>Make-Whole Redemption by the Issuer</b>	[Applicable/Not Applicable]  <i>(If not applicable, delete the remaining sub-paragraphs of this paragraph)</i>

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- |       |   |                        |
|-------|---|------------------------|
| (i)   | Notice Period <sup>10</sup> :                                     | [•]                    |
| (ii)  | Parties to be notified (if other than set out in Condition 6(c)): | [[•] / Not Applicable] |
| (iii) | Make-whole Redemption Margin:                                     | [•]                    |
| (iv)  | Reference Security:   | [•]                    |
| (v)   | Reference Screen Rate:  | [•]                    |
| (vi)  | Make-whole Redemption Rate:                                       | [•]                    |
| (vii) | Reference Dealers:  | [•]                    |
21. **Residual Maturity Call Option:** [Applicable/ Not Applicable]
- Residual Maturity Call Option Date: As from [•]
22. **Early Redemption Amount**
- Early Redemption Amount(s) of each Note payable on redemption for taxation reasons or on event of default or other early redemption: [•]

#### GENERAL PROVISIONS APPLICABLE TO THE NOTES

- |       |  |   |
|-------|--|---|
| 23.   | Form of Notes:                                       | [Dematerialised Notes/Materialised Notes]<br>( <i>Materialised Notes are only in bearer form</i> )<br>[Delete as appropriate]   |
| (i)   | Form of Dematerialised Notes:                        | [Not Applicable/if Applicable specify whether]<br>[Bearer dematerialised form ( <i>au porteur</i> )/<br>[fully/administered]<br>Registered dematerialised form ( <i>au nominative pur/administré</i> )]   |
| (ii)  | Registration Agent:                                  | [Not Applicable/if applicable give names and details]<br>( <i>Note that a Registration Agent must be appointed in relation to Registered Dematerialised Notes only</i> )  |
| (iii) | Temporary Global Certificate:                        | [Not Applicable/Temporary Global Certificate exchangeable for Definitive Materialised Bearer Notes on [•] (the “ <b>Exchange Date</b> ”), being 40 days after the Issue Date subject to postponement as provided in the Temporary Global Certificate] |
| (iv)  | Identification of Noteholders (Condition 1 (c) (v)): | [Not Applicable]/[Applicable]   |

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<sup>10</sup> If setting notice periods which are different to those provided in the conditions, the Issuer is advised to consider the practicalities of distribution of information through intermediaries, for example, clearing systems, as well as any other notice requirements which may apply, for example, as between the Issuer and its Fiscal Agent.



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	(v) Applicable TEFRA exemption (or successor exemption):	[C Rules/D Rules/Not Applicable] (Only applicable to Materialised Notes)
24.	Financial Centre(s):	[Not Applicable/give details] (Note that this item related to the date and place of payment, and not interest payment dates and interest period end dates, to which item 15(iv) relates.)
25.	Talons for future Coupons to be attached to Definitive Notes (and dates on which such Talons mature):	[Yes/No. If yes, give details]
26.	Redenomination, renominatisation and reconventioning provisions:	[Not Applicable/The provisions in Condition 1 apply]
27.	Consolidation provisions:	[Not Applicable/The provisions in Condition 14 apply/The provisions annexed to these Final Terms apply]
28.	Masse (Condition 11):	[The provisions [in Condition 11.10]/[in condition 11.11] apply]
	Name and address of the Representative: [•]	
	[Name and address of the alternate Representative: [•]]	
	[The Representative will receive no remuneration / The Representative will receive a remuneration of [•]]	

## RESPONSIBILITY

The Issuer accepts responsibility for the information contained in these Final Terms. [(Relevant third party information) has been extracted from (specify source).The Issuer confirms that such information has been accurately reproduced and that, so far as it is aware, and is able to ascertain from information published by (specify source), no facts have been omitted which would render the reproduced information inaccurate or misleading.]

Signed on behalf of the Issuer:

By: .....

Duly authorised

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## PART B – OTHER INFORMATION

### 1. LISTING

- (i) Listing: [Euronext Paris/other (specify)/None]
- (ii) Admission to trading: [Application has been made for the Notes to be admitted to trading on [•] with effect from [•].] [Not Applicable.]
- (Where documenting a fungible issue need to indicate that original securities are already admitted to trading.)*
- (iii) Estimate of total expenses related to admission to trading: [insert amount or, if relevant, manner in and date on which such amount to be made public]

### 2. RATINGS

- Ratings: The Notes to be issued have been rated:
- [S&P: [•]]  
[Moody's: [•]]  
[[Other]: [•]]
- [The Notes to be issued have not been rated.]
- [[Insert credit rating agency] is established in the European Union and has applied for registration under Regulation (EC) No 1060/2009, as amended although the result of such applications has not been determined.]
- [[Insert credit rating agency] is established in the European Union, is registered under Regulation (EC) No 1060/2009, as amended (the “**CRA Regulation**”) and is included in the list of credit rating agencies registered in accordance with the CRA Regulation published on the European Securities and Markets Authority’s website ([www.esma.europa.eu/page/List-registered-and-certified-CRAs](http://www.esma.europa.eu/page/List-registered-and-certified-CRAs)).]
- [[Each of [•],[•] and] [•] is [not] established in the European Union [nor has/and has not] applied for registration under Regulation (EC) No 1060/2009, as amended (the “**CRA Regulation**”), but is endorsed by [insert credit rating agency’s name] which is established in the European Union, registered under the CRA Regulation and is included in the list of credit rating agencies registered in accordance with the CRA Regulation published on the European Securities and Markets Authority’s website ([www.esma.europa.eu/page/List-registered-and-certified-CRAs](http://www.esma.europa.eu/page/List-registered-and-certified-CRAs)).]
- [[None of [•] and] [•] is [not] established in the European Union [nor has/and has not] applied for registration under Regulation (EC) No 1060/2009,

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as amended.]

*(The above disclosure should reflect the rating allocated to Notes of the type being issued under the Programme generally or, where the issue has been specifically rated, that rating.)*

3. **[NOTIFICATION]**

The AMF in France [has been requested to provide/has provided - *include first alternative for an issue which is contemporaneous with the establishment or update of the Programme and the second alternative for subsequent issues*] the [*include names of competent authorities of host Member States*] with a certificate of approval attesting that the Base Prospectus has been drawn up in accordance with the Prospectus Regulation.]

4. **[INTERESTS OF NATURAL AND LEGAL PERSONS INVOLVED IN THE ISSUE/OFFER]**

*(Need to include a description of any interest, including conflicting ones, that is material to the issue/offer, detailing the persons involved and the nature of the interest. May be satisfied by the inclusion of the following statement:)*

["Save as disclosed in ["Subscription and Sale"] so far as the Issuer is aware, no person involved in the offer of the Notes has an interest material to the offer."]/[Amend as appropriate if there are other interests]

5. **[OTHER ADVISORS]**

*If advisors are mentioned in these Final Terms, include a declaration which specifies the capacity in which the advisors have acted.]]*

6. **REASONS FOR THE OFFER, ESTIMATED NET PROCEEDS AND TOTAL EXPENSES**

[(i)] Reasons for the offer: [•]

[(ii)] Estimated net proceeds: *[insert amount or, if relevant, manner in and date on which such amount to be made public]*

*(If proceeds are intended for more than one use will need to split out and present in order of priority. If proceeds insufficient to fund all proposed uses state amount and sources of other funding.)*

[(iii)] Estimated total expenses: *[insert amount or, if relevant, manner in and date on which such amount to be made public] [Include breakdown of expenses]*

7. **[FIXED RATE NOTES ONLY – YIELD]**

Indication of yield: [•]

*[yield gap of [•]% in relation to tax free government bonds of an equivalent duration]*

The yield is calculated at the Issue Date on the basis of the Issue Price. It is not an indication of future yield.]

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8. **[FLOATING RATE NOTES ONLY – HISTORIC INTEREST RATES]**

Historic interest rates: Details of historic [LIBOR/EURIBOR/other] rates can be obtained from [Reuters / other].

[Benchmarks: Amounts payable under the Notes will be calculated by reference to [•] which is provided by [•]. As at [•], [•] [appears/does not appear] on the register of administrators and benchmarks established and maintained by the European Securities and Markets Authority pursuant to Article 36 of Regulation (EU) 2016/1011 (the “**Benchmarks Regulation**”). [As far as the Issuer is aware, the transitional provisions in Article 51 of the Benchmarks Regulation apply, such that [•] is not currently required to obtain authorisation or registration.]]

9. **[PLACING AND UNDERWRITING]**

[Not Applicable]<sup>11</sup>

Consent of the Issuer to use the Prospectus during the Offer Period: [Not Applicable / Applicable with respect to any Authorised Offeror specified below]

Authorised Offeror(s) in various countries where the offer takes place: [Not Applicable / Name(s) and address(es) of the financial intermediary(ies) appointed by the Issuer to act as Authorised Offeror(s)/ Any financial intermediary which satisfies the conditions set out below in item “Conditions attached to the consent of the Issuer to use the Prospectus”]

Conditions attached to the consent of the Issuer to use the Prospectus: [Not Applicable / Where the Issuer has given a general consent to any financial intermediary to use the Prospectus, specify any additional conditions to or any condition replacing those set out in the Base Prospectus. Where Authorised Offeror(s) have been designated herein, specify any condition]

Indication of the material features of the agreements, including the quotas: [•]

When the underwriting agreement has been or will be reached: [•]

10. **DISTRIBUTION**

(i) Method of distribution: [Syndicated/Non-syndicated]

(ii) If syndicated: [Not Applicable/give names]

(A) Names and addresses of Managers: *(Include names and addresses of entities agreeing to underwrite the issue on a firm commitment basis and names of the entities agreeing to place the issue without a firm commitment or on a “best efforts” basis if such entities are not the same as the Managers)*

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<sup>11</sup> Not required for Notes with a denomination of at least €100,000.

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- |   |  |
|---|--|
| (B) Stabilising Manager(s) if any:  | [Not Applicable/ <i>give name</i> ]  |
| (iii) If non-syndicated, name and address of Dealer:  | [Not Applicable/ <i>give name</i> ]  |
| (iv) Total commission and concession  | [•] per cent. of the Aggregate Nominal Amount  |
| (v) US Selling Restrictions (Categories of potential investors to which the Notes are offered): Reg. S Compliance Category 2 applies to the Notes; [TEFRA C] / [TEFRA D]/[TEFRA not applicable] | [•]  |
| (vi) Non-exempt offer:  | <p>[Not Applicable] / [An offer of the Notes may be made by the Managers [and [<i>specify names of other financial intermediaries / placers making non-exempt offers, to the extent known</i> OR consider a generic description of other parties involved in non-exempt offers (e.g. "<i>other parties authorised by the Managers</i>") or (if relevant) note that other parties may make non-exempt offers in the Public Offer Jurisdictions during the Offer Period, if not known]] (together with the Managers, the "<b>Financial Intermediaries</b>") other than pursuant to Article 3(2) of the Prospectus Regulation in [<i>specify relevant Member State(s) - which must be jurisdictions where the Base Prospectus and any supplements have been passported (in addition to the jurisdiction where approved and published)</i>] ("<b>Public Offer Jurisdictions</b>") during the period from [<i>specify date</i>] until [<i>specify date or a formula such as "the Issue Date" or "the date which falls [•] Business Days thereafter"</i>] ("<b>Offer Period</b>").</p> |
| (vii) Prohibition of Sales to EEA Retail Investors:   | <p>[Not Applicable/Applicable]</p> <p><i>(If the Notes do not constitute "packaged" products, "Not Applicable" should be specified. If the Notes may constitute "packaged" products and no KID will be prepared, "Applicable" should be specified. For the purpose of the above, a "packaged" product shall designate a "packaged retail investment product" which means in accordance with Regulation (EU) No 1286/2014 of 26 November 2014 an investment, where, regardless of the legal form of the investment, the amount repayable to the retail investor is subject to fluctuations because of exposure to reference values or to the performance of one or more assets which are not directly purchased by the retail investor).</i></p>  |

## 11. OPERATIONAL INFORMATION

- |              |     |
|--------------|-----|
| ISIN Code:   | [•] |
| Common code: | [•] |

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Any clearing system(s) other than Euroclear France, Euroclear Bank SA/NV and Clearstream Banking S.A. and the relevant identification number(s): [Not Applicable/give name(s) and number(s)]

Delivery: Delivery [against/free of] payment

Names and addresses of additional Paying Agent(s) (if any): [•]

Name and address of the entities which have a firm commitment to act as intermediaries in secondary trading, providing liquidity through bid and offer rates and description of the main terms of their commitment: [Not Applicable/give name(s), address(es) and description]

[Common Depositary: [•]]

Registrar: [Principal Registrar/Alternative Registrar - Specify]

The aggregate principal amount of Notes issued has been translated into Euro at the rate of [•] producing a sum of: [Not Applicable/give details]

## 12. TERMS AND CONDITIONS OF THE OFFER

[Applicable<sup>12</sup> / Not applicable] [If not applicable, delete the remaining sub- paragraphs of this paragraph]

Offer Period: The period from [•] until [•]

Offer Price: [Issue Price][specify]

*(Where an indication of the expected price cannot be given, add a description of the method of determining the price, pursuant to Article 17 of the Prospectus Regulation, and the process for its disclosure)*

Conditions to which the offer is subject: [Not applicable/give details]

Time Period / Description of the application process: [Not applicable/give details]

Description of possibility to reduce subscriptions and manner for refunding excess amount paid by applicants: [Not applicable/give details]

Details of the minimum and/or maximum amount of application: [Not applicable/give details]

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<sup>12</sup> Applicable only for Public Offer issues.

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Details of the method and time limits for paying up and delivering the Notes: [Not applicable/*give details*]

Manner in and date on which results of the offer are to be made public: [Not applicable/*give details*]

Procedure for exercise of any right of pre-emption, negotiability of subscription rights and treatment of subscription rights not exercised: [Not applicable/*give details*]

If the offer is being made simultaneously in the markets of two or more countries, and if tranche(s) have been reserved for certain countries: [Not applicable/*give details*]

Process for notification to applicants of the amount allotted and the indication whether dealing may begin before notification is made: [Not applicable/*give details*]

Amount of any expenses and taxes specifically charged to the subscriber or purchaser: [Not applicable/*give details*]  
*(Where the Issuer is subject to Regulation (EU) 1286/2014 and to the extent that they are known, include those expenses contained in the price)*

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**[ANNEX – ISSUE SPECIFIC SUMMARY]**

***[Issue specific summary to be inserted completed, as the case may be, in the specific summary to be annexed to the Final Terms of the Notes having a denomination of less than €100,000]***



### SUBSCRIPTION AND SALE

Subject to the terms and on the conditions contained in the amended and restated dealer agreement dated 21 November 2019 entered into between the Issuer and the Dealers (as amended or supplemented from time to time, the “**Amended and Restated Dealer Agreement**”), the Notes will be offered on a continuous basis by the Issuer to the Permanent Dealers. However, the Issuer has reserved the right to sell Notes directly on its own behalf to Dealers that are not Permanent Dealers. The Notes may be resold at prevailing market prices, or at prices related thereto, as determined by the relevant Dealer, at the time of such resale. The Notes may also be placed by the Issuer through the Dealers, acting as agents of the Issuer. The Amended and Restated Dealer Agreement also provides for Notes to be issued in syndicated Tranches that are jointly and severally underwritten by two or more Dealers.

The Issuer will pay each relevant Dealer a commission as agreed between them in respect of Notes subscribed by it. The Issuer has agreed to reimburse the Arranger for their expenses incurred in connection with the Programme and the Dealers for certain of their activities in connection with the Programme.

The Issuer has agreed to indemnify the Dealers against certain liabilities in connection with the offer and sale of the Notes. The Amended and Restated Dealer Agreement entitles the Dealers to terminate any agreement that they make to subscribe Notes in certain circumstances prior to payment for such Notes being made to the Issuer.

#### United States of America

The Notes have not been and will not be registered under the U.S. Securities Act of 1933 as amended (the “**Securities Act**”) or with any securities regulatory authority of any state or other jurisdiction of the United States and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except in certain transactions exempt from the registration requirements of the Securities Act. Terms used in this paragraph have the meanings given to them by Regulation S under the Securities Act (“**Regulation S**”).

Materialised Bearer Notes are subject to U.S. tax law requirements and may not be offered, sold or delivered within the United States or its possessions or to a United States person, except in certain transactions permitted by U.S. tax regulations. Terms used in this paragraph have the meanings given to them by the U.S. Internal Revenue Code and regulations thereunder.

Each Dealer has agreed and each further Dealer appointed under the Programme will be required to agree that, except as permitted by the Amended and Restated Dealer Agreement, it will not offer, sell or, in the case of Materialised Bearer Notes, deliver Notes, (i) as part of their distribution at any time or (ii) otherwise until 40 days after the completion of the distribution of any identifiable Tranche as determined, and certified to the Issuer, by the Fiscal Agent, or in the case of Notes issued on a syndicated basis, the Lead Manager, within the United States or to, or for the account or benefit of, U.S. persons, and it will have sent to each dealer to which it sells Notes during the distribution compliance period a confirmation or other notice setting forth the restrictions on offers and sales of the Notes within the United States or to, or for the account or benefit of, U.S. persons. Terms used in the preceding sentence have the meanings given to them by Regulation S.

The Notes are being offered and sold outside the United States to non-U.S. persons in reliance on Regulation S.

In addition, until 40 days after the later of commencement of the offering and the date of closing of the offering of any identifiable Notes, an offer or sale of Notes within the United States by any dealer (whether or not participating in the offering of such Notes) may violate the registration requirements of the Securities Act.

This Base Prospectus has been prepared by the Issuer for use in connection with the offer and sale of the Notes outside the United States. The Issuer and the Dealers reserve the right to reject any offer to purchase the Notes, in whole or in part, for any reason. This Base Prospectus

does not constitute an offer to any person in the United States. Distribution of this Base Prospectus by any non-U.S. person outside the United States to any U.S. person or to any other person within the United States, is unauthorised and any disclosure without the prior written consent of the Issuer of any of its contents to any such U.S. person or other person within the United States, is prohibited.

### Prohibition of Sales to EEA Retail Investors

Unless the Final Terms in respect of any Tranche of Notes specifies "Prohibition of Sales to EEA Retail Investors" as "Not Applicable", each Dealer represents and agrees, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes which are the subject of the offering contemplated by the Base Prospectus as completed by the applicable Final Terms in relation thereto to any retail investor in the EEA. For the purposes of this provision:

- (a) the expression "retail investor" means a person who is one (or more) of the following:
  - (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or
  - (ii) a customer within the meaning of Directive (EU) 2016/97, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or
  - (iii) not a qualified investor as defined in the Prospectus Regulation; and
- (b) the expression an "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe for the Notes.

### Public Offer Selling Restriction under the Prospectus Regulation

If the Final Terms in respect of any Notes specifies "Prohibition of Sales to EEA Retail Investors" as "Not Applicable" and in relation to each Member State of the EEA, each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not made and will not make an offer of Notes which are the subject of the offering contemplated by this Base Prospectus as completed by the final terms in relation thereto to the public in that Member State except that it may make an offer of such Notes to the public in that Relevant Member State:

- (i) if the Final Terms specify that an offer of those Notes may be made other than pursuant to Article 1(4) of the Prospectus Regulation in that Member State (a "Non-exempt Offer"), following the date of publication of a prospectus in relation to such Notes which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, provided that (i) the Issuer has given its written consent and (ii) any such prospectus has subsequently been completed by the Final Terms contemplating such Non-exempt Offer, in accordance with the Prospectus Regulation, in the period beginning and ending on the dates specified in such prospectus or Final Terms, as applicable;
- (ii) at any time to any legal entity which is a qualified investor as defined in the Prospectus Regulation;
- (iii) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), subject to obtaining the prior consent of the relevant Dealer or Dealers nominated by the Issuer for any such offer; or
- (iv) at any time in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of Notes referred to in (ii) to (iv) above shall require the Issuer or any Dealer to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

**For the purposes of this provision, the expression "an offer of Notes to the public" in relation to any Notes in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe for the Notes and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.**

### **Selling Restrictions Addressing Additional United Kingdom Securities Laws**

Each Dealer has represented and agreed that and each further Dealer appointed under the Programme will be required to represent and agree that:

- (a) in relation to any Notes which have a maturity of less than one year, (i) it is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business and (ii) it has not offered or sold and will not offer or sell any Notes other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of the Notes would otherwise constitute a contravention of Section 19 of the Financial Services and Markets Act 2000 (the "**FSMA**") by the Issuer;
- (b) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of any Notes in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer; and
- (c) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Notes in, from or otherwise involving the United Kingdom.

### **The Republic of France**

Each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that:

- (a) **Offer to the public not exempted from the obligation to publish a prospectus:**

it has only made and will only make an offer of Notes to the public in France which is not exempt from the obligation to establish and publish a prospectus set out in Article 3.1 of the Prospectus Regulation and it has distributed or caused to be distributed and will distribute or cause to be distributed to the public in France, the Base Prospectus, the relevant Final Terms or any other offering material relating to such Notes in the period (i) beginning on the date of publication of the Base Prospectus in relation to those Notes which has been approved by the *Autorité des Marchés Financiers* ("**AMF**") in France or, where appropriate, when approved in another Member State of the EEA which has implemented the Prospectus Regulation (EU) 2017/1129 on the date of notification to the AMF in France, and (ii) ending at the latest on the date which is twelve (12) months after the date of approval of the Base Prospectus all in accordance with Article 3 of the Prospectus Regulation, Articles L.412-1 and L.621-8 of the French *Code monétaire et financier* and the *Règlement général* of the AMF, as amended from time to time, and any other applicable French law or regulation; or

- (b) **Offer to the public exempted from the obligation to publish a prospectus:**

it has not offered or sold and will not offer or sell, directly or indirectly, any Notes to the public in France other than (i) to qualified investors (*investisseurs qualifiés*) as defined in

## Subscription and Sale

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Article L. 411-2 1° of the French *Code monétaire et financier* and in Article 2(e) of the Prospectus Regulation, or (ii) to a restricted circle of investors (*cercle restreint d'investisseurs*), provided that such investors are acting for their own account, in accordance with Articles L. 411-2 1° and D. 411-4 of the French *Code monétaire et financier* and it has not distributed or caused to be distributed and will not distribute or cause to be distributed to the public in France, other than to investors as described in items (i) and (ii) above, the Base Prospectus, the relevant Final Terms or any other offering material relating to the Notes.

As specified in the relevant Final Terms, an offer of Notes to the public in France referred to in (a) above may or may not exclude specific categories of investors.

### Japan

Each Dealer has acknowledged and each further Dealer appointed under the Programme will be required to acknowledge that the Notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Law No. 25 of 1948, as amended) (the "Financial Instruments and Exchange Act") and has agreed or will agree, as the case may be, that it will not offer or sell any Notes, directly or indirectly, in Japan or to, or for the benefit of, any resident in Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organised under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan.

### Hong Kong

Each Dealer has represented, warranted and agreed, and each further Dealer appointed under the Programme will be required to represent, warrant and agree, that:

- (a) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Notes (except for Notes which are a "structured product" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong) other than (i) to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance; or (ii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance; and
- (b) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Notes, which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance and any rules made under that Ordinance.

### People's Republic of China

Each Dealer has represented, warranted and agreed, and each further Dealer appointed under the Programme will be required to represent, warrant and agree, that the Notes are not being offered or sold and may not be offered or sold directly or indirectly in the PRC, for such purposes, not including the Hong Kong and Macau Special Administrative Regions or Taiwan, except as permitted by the securities laws and regulations of the PRC.

### Singapore

Each Dealer has acknowledged, and each further Dealer appointed under the Programme will be required to acknowledge, that this Base Prospectus has not been and will not be registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each Dealer has

represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that this Base Prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, may not be circulated or distributed, nor may the Notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA")) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six (6) months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:
  - (i) to an institutional investor or to a relevant person as defined in Section 275(2) of the SFA or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
  - (ii) where no consideration is or will be given for the transfer;
  - (iii) where the transfer is by operation of law;
  - (iv) as specified in Section 276(7) of the SFA; or
  - (v) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

### General

These selling restrictions may be modified or supplemented by the agreement of the Issuer and the Dealers, in particular following a change in a relevant law, regulation or directive. Any such modification or supplement will be set out in a Supplement to the Base Prospectus.

Save as stated herein, no action has been taken in any jurisdiction that would permit an offer to the public of any of the Notes, or possession or distribution of the Base Prospectus or any other offering material or any Final Terms, in any country or jurisdiction where action for that purpose is required. Neither the Issuer nor any of the Dealers represents that Notes may at any time lawfully be sold or resold in compliance with any applicable registration or other requirements in any jurisdiction, or pursuant to any exemption available thereunder, or assumes any responsibility for facilitating such sale or resale.

Each Dealer has agreed (and each further Dealer appointed under the Programme will be required to agree) that it will, to the best of its knowledge, comply with all relevant laws, regulations and directives in each jurisdiction in which it purchases, offers, sells or delivers Notes or has in its possession or distributes the Base Prospectus, any other offering material or any Final Terms and obtain any consent, approval or permission required for the purchase, offer, sale, or delivery of the Notes under the laws and regulations in force in any jurisdiction to which it is subject or in which it makes such purchase, offer, sale or delivery and neither the Issuer nor any other Dealer shall have responsibility therefor.

## **Subscription and Sale**

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Each of the Dealers and the Issuer has represented and agreed that Materialised Notes may only be issued outside France.

Neither this Base Prospectus nor any Final Terms constitutes an offer or an invitation to subscribe for or purchase any Notes and should not be considered as a recommendation by the Issuer, the Dealers or any of them that any recipient of this Base Prospectus or any Final Terms should subscribe for or purchase any Notes. Each recipient of this Base Prospectus or any Final Terms shall be taken to have made its own investigation and appraisal of the condition (financial or otherwise) of the Issuer.

## GENERAL INFORMATION

1. This Base Prospectus received the visa no. 19-540 on 21 November 2019 from the AMF. The AMF only approves this Base Prospectus as meeting the standards of completeness, comprehensibility and consistency imposed by the Prospectus Regulation. Such approval should not be considered as an endorsement of the Issuer.
2. This Base Prospectus shall be valid for admission to trading of Notes on a Regulated Market for twelve (12) months after the approval by the AMF, until 21 November 2020, provided that it is completed by any supplement, pursuant to Article 23 of the Prospectus Regulation, following the occurrence of a significant new factor, a material mistake or a material inaccuracy relating to the information included (including information incorporated by reference) in this Base Prospectus which may affect the assessment of the Notes. After such date, the Base Prospectus will expire and the obligation to supplement this Prospectus in the event of significant new factors, material mistakes or material inaccuracies will no longer apply.
3. No authorisation procedures are required of Électricité de France by French law for the update of the Programme. To the extent that Notes issued under the Programme constitute obligations under French law, the issue of such Notes shall be authorised in accordance with French law. A resolution of the *conseil d'administration* dated 14 December 2018 authorises the issue of Notes up to a maximum aggregate amount of €15 billion.
4. Save as disclosed in this Base Prospectus, neither the Issuer nor any of its fully consolidated subsidiaries is or has been involved in any governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which the Issuer is aware), during a period covering at least the previous twelve (12) months which may have, or have had in the recent past, significant effects on the financial position or profitability of the Issuer or any of its fully consolidated subsidiaries.
5. There has been no material adverse change in the prospects of the Issuer since 31 December 2018. There has been no significant change in the financial performance or financial position of the Issuer and its fully consolidated subsidiaries since 30 September 2019.
6. There are no potential conflicts of interest between any duties to Électricité de France of the directors of Électricité de France and their private interests and/or other duties.
7. Notes will be accepted for clearance through the Euroclear and Clearstream systems which are entities in charge of keeping the records. The Common Code and the International Securities Identification Number (ISIN) or the identification number for any other relevant clearing system for each Series of Notes will be set out in the relevant Final Terms.

The address of Euroclear is 1 boulevard du Roi Albert II, 1210 Bruxelles, Belgium and the address of Clearstream is 42 avenue John Fitzgerald Kennedy, L-1855 Luxembourg, Grand Duchy of Luxembourg.

8. Dematerialised Notes will be inscribed in the books of Euroclear France (acting as central depositary). Dematerialised Notes which are in registered form (*au nominatif*) will be also inscribed either with the Issuer or with the registration agent.

The address of Euroclear France is 66 rue de la Victoire, 75009 Paris, France.

9. In connection with the issue of any Tranche, the Dealer or Dealers (if any) named as the stabilising manager(s) (the “**Stabilising Manager(s)**”) (or persons acting on behalf of any Stabilising Manager(s)) in the applicable Final Terms may over-allot Notes or effect transactions with a view to supporting the market price of the Notes at a level higher than that which might otherwise prevail. However, there is no assurance that the Stabilising Manager(s) (or persons acting on behalf of a Stabilising Manager) will

undertake stabilisation action. Any stabilisation action may begin on or after the date on which adequate public disclosure of the Final Terms of the offer of the relevant Tranche is made and, if begun, may be ended at any time, but it must end no later than the earlier of 30 days after the issue date of the relevant Tranche and 60 days after the date of the allotment of the relevant Tranche. Any stabilisation action or over-allotment must be conducted by the relevant Stabilising Manager(s) (or person(s) acting on behalf of any Stabilising Manager(s)) in accordance with applicable laws and rules.

10. In addition, liquidity provider(s) may be appointed in connection with the issue of any Tranche, in which case the applicable Final Terms will include all relevant details regarding the entity(ies) which have a firm commitment to act as intermediary(ies) in secondary trading.
11. All references in this Base Prospectus to “**€**”, “**EUR**”, “**Euro**” and “**euro**” are to the single currency introduced at the start of the third stage of the European Economic and Monetary Union pursuant to the Treaty establishing the European Community, as amended, those to “**\$**”, “**USD**”, “**U.S.\$**”, “**dollars**”, “**U.S. dollars**” and “**United States dollars**” are to the currency of the United States of America, those to “**£**”, “**GBP**”, “**Sterling**”, “**Pound Sterling**” and “**pounds**” are to the currency of the United Kingdom, those to “**¥**”, “**Japanese yen**” and “**yen**” are to the currency of Japan, and references to “**Renminbi**” or “**RMB**” are to the currency of the People’s Republic of China, excluding the Hong Kong Special Administrative Region, the Macau Special Administrative Region and Taiwan (the “**PRC**”).
12. Unless otherwise provided, all references in this Base Prospectus to a “day” shall be to a calendar day.
13. The Amended and Restated Agency Agreement will be available for inspection, during usual business hours on any weekday (Saturdays and public holidays excepted), at the office of the Fiscal Agent, the Paying Agents and the following documents can be inspected on the website of the Issuer ([www.edf.com](http://www.edf.com)):
  - (i) the up to date articles of association (*statuts*) of the Issuer;
  - (ii) the Amended and Restated Agency Agreement;
  - (iii) Final Terms for Notes that are admitted to trading on Euronext Paris and/or any other Regulated Market; and
  - (iv) a copy of this Base Prospectus together with any Supplement to this Base Prospectus and any document incorporated by reference or further Base Prospectus.
14. Amounts payable under Floating Rate Notes issued under the Programme may be calculated by reference to one or more “benchmarks” for the purposes of the Benchmarks Regulation. In this case, the relevant Final Terms in respect of an issue of Floating Rate Notes will specify the relevant benchmark, the relevant administrator of such benchmark and whether such administrator appears on the above mentioned register of administrators and benchmarks established and maintained by the European Securities and Markets Authority.
15. The Legal Entity Identifier of the Issuer is 549300X3UK4GG3FNMO06.
16. All or some of the Dealers and their respective affiliates have and/or may in the future engage, in investment banking, commercial banking and other financial advisory and commercial dealings with the Issuer and its affiliates and in relation to securities issued by the Issuer or any of its affiliates. They have or may (i) engage in investment banking, trading or hedging activities including activities that may include prime brokerage business, financing transactions or entry into derivative transactions, (ii) act as underwriters in connection with offering of shares or other securities issued by the Issuer or any of its affiliates or (iii) act as financial advisers to the Issuer or any of its affiliates. In the context of these transactions, certain of such Dealers and their



## **General Information**

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respective affiliates have or may hold shares or other securities issued by the Issuer or any of its affiliates. Where applicable, they have or will receive customary fees and commissions for these transactions. The Dealers and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

**PERSONS RESPONSIBLE FOR THE INFORMATION  
GIVEN IN THE BASE PROSPECTUS**

The Issuer hereby certifies that the information contained in this Base Prospectus is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

**Électricité de France**

22-30 avenue de Wagram  
75008 Paris  
France

Duly represented by M. Jean-Bernard Lévy  
Chief Executive Officer

Signed in Paris, on 21 November 2019

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M. Jean-Bernard Lévy  
Chief Executive Officer  
Électricité de France

## VISA OF THE *AUTORITÉ DES MARCHÉS FINANCIERS*



This Base Prospectus has been approved on 21 November 2019 under the approval number n°19-540 by the AMF, in its capacity as competent authority under Regulation (EU) 2017/1129.

The AMF has approved this Base Prospectus after having verified that the information it contains is complete, coherent and comprehensible.

This approval is not a favourable opinion on the Issuer and on the quality of the Notes described in this Base Prospectus. Investors should make their own assessment of the opportunity to invest in such Notes.

It is valid until 21 November 2020 and shall be completed by a supplement to the Base Prospectus in the event of new material facts or substantial errors or inaccuracies.

## REGISTERED OFFICE OF THE ISSUER

**Électricité de France**  
22-30, avenue de Wagram  
75008 Paris

## ARRANGER FOR THE PROGRAMME

**BNP Paribas**  
10 Harewood Avenue  
London NW1 6AA  
United Kingdom

## DEALERS

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10 Harewood Avenue  
London NW1 6AA  
United Kingdom

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France

**Société Générale**  
29, boulevard Haussmann  
75009 Paris  
France

**Fiscal Agent, Principal Paying Agent, Paris Paying Agent,  
Redenomination Agent, Consolidation Agent and Calculation Agent**  
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