

16 January 2020



## EDP - ENERGIAS DE PORTUGAL, S.A.

*(incorporated with limited liability in the Portuguese Republic)*

### €750,000,000 Fixed to Reset Rate Subordinated Notes due 2080

Issue Price: 99.744 per cent.

The €750,000,000 Fixed to Reset Rate Subordinated Notes due 2080 (the **Notes**) are issued by EDP - Energias de Portugal, S.A. (the **Issuer**). The Notes will bear interest, payable in arrear on 20 July in each year. The first interest payment (representing a short first coupon for the period from and including the Issue Date to but excluding 20 July 2020 and amounting to €845.36 per €100,000 in principal amount of Notes) shall be made on 20 July 2020. The Notes bear interest on their Principal Amount at (a) from and including the Issue Date to but excluding the First Reset Date, 1.700 per cent. per annum; (b) from and including the First Reset Date to but excluding the First Step-Up Date, the relevant Reset Rate of Interest; (c) from and including the First Step-Up Date to but excluding the Second Step-Up Date, the relevant Reset Rate of Interest plus 0.25 per cent. per annum; and (d) from and including the Second Step-Up Date to but excluding the Maturity Date, the relevant Reset Rate of Interest plus 1.00 per cent. per annum, each subject to, in the case of a Change of Control Event and unless redeemed early following such Change of Control Event, an increase of 5.00 per cent. per annum (each capitalised term as defined in "*Terms and Conditions of the Notes*"). Interest payments may be deferred at the option of the Issuer. See Condition 3 of "*Terms and Conditions of the Notes*" for details on interest deferral.

The Notes will mature on 20 July 2080 (the **Maturity Date**), unless redeemed earlier at the option of the Issuer in accordance with the terms and conditions of the Notes. Prior to the Maturity Date, the Issuer may redeem the Notes (in whole but not in part) on any Business Day from (and including) 20 April 2025 (the **First Call Date**) to (and including) the First Reset Date or on any Interest Payment Date falling after the First Reset Date at their Principal Amount, together with any interest accrued up to (but excluding) the relevant Redemption Date and any outstanding Deferred Interest Payments. The Issuer may also redeem the Notes (in whole but not in part): (i) following a Gross-up Event, a Change of Control Event or a Substantial Repurchase Event, at their Principal Amount; or (ii) following a Tax Event or a Rating Agency Event at: (a) if such redemption occurs prior to the First Call Date, 101 per cent. of their Principal Amount; or (b) if such redemption occurs on or following the First Call Date, their Principal Amount, in each case plus any interest accrued up to (but excluding) the Redemption Date and any outstanding Deferred Interest Payments (each capitalised term as defined in "*Terms and Conditions of the Notes*"). See Condition 4 of "*Terms and Conditions of the Notes*" for further detail.

The Notes will constitute direct, unsecured and subordinated obligations of the Issuer, as more particularly described in Condition 2 of "*Terms and Conditions of the Notes*".

**Prospective investors should have regard to the factors described under the section headed "Risk Factors" on page 11 of this Prospectus.**

The Notes will be rated Ba2 by Moody's Investors Service Limited (**Moody's**), BB by S&P Global Ratings Europe Limited (French Branch) (**Standard & Poor's**) and BB by Fitch Ratings Limited (**Fitch**). A brief explanation of the meanings of these ratings is set out in "*General Information*". A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time by the assigning rating organisation. Each of Moody's, Standard & Poor's and Fitch is established in the European Union (EU) and is registered under Regulation (EC) No. 1060/2009 (as amended) (the **CRA Regulation**). As such, each of Moody's, Standard & Poor's and Fitch is included in the list of credit rating agencies published by the European Securities and Markets Authority on its website in accordance with the CRA Regulation.

This Prospectus has been approved by the Central Bank of Ireland (the **Central Bank**), as competent authority under Regulation (EU) 2017/1129 (the **Prospectus Regulation**). The Central Bank only approves this 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 or the quality of the Notes that are the subject of this Prospectus. Investors should make their own assessment as to the suitability of investing in the Notes.

Application has been made to the Irish Stock Exchange plc trading as Euronext Dublin (**Euronext Dublin**) for the Notes to be admitted to its official list (the **Official List**) and trading on its regulated market. The regulated market of Euronext Dublin is a regulated market for the purposes of Directive 2014/65/EU (as amended, **MiFID II**).

The Notes will be represented in dematerialised book-entry ("*escriturais*") and nominative ("*nominativas*") form in the denomination of €100,000 each and will be held through the accounts of affiliate members of the Portuguese central securities depository and the manager of the Portuguese settlement system, *Interbolsa-Sociedade Gestora de Sistemas de Liquidação e de Sistemas Centralizados de Valores Mobiliários, S.A. (Interbolsa)*, as operator and manager of the "*Central de Valores Mobiliários*" (the **CVM**).

**BNP PARIBAS**  
*(Structuring Bank)*

**BANCA IMI**  
**MILLENNIUM BCP**

**BNP PARIBAS**  
**MUFG**

**NATWEST MARKETS**  
**SANTANDER**  
*(Joint Lead Managers)*

**LIBERBANK**  
*(Co-Lead Manager)*

**MEDIOBANCA**  
**UNICREDIT BANK**

This Prospectus comprises a prospectus for the purpose of Article 6 of the Prospectus Regulation.

The Issuer accepts responsibility for the information contained in this Prospectus. To the best of the knowledge of the Issuer the information contained in this Prospectus is in accordance with the facts and does not omit anything likely to affect the import of such information.

References in this Prospectus to Notes being "listed" (and all related references) shall mean that Notes have been admitted to trading on the regulated market of Euronext Dublin and have been admitted to the Official List.

This Prospectus is to be read in conjunction with all documents which are deemed to be incorporated herein by reference (see "*Documents Incorporated by Reference*"). This Prospectus shall be read and construed on the basis that such documents are incorporated and form part of this Prospectus.

The Managers (as defined in "*Subscription and Sale*" below) have not independently verified the information contained herein. Accordingly, no representation, warranty or undertaking, expressed or implied, is made and no responsibility or liability is accepted by the Managers as to the accuracy or completeness of the information contained in this Prospectus or any other information provided by the Issuer in connection with the Notes. No Manager accepts any liability in relation to the information contained or incorporated by reference in this Prospectus or any other information provided by the Issuer in connection with the Notes.

In connection with the issue and sale of the Notes, no person is authorised to give any information or to make any representation not contained in, or inconsistent with, this Prospectus or any other information supplied in connection with the Notes and, if given or made, such information or representation must not be relied upon as having been authorised by the Issuer or the Managers.

Neither this Prospectus, nor any other information supplied in connection with the Notes, is intended to provide the basis of any credit or other evaluation or should be considered as a recommendation by the Issuer or the Managers that any recipient of this Prospectus or any other information supplied in connection with the Notes should purchase any of the Notes. Each investor contemplating purchasing any Notes should make its own independent investigation of the financial condition and affairs, and its own appraisal of the creditworthiness, of the Issuer. This Prospectus may only be used for the purposes for which it has been published.

No person is authorised to give any information or to make any representations other than those contained in this Prospectus in connection with the offering or sale of the Notes and, if given or made, such information or representations must not be relied upon as having been authorised by or on behalf of the Issuer or the Managers. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstances, create any implication or constitute a representation that there has been no change in the affairs of the Issuer or the Issuer and its subsidiaries taken as a whole (the **EDP Group**) since the date hereof or the date upon which this Prospectus has been most recently amended or supplemented or that there has been no adverse change in the financial position of the Issuer or the EDP Group since the date hereof or the date upon which this Prospectus has been most recently amended or supplemented or that the information contained in it or any other information supplied in connection with the Notes is correct as of any time subsequent to the date on which it is supplied or, if different, the date indicated in the document containing the same.

This Prospectus does not constitute an offer to sell or the solicitation of an offer to buy any Notes in any jurisdiction to any person to whom it is unlawful to make the offer or solicitation in such jurisdiction.

The distribution of this Prospectus and the offering of the Notes in certain jurisdictions may be restricted by law. Neither the Issuer nor any of the Managers represents that this Prospectus may be lawfully distributed, or that the Notes may be lawfully offered, in compliance with any applicable registration or other requirements in any such jurisdiction, or pursuant to an available exemption, or assumes any responsibility for facilitating any such distribution or offering. In particular, no action has been taken by the Issuer or the Managers which is intended to permit a public offering of the Notes or distribution of this Prospectus in any jurisdiction where action for that purpose is required. Accordingly, the Notes may not be offered or sold, directly or indirectly, and neither this Prospectus nor any advertisement 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. Persons into whose possession this Prospectus comes are required by the Issuer and the Managers to inform themselves about, and to observe, any applicable restrictions. For a description of certain further restrictions on the offering, sale and delivery of the Notes and on the distribution of this Prospectus, see "*Subscription and Sale*" below.

Each potential investor in the Notes must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

- i. have sufficient knowledge and experience to make a meaningful evaluation of the Notes, the merits and risks of investing in the Notes and the information contained or incorporated by reference in this Prospectus or any applicable supplement;

- ii. have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the Notes and the impact the Notes will have on its overall investment portfolio;
- iii. have sufficient financial resources and liquidity to bear all of the risks of an investment in the Notes, including where euro is different from the potential investor's currency;
- iv. understand thoroughly the terms of the Notes and be familiar with the behaviour of the relevant financial markets; and
- v. be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

The Notes are complex financial instruments. A potential investor should not invest in Notes unless it has the expertise (either alone or with a financial adviser) to evaluate how the Notes will perform under changing conditions, the resulting effects on the value of the Notes and the impact this investment will have on the potential investor's overall investment portfolio.

Legal investment considerations may restrict certain investments. The investment activities of certain investors are subject to legal investment laws and regulations, or review or regulation by certain authorities. Each potential investor should consult its legal advisors to determine whether and to what extent (1) the Notes are legal investments for it; and (2) other restrictions apply to its purchase or pledge of any Notes. Financial institutions should consult their legal advisors or the appropriate regulators to determine the appropriate treatment of Notes under any applicable risk-based capital or similar rules.

The Notes have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the **Securities Act**), and the Notes are subject to U.S. tax law requirements. Subject to certain exceptions, Notes may not be offered, sold or delivered within the United States of America or to U.S. persons.

References in this Prospectus to **EUR, euro** and **€** refer to the currency introduced at the start of the third stage of European economic and monetary union pursuant to the Treaty on the functioning of the European Union, as amended.

**MIFID II product governance / Professional Investors and Eligible Counterparties only target market** – Solely for the purposes of each manufacturer's product approval process, the target market assessment in respect of the Notes has led to the conclusion that: (i) the target market for the Notes is eligible counterparties and professional clients only, each as defined in MiFID II; and (ii) all channels for distribution of the Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Notes (a **distributor**) should take into consideration the manufacturers' 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 manufacturers' target market assessment) and determining appropriate distribution channels.

**Prohibition of sales to EEA retail investors** – The Notes are not intended to be offered or sold to and should not be offered or sold to any retail investor in the European Economic Area (the **EEA**). For these purposes, a **retail investor** means a person who is one (or both) of: (i) a retail client as defined in point (11) of Article 4(1) of 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. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the **PRIIPs Regulation**) for offering or selling the Notes to retail investors in the EEA has been prepared. Offering or selling the Notes to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

Amounts payable on the Notes in respect of each Reset Period (as defined in "*Terms and Conditions of the Notes*") will be calculated by reference to the mid-swap rate for euro swaps with a term of 5 years which appears on the Reuters screen "ICESWAP2" as of 11:00 a.m. (Central European Time) on the relevant Reset Determination Date (as defined in "*Terms and Conditions of the Notes*") which is provided by ICE Benchmark Administration Limited or by reference to the 6-month Euro interbank offered rate (**EURIBOR**), which is provided by the European Money Markets Institute. As at the date of this Prospectus, ICE Benchmark Administration Limited and the European Money Markets Institute each appear on the register of administrators and benchmarks established and maintained by the European Securities and Markets Authority pursuant to Article 36 of the Regulation (EU) No. 2016/1011 (the **Benchmarks Regulation**).

#### STABILISATION

IN CONNECTION WITH THE ISSUE OF THE NOTES, BNP PARIBAS (THE **STABILISATION MANAGER**) (OR PERSON(S) ACTING ON BEHALF OF THE STABILISATION MANAGER) 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, STABILISATION MAY NOT NECESSARILY OCCUR. ANY STABILISATION ACTION MAY BEGIN ON OR

AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE TERMS OF THE OFFER OF THE NOTES IS MADE AND, IF BEGUN, MAY CEASE AT ANY TIME, BUT IT MUST END NO LATER THAN THE EARLIER OF 30 DAYS AFTER THE ISSUE DATE OF THE NOTES AND 60 DAYS AFTER THE DATE OF THE ALLOTMENT OF THE NOTES. ANY STABILISATION ACTION OR OVER-ALLOTMENT MUST BE CONDUCTED BY THE STABILISATION MANAGER (OR PERSONS ACTING ON BEHALF OF THE STABILISATION MANAGER) IN ACCORDANCE WITH ALL APPLICABLE LAWS AND RULES.

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## OVERVIEW

The following overview refers to certain provisions of the “Terms and Conditions of the Notes” and is qualified by the more detailed information contained elsewhere in this Prospectus. Capitalised terms used herein have the meaning given to them in “Terms and Conditions of the Notes”, as appropriate.

<b>Issuer</b>	EDP – Energias de Portugal, S.A.
<b>Issue size</b>	€750,000,000
<b>Issue Date</b>	20 January 2020
<b>Maturity</b>	20 July 2080 (unless redeemed earlier by the Issuer in accordance with the Conditions)
<b>Subordination</b>	The Notes will rank: <ul style="list-style-type: none"><li>(a) junior to all Senior Obligations of the Issuer;</li><li>(b) <i>pari passu</i> with each other and with the obligations of the Issuer in respect of any Parity Security; and</li><li>(c) senior only to the Issuer's ordinary shares and any other class of share capital of the Issuer that ranks <i>pari passu</i> with ordinary shares.</li></ul>

**Parity Security** means: (i) any security issued by the Issuer which ranks, or is expressed to rank, *pari passu* with the Notes; and (ii) any security guaranteed by, or subject to the benefit of a keep well agreement or support undertaking entered into by, the Issuer where the Issuer's obligations under the relevant guarantee, keep well agreement or support undertaking rank *pari passu* with the Issuer's obligations under the Notes.

**Senior Obligations** means all obligations of the Issuer (including any obligation assumed by the Issuer under any guarantee of, or any keep well agreement) other than the obligations of the Issuer in respect of any Parity Security or the Issuer Shares.

<b>Interest Payment Dates</b>	Subject to any interest deferral (as described below), interest payments in respect of the Notes will be payable in arrear on 20 July of each year. The first payment (representing a short first coupon for the period from and including the Issue Date to but excluding 20 July 2020 and amounting to €845.36 per €100,000 in Principal Amount of Notes) shall be made on 20 July 2020.
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<b>Interest</b>	The Notes bear interest on their Principal Amount at: <ul style="list-style-type: none"><li>(a) from and including the Issue Date to but excluding 20 July 2025 (the <b>First Reset Date</b>), 1.700 per cent. per annum;</li><li>(b) from and including the First Reset Date to but excluding 20 July 2030 (the <b>First Step-Up Date</b>), the relevant Reset Rate of Interest;</li><li>(c) from and including the First Step-Up Date to but excluding the Second Step-Up Date, the relevant Reset Rate of Interest plus 0.25 per cent. per annum; and</li><li>(d) from and including the Second Step-Up Date to but excluding the Maturity Date, the relevant Reset Rate of Interest plus 1.00 per cent. per annum,</li></ul>
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each subject to, in the case of a Change of Control Event and unless redeemed early following such Change of Control Event, an increase of 5.00 per cent. per annum.

**Second Step-Up Date** means: (A) if, at any time between the Issue Date and the 30th calendar day preceding the First Reset Date, the Issuer is assigned an issuer credit rating of “BBB-” or above by Standard & Poor’s and does not, on the 30th calendar day preceding the First Reset Date, have an issuer credit rating assigned to it of “BB+” (or such similar nomenclature then used by Standard & Poor’s) or below, 20 July 2045; and (B) otherwise 20 July 2040.

## **Interest deferral**

The Issuer will have the right to defer interest payments on the Notes, in whole or in part, otherwise scheduled to be paid on an Interest Payment Date.

The Issuer may settle outstanding Deferred Interest Payments (in whole or in part) at any time on the giving of prior notice to the Holders.

Notwithstanding the above, all outstanding Deferred Interest Payments must be settled (in whole and not in part) on the date which is the earlier of:

- (i) the date which is 10 Business Days following the occurrence of a Compulsory Payment Event;
- (ii) the next Interest Payment Date on which any interest is paid on the Notes;
- (iii) the Maturity Date or the calendar day on which the Notes are otherwise redeemed; and
- (iv) the calendar day on which an applicable legally binding resolution or order is made for the winding-up, dissolution or liquidation of the Issuer (other than for the purposes of or pursuant to an amalgamation, reorganisation or restructuring while solvent, where the continuing entity assumes substantially all of the assets and obligations of the Issuer).

Each of the following is a Compulsory Payment Event:

- (A) the shareholders of the Issuer validly approve a proposal to pay a dividend, other distribution or payment on any Issuer Shares, other than any payment in kind using Issuer Shares;
- (B) the Issuer redeems, or the Issuer or any of its Subsidiaries purchases or otherwise acquires, any Issuer Shares for any consideration, except pursuant to the terms of any instrument which converts into Issuer Shares or in connection with the satisfaction by the Issuer of its obligations under any existing or future buy-back programme, share option or free share allocation plan or employee benefit plan or similar arrangement with or for the benefit of employees, officers, directors or consultants;
- (C) the Issuer or any of its Subsidiaries makes any payment of interest, dividend or other distribution or payment on any Parity Securities; and
- (D) the Issuer redeems, or the Issuer or any of its Subsidiaries purchases or otherwise acquires, any of the Notes or any Parity Securities for any consideration, except pursuant to the terms of any instrument which converts into Issuer Shares or Parity Securities,

provided that, in the case of (C) and (D) above, no Compulsory Payment Event will occur if: (x) the Issuer or any of its Subsidiaries are obliged under the Conditions or under the terms and conditions of such Parity Securities to make such payment, redemption, purchase or other acquisition; or (y) the Issuer or any of its Subsidiaries repurchases or otherwise acquires any Notes or any Parity Securities in an open-market tender offer or exchange offer at a consideration per Note or Parity Security below its respective par value.

## **Benchmark Event**

On the occurrence of a Benchmark Event (which, amongst other events, includes the Original Reference Rate ceasing to exist, be administered or be published) the Issuer and an Independent Adviser may determine a Successor Rate, failing which an Alternative Rate and, in either case, an Adjustment Spread, if any, and any Benchmark Amendments in accordance with Condition 3.8.

## **Redemption**

The Notes will mature on the Maturity Date unless redeemed earlier at the option of the Issuer in accordance with the Conditions.

Prior to the Maturity Date, the Issuer may redeem the Notes (in whole but not in part) on any Business Day from (and including) the First Call Date to (and including) the First Reset Date or on any Interest Payment Date falling after the First Reset Date at their Principal Amount, together with any interest accrued up to (but excluding) the relevant Redemption Date and any outstanding Deferred Interest Payments.

The Issuer may also redeem the Notes (in whole but not in part):

- (i) following a Gross-up Event, a Change of Control Event or a Substantial

- Repurchase Event, at their Principal Amount; or
- (ii) following a Tax Event or a Rating Agency Event at:
- (a) if such redemption occurs prior to the First Call Date, 101 per cent. of their Principal Amount; or
- (b) if such redemption occurs on or following the First Call Date, their Principal Amount,

plus any interest accrued up to (but excluding) the Redemption Date and any outstanding Deferred Interest Payments.

## Purchases

The Issuer or any of its Subsidiaries may, in compliance with applicable laws, at any time purchase Notes in the open market or otherwise and at any price. Such acquired Notes may be cancelled, held or resold.

The Issuer intends (without thereby assuming a legal obligation), during the period from and including the Issue Date to but excluding the Second Step-Up Date, that in the event of an early redemption or repurchase of the Notes under the circumstances further described in the section "*Replacement Intention*" in this Prospectus, if the Notes are assigned an "equity credit" by Standard & Poor's at the time of such redemption or repurchase, it will redeem or repurchase the Notes only to the extent the Aggregate Equity Credit of the Notes to be redeemed or repurchased does not exceed the Aggregate Equity Credit received by the Issuer or any Subsidiary from the sale or issuance by the Issuer or the relevant Subsidiary to third party purchasers of replacement securities (the **Restrictions**).

For the purpose of the Restrictions, **Aggregate Equity Credit** means:

- (x) in relation to the Notes, the part of the aggregate Principal Amount of the Notes that was assigned "equity credit" by Standard & Poor's at the time of their issuance; and
- (y) in relation to replacement securities, the part of the net proceeds received from issuance of such replacement securities that was assigned "equity credit" by Standard & Poor's at the time of their sale or issuance.

The intention described above does not apply, among other circumstances as fully described in the section "*Replacement Intention*" in this Prospectus:

- i. if, on the date of such redemption or repurchase, the rating assigned by Standard & Poor's to the Issuer is the same as or higher than the long-term corporate credit rating assigned to the Issuer on the date when the Issuer's most recent additional hybrid security was issued (excluding refinancings) and the Issuer is of the view that such rating would not fall below such level as a result of such redemption or repurchase; or
- ii. if, on the date of such redemption or repurchase, the Issuer no longer has a corporate issuer credit rating by Standard & Poor's; or
- iii. in the case of a repurchase of the Notes if such repurchase, taken together with other repurchases of hybrid securities of the Issuer, is of less than (x) 10 per cent. of the aggregate principal amount of the Issuer's outstanding hybrid securities in any period of 12 consecutive months or (y) 25 per cent. of the aggregate principal amount of the Issuer's outstanding hybrid securities in any period of 10 consecutive years, provided that in each case such repurchase has no materially negative effect on the Issuer's credit profile; or
- iv. if, on the date of such redemption or repurchase, the statements made in the Restrictions set forth above are no longer required for the Notes to be assigned an "equity credit" by Standard & Poor's that is equal to or greater than the "equity credit" assigned by Standard & Poor's on the Issue Date; or

- v. if such replacement would cause the Issuer's outstanding hybrid capital which is assigned "equity credit" by Standard & Poor's to exceed the maximum aggregate principal amount of hybrid capital which Standard & Poor's, under its then prevailing methodology, would assign "equity credit" to based on the Issuer's adjusted total capitalisation.

The statements of intention above summarise the statements of intention contained in the section "*Replacement Intention*" in this Prospectus. Please refer to that section for complete information in this regard.

**Withholding taxation and gross-up** Payments of interest and other amounts in respect of the Notes will be made free of Portuguese withholding taxes, unless such taxes are required to be withheld by law. If any such withholding or deduction is made, additional amounts will be payable by the Issuer, subject to certain exceptions as provided in Condition 6.

**Events of Default** If any of the events below (an **Event of Default**) occurs and is continuing then Holders holding not less than one quarter of the aggregate Principal Amount of the Notes then outstanding may declare the Notes immediately due and payable:

- (i) upon the initiation of, or consent to, the liquidation, winding-up or dissolution of the Issuer or the Issuer admits in writing its inability to pay its debts as and when the same fall due; or
- (ii) the application to any court (that remains undischarged for sixty days) for, or the making by any court of, an insolvency order against the Issuer; or
- (iii) the appointment by any court of an insolvency administrator or other similar officer over all or any part of the Issuer's assets (that remains undischarged for sixty days); or
- (iv) if default is made in the payment of any principal or interest amount that is due and payable in respect of the Notes or any of them and the default continues for a period of 30 days,

provided that no such event shall constitute an Event of Default if it is being contested in good faith by appropriate means by the Issuer and the Issuer has been advised by recognised independent legal advisers of good repute that it is reasonable to do so.

**Voting rights** The Notes do not entitle Holders to participate in, or to vote at, any general meeting of the shareholders of the Issuer.

**Denomination** The Notes are issued in the denomination of €100,000.

**Listing and admission to trading** Applications have been made to Euronext Dublin for the Notes to be admitted to listing on the Official List and trading on its regulated market.

**Governing Law** The Notes, and any non-contractual obligations arising out or in connection with the Notes, are governed by English law (with the exception of Conditions 1 and 2 which will be governed by Portuguese law). The form ("*forma de representação*") and transfer of the Notes, creation of security over the Notes and the Interbolsa procedures for the exercise of rights under the Notes are governed by, and shall be construed in accordance with, Portuguese law.

**Clearing** The Notes will be represented in dematerialised book-entry ("*escriturais*") and nominative ("*nominativas*") form with the CVM and registered and cleared through the system operated by Interbolsa. The CVM currently has links in place with Euroclear Bank SA/NV and Clearstream Banking S.A. through securities accounts held by Euroclear Bank SA/NV and Clearstream Banking S.A. with affiliate members of Interbolsa.

**Ratings:** The Notes are expected to be rated Ba2 by Moody's, BB by Standard & Poor's and BB by Fitch. A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time by the assigning rating organisation. As of the date of this Prospectus, each of Moody's, Standard & Poor's and Fitch is a credit rating agency established in the EU and registered under the CRA Regulation.

<b>Use of Proceeds:</b>	The net proceeds from the issue of the Notes are intended to be used by the Issuer towards the Issuer’s Eligible Green Projects portfolio. See " <i>Use of Proceeds</i> ".
<b>Selling Restrictions:</b>	The Notes have not been and will not be registered under the Securities Act and, subject to certain exceptions, may not be offered or sold within the United States. The Notes may be sold in other jurisdictions (including the EEA, the United Kingdom and Portugal) only in compliance with applicable laws and regulations. See " <i>Subscription and Sale</i> ".
<b>Risk Factors:</b>	Prospective investors should carefully consider the information set out in the section entitled " <i>Risk Factors</i> " in conjunction with the other information contained or incorporated by reference in this Prospectus.
<b>ISIN:</b>	PTEDPLOM0017
<b>Common Code:</b>	210504192
<b>CVM Code:</b>	EDPLOM

## RISK FACTORS

An investment in the Notes involves risks. Prospective investors should carefully consider all of the information in this Prospectus and the documents incorporated by reference herein, including the following risk factors, before deciding to invest in the Notes. The actual occurrence of any of the following events could have a material adverse effect on the Issuer's business, financial condition, prospects or results of operations which may adversely affect the Issuer's ability to make payments and fulfil its other obligations under the Notes.

The risk factors described below consist of a limited selection of specific risks which the Issuer considers to be of most relevance to investors when the investor is making an investment decision. Additional risks not currently known or which are currently deemed immaterial may also have a material adverse effect on the Issuer's business, financial condition, prospects or results of operations or result in other events that could lead to a diminution of the Issuer's ability to fulfil its obligations under the Notes.

References in this section to "EDP" or the "EDP Group" are to EDP and its subsidiaries

### Introduction

The risk factors described below are those that the Issuer believes are material and specific to the Issuer and that may affect the Issuer's ability to fulfil its obligations under the Notes. The risk factors have been organised into the following categories:

1. Risks relating to the strategy of EDP;
2. Risks relating to EDP's business activities;
3. Risks relating to EDP's operational activities;
4. Risks relating to the financial markets and financial activities of EDP;
5. Risks relating to the structure of the Notes;
6. Risks relating to certain terms of the Notes;
7. Risks relating to the market for the Notes; and
8. Risks related to withholding tax.

Within each category, the most material risks, in the assessment of the Issuer, are set out first. The Issuer has assessed the relative materiality of the risk factors based on the probability of their occurrence and the expected magnitude of their negative impact. The order of the categories does not imply that any category of risk is more material than any other category. Prospective investors should read the detailed information set out in this Prospectus (including the documents incorporated by reference herein), in conjunction with each of the risk factors described below, and reach their own views prior to making an investment decision.

### 1. Risks relating to the strategy of EDP

For further information on the strategy of EDP, please see "EDP and the EDP Group - Strategy of EDP".

#### **EDP is exposed to the uncertainty of the macroeconomic, political and social environment.**

EDP's operations are directly related to, among other factors, the general level of economic activity in the countries in which EDP operates. The global economy and the global financial system have in recent years experienced periods of significant turbulence and uncertainty, including a very severe dislocation of the financial markets and stress to the sovereign debt and economies of certain European Union countries including Portugal and Spain where EDP has a significant presence. This market dislocation has been accompanied by recessionary conditions and trends in many economies throughout the European Union. EDP is not able to predict how the economic cycle is likely to develop in the short-term or the coming years or whether there will be a deterioration of the economic situation globally or in Portugal, Spain or any other country where EDP operates. As a result of such recessionary conditions or economic deterioration, and any resultant loss of liquidity in the global economy, executing EDP's strategy could prove to be more challenging. For more information see "EDP and the EDP Group – Strategy of EDP".

Additionally, the EDP Group is subject to risks associated with the instability of the political and social environment in each of the jurisdictions where it operates, which may adversely impact the EDP Group's business, financial condition, prospects or results of operations.

#### **EDP may not be able to keep pace with technological changes in the rapidly evolving energy sector which could adversely impact its ability to increase, or maintain, its competitiveness.**

The technologies used in the energy sector have undergone rapid changes in the past and may in the future continue to change rapidly as EDP's techniques to generate, distribute and retail electricity are constantly improving

and becoming more complex. In order for EDP to maintain its competitiveness and to expand its business, it must effectively adjust to such technological changes. In particular, technologies related to power generation, electricity transmission, distribution and supply of energy related services are constantly updated and modified. If EDP is unable to modernise its technologies quickly and regularly and to take advantage of industry trends, it could face increased pressure from competitors and lose market share / positioning and customers in the markets in which it operates. EDP could also lose valuable opportunities to expand its operations in existing and new markets if it is unable to integrate new technologies into its operations.

***EDP may be exposed to additional risks if it performs mergers and acquisitions ("M&A") activities.***

EDP may seek opportunities to expand its operations in the future through strategic acquisitions or re-focus its core business activities or markets through strategic and/or non-core divestments. EDP plans to assess each investment based on extensive financial and market analysis, which may include certain assumptions. Additional investments or divestments could have a material adverse effect on the EDP Group, or EDP may fail to complete necessary additional investments or divestments, as a result of any of the following circumstances or other factors:

- EDP may incur substantial costs, delays or other operational or financial problems in integrating or splitting acquired businesses;
- EDP may not be able to identify deal opportunities that allow it to divest certain assets, whether through changes in the buyers' appetite or through any other effect leading to similar consequences;
- EDP may not be able to identify, acquire or profitably manage additional businesses;
- acquisitions or divestments may adversely affect EDP's operating results;
- acquisitions or divestments may divert management's attention from the operation of EDP's existing businesses;
- EDP may not be able to retain key personnel of acquired or divested businesses;
- EDP may encounter unanticipated events, circumstances or legal liabilities;
- EDP may have difficulties in obtaining the required financing or the required financing may only be available on unfavourable terms; and
- EDP may be subject to counterparty risk with respect to the fulfilment of contractual obligations, in particular payment of the price of the divested businesses.

***EDP is subject to increasing competition in the markets or regions where it operates.***

Structural changes in competition in the markets where EDP operates, either at the electricity generation level or energy supply level, have an impact on EDP's business activity, such as new entrants to the market, declines in demand, excess capacity or the launch of marketing campaigns, products or services. EDP may also be unsuccessful in obtaining licences for the construction or operation of new power plants and for necessary interconnection rights and it could therefore be unable to maintain or increase its generation capacity or market share. Additionally, improvements in electricity connections with other markets or regions that have excess capacity or lower energy prices than those in which EDP operates power plants may also affect the profitability of EDP's power plants in the future as EDP is made to compete with new suppliers.

EDP also faces competition with respect to its transmission and distribution businesses, namely through competitive bids in auctions for concessions in the different geographies where EDP is present or prospects new business. Increased competition could adversely affect the profitability and growth of this particular business and, in turn, the profitability of EDP.

With respect to the development of wind and solar power generation, EDP primarily faces competition in acquiring available sites and grid interconnection rights, and in setting prices for energy produced. Although EDP has generally been able to obtain a number of interconnection rights through tender processes in the past, there is no certainty that it will be able to obtain such rights in the future, particularly in light of an increasingly competitive environment. Failure to obtain these rights may cause delays to, or prevent the development of, EDP's wind and solar power projects and affect the recoverability of any cost incurred. In addition, EDP's existing or future interconnection rights may not be sufficient to allow EDP to deliver electricity to a particular market or buyer. Wind and solar farms can be negatively affected by transmission congestion when there is insufficient available transmission capacity, which could result in lower prices for wind and solar farms selling power into locally priced markets, such as certain U.S. markets.

**2. *Risks relating to EDP's business activities***

For further information on the business of EDP, please see "*EDP and the EDP Group*".

***The selling price and gross profit per unit of energy sold by EDP may decline significantly due to a deterioration in market conditions and/or exposure to the local market of certain power plants.***

A decline in gross profit per unit of electricity or natural gas sold may result from a number of different factors, including (i) an adverse imbalance between supply and demand in the electricity and natural gas markets in the countries in which EDP operates or in other related energy markets, (ii) the performance of international and/or regional energy prices such as oil, natural gas, coal, CO<sub>2</sub> allowances and green certificates, (iii) below average rainfall or wind speed and solar incidence levels, (iv) higher cost of power plant construction or (v) a change in the technological mix of installed generation capacity. The gross profit per unit of energy sold in liberalised energy markets can also be affected by administrative decisions imposed by legislative and regulatory authorities in the countries in which EDP operates. For example, EDP may not be able to renew its electricity/gas agreements on the same or similar terms due to the selling price or the gross margin of electricity/gas being worse than their actual market value. In the Iberian Peninsula, the volatility of EDP's gross profit per unit of electricity and natural gas sold can be particularly significant in its activities in the liberalised electricity and natural gas markets, which are fully exposed to market risk. If the difference between the market price for electricity and the marginal generation cost (which depends primarily on fuel and CO<sub>2</sub> costs) available at its thermal plants is too low, EDP's thermal plants may not generate electricity or electricity generation may be limited.

In addition, certain power plants operating in Portugal that still benefit from the CMEC mechanism will stop benefiting from such mechanism gradually (power plant by power plant) until 2027 and will become fully subject to market prices at such time. Moreover, the power plants still benefiting from the CMEC mechanism have, from 2017 onwards, entered into the final 10-year period of the mechanism, in which a final 10-year prospective adjustment amount to the initial CMEC compensation amount has been calculated by the relevant authorities and is due to EDP. Such final 10-year prospective adjustment amount has not been fully accepted by EDP and is currently under dispute. In any case, the amount of the final 10-year prospective adjustment may not reflect entirely the evolution of the market prices and other variables for the next 10-year period and, as such, the power plants still benefiting from the CMEC regime will be partially exposed to the risk of market prices.

Payments for electricity sold by certain EDP's wind and solar farms depend, at least in part, on market prices for electricity. In certain countries, such as the United States, EDP sells its wind and solar power output mainly through long-term Power Purchase Agreements ("**PPAs**"), which set the sale price of electricity for the duration of the contract. When a PPA is not executed due to market conditions or as part of a commercial strategy, EDP sells its electricity output in wholesale markets in which it is fully exposed to market risk volatility. In jurisdictions where combinations of regulated incentives are used (such as green certificates, and market pricing), the regulated incentive component may not compensate for fluctuations in the market price component, and thus total remuneration may be volatile.

In Brazil, the electricity generated by EDP's power plants is primarily sold through PPAs, while EDP's electricity distribution business, in accordance with certain regulatory rules, has the ability to pass its electricity procurement costs through to customers when the contracted energy level is between pre-defined boundaries. Nevertheless, payments for electricity sold by EDP's electricity generation, distribution and supply activities in Brazil can be affected by significant changes in electricity market prices, particularly those due to extremely dry periods, wide fluctuations in electricity demand and changes of EDP's electricity distribution concession areas. Prices for new PPAs both for electricity generation plants under development or in operation are set through public tenders and can change significantly due to changes in competitive pressures and/or the regulatory environment.

EDP currently uses and may in the future continue to use various financial and commodity hedging instruments relating to electricity, carbon emissions, fuel (coal and natural gas) and foreign exchange, as well as bilateral PPAs and long-term fuel supply agreements, in order to mitigate market and price volatility risks. However, EDP may not be successful in using hedging instruments or long-term agreements, or it may not effectively anticipate and hedge against such risks.

***The profitability of EDP's hydro, wind and solar power plants are dependent on weather conditions.***

Electricity generation output from EDP's hydro, wind and solar power plants in operation, as well as expected levels of output from power plants under construction and under development, are highly dependent on weather conditions, particularly rainfall, wind and sunshine hours, which vary substantially across different locations, seasons and years. For example, in respect of hydro power plants, the upstream use of river flows for other purposes, restrictions imposed by legislation or the impact of climate change may result in a reduction in water flow available for electricity generation. In respect of wind power plants, turbines will only operate when wind speeds fall within certain operating ranges that vary by turbine type and manufacturer. If wind speeds fall outside or towards the lower end of these ranges, energy output at EDP's wind farms declines. As for solar farms, the incidence of solar energy constrains the production of electricity, existing specific operating ranges, particularly affected by temperature extremes. In respect to thermal plants, the hydro volumes of the year may also impact profitability, for instance restricting the use of water in the refrigeration processes. EDP cannot guarantee that actual weather conditions at a project site will conform

to the assumptions that were made during the project development phase and, therefore, it cannot guarantee that its hydro, wind and solar power plants will be able to meet their anticipated generation levels.

***The profitability of EDP's thermal power plants and gas supply activities is dependent on the reliability of EDP's access to fossil fuels, namely coal and natural gas, in the appropriate quantities, at the appropriate times and under competitive pricing conditions.***

EDP's thermal power plants need to have ready access to fossil fuels, particularly coal and natural gas, in order to generate electricity. EDP's strategy for fossil fuels procurement is to enter into long-term and short-term purchase agreements to cover any potential contingencies. Although EDP has such long-term purchase agreements for fossil fuels in place and corresponding transportation agreements, EDP cannot be certain that there will be no disruptions in its supply of fossil fuels. The adequacy of this supply also depends on shipping and transportation services involving various third parties. In the event of a failure in the supply chain of fossil fuels, EDP may not be able to generate electricity in some or all of its thermal power plants or may not be able to comply with the terms of existing PPAs for contracted power plants.

For example, the Pecém coal plant in Brazil, which operates under a long-term PPA, is able to pass on its fossil fuel cost in accordance with the terms of the PPA. However, the profitability of this plant could be reduced if available levels of fossil fuels are below contracted levels, for example, due to a shortage of fossil fuels. In the Iberian Peninsula's liberalised market, EDP's ordinary regime thermal power plants are fully exposed to changes in fossil fuel costs, including related taxes

The gas that EDP buys for use in its combined cycle gas turbine power plants ("CCGTs") or to supply its gas customers in Portugal and Spain is currently furnished primarily through long-term contracts and delivered both through liquefied natural gas ("LNG") terminals and international pipelines. The supply chain of gas to the Iberian Peninsula passes through several countries and involves gas production and treatment, transport through international pipelines and by ship, and processing in liquefaction terminals. This supply chain is subject to political and technical risks. Although these risks are often addressed in force majeure clauses in supply, transit and shipping contracts that may, to a certain extent, mitigate contractual risk by shifting it to the end-user market, contractual provisions do not mitigate other risks that might lead to diminished margins and loss of profits. In addition, any capacity, access or operational restrictions imposed by the transmission system operator on the use of LNG terminals, international grid connections or domestic grid connections may impair normal supply and sales activities, and such circumstances involve additional contractual risks that could lead to a reduction in profits.

EDP's long-term gas procurement contracts have prices indexed largely to benchmark oil price related indices in Europe and the Middle East and to benchmark gas prices in the United States and Europe. Under the terms of these gas contracts, EDP commits to purchasing a minimum amount of gas for a certain period of time through "take-or-pay clauses". Any structural change on international markets of gas may create significant differences between indexes, rising basis risk and decreasing the competitiveness of contracts, although risk is mitigated by EDP through hedging strategies for the short to medium-term. As a result, under certain circumstances, EDP may have to purchase more gas than it needs to operate its CCGTs or supply its gas customers, which may cause disruptions in the supply chain of natural gas and/or the enforcement of "take-or-pay" clauses and, in turn, affect the profitability of EDP's CCGTs or gas supply activity.

***EDP's operating results are highly affected by laws and regulations implemented by multiple public entities in the various jurisdictions in which it operates.***

EDP's operations include the generation, transmission, distribution and supply of electricity and related services (including the development, construction, licensing and operation of power plants, transmission and distribution grids), and supply of natural gas in several jurisdictions pursuant to concessions, licences and other legal or regulatory permits, as applicable, granted by the governments, municipalities and regulatory entities in such jurisdictions. EDP's most extensive operations are in Portugal, Spain, Brazil, the United States, Romania, France, Italy, Poland, Mexico, Belgium, Canada, the United Kingdom and Greece. The laws and regulations affecting EDP's activities in these countries may vary by jurisdiction and may be subject to modifications, including those resulting from ordinary expiry of regulatory periods, unilateral imposition by regulators and legislative authorities or as a result of judicial or administrative proceedings or actions. Furthermore, additional laws and regulations may be implemented, including those enacted as a result of actions filed by third parties or lobbying by special interest groups. Any of those changes may make such laws and regulations more restrictive or in other ways less favourable to EDP.

In particular, the development and profitability of renewable energy projects is significantly dependent on policies and regulatory frameworks that support such development. Many states in the United States, the U.S. federal government, and many Member States of the European Union, including European countries in which EDP operates or has pipeline projects, have adopted policies and measures that actively support renewable energy projects. Support for renewable energy sources has been strong in past years and EDP has benefited from such support. In the United States, the federal government has supported renewable energy primarily through income tax incentives. Historically, the main tax incentives for wind and solar projects have been the US federal Production Tax Credit ("PTC"), the five-year

depreciation for eligible assets under the Modified Accelerated Cost Recovery System ("MACRS") and the Investment Tax Credit ("ITC"). In addition, many US state governments have implemented Renewable Portfolio Standards ("RPS"), which typically require that a certain percentage of the electricity supplied by a utility to consumers within such state is to be covered by renewable resources. The European Union has implemented energy targets for 2030, which are, for the most part, particularly in relation to energy efficiency and renewable energy, not binding on a national level. EDP cannot guarantee that such support, policies or regulatory frameworks in the jurisdictions in which it operates will be maintained.

Some of the EDP Group's operators are subject to concessions, licences and permits which are granted for fixed periods of time or are subject to early termination or revocation ("*revogação*" or "*resgate*") under certain circumstances, including as a result of legal proceedings, challenges, disputes, legal or regulatory changes or failure to comply with the terms of the relevant concession, licence or permit. Upon termination of a concession or the expiration of a licence or permit, the fixed assets associated with such concessions, licences or permits, in general, revert to the government or municipality, which granted the relevant concession, licence or permit. Under these circumstances, although specified compensatory amounts might be payable to EDP with respect to these assets, such amounts, if any, may not be sufficient to compensate EDP for its actual or anticipated loss. Moreover, the expiration or termination of concessions, licences or permits might limit EDP's ability to conduct its business in an entire jurisdiction. For more information on the termination of the low voltage distribution concession agreements and the upcoming public tenders, please see "*Regulatory Framework*".

Within this remit, the EC announced the opening of infringement proceedings against eight Member States, including Portugal, raising doubts as to the compatibility with EU law of national legislation and past governmental practices on the award and renewal of hydropower concessions. Regarding Portugal, the EC questioned the Portuguese Government about the compatibility under EU law of the alleged extension in 2008 of the contracts for the use of water public domain resources concerning the hydro power plants of EDP benefitting from CMEC stranded costs compensation, approved by the EC in 2004.

EDP's business is also affected by other general laws and regulations in the various jurisdictions in which it operates, including taxes, levies and other charges, which may be amended, or subject to varying interpretations, from time to time. Rapid or significant modification in such laws and regulations could impose additional costs on EDP, such as compliance costs or the restriction of business opportunities, among others. EDP cannot guarantee that current laws and regulations will not be rapidly or significantly modified or that their interpretation by relevant authorities will differ in the future, whether in response to public pressure or initiated by regulatory, judicial or legislative authorities.

In addition, as of the date of this Prospectus, there are certain laws and regulations that may in the future become applicable to EDP and/or the business activities in which EDP is engaged, which could have a material adverse effect on the EDP Group's business, financial condition, prospects and/or results of operations.

***EDP's business activity is impacted by potential climate change risks.***

Climate change may have a significant and wide-spread impact on EDP's and its stakeholders' activities over the medium to long-term. In accordance with the framework set by the Task Force on Climate-related Financial Disclosures, a task force set up by the G20's Financial Stability Board to develop a voluntary framework for companies to discuss the financial impact of climate related risks and opportunities, EDP's climate change related risks can be considered two-fold. Firstly, EDP faces transition risks related to the adoption of low-carbon strategies implemented to prevent and mitigate the effect of climate change, such as regulatory incentives and penalties, carbon pricing systems, energy efficiency solutions and low carbon products/services. The implementation of such policies to promote carbon reduction may impact the operations of EDP, namely the operations of EDP's thermal plants. Secondly, EDP faces physical risks related with the change of physical parameters, such as changes to average temperatures, average sea levels, structural changes in water and/or wind volumes and solar exposure, or the incidence of extreme climatic events, such as storms floods, or temperature extremes that would result in a significant impact on EDP's hydro, wind and solar generation revenues as well as on assets resilience. EDP may not be able to predict, mitigate or adapt for the long-term physical changes associated with such climate change which may in turn and adversely impact EDP's assets, business financial condition, prospects and results of operations.

***EDP's profitability may be affected by significant changes in energy demand in each of the countries where it operates.***

Significant changes in the demand for electricity and natural gas in the markets in which EDP operates may have an impact on the profitability of EDP's business activities, such as generation and supply activities. EDP's investment decisions take into consideration the company's expectations regarding the evolution of demand for electricity and natural gas, which may be significantly affected by the economic conditions of the countries in which EDP sells and distributes electricity and sells natural gas, but also by a number of other factors including governmental policies, regulation, tariff levels, environmental and climate conditions and competition. Significant changes in any of these variables may affect levels of per capita energy consumption, which could vary substantially from EDP's expectations.

***EDP's business is subject to, and constrained by, environmental, health and safety laws and regulations.***

EDP's businesses are subject to numerous environmental regulations. These include national, regional and local laws and regulations of the different countries in which EDP operates, as well as supra-national laws, particularly European Union regulations and directives and international environmental agreements. More restrictive or less favourable regulations, or the stricter interpretation of current regulations, such as an obligation to modify existing power plants and associated facilities or the implementation of additional inspection, monitoring, clean up or remediation procedures, could lead to changes in EDP's operating conditions that might require additional capital expenditures, increase its operating costs or otherwise hinder the development of its business. Environmental regulations affecting EDP's business primarily relate to air emissions, water and soil pollution, waste disposal and electromagnetic fields.

EDP continues to operate according to its current CO<sub>2</sub> management practices and according to existing legislation and regulations regarding these emissions. There can be no assurance, however, that EDP will manage its CO<sub>2</sub> emissions to be less than or equal to the number of emission allowances it holds (or otherwise acquires) nor that the current relevant European or local laws, regulations and targets will not be subject to change in the future.

Apart from CO<sub>2</sub>, the major waste products of electricity generation using fossil fuels are sulphur dioxide, nitrogen oxide, and particulate matter, such as dust and ash. A primary focus of the environmental regulations applicable to EDP's business is to reduce these emissions, and EDP may have to incur significant costs in the future to comply with environmental regulations that require the implementation of preventive, mitigation or remediation measures. Environmental regulation may include emission limits, cap-and-trade mechanisms, taxes or remediation measures, among others, and may determine EDP's policies in ways that affect its business decisions and strategy, notably discouraging the use of certain fuels.

EDP has incurred, and will continue to incur, regular capital and operating expenditures and other costs in the ordinary course of business in complying with safety and environmental laws and regulations in the jurisdictions in which it operates. Although EDP does not currently anticipate any significant capital expenditures in connection with environmental regulations outside of the ordinary course of business, EDP can provide no assurance that such capital expenditures will not be incurred or required in the future. Additionally, EDP may incur costs outside of the ordinary course of business to compensate for any environmental or other harm caused by its facilities or to repair damages resulting from any accident or act of sabotage.

In certain jurisdictions, EDP may be under a legal or contractual obligation to dismantle its facilities and restore the related site to a specified standard at the end of its operating term. In some cases, EDP is required to provide collateral for these obligations. EDP generally includes a provision in its accounts for dismantling costs based on its estimates of the costs, but there is no guarantee that this will reflect all its dismantling obligations costs or the real costs incurred or to be incurred, meaning EDP may experience higher than expected costs.

Violations of environmental laws protecting migratory birds and endangered species in certain jurisdictions may also result in criminal penalties and fines. EDP's operational performance and profitability may also be adversely affected by changes in health and safety regulations in the future. Changes in health and safety regulations may affect the design of industrial equipment in the future or the manner in which EDP's power plants are constructed, including in ways that adversely affect EDP's operational performance or EDP's profitability, business, financial condition, prospects and results of operations.

***Increased competition in electricity and natural gas supply in liberalised markets in the Iberian Peninsula may reduce EDP's margins and its ability to sell electricity and natural gas to value added final customers.***

The current customer migration to the liberalised market following the implementation by Portugal and Spain of European Union directives, which are intended to create competitive electricity and natural gas supply markets, has enhanced the aggressiveness of retail offers from suppliers competing with EDP and added additional volatility in terms of market shares and unit price margins. Moreover, there is a risk that the liberalised market may result in deviations in actual consumption that differ from the EDP Group's forecasting model. EDP may not be able to anticipate the various risks and opportunities that may arise from the liberalisation in the Iberian Peninsula's electricity and natural gas markets, and the eventual end of the role of last resort suppliers in the regulated market, which may adversely impact the EDP Group's business, financial condition, prospects and results of operations.

***EDP's cash flow is subject to possible changes in the amounts and timings of the recovery of the regulatory receivables from the energy systems.***

EDP has annually recognised an amount of regulatory receivables in its statement of financial position that is related to its regulated business activities in Portugal, Spain and Brazil. These regulatory receivables are to be recovered from the energy system within a pre-determined time period, set by the relevant regulator, and any changes in the amount and timings of the recovery of such receivables may have an impact on EDP's cash flow. For instance, with respect to regulated energy distribution and supply activities in Portugal and Brazil, as well as the generation activities in Spain, a tariff deficit/surplus is generated whenever market conditions are different from the regulator's assumptions

when setting electricity tariffs for a certain year or, in case of deficit, when the regulator or the government decides not to recover all system costs in a given year and defer the payment of such regulatory receivables for a number of years. In the past, significant amounts of regulatory receivables were generated, mostly in Portugal, Spain and Brazil, meaning that revenues collected through electricity final tariffs were not sufficient to cover electricity system costs. In Portugal, EDP has been able to sell a significant part of its right to receive payment for these amounts without recourse, but a portion is still pending to be recovered from the relevant regulators. There can be no assurance that, in the future, new amounts of regulatory receivables will not continue to be generated or that final amounts received will not be different from the amounts initially expected or that EDP will be able to monetise them. For more information see "*Regulatory Framework – European Energy Policy – Iberian Peninsula*".

***EDP may in the future be subject to a change of control.***

Being the issuer of shares listed on a stock exchange, the Issuer's shares may be the subject of a tender offer or the subject of any transaction resulting in one or more entities acquiring control of the majority of voting rights in the Issuer.

In connection with any change of control, a majority shareholder may have, directly or indirectly, the power to affect, among other things, the capital structure, asset base and the day-to-day operations of EDP, as well as the ability to elect and change the management of EDP and the ability to approve other changes to the operations and strategies of EDP, in each case, without the consent of holders of the Notes.

**3. *Risks relating to EDP's operational activities business***

***EDP may encounter problems and delays in constructing or connecting its electricity generation, transmission and distribution facilities.***

EDP faces risks relating to the construction of its electricity generation, transmission and distribution facilities, including risks relating to the availability of equipment from reliable suppliers, availability of building materials and key components, availability of key personnel, including qualified engineering personnel, delays in construction timetables and completion of the projects within budget and estimate date of commissioning and to required specifications. EDP may also encounter various setbacks such as adverse weather conditions, difficulties in connecting to electricity transmission grids, construction defects, delivery failures by suppliers, unexpected delays in obtaining zoning and other permits and authorisations or legal actions brought by third parties. Such problems or delays could expose EDP to a variety of costs, including, among others, increasing EDP's construction costs, exposing it to contractual damages, or delaying when EDP expects to begin accruing benefits under such facilities or contracts. In addition, a decision to postpone or cancel construction of a project may lead to penalties and a loss of payments performed, for example, in connection with concession license rights.

***EDP's assets could be damaged by natural and man-made disasters and EDP could face civil liabilities or other losses as a result.***

EDP's assets could be damaged by fire, storms, acts of terrorism, and other natural or man-made disasters. While EDP seeks to take precautions against such disasters, maintain disaster recovery strategies and purchase levels of insurance coverage that it regards as commercially appropriate should any damage occur and be substantial, EDP could incur losses and damages not recoverable under insurance policies in force, which may in turn impact EDP's assets, business, financial condition, prospects or results of operations.

Such events could cause severe damage to EDP's power plants, distribution networks and facilities, requiring extensive repair or the replacement of costly equipment and may limit EDP's ability to operate and generate income from such facilities for a period of time. Such incidents could also cause significant damage to natural resources or property belonging to third parties, or personal injuries, which could lead to significant claims against EDP and its subsidiaries. The insurance coverage that EDP maintains for such natural disasters, catastrophic accidents and acts of terrorism may become unavailable or be insufficient to cover losses or liabilities related to certain of these risks.

Furthermore, the consequences of these events may create significant and long-lasting environmental or health hazards and pollution and may be harmful or a nuisance to neighbouring residents. EDP may be required to pay damages or fines, clean up environmental damage or dismantle power plants in order to comply with environmental or health and safety regulations. Environmental laws in certain jurisdictions in which EDP operates, including the United States, impose liability, and sometimes liability without regard to fault, for releases of hazardous substances into the environment. EDP could be liable under these laws and regulations at current and former facilities and third party sites.

EDP may also face civil liabilities or fines in the ordinary course of its business as a result of damages to third parties caused by the natural and man-made disasters mentioned above. These liabilities may result in EDP being required to make indemnification payments in accordance with applicable laws that may not be fully covered by its insurance policies.

EDP has an interest in a nuclear power plant through EDP España, S.A.U. (formerly Hidroeléctrica del Cantábrico S.A.U., "**EDP España**"), which holds a 15.5 per cent. interest in the Trillo nuclear power plant in Spain. As

required by the international treaties ratified by Spain, Spanish law and regulations limit the liability of nuclear plant operators for nuclear accidents. Spanish law provides that the operator of each nuclear facility is liable for up to €700 million as a result of claims relating to a single nuclear accident. EDP would be liable for its proportional share of this €700 million amount. Trillo has insurance to cover potential liabilities related to third parties arising from a nuclear accident in Trillo for up to €700 million, including environment liability up to the same limit. In the proportion of EDP España's stake in Trillo, EDP could be subject to the risks arising from the operation of nuclear facilities and the storage and handling of radioactive materials.

***EDP's revenues are heavily dependent on the effective performance of the equipment it uses in the operation of its power plants and electricity transmission and distribution networks.***

EDP's business and ability to generate revenue depend on the availability and operating performance of the equipment necessary to operate its power plants and electricity transmission and distribution networks. Mechanical failures or other defects in equipment, or accidents that result in non-performance or under-performance of a power plant or electricity transmission or distribution network may have a direct adverse impact on the revenues and profitability of EDP's activities. The cost to EDP of these failures or defects is reduced to the extent that EDP has the benefit of warranties or guarantees provided by equipment suppliers that cover the costs of repair or replacement of defective components or mechanical failures, or the losses resulting from such accidents can be partially recoverable by insurance policies in force. However, while EDP typically receives liquidated damages from suppliers for shortfalls in performance or availability (up to an agreed cap and for a limited period of time), there can be no assurance that such liquidated damages would fully compensate EDP for the shortfall and resulting decrease in revenues or penalties incurred, or that such suppliers will be able or willing to fulfil such warranties and guarantees, which in some cases may result in costly and time-consuming litigation or other proceedings.

***Information technology ("IT") system failures could adversely affect EDP's operations.***

EDP's IT systems are critically important in supporting all of its business activities. Failures in EDP's IT systems could result from technical malfunctions, human error, lack of system capacity, security or software breaches. The introduction of new technologies and the development of new uses, such as social networking, expose EDP to new threats. In addition, cyber-attacks and hacking attempts to which companies may fall victim are increasingly targeted and carried out by specialists. Any failure or malfunctioning of EDP's IT systems could seriously affect its businesses and result in, among other things, breaches of confidentiality, delays or loss of data.

***EDP's power plants are susceptible to industrial accidents, and employees or third parties may suffer bodily injury or death as a result of such accidents.***

The design and manufacturing process is ultimately controlled by EDP's equipment suppliers or manufacturers rather than EDP, and there can be no assurance that accidents will not result during the installation or operation of this equipment. Additionally, EDP's power plants, employees or third parties may be susceptible to harm from events outside the ordinary course of business, including natural disasters, catastrophic accidents and acts of terrorism. Such accidents or events could cause severe damage to EDP's power plants and facilities, requiring extensive repair or the replacement of costly equipment and may limit EDP's ability to operate and generate income from such facilities for a period of time. Such incidents could also cause significant damage to natural resources or property belonging to third parties, or personal injuries, which could lead to significant claims against EDP and its subsidiaries. The insurance coverage that EDP maintains for such natural disasters, catastrophic accidents and acts of terrorism may become unavailable or be insufficient to cover losses or liabilities related to certain of these risks.

***EDP is unable to insure itself fully or against all potential risks and may become subject to higher insurance premiums.***

EDP's business is exposed to the inherent risks in the construction and operation of power plants, electricity distribution and transmission grids and other energy related facilities, such as mechanical breakdowns, manufacturing defects, natural disasters, terrorist attacks, sabotage, personal injury and other interruptions in service resulting from events outside of EDP's control. EDP is also exposed to environmental risks, including environmental conditions that may affect, destroy, damage or impair any of its facilities. EDP has taken out insurance policies to cover certain risks associated with its business and it has put in place insurance coverage that it considers to be commensurate with its business structure and risk profile, in line with general market practice. EDP cannot be certain, however, that its current insurance policies will fully insure it against all risks and losses that may arise in the future. Malfunctions or interruptions of service at EDP's facilities could also expose it to legal challenges and sanctions which may not be covered by insurance.

In addition, while EDP has not made any material claims to date under its insurance policies that would make any policy void or result in an increase to the premiums payable in respect of any policy, EDP's insurance policies are subject to annual review by its insurers and EDP cannot be certain that these policies will be renewed at all or on similar or favourable terms.

***EDP may have difficulty in hiring and retaining qualified personnel.***

In order to maintain and expand its business, EDP needs to recruit, promote and maintain executive management and qualified technical personnel. An inability in the future to attract or retain sufficient technical and managerial personnel could limit or delay EDP's development efforts or negatively affect its operations.

***EDP may face labour disruptions that could interfere with its operations and business.***

EDP is subject to the risk of labour disputes and adverse employee relations. Such disputes could result in work stoppages, thereby damaging EDP's operations, or cause EDP to incur additional costs, such as increased labour costs or other liabilities. Although EDP has not experienced any significant labour disputes or work stoppages to date, its existing labour agreements may not prevent a strike or work stoppage at any of EDP's facilities in the future.

***EDP is a party in certain litigation proceedings.***

EDP is, has been, and may be from time to time in the future, subject to a number of claims and disputes in connection with its business activities. EDP cannot ensure that it will prevail in any of these disputes or that it has adequately reserved or insured against any potential losses.

***EDP is subject to an investigation relating to amounts due in connection with the early termination of certain PPAs and the costs for the maintenance of the contractual balance and payments made in connection with its rights in respect of the Public Hydro Domain concession.***

In 2012, the European Commission ("EC") and the Portuguese authorities (Public Prosecution Services) received complaints concerning the early termination of certain PPAs and the costs for the maintenance of the contractual balance ("CMEC"), as well as in respect of EDP's rights to use the Public Hydro Domain ("DPH").

The investigation conducted by the Portuguese authorities, with reference to the above-mentioned complaint, is still pending.

As part of the liberalisation of the power sector in Portugal following changes in European Union legislation, Decree-Law no. 240/2004, of 27 December was introduced which provided for the early termination of PPAs that were signed in 1996. As a result of this required early termination, EDP and REN - Rede Eléctrica Nacional, S.A. ("REN") agreed in 2005 and in 2007 to the early termination of their long-term PPAs, with effect from July 2007. The methodology which was used to determine the amount of the compensation that EDP was entitled to receive in connection with such early termination, the CMEC, was approved by the EC in 2004 (Decision N161/2004) which considered the compensation as effective and strictly necessary. For further information, please see "*Regulatory Framework—Iberian Peninsula Portugal—The Electricity Value Chain—Ordinary Regime*".

On 8 March 2008, the Government, REN and EDP Gestão da Produção de Energia, S.A. ("EDP Produção") signed several service concession arrangements for which EDP Produção paid approximately €759 million as consideration of the economic and financial balance for the use of the public hydro domain.

Following the receipt of the complaints, the EC requested clarifications from the Portuguese State in relation to the early termination of the PPAs and its replacement for the CMEC, and concluded in September 2013 that the compensation payments for early termination did not exceed what was necessary to repay the shortfall in investment costs repayable over the asset's lifetime, and determined that the implementation of the CMEC remains in keeping with the terms notified to, and approved by, the EC in 2004. Thus, the EC decided that no in depth investigation into the CMEC process was necessary.

In May 2017, the EC formally concluded its investigation into the DPH concession rights and stated that the compensation paid in connection with the extension of such concessions was compatible with market conditions. As a result, the EC concluded that the financial methodology used to assess the price of the extension of the concessions was appropriate and resulted in a fair market price, and therefore, no state aid had been granted to EDP.

On 2 June 2017, EDP became aware of Portugal's Public Prosecution Services' investigation (the "**Investigation**") in relation to the amounts due to EDP for the termination of the PPAs and compensation paid by EDP for the DPH concessions. Portugal's Public Prosecution Services stated that the facts under investigation may relate to active and passive corruption and economic participation in business and searches were conducted at the offices of EDP, grid operator REN and the local division of a consulting group. The Portuguese Public Prosecution Services stated that certain members of the Issuer's Executive Board of Directors, as well as former directors of the Issuer, that had signed the relevant contracts, were named as targets of the Investigation.

Although the indicative time limits have been exceeded (which led the targets of the Investigation to present an application asking for an acceleration of the timings of the procedure), as far as the Issuer is aware, since June 2017, no significant progress occurred in the Investigation and none of the targets of the Investigation was even submitted to questioning.

As of the date of this Prospectus, it is too early to determine whether the Investigation will lead to any allegations of wrongdoing or any criminal or civil prosecutions.

The Issuer does not accept any accusations of wrongdoing on its part or on the part of any member of the EDP Group and believes that the amounts due for the termination of PPAs under the CMEC and the amount paid for the DPH concession rights were fair and in compliance with market conditions and based on arm's length transactions. However, if the Investigation were to determine otherwise there is a risk that members of the EDP Group or of its corporate bodies could become subject to penalties or other sanctions. It is difficult to predict any outcome at this stage in the process. Any such developments could harm EDP's reputation, and EDP's business, financial condition, and/or results of operations could be affected by the outcome of this Investigation.

#### **4. Risks relating to the financial markets and financial activities of EDP**

##### ***EDP's involvement in international activities subjects it to particular risks.***

Investments in Latin America, North America and other countries outside the Eurozone present a different or greater financial risk profile to EDP than those made in the energy business in the Eurozone. Risks associated with its investments outside of the Eurozone may include but are not limited to: (i) economic volatility; (ii) exchange rate fluctuations and exchange controls; (iii) differing levels of inflationary pressures; (iv) differing levels of government involvement in the domestic economy; (v) political uncertainty; and (vi) unanticipated changes in regulatory or legal regimes. For example, EDP can give no assurance that it will successfully manage its investments in Latin America, North America and countries outside of the Eurozone.

EDP is subject to the risk associated with fluctuations in the cost of the purchase and sale of fossil fuels, electricity and related services, and with the cost of investments denominated in foreign currencies. EDP is also subject to the risk of transactional foreign currency, as well as currency fluctuations which can occur when EDP incurs revenue in one currency and costs in another, or its assets or liabilities are denominated in foreign currency, and there is an adverse currency fluctuation in the value of net assets, debt and income denominated in foreign currencies, (and in the extreme case, exchange rate and capital controls).

EDP is also exposed to currency translation risk when the accounts of its businesses outside the Eurozone, denominated in the respective local currencies, are translated into its consolidated accounts, denominated in Euros. EDP cannot predict movements in such non-Euro currencies.

##### ***Recent exchange rate movements within operating segments have impacted the results of the EDP Group.***

Certain of EDP's operating subsidiaries have in the past and may in the future enter into agreements or incur substantial capital expenditures denominated in a currency that is different from the currency in which they generate revenues. EDP attempts to hedge currency fluctuation risks by matching together its costs and revenues in the same currency as well as by using various financial instruments. There can be no assurance that EDP's efforts to mitigate the effects of currency exchange rate fluctuations will be successful, that EDP will continue to undertake hedging activities or that any current or future hedging activities EDP undertakes will adequately protect its financial condition and operating results from the effects of exchange rate fluctuations, that these activities will not result in additional losses or that EDP's other risk management policies will operate successfully.

##### ***EDP's business is partly financed through debt, and the maturity and repayment profile of debt used to finance investments often does not correlate to cash flows from EDP's assets.***

EDP relies on access to short-term commercial paper, money markets and long-term bank and capital markets as sources of finance. In recent years, global financial markets have experienced extreme volatility and disruption and ongoing adverse financial market conditions, which could increase EDP's cost of financing in the future, particularly as a result of its debt refinancing requirements. An increase in short-term or long-term base interest rates could also negatively impact EDP's cost of debt, particularly given its floating rate exposure. If EDP is unable to access capital at competitive rates or at all, its ability to finance its operations, implement its strategy, or service its existing debt will be negatively affected. Persisting low interest rates in the Euro Zone may create additional challenges in case of financial crisis, which could have a material impact on EDP's ability to access capital markets and on liquidity.

##### ***EDP's financial position may be adversely affected by changes to EDP's credit ratings.***

Some of EDP's debt is rated by credit rating agencies, and changes to these ratings, namely as a result of changes or downgrades to sovereign ratings, may affect both its borrowing capacity and the cost of those borrowings, as well as EDP's liquidity position.

##### ***EDP is exposed to counterparty risk in some of its businesses.***

EDP's electricity and natural gas supply to final customers, its energy wholesale activities in the Iberian Peninsula and in international fuel markets, as well as its PPAs in the United States, Italy, Belgium and Brazil, are all subject to counterparty risk. Additionally, in the normal course of its financial management, EDP enters into agreements (deposits, underwritten credit facilities and derivative instruments) with diversified financial institutions.

Should the creditworthiness of these counterparties significantly change, EDP's liquidity and financial position could be negatively affected. While EDP seeks to mitigate counterparty risk by entering into transactions with creditworthy entities, by setting counterparty exposure limits, by diversifying counterparties and/or by requiring credit support, EDP may not be able to successfully do so. For example, EDP primarily faces the risks that counterparties may not comply with their contractual obligations, they may become subject to insolvency or liquidation proceedings during the term of the relevant contracts or the credit support received from such counterparties will be inadequate to cover EDP's losses in the event of its counterparty's failure to perform.

***EDP may not be able to finance its planned capital expenditures.***

EDP's business activities require significant capital expenditures. EDP expects to finance a substantial part of these capital expenditures from cash from its operating activities. If these sources are not sufficient, however, EDP may need to finance certain of its planned capital expenditures from outside sources, including bank borrowing, offerings in the capital markets, institutional equity partnerships, state grants or divestments. No assurance can be given that EDP will be able to raise the financing required for its planned capital expenditures on acceptable terms or at all. If EDP is unable to raise such financing, it may have to reduce its planned capital expenditures which may affect its business.

***EDP operates in a capital-intensive business.***

EDP has significant construction and capital expenditure requirements, and the recovery of its capital investment occurs over a substantial period of time. The capital investment required to develop and construct a power plant generally varies based on the cost of the necessary fixed assets, such as material equipment costs and labour construction services. The price of such equipment or construction services may increase, or continue to increase, if the market demand for such equipment or services is greater than available supply, or if the price of key component commodities and raw materials used to build such equipment increases. In addition, the volatility in commodity prices could increase the overall cost of constructing, developing and maintaining power plants in the future. Other factors affecting the amount of capital investment required include, among others, construction costs and interconnection costs. Furthermore, EDP makes significant long-term capital expenditures and commitments on the basis of forecasts on certain investment parameters, including prices, volumes and interest rates which may turn out to be inaccurate. In the event of any material deviations from such estimates, EDP may not earn the expected return on related projects. Additionally, in order to explore growth opportunities, EDP regularly incurs expenditure in exploring, developing and planning new projects. Such projects may or may not reach a stage where they become fully operational, thus incurring higher than expected costs. The ability to translate EDP's projects from an in-development to a fully-operational stage depends on several factors, including, inter alia, the prices, the availability of PPAs and the market conditions of where a project is located.

***EDP faces liquidity risk.***

EDP's sources of liquidity include short-term deposits, revolving credit facilities and underwritten commercial paper programmes with a diversified group of creditworthy financial institutions. EDP adopts a conservative risk policy with reduced levels of exposure to financial assets, based on a reduced weight of strategic financial assets and short-term cash investments mainly based on bank deposits (without market risk). This risk mainly results from the possibility of devaluation of the financial assets that EDP holds (traded on securities markets). It is managed according to the procedures and tools provided by EDP's risk policies. However, if the creditworthiness of the financial institutions on which EDP relies for its funding significantly change or if financial conditions deteriorate, EDP's liquidity position could be negatively affected.

***EDP may incur future costs with respect to its employee benefit plans.***

EDP grants some of its employees a supplementary retirement and survival plan including death subsidy (the "**Pension Plan**") as well as a medical plan (the "**Medical Care Plan**"). The liabilities and corresponding annual costs of these defined benefit Pension and Medical Care Plans are determined through annual actuarial calculations by independent actuaries. The most critical risks relating to employee benefit plans accounting often relate to the returns on Pension and Medical Care Plans assets and the discount rate used to assess the present value of future payments. Pension and Medical Care liabilities can place significant pressure on cash flows, in particular, if any of EDP's funds become underfunded according to local regulations, EDP or its relevant subsidiary may be required to make additional contributions to the funds. The Pension and Medical Care Plans in Portugal are currently governed by the collective labour agreement entered into in July 2014.

## 5. **Risks relating to the structure of the Notes**

For further information on the structure of the Notes, please see “*Terms and Conditions of the Notes*”.

***The Notes constitute subordinated obligations of the Issuer and hence the claims of all senior creditors will first have to be satisfied in any winding-up before the Holders may expect to receive from the Issuer any recovery in respect of their Notes.***

The Notes will be subordinated obligations of the Issuer and the Notes will rank *pari passu* with each other in a winding-up of the Issuer. Upon the occurrence of a winding-up proceeding of the Issuer, payments on the Notes will be subordinated in right of payment to the prior payment in full of all other liabilities of the Issuer, except for liabilities which rank equally with the Notes. As such, the Holders may recover proportionately less than the holders of unsubordinated and other subordinated liabilities of the Issuer and the remedies for holders in any winding-up or insolvency proceeding of the Issuer may be limited. In particular, in an insolvency proceeding over the assets of the Issuer, holders of voluntarily subordinated debt such as the Notes, will not have any right to vote in the assembly of creditors, except if the creditors’ assembly resolution is on the approval of an insolvency plan. Accordingly, Holders of the Notes should be aware that they will have limited ability to influence the outcome of any insolvency proceeding or a restructuring outside insolvency.

Holders of the Notes are advised that unsubordinated liabilities of the Issuer may also arise out of events that are not reflected on the balance sheet of the Issuer including, without limitation, the issuance of guarantees on an unsubordinated basis. Claims made under such guarantees will become unsubordinated liabilities of the Issuer that in a winding-up of the Issuer will need to be paid in full before the obligations under the Notes may be satisfied.

Although subordinated debt securities may pay a higher rate of interest than comparable debt securities which are not subordinated, there is a real risk that an investor in subordinated securities such as the Notes will lose all or some of his investment in the case of a winding-up or insolvency proceeding of the Issuer.

***The value of the Notes may be adversely affected by movements in market interest rates.***

Investment in the Notes involves the risk that subsequent changes in market interest rates may adversely affect the value of the Notes.

From (and including) the Issue date to (but excluding) the First Reset Date, the Notes will bear interest at a fixed interest rate of 1.700 per cent. per annum. During this period, Holders will be exposed to the risk that the price of the Notes falls as a result of changes in the current interest rate on the capital market (the **Market Interest Rate**). The Market Interest Rate typically changes on a daily basis. A change of the Market Interest Rate causes the price of the Notes to change. If the Market Interest Rate increases, the price of the Notes typically falls. If the Market Interest Rate falls, the price of the Notes typically increases. Investors should be aware that movements of the Market Interest Rate can adversely affect the price of the Notes and can lead to losses for the investors if they sell the Notes.

From (and including) the First Reset Date to (but excluding) the Maturity Date, the Notes will bear interest at a rate that will be reset for each Reset Period. As such, the Notes are exposed to the risk of fluctuating interest rate levels and uncertain interest income. Fluctuating interest rate levels make it impossible to determine the yield of the Notes in advance for the period from (and including) the First Reset Date to (but excluding) the Maturity Date.

See also “*Discontinuation of the Original Reference Rate*” below.

***Future discontinuance of EURIBOR may adversely affect the value of the Notes.***

On 27 July 2017, the Chief Executive of the United Kingdom Financial Conduct Authority, which regulates LIBOR, announced that it does not intend to continue to persuade, or use its powers to compel, panel banks to submit rates for the calculation of LIBOR to the administrator of LIBOR after 2021. Whilst the announcement related to LIBOR, similar concerns may be applicable to EURIBOR. The Financial Stability Board also made certain recommendations to reform major interest rate benchmarks, such as key interbank offered rates. It is not possible to predict whether, and to what extent, banks will continue to provide EURIBOR submissions to the administrator of EURIBOR going forwards.

The European Central Bank (the **ECB**) and other European authorities have discussed proposals for alternative benchmarks. For example, the ECB announced plans for a new overnight rate for interbank unsecured lending among Euro-area banks in September 2017. The impact of such an overnight rate on six-month EURIBOR is currently unclear.

Investors should be aware that, if EURIBOR were discontinued or otherwise unavailable, the rate of interest on the Notes for the period from (and including) the First Reset Date is based on a reset mid-swap rate and, if such mid-swap rate is not available, the rate of interest may be determined for each relevant Reset Period by the fall-back provisions applicable to the Notes. The fall-back provisions applicable to the Notes may in certain circumstances result in the effective application of a fixed rate of interest for each relevant period based on the rate which was last available on the relevant screen page. See also “*Discontinuation of the Original Reference Rate*”.

In addition, any changes to the administration of the 5-year mid-swap rate or the emergence of alternatives to the 5-year mid-swap rate as a result of these potential reforms, may cause the 5-year mid-swap rate to perform differently than in the past or to be discontinued, or there could be other consequences which cannot be predicted. The potential discontinuation of the 5-year mid-swap rate or changes to its administration could require changes to the way in which the Rate of Interest is calculated on the Notes from (and including) the First Reset Date. Uncertainty as to the nature of alternative reference rates and as to potential changes to the 5-year mid-swap rate may adversely affect the 5-year mid-swap rate, the return on the Notes and the trading market for securities based on the 5-year mid-swap rate. The development of alternatives to the 5-year mid-swap rate may result in the Notes performing differently than would otherwise have been the case if such alternatives to the 5-year mid-swap rate had not developed. Any such consequence could have a material adverse effect on the value of, and return on, the Notes.

***Discontinuation of the Original Reference Rate.***

The terms and conditions of the Notes provide that, if a Benchmark Event (as defined in Condition 3.8 in the terms and conditions of the Notes) (which, amongst other events, includes the Original Reference Rate ceasing to exist, be administered or be published) occurs, the Issuer shall use its reasonable endeavours to appoint an Independent Adviser. The Issuer and the Independent Adviser shall endeavour to determine a Successor Rate or an Alternative Rate to be used in place of the Original Reference Rate. The use of any such Successor Rate or Alternative Rate to determine the Reset Rate of Interest for a Reset Period may result in the Notes performing differently (which may include payment of a lower Reset Rate of Interest for such Reset Period) than they would do if the Original Reference Rate were to continue to apply.

If a Successor Rate or Alternative Rate is determined by the Issuer and the Independent Adviser, the terms and conditions of the Notes also provide that an Adjustment Spread may be determined by the Issuer and the Independent Adviser and applied to such Successor Rate or Alternative Rate. The aim of the Adjustment Spread is to reduce or eliminate, to the extent reasonably practicable, any economic prejudice or benefit (as the case may be) to Holders as a result of the replacement of the Original Reference Rate with the Successor Rate or the Alternative Rate. However, it may not be possible to determine or apply an Adjustment Spread and, even if an Adjustment Spread is applied, such Adjustment Spread may not be effective to reduce or eliminate economic prejudice to Holders. If no Adjustment Spread can be determined, a Successor Rate or Alternative Rate may nonetheless be used to determine the Reset Rate of Interest for a Reset Period. The use of any Successor Rate or Alternative Rate (including with the application of an Adjustment Spread) will still result in the Notes performing differently (which may include payment of a lower Reset Rate of Interest for such Reset Period) than they would if the Original Reference Rate were to continue to apply in its current form.

Furthermore, if a Successor Rate, Alternative Rate and/or Adjustment Spread, as applicable, is determined by the Issuer and the Independent Adviser, the terms and conditions of the Notes provide that the Issuer and the Independent Adviser may agree to vary the terms and conditions of the Notes, as necessary, to ensure the proper operation of such Successor Rate, Alternative Rate and/or Adjustment Spread, as applicable, without any requirement for consent or approval of the Holders.

Notwithstanding the occurrence of a Benchmark Event, the Issuer may be unable to appoint an Independent Adviser in accordance with the terms and conditions of the Notes, or the Issuer and the Independent Adviser may not be able to determine, or may not agree on the selection of, a Successor Rate or Alternative Rate in accordance with the terms and conditions of the Notes before the Reset Determination Date in respect of a Reset Period. In such circumstances, the terms and conditions of the Notes provide for certain additional fall-back provisions which may result in (i) the Euro Swap Rate being set by reference to offered quotations from banks communicated to the Agent Bank or (ii) the last Euro Swap Rate that was available on the Reset Screen Page being used to determine the Reset Rate of Interest for a Reset Period.

If the Issuer is unable to appoint an Independent Adviser or the Issuer and the Independent Adviser fail to determine, or do not agree on the selection of, a Successor Rate or Alternative Rate for the life of the Notes, this could result in the Notes, in effect, becoming fixed rate securities.

Any of the foregoing could have an adverse effect on the value or liquidity of, and return on the Notes.

***There can be no assurance that the use of proceeds will be suitable for the investment criteria of an investor seeking exposure to sustainable assets.***

It is the Issuer's intention to apply the proceeds from the Notes specifically for existing or planned investments of EDP Renováveis, S.A. which support the transition to a low-carbon economy, especially those that help increase the production of renewable energy (together **Eligible Green Projects**). Prospective investors should determine for themselves the relevance of such information for the purpose of any investment in the Notes together with any other investigation such investor deems necessary. In particular no assurance is given by the Issuer or the Managers that the use of such proceeds for any Eligible Green 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 law 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 Green Projects. Furthermore, it should be noted that there is currently no clearly defined definition (legal, regulatory or otherwise) of, nor market consensus as to what constitutes, a "green" or "sustainable" or an equivalently labelled project or as to what precise attributes are required for a particular project to be defined as "green" or "sustainable" or such other equivalent label nor can any assurance be given that such a clear definition or consensus will develop over time. Accordingly, no assurance is or can be given to investors that any projects or uses the subject of, or related to, any Eligible Green Projects will meet any or all investor expectations regarding such "green", "sustainable" or other equivalently-labelled performance objectives or that any adverse environmental, social and/or other impacts will not occur during the implementation of any projects or uses the subject of, or related to, any Eligible Green 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 Notes and in particular with any Eligible Green Projects to fulfil any environmental, sustainability, social and/or other criteria. For the avoidance of doubt, any such opinion or certification is not, nor shall be deemed to be, incorporated in and/or form part of this Prospectus. Any such opinion or certification is not, nor should be deemed to be, a recommendation by the Issuer, the Managers or any other person to buy, sell or hold any such Notes. Any such opinion or certification is only current as of the date that opinion was initially issued. Prospective investors must determine for themselves the relevance of any such opinion or certification and/or the information contained therein and/or the provider of such opinion or certification for the purpose of any investment in such Notes. Currently, the providers of such opinions and certifications are not subject to any specific regulatory or other regime or oversight.

In the event that the 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, the Managers 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 law 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 Green 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. Nor is any representation or assurance given or made by the Issuer, the Managers or any other person that any such listing or admission to trading will be obtained in respect of the 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 the Notes so specified for Eligible Green Projects in, or substantially in, the manner described in this Prospectus, there can be no assurance that the relevant project(s) or use(s) the subject of, or related to, any Eligible Green Projects will be capable of being implemented in or substantially in such manner and/or accordance with any timing schedule and that accordingly such proceeds will be totally or partially disbursed for such Eligible Green Projects. Nor can there be any assurance that such Eligible Green 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 Issuers. 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 the Notes for any Eligible Green 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 the Notes and also potentially the value of any other notes which are intended to finance Eligible Green Projects and/or result in adverse consequences for certain investors with portfolio mandates to invest in securities to be used for a particular purpose.

## **6. Risks relating to certain terms of the Notes**

For further information on the terms of the Notes, please see "*Terms and Conditions of the Notes*".

### ***There are limited remedies available to the Holders in relation to their rights and claims under the Notes.***

Holders of not less than one quarter of the aggregate Principal Amount will be able to declare the Notes immediately due and payable only if one of the limited Events of Default set out in Condition 10 occurs and is continuing, including in the case of liquidation, winding-up, dissolution or insolvency of the Issuer or default in the payment of principal or interest due and payable under the Notes for a period of 30 days. No such event shall constitute an Event of Default if it is being contested in good faith by appropriate means by the Issuer and the Issuer has been advised by recognised independent legal advisers of good repute that it is reasonable to do so.

***The Issuer has the right to defer interest payments on the Notes with a potential adverse effect on the market price of the Notes.***

The Issuer may, at its discretion, elect to defer, in whole or in part, any payment of interest on the Notes. Any such deferral of interest payments shall not constitute a default for any purpose unless such payments are required to be made in accordance with Condition 3.5 and are not so paid when due.

Any deferral of interest payments will likely have an adverse effect on the market price of the Notes. In addition, as a result of the interest deferral provision of the Notes, the market price of the Notes may be more volatile than the market prices of other debt securities on which original issue discount or interest accrues that are not subject to such deferrals and may be more sensitive generally to adverse changes in the Issuer's financial condition.

While the deferral of interest payments continues, the Issuer may make payments on any instrument ranking senior to the Notes or on instruments ranking *pari passu* with the Notes in the limited circumstances described in Condition 3.5.

***The Notes are long-term securities and therefore an investment in Notes constitutes a financial risk for a long period.***

The Notes will mature on 20 July 2080 and, although the Issuer may redeem the Notes in certain circumstances prior to such date, the Issuer is under no obligation to do so. The Holders have no right to call for the redemption of Notes. Therefore prospective investors should be aware that they may be required to bear the financial risks of an investment in the Notes for a long period and may not recover their investment before the end of this period.

***The Notes will be subject to optional redemption by the Issuer in certain circumstances and this may limit the market value of the Notes and also a Holder may not be able to reinvest the redemption proceeds in a manner which achieves a similar effective return.***

Unless previously redeemed or purchased and cancelled, the Issuer will redeem the Notes on 20 July 2080 at their Principal Amount together with any accrued and unpaid interest to such date (including any accrued but unpaid Deferred Interest Payments). However, the Notes may be redeemed, at the option of the Issuer and subject to the relevant provisions in Conditions 4, in whole but not in part on any Business Day from (and including) the First Call Date to (and including) the First Reset Date or any Interest Payment Date falling after the First Reset Date, at their Principal Amount together with any accrued and unpaid interest up to (but excluding) such Redemption Date (including any accrued but unpaid Deferred Interest Payments).

In addition, upon the occurrence of a Gross-up Event, a Change of Control Event, a Tax Event, a Rating Agency Event or a Substantial Repurchase Event, and subject to the relevant provisions in Conditions 4, the Issuer shall have the option to redeem, in whole but not in part, the Notes at (i) 101 per cent. of their Principal Amount, together with any accrued and unpaid interest up to (but excluding) the Redemption Date, including any accrued but unpaid Deferred Interest Payments (in the case of a Tax Event or Rating Agency Event only where any such redemption occurs before the First Call Date) or (ii) their Principal Amount, together with any accrued and unpaid interest up to (but excluding) the Redemption Date, including any accrued but unpaid Deferred Interest Payments (in the case of a Gross-up Event, a Change of Control Event or a Substantial Repurchase Event where any such redemption occurs at any time or in the case of a Tax Event or a Rating Agency Event where any such redemption occurs on or after the First Call Date). In the case of a Change of Control Event, if the Issuer does not elect to redeem the Notes, interest payable on the Notes will be increased by 5 per cent. per annum.

The Issuer may be expected to redeem the Notes when its cost of borrowing is lower than the interest payable on them. At those times, an investor generally would not be able to reinvest the redemption proceeds at an effective interest rate as high as the interest payable on the Notes being redeemed and may only be able to do so at a significantly lower rate. Potential investors should consider reinvestment risk in light of other investments available at that time.

During any period when the Issuer may elect to redeem the Notes, the market value of the Notes generally will not rise substantially above the price at which they can be redeemed. This also may be true before any redemption period.

***There is no limitation on issuing senior or pari passu securities.***

There is no restriction on the amount of securities or other liabilities which the Issuer may issue or incur and which rank senior to, or *pari passu* with, the Notes. The issue of any such securities or the incurrence of any such other liabilities may reduce the amount (if any) recoverable by Holders on a winding-up of the Issuer and/or may increase the likelihood of a deferral of interest payments under the Notes.

***The Notes are subject to provisions which may permit the modification of the Notes without the consent of all Holders.***

The Paying Agency Agreement relating to the Notes contains provisions for convening meetings of the Holders to consider any matter affecting their interests generally, including a modification of the Notes or any provision of the Paying Agency Agreement. These provisions permit defined majorities to bind all Holders including Holders who did not attend and vote at the relevant meeting and Holders who voted in a manner contrary to the majority.

#### **7. Risks relating to the market for the Notes**

Set out below is a brief description of the principal market risks, including liquidity risk, exchange rate risk, interest rate risk and credit risk.

***The value of the Notes could be adversely affected by a change in law or administrative practice.***

Save for Conditions 1 and 2, the form (“forma de representação”) and transfer of the Notes, creation of security over the Notes and the Interbolsa procedures for the exercise of rights under the Notes, which are governed by, and shall be construed in accordance with Portuguese law, the conditions of the Notes are based on English law in effect as at the date of this Prospectus. No assurance can be given as to the impact of any possible judicial decision or change to English law or, as the case may be, Portuguese law or administrative practice after the date of this Prospectus and any such change could materially impact the value of any Notes affected by it.

***An active secondary market in respect of the Notes may never be established or may be illiquid and this would adversely affect the value at which an investor could sell its Notes.***

The Notes constitute a new issue of securities by the Issuer. Prior to such issue, there will have been no public market for the Notes. Although applications have been made for the Notes to be listed, there can be no assurance that an active public market for the Notes will develop and, if such a market were to develop and none of the Issuer, the Managers or any other person is under any obligation to maintain such a market. The liquidity and the market prices for the Notes can be expected to vary with changes in market and economic conditions, the financial condition and prospects of the Issuer and the EDP Group and other factors that generally influence the market prices of securities.

***If an investor holds Notes which are not denominated in the investor's home currency, he will be exposed to movements in exchange rates adversely affecting the value of his holding. In addition, the imposition of exchange controls in relation to any Notes could result in an investor not receiving payments on those Notes.***

The Issuer will pay principal and interest on the Notes in euro. This presents certain risks relating to currency conversions if an investor's financial activities are denominated principally in a currency or currency unit (the **Investor's Currency**) other than euro. These include the risk that exchange rates may significantly change (including changes due to devaluation of euro or revaluation of the Investor's Currency) and the risk that authorities with jurisdiction over the Investor's Currency may impose or modify exchange controls. An appreciation in the value of the Investor's Currency relative to euro would decrease (1) the Investor's Currency equivalent yield on the Notes, (2) the Investor's Currency equivalent value of the principal payable on the Notes and (3) the Investor's Currency equivalent market value of the Notes.

Government and monetary authorities may impose (as some have done in the past) exchange controls that could adversely affect an applicable exchange rate or the ability of the Issuer to make payments in respect of the Notes. As a result, investors may receive less interest or principal than expected, or no interest or principal.

***Credit ratings may not reflect all risks associated with an investment in the Notes.***

Moody's, Standard & Poor's and Fitch have assigned a credit ratings to the Notes. Such credit ratings may not reflect the potential impact of all risks related to structure, market, additional factors discussed above, 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 or withdrawn by the rating agency at any time.

In general, European regulated investors are restricted under 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. 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, subject to transitional provisions that apply in certain circumstances).

***The Notes may be delisted in the future.***

Application has been made to Euronext Dublin for the Notes to be admitted to the Official List and trading on the Main Market. The Notes may subsequently be delisted despite the Issuer's best efforts to maintain such listing and, although no assurance is made as to the liquidity of the Notes as a result of listing, any delisting of the Notes may have a material effect on a Holder's ability to resell the Notes on the secondary market.

**8. *Risks related to withholding tax***

For further information on the Portuguese taxation regime, please see "*Taxation – Portugal*".

***The Notes may be subject to withholding taxes in circumstances where the Issuer is not obliged to make gross-up payments and this would result in Holders receiving less interest than expected and could significantly adversely affect their return on the Notes.***

The Issuer will not gross up payments in respect of any withholding tax in any of the cases indicated in Condition 6.

One of those cases is the failure by the Holders to correctly deliver evidence of non-residence status required under the Decree-Law no. 193/2005. Under Portuguese law, income derived from the Notes integrated in and held through Interbolsa, as management entity of the Portuguese Centralised System (*sistema centralizado, the Central de Valores Mobiliários*), held by non-resident investors (both individual and corporate) may be eligible for the debt securities special tax exemption regime approved by Decree-Law 193/2005, of 7 November 2005, as amended, (Decree-Law 193/2005), which establishes a withholding tax exemption, provided that certain procedures and certification requirements are complied with. Failure to comply with these procedures and certifications will result in the application of Portuguese domestic withholding tax. See details of the Portuguese taxation regime in "*Taxation – Portugal*".

Accordingly, Holders must seek their own advice to confirm whether the income received under the Notes will be subject to withholding tax and whether or not the Issuer will be obliged to make gross up payments if withholding applies. In particular, Holders that may qualify for the exemption regime foreseen in Decree-Law 193/2005 should ensure that they comply with all procedures to ensure correct tax treatment of their Notes.

## DOCUMENTS INCORPORATED BY REFERENCE

The following documents which have previously been published and have been filed with the Central Bank shall be incorporated in, and form part of, this Prospectus:

- (i) the unaudited consolidated condensed financial statements of the Issuer for the nine-month period ended 30 September 2019 and the auditor's limited review report thereon which appear on pages 11-106 and pages 109-112 of, and in the Annexes to, the Issuer's third quarter 2019 report, available at [https://www.edp.com/sites/default/files/2020-01/RC\\_EN\\_9M19\\_0.pdf](https://www.edp.com/sites/default/files/2020-01/RC_EN_9M19_0.pdf);
- (ii) the audited consolidated annual financial statements of the Issuer for the financial year ended 31 December 2018 and auditors' report thereon which appear on pages 237-410 and 431-441, respectively, of the Issuer's annual report for the year ended 31 December 2018, available at [https://www.edp.com/sites/default/files/rc\\_2018\\_en\\_compress.pdf](https://www.edp.com/sites/default/files/rc_2018_en_compress.pdf); and
- (iii) the audited consolidated annual financial statements of the Issuer for the financial year ended 31 December 2017 and auditors' report thereon which appear on pages 205-369 and 387-404, respectively, of the Issuer's annual report for the year ended 31 December 2017, available at [https://www.edp.com/sites/default/files/annual\\_report\\_edp\\_2017\\_with\\_minutes\\_.pdf](https://www.edp.com/sites/default/files/annual_report_edp_2017_with_minutes_.pdf).

Any information contained in any of the documents specified above which is not incorporated by reference in this Prospectus is either not relevant to investors or is covered elsewhere in this Prospectus.

Copies of documents incorporated by reference in this Prospectus can be obtained from the registered office of the Issuer and from the specified office of the Principal Paying Agent and the Portuguese Paying Agent.

Any documents themselves incorporated by reference in the documents incorporated by reference in this Prospectus shall not form part of this Prospectus.

## TERMS AND CONDITIONS OF THE NOTES

*The following, subject to alteration, as set out in Condition 11.2 and the Paying Agency Agreement, and except for paragraphs in italics, are the terms and conditions of the Notes.*

The issue of the €750,000,000 Fixed to Reset Rate Subordinated Notes due 2080 (the **Notes**) of EDP – Energias de Portugal, S.A. (the **Issuer**) was authorised by a resolution of the Executive Board of Directors on 3 December 2019. The Notes are evidenced by entries in the individual securities accounts opened by Holders with the Affiliate Members of Interbolsa (as defined in Condition 13). The statements in these Conditions include summaries of, and are subject to, the detailed provisions of a deed poll (the **Interbolsa Instrument**) dated 20 January 2020 relating to the Notes and made by the Issuer in favour of the Holders and a paying agency agreement (the **Paying Agency Agreement**) dated 20 January 2020 relating to the Notes between the Issuer, Deutsche Bank AG, London Branch as initial principal paying agent (the **Principal Paying Agent**, which expression shall include any successor thereto) and calculation agent (the **Calculation Agent**) and Deutsche Bank Aktiengesellschaft – Sucursal em Portugal as paying agent (the **Portuguese Paying Agent**, which expression shall include any successor thereto, and together with the Principal Paying Agent and any other paying agent as may be nominated under the Paying Agency Agreement from time to time, the **Paying Agents**). Copies of the Interbolsa Instrument and the Paying Agency Agreement are available for inspection during usual business hours at the specified offices of the Principal Paying Agent and the Portuguese Paying Agent. The Holders are entitled to the benefit of, are bound by, and are deemed to have notice of those provisions applicable to them of the Interbolsa Instrument and the Paying Agency Agreement.

### 1. FORM, DENOMINATION AND TITLE

#### 1.1 Form and Principal Amount

The Notes will be represented in dematerialised book-entry (*escriturais*) and nominative (*nominativas*) form and are issued in the principal amount (the **Principal Amount**) of €100,000 each.

#### 1.2 Title

Title to the Notes will be evidenced by book entries in accordance with the provisions of the Portuguese Securities Code and the applicable regulations. Each person shown in the book-entry records of Affiliate Members of Interbolsa shall be the holder of the relevant Principal Amount of the Notes.

Title to the Notes is subject to compliance with all applicable rules, restrictions and requirements of Interbolsa, CMVM regulations and Portuguese law. No physical document of title will be issued in respect of the Notes.

The Notes will be registered in the relevant issue account of the Issuer with Interbolsa and will be held in control accounts opened by each Affiliate Member of Interbolsa on behalf of the Holders. The control account of a given Affiliate Member of Interbolsa will reflect at all times the aggregate Principal Amount of Notes held in the individual securities accounts of the Holders with that Affiliate Member of Interbolsa.

#### 1.3 Holder absolute owner

The person or entity recorded in the book-entry registry of an Affiliate Member of Interbolsa (the **Book-Entry Registry** and each such entry therein, a **Book Entry**) as the holder of any Note shall (except as otherwise required by law) be treated as its absolute owner for all purposes (whether or not it is overdue and regardless of any notice of ownership, trust or any other interest therein).

The Issuer and the Paying Agents may (to the fullest extent permitted by applicable laws) deem and treat the person or entity registered in the Book-Entry Registry as the holder of any Note and the absolute owner for all purposes. Proof of such registration is made by means of a certificate issued by the relevant Affiliate Members of Interbolsa pursuant to article 78 of the Portuguese Securities Code.

#### 1.4 Transfer of Notes

No Holder will be able to transfer Notes, or any interest therein, except in accordance with Portuguese laws and regulations. Notes may only be transferred in accordance with the applicable procedures established by

the Portuguese Securities Code and the regulations issued by the CMVM or Interbolsa, as the case may be, and the relevant Affiliate Members of Interbolsa through which the Notes are held.

## **2. STATUS AND SUBORDINATION**

### **2.1 Status**

The Notes constitute direct, unsecured and subordinated obligations of the Issuer and shall at all times rank *pari passu* and without any preference among themselves. The rights and claims of the Holders are subordinated as described in Condition 2.2.

### **2.2 Subordination**

The claims of the Holders in respect of the Notes, including in respect of any claim to Deferred Interest Payments, will, in the event of the winding-up or insolvency of the Issuer (subject to and to the extent permitted by applicable law), rank:

- (a) junior to all Senior Obligations of the Issuer;
- (b) *pari passu* with each other and with the obligations of the Issuer in respect of any Parity Security; and
- (c) senior only to the Issuer's ordinary shares and any other class of share capital of the Issuer that ranks *pari passu* with ordinary shares (the **Issuer Shares**).

### **2.3 Set-off**

To the extent and in the manner permitted by applicable law, no Holder may exercise, claim or plead any right of set-off, counterclaim, compensation or retention in respect of any amount owed to it by the Issuer in respect of, or arising from, the Notes and each Holder shall, by virtue of its holding of any Note, be deemed to have waived all such rights of set-off, counterclaim, compensation or retention.

## **3. INTEREST**

### **3.1 Interest**

Each Note shall entitle the Holder thereof to receive interest in accordance with the provisions of this Condition 3.

### **3.2 Rate of Interest**

The Notes bear interest at the Rate of Interest on their Principal Amount. Subject to Condition 3.4, such interest shall be payable in arrear on 20 July of each year (each of such dates, an **Interest Payment Date**). The first payment (representing a short first coupon for the period from and including the Issue Date to but excluding 20 July 2020 and amounting to €845.36 per €100,000 in Principal Amount of Notes) shall be made on 20 July 2020.

**Rate of Interest** means:

- (a) from and including the Issue Date to but excluding 20 July 2025 (the **First Reset Date**), 1.700 per cent. per annum;
- (b) from and including the First Reset Date to but excluding 20 July 2030 (the **First Step-Up Date**), the relevant Reset Rate of Interest;
- (c) from and including the First Step-Up Date to but excluding the Second Step-Up Date, the relevant Reset Rate of Interest plus 0.25 per cent. per annum; and

- (d) from and including the Second Step-Up Date to but excluding the Maturity Date, the relevant Reset Rate of Interest plus 1.00 per cent. per annum,

each subject to any applicable increase pursuant to Condition 3.7.

**Second Step-Up Date** means: (A) if, at any time between the Issue Date and the 30th calendar day preceding the First Reset Date, the Issuer is assigned an issuer credit rating of “BBB-“ or above by Standard & Poor’s and does not, on the 30th calendar day preceding the First Reset Date, have an issuer credit rating assigned to it of “BB+” (or such similar nomenclature then used by Standard & Poor’s) or below, 20 July 2045; and (B) otherwise 20 July 2040. Unless the Notes are redeemed on or prior to the First Reset Date pursuant to Condition 4, the Issuer will notify the Principal Paying Agent, the Calculation Agent and the Holders in accordance with Condition 9 that the Second Step-Up Date is either 20 July 2040 or 20 July 2045, as determined by this definition, by no later than the First Reset Date.

Interest payable per Note on the respective Interest Payment Date (the **Interest Amount**) shall be calculated by multiplying the Rate of Interest by the Principal Amount per Note and rounding the resulting figure to the nearest cent, with 0.5 or more of a cent being rounded upwards. If interest is to be calculated for a period of less than one year, it shall be calculated on the basis of the actual number of calendar days in the relevant period, from and including the date from which interest begins to accrue but excluding the date on which it falls due, divided by the actual number of days in the relevant year (365 or 366) in which such Interest Payment Date falls with the relevant year determined for this purpose as a calendar year beginning on and including 20 July in each year (20 July 2019 being the relevant beginning date for the first interest period from and including the Issue Date to but excluding 20 July 2020) and ending on and excluding 20 July of the following year.

### 3.3 Determination and publication of Reset Rate of Interest

The Reset Rate of Interest for each Reset Period will be determined by the Calculation Agent on the relevant Reset Determination Date and promptly notified by the Calculation Agent to the Issuer, the Principal Paying Agent and, if required by the rules of any stock exchange or other relevant authority on or by which the Notes are listed or admitted to trading from time to time, to be notified to such stock exchange or other authority and to the Holders in accordance with Condition 9 without undue delay, but, in any case, not later than the relevant Reset Date.

All notifications, opinions, determinations, certificates, calculations, quotations and decisions given, expressed, made or obtained for the purposes of the provisions of these Conditions, whether by the Reference Banks (or any of them) or the Calculation Agent will (in the absence of manifest error) be binding on the Issuer, the Calculation Agent, the Paying Agents and all Holders and (in the absence of negligence, wilful default or manifest error) no liability to the Issuer or the Holders will attach to the Reference Banks (or any of them) or the Calculation Agent in connection with the exercise or non-exercise by it of its powers, duties and discretions pursuant to such provisions.

### 3.4 Interest deferral

The Issuer may determine in its sole discretion not to pay the whole or any part of the Interest Amount otherwise scheduled to be paid on an Interest Payment Date. Interest that the Issuer has elected not to pay shall not be due and payable and shall constitute a **Deferred Interest Payment**. The Issuer shall not have any obligation to pay interest on any Interest Payment Date and any such non-payment of interest shall not constitute a default of the Issuer or any other breach of its obligations under the Notes or for any other purpose.

Additional interest will accrue on each Deferred Interest Payment at the then applicable Rate of Interest, and from (and including) the date on which (but for such deferral) the Deferred Interest Payment would otherwise have been due to (but excluding) the date on which the Deferred Interest Payment is paid, and will be added to such Deferred Interest Payment (and thereafter accumulate additional interest accordingly) on each Interest Payment Date. Deferred Interest Payments (including any additional interest accrued thereon) will be payable in accordance with Condition 3.5.

If the Issuer decides not to pay the Interest Amount on an Interest Payment Date, the Issuer shall notify the Holders in accordance with Condition 9 and the Principal Paying Agent not less than five Business Days prior to such Interest Payment Date.

### 3.5 Payment of Deferred Interest Payments

- (a) The Issuer may settle outstanding Deferred Interest Payments (in whole or in part) at any time on the giving of at least 5 Business Days' prior notice to the Holders in accordance with Condition 9 (which notice shall be irrevocable and will oblige the Issuer to pay the relevant Deferred Interest Payments on the payment date specified in such notice).
- (b) Notwithstanding Condition 3.5(a), all outstanding Deferred Interest Payments must be settled (in whole and not in part) on a Payment Reference Date.

**Payment Reference Date** means the date which is the earlier of:

- (i) the date which is 10 Business Days following the occurrence of a Compulsory Payment Event;
- (ii) the next Interest Payment Date on which any interest is paid on the Notes;
- (iii) the Maturity Date or the calendar day on which the Notes are otherwise redeemed; and
- (iv) the calendar day on which an applicable legally binding resolution or order is made for the winding-up, dissolution or liquidation of the Issuer (other than for the purposes of or pursuant to an amalgamation, reorganisation or restructuring while solvent, where the continuing entity assumes substantially all of the assets and obligations of the Issuer).

If any Payment Reference Date would fall on a calendar day which is not a Business Day, the Payment Reference Date shall be postponed to the next calendar day which is a Business Day.

Each of the following is a **Compulsory Payment Event**:

- (A) the shareholders of the Issuer validly approve a proposal to pay a dividend, other distribution or payment on any Issuer Shares, other than any payment in kind using Issuer Shares;
- (B) the Issuer redeems, or the Issuer or any of its Subsidiaries purchases or otherwise acquires, any Issuer Shares for any consideration, except pursuant to the terms of any instrument which converts into Issuer Shares or in connection with the satisfaction by the Issuer of its obligations under any existing or future buy-back programme, share option or free share allocation plan or employee benefit plan or similar arrangement with or for the benefit of employees, officers, directors or consultants;
- (C) the Issuer or any of its Subsidiaries makes any payment of interest, dividend or other distribution or payment on any Parity Securities; and
- (D) the Issuer redeems, or the Issuer or any of its Subsidiaries purchases or otherwise acquires, any of the Notes or any Parity Securities for any consideration, except pursuant to the terms of any instrument which converts into Issuer Shares or Parity Securities,

provided that, in the case of (C) and (D) above, no Compulsory Payment Event will occur if: (x) the Issuer or any of its Subsidiaries are obliged under these Conditions or under the terms and conditions of such Parity Securities to make such payment, redemption, purchase or other acquisition; or (y) the Issuer or any of its Subsidiaries repurchases or otherwise acquires any Notes or any Parity Securities in an open-market tender offer or exchange offer at a consideration per Note or Parity Security below its respective par value.

### 3.6 Cessation of interest payments

The Notes shall cease to bear interest from the day on which they are due for redemption. If the Issuer shall fail to redeem the Notes when due, the obligation to pay interest shall continue to accrue at the then

applicable Rate of Interest on the outstanding Principal Amount of the Notes (and any Deferred Interest Payments) beyond the due date until (and excluding) the calendar day of actual redemption of the Notes.

### 3.7 Increase in Rate of Interest

Unless an irrevocable notice to redeem the Notes has been given to Holders by the Issuer pursuant to Condition 4.3 on or before the 55th calendar day following the first occurrence of a Change of Control Event, the Rate of Interest will increase once by 5.00 per cent. per annum with effect from (and including) the 55th calendar day following the date on which that Change of Control Event occurred. The occurrence of the Change of Control Event will be notified by the Issuer to the Holders in accordance with Condition 9 and to the Principal Paying Agent by no later than the 15th Business Day following the relevant Change of Control Event. For the avoidance of doubt, the Rate of Interest will not increase by reason of any subsequent Change of Control Event.

A **Change of Control Event** shall occur if a Change of Control results in a Rating Downgrade within the Change of Control Period.

A **Change of Control** shall be deemed to have occurred at each time (whether or not approved by the Executive Board of Directors or General and Supervisory Board) that any person (or persons) (**Relevant Person(s)**) acting in concert or any person or persons acting on behalf of any such Relevant Person(s), at any time directly or indirectly:

- (i) acquires, or becomes entitled to exercise, control over the Issuer; or
- (ii) acquires or owns, directly or indirectly, more than 50 per cent. of the issued voting share capital of the Issuer,

provided that the foregoing shall not include the control or ownership of issued voting share capital, exercisable by and/or owned by the Portuguese Republic, or by the Portuguese Republic and/or by any entity or entities (together or individually) controlled by the Portuguese Republic from time to time, or in respect of which the Portuguese Republic owns directly or indirectly more than 50 per cent. of the issued voting share capital. A Change of Control shall not be deemed to have occurred if the shareholders of the Relevant Person(s) are also, or immediately prior to the event which would otherwise constitute a Change of Control were, all of the shareholders of the Issuer.

**Change of Control Period** means the period ending 120 days after the Date of Announcement.

**Date of Announcement** means the date of the public announcement that a Change of Control has occurred.

**Investment Grade Rating** means a rating of at least “BBB-“ (or equivalent thereof) in the case of Standard & Poor's or a rating of at least “BBB-“ (or equivalent thereof) in the case of Fitch or a rating of at least “Baa3“ (or equivalent thereof) in the case of Moody's or the nearest equivalent in the case of any other Rating Agency.

**Investment Grade Securities** means Rated Securities which have an Investment Grade Rating from each Rating Agency that assigns a rating to such Rated Securities.

**Rated Securities** means: (a) the €600,000,000 0.375 per cent Notes due 16 September 2026 (ISIN XS2053052895), issued on 16 September 2019 by EDP Finance BV with the benefit of a keep well agreement from the Issuer; or (b) such other comparable long-term debt of the Issuer or any Subsidiary selected by the Issuer from time to time for the purpose of this definition which possesses a rating by any Rating Agency.

**Rating Downgrade** means either:

- (a) within the Change of Control Period:
  - (i) any rating assigned to the Rated Securities is withdrawn; or

- (ii) (if the Rated Securities are Investment Grade Securities as at the Date of Announcement), the Rated Securities cease to be Investment Grade Securities; or
- (iii) (if the rating assigned to the Rated Securities by any Rating Agency which is current at the Date of Announcement is below an Investment Grade Rating) that rating is lowered one full rating notch by any Rating Agency (for example from “BB+” to “BB” by Standard & Poor's or Fitch and “Ba1” to “Ba2” by Moody's or such similar lowering of equivalent rating),

provided that no Rating Downgrade shall occur by virtue of a particular withdrawal of, or reduction in, rating unless the Rating Agency withdrawing or making the reduction in the rating announces or confirms that the withdrawal or reduction was the result, in whole or in part, of the relevant Change of Control; or

- (b) if at the time of the Date of Announcement there are no Rated Securities, either:
  - (i) the Issuer does not use all reasonable endeavours to obtain, within 45 days of the Date of Announcement, from a Rating Agency a rating for any Rated Securities; or
  - (ii) if the Issuer does use such endeavours, but, as a result of such Change of Control, at the expiry of the Change of Control Period there are still no Investment Grade Securities and the Rating Agency announces or confirms in writing that its declining to assign an Investment Grade Rating was the result, in whole or in part, of the relevant Change of Control.

### **3.8 Benchmark Event**

- (a) Notwithstanding the provisions above in this Condition 3, if, on or after 20 January 2025, the Issuer (in consultation with the Calculation Agent) determines that a Benchmark Event has occurred in relation to the Original Reference Rate (whether such occurrence is before, on or after 20 January 2025) when any Reset Rate of Interest (or any component part thereof) remains to be determined by reference to the Original Reference Rate, then the following provisions shall apply:
  - (i) The Issuer shall use its reasonable endeavours to appoint an Independent Adviser, as soon as reasonably practicable, with a view to the Issuer and the Independent Adviser determining, no later than three Business Days prior to the relevant Reset Determination Date, a Successor Rate, failing which an Alternative Rate (in accordance with Condition 3.8(a)(ii) below) and, in either case, an Adjustment Spread if any (in accordance with Condition 3.8(a)(iii) below) and any Benchmark Amendments (in accordance with Condition 3.8(a)(iv) below).

An Independent Adviser appointed pursuant to this Condition 3.8 shall act in good faith as an expert and (in the absence of bad faith or fraud) shall have no liability whatsoever to the Issuer, the Calculation Agent, any Paying Agent or the Holders for any determination made by it or for any advice given to the Issuer in connection with to the operation of this Condition 3.8.

- (ii) If:
  - (A) the Issuer and the Independent Adviser agree that there is a Successor Rate, then such Successor Rate shall (subject to adjustment as provided in Condition 3.8(a)(iii) below) subsequently be used in place of the Original Reference Rate as a component part of determining the relevant Reset Rate(s) of Interest for all future payments of interest on the Notes (subject to the subsequent further operation of this Condition 3.8); or
  - (B) the Issuer and the Independent Adviser agree that there is no Successor Rate but that there is an Alternative Rate, then such Alternative Rate shall (subject to adjustment as provided in Condition 3.8(a)(iii) below) subsequently be used in place of the Original Reference Rate as a component part of determining the relevant

Reset Rate(s) of Interest for all future payments of interest on the Notes (subject to the subsequent further operation of this Condition 3.8); or

(C) either (I) the Issuer is unable to appoint an Independent Adviser or (II) the Issuer and the Independent Adviser do not agree on the selection of a Successor Rate or an Alternative Rate prior to the Reset Determination Date relating to any applicable Reset Period, the fallback provisions set out in the definitions of Euro Swap Rate and Reset Reference Bank Rate in Condition 13 will continue to apply. For the avoidance of doubt, this Condition 3.8(a)(ii)(C) shall apply to the determination of the Reset Rate of Interest on the relevant Reset Determination Date only, and the Reset Rate of Interest applicable to any subsequent Reset Period(s) is subject to the subsequent operation of, and to adjustment as provided in, this Condition 3.8

(iii) If the Issuer and the Independent Adviser agree (A) that an Adjustment Spread is required to be applied to the Successor Rate or the Alternative Rate (as the case may be) and (B) 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).

(iv) If any Successor Rate, Alternative Rate or Adjustment Spread is determined in accordance with this Condition 3.8 and the Issuer and the Independent Adviser agree: (A) that amendments to these Conditions, the Interbolsa Agreement and/or the Paying Agency Agreement are 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 3.8(a)(v) below, without any requirement for the consent or approval of the Holders, vary these Conditions, the Interbolsa Agreement and/or the Paying Agency Agreement 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 3.8(a)(iv), the Issuer shall comply with the rules of any stock exchange or other relevant authority on or by which the Notes are for the time being listed or admitted to trading.

(v) Any Successor Rate, Alternative Rate, Adjustment Spread and the specific terms of any Benchmark Amendments, determined under this Condition 3.8 will be notified promptly by the Issuer to the Calculation Agent, the Paying Agents and, in accordance with Condition 9, the Holders. Such notice shall be irrevocable and shall specify the effective date of the Benchmark Amendments, if any and will be binding on the Issuer, the Calculation Agent, the Paying Agents and the Holders.

(vi) Without prejudice to the obligations of the Issuer under this Condition 3.8(a), the Original Reference Rate and the fallback provisions provided for in the definitions of Euro Swap Rate and Reset Reference Bank Rate in Condition 13 will continue to apply unless and until the Calculation Agent has been notified of the Successor Rate or the Alternative Rate (as the case may be), and any Adjustment Spread and Benchmark Amendments, in accordance with this Condition 3.8.

(b) Notwithstanding any other provision of this Condition 3.8:

(i) neither the Calculation Agent nor any Paying Agent is obliged to concur with the Issuer or the Independent Adviser in respect of any changes or amendments as contemplated under this Condition 3.8 if, in the reasonable opinion of the Calculation Agent or the relevant Paying Agent (as applicable), doing so would have the effect of imposing more onerous obligations upon it or expose it to any additional duties, responsibilities or liabilities or reduce or amend the protective provisions in these Conditions or the Paying Agency Agreement; and

- (ii) if the Calculation Agent is in any way uncertain as to the application of any Successor Rate, Alternative Rate and/or Adjustment Spread determined under this Condition 3.8 in the calculation or determination of any Rate of Interest (or any component part thereof), it shall promptly notify the Issuer thereof and the Issuer shall direct the Calculation Agent in writing (which direction may be by way of a written determination of an Independent Adviser) as to which course of action to adopt in the application of such Successor Rate, Alternative Rate and/or Adjustment Spread in the determination of such Rate of Interest. If the Calculation Agent is not promptly provided with such direction, it shall notify the Issuer thereof and the Calculation Agent shall be under no obligation to make such calculation or determination and shall not incur any liability for not doing so.

(c) As used in this Condition 3.8:

**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 acting in good faith determines is required to be applied to the Successor Rate or the Alternative Rate (as the case may be) to reduce or eliminate, to the extent reasonably practicable in the circumstances, any economic prejudice or benefit (as the case may be) to Holders 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:

- (i) in the case of a Successor Rate, is formally recommended in relation to the replacement of the Original Reference Rate with the Successor Rate by any Relevant Nominating Body; or
- (ii) in the case of an Alternative Rate, or (where (i) above does not apply) in the case of a Successor Rate, the Independent Adviser determines is recognised or acknowledged as being the industry standard for over-the-counter derivative transactions which reference the Original Reference Rate, where such rate has been replaced by the Successor Rate or the Alternative Rate (as the case may be); or
- (iii) (if the Independent Adviser determines that neither (i) nor (ii) above applies) the Independent Adviser determines to be appropriate.

**Alternative Rate** means an alternative benchmark or screen rate which the Independent Adviser and the Issuer agree in accordance with this Condition 3.8 has replaced the Original Reference Rate in 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 5 year period in euro.

**Benchmark Amendments** has the meaning specified in Condition (a)(iv).

**Benchmark Event** means:

- (i) the Original Reference Rate ceasing to exist, be administered or be published;
- (ii) the later of (A) 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 (B) the date falling six months prior to the specified date referred to in (ii)(A) above;
- (iii) 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;
- (iv) the later of (A) 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 (B) the date falling six months prior to the specified date referred to in (iv)(A) above;

- (v) the later of (A) 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 on or before a specified date and (B) the date falling six months prior to the specified date referred to in (v)(A) above; and/or
- (vi) it has, or will prior to the next Reset Determination Date, become unlawful for the Issuer, the Calculation Agent, any Paying Agent or any other party to calculate any payments due to be made to any Holder using the Original Reference Rate.

**Independent Adviser** means an independent financial institution of international repute or an independent financial adviser with appropriate expertise appointed by the Issuer under Condition 3.8(a) at its own expense.

**Original Reference Rate** means the rate described in paragraph (i) of the definition of Euro Swap Rate in Condition 13.

**Relevant Nominating Body** means, in respect of the Original Reference Rate:

- (i) the central bank, reserve bank, monetary authority or any similar institution for the currency to which the Original Reference Rate relates, or any central bank or other supervisory authority which is responsible for supervising the administrator of the Original Reference Rate; or
- (ii) any working group or committee sponsored by, chaired or co-chaired by or constituted at the request of (A) the central bank, reserve bank, monetary authority or any similar institution for the currency to which the Original Reference Rate relates, (B) any central bank or other supervisory authority which is responsible for supervising the administrator of the Original Reference Rate, (C) a group of the aforementioned central banks or other supervisory authorities, or (D) the Financial Stability Board or any part thereof.

**Successor Rate** means a successor to or replacement of the Original Reference Rate which is provided by law or regulation applicable to indebtedness denominated in the currency to which the Original Reference Rate relates and/or formally recommended by any Relevant Nominating Body.

## 4. REDEMPTION AND PURCHASE

### 4.1 Maturity

Unless redeemed earlier in accordance with these Conditions, the Notes will be redeemed on 20 July 2080 (the **Maturity Date**) at their Principal Amount, together with interest accrued up to (but excluding) the Maturity Date and any outstanding Deferred Interest Payments.

### 4.2 Early redemption at the option of the Issuer

The Issuer may redeem the Notes (in whole but not in part) on:

- (a) any Business Day from (and including) 20 April 2025 (the **First Call Date**) to (and including) the First Reset Date; or
- (b) any Interest Payment Date falling after the First Reset Date,

in each case at their Principal Amount, together with any interest accrued up to (but excluding) the Redemption Date and any outstanding Deferred Interest Payments, on the giving of not less than 30 and not

more than 60 calendar days' irrevocable notice of redemption to the Holders in accordance with Condition 9 and to the Principal Paying Agent.

#### 4.3 Early redemption due to a Gross-up Event or Change of Control Event

If a Gross-up Event or a Change of Control Event occurs, the Issuer may redeem the Notes (in whole but not in part) at their Principal Amount, plus any interest accrued up to (but excluding) the Redemption Date and any outstanding Deferred Interest Payments, on the giving of not less than 30 and not more than 60 calendar days' irrevocable notice of redemption to the Holders in accordance with Condition 9 and to the Principal Paying Agent.

In the case of a Gross-up Event:

- (a) no such notice of redemption may be given earlier than 90 calendar days prior to the earliest calendar day on which the Issuer would be for the first time obliged to pay the Additional Amounts in question on payments due in respect of the Notes were a payment in respect of the Notes then due; and
- (b) prior to the giving of any such notice of redemption, the Issuer shall deliver or procure that there is delivered to the Principal Paying Agent:
  - (i) a certificate signed by any two duly authorised representatives of the Issuer stating that the Issuer is entitled to effect such redemption and setting out a statement of facts showing that the conditions to the exercise of the right of the Issuer to redeem have been satisfied; and
  - (ii) an opinion of an independent legal adviser of recognised standing to the effect that the Issuer has or will become obliged to pay the Additional Amounts referred to in the definition of Gross-up Event.

**Gross-up Event** means that the Issuer has or will become obliged to pay Additional Amounts as a result of any change in, or amendment to, the laws (or any rules or regulations thereunder) of the Portuguese Republic or any political subdivision or any authority of or in the Portuguese Republic, or any change in or amendment to any official interpretation or application of those laws or rules or regulations, provided that the relevant amendment, change or execution becomes effective on or after the Issue Date and provided further that the payment obligation cannot be avoided by the Issuer taking reasonable measures available to it.

In the case of a Change of Control Event, such notice of redemption may only be given simultaneously with or after a notification by the Issuer in accordance with Condition 9 that a Change of Control Event has occurred.

*If a Change of Control Event occurs in respect of which the Issuer intends to deliver a notice exercising its right to redeem the Notes, the Issuer intends (without thereby assuming a legal obligation) as soon as reasonably practicable following such Change of Control Event to make an offer to all holders of the Relevant Securities to repurchase their respective securities at the lower of:*

- (a) *their respective market values; and*
- (b) *their respective aggregate nominal amounts together with any distribution accrued until the day of completion of the repurchase.*

*The Issuer will make such tender offer in such a way as to ensure that the repurchase of any such Relevant Securities tendered to it will be effected prior to any redemption of the Securities.*

*“Relevant Securities” means any current or future indebtedness of the Issuer to Senior Creditors in the form of, or represented or evidenced by bonds, notes, debentures or other similar securities or instruments (or a guarantee, keep well agreement or support undertaking in respect thereof) which does not include protection for the holders thereof (for example, in the form of a put option) in the event of a change of control of the Issuer (however defined).*

*“Senior Creditors” means all unsubordinated creditors, present and future, of the Issuer and all subordinated creditors of the Issuer other than those whose claims (whether only in the event of the winding-up or insolvency of the Issuer or otherwise) rank, or are expressed to rank, pari passu with or junior to the claims of the Holders.*

#### **4.4 Early redemption due to a Tax Event or Rating Agency Event**

If a Tax Event or a Rating Agency Event occurs, the Issuer may redeem the Notes (in whole but not in part) at:

- (a) if such redemption occurs prior to the First Call Date, 101 per cent. of their Principal Amount, plus any interest accrued up to (but excluding) the Redemption Date and any outstanding Deferred Interest Payments; or
- (b) if such redemption occurs on or following the First Call Date, their Principal Amount plus any interest accrued up to (but excluding) the Redemption Date and any outstanding Deferred Interest Payments,

on the giving of not less than 30 and not more than 60 calendar days' irrevocable notice of redemption to the Holders in accordance with Condition 9 and to the Principal Paying Agent.

In the case of a Tax Event: (i) no such notice of redemption may be given earlier than 90 calendar days prior to the earliest calendar day on which payments by the Issuer on the Notes would no longer be fully deductible for Portuguese corporate income tax purposes were a payment in respect of the Notes then due; and (ii) prior to the giving of any such notice of redemption, the Issuer shall obtain an opinion from an independent legal adviser or recognised independent tax counsel which states that a Tax Event has occurred and deliver it to the Principal Paying Agent for inspection by Holders during normal business hours.

A **Tax Event** will occur if, as a result of:

- (i) any amendment to, or change in, the laws (or any rules or regulations thereunder) of the Portuguese Republic or any political subdivision or any taxing authority thereof or therein, or the way in which the Notes are recorded in the consolidated financial statements of the Issuer due to a change or amendment in applicable accounting standards, which is enacted, promulgated, issued or otherwise becomes effective on or after the Issue Date; or
- (ii) any amendment to, or change in, an official and binding interpretation of any such laws, rules or regulations by any legislative body, court, governmental agency or regulatory authority (including the enactment of any legislation and the publication of any judicial decision or regulatory determination) which is enacted, promulgated, issued or otherwise becomes effective on or after the Issue Date; or
- (iii) any generally applicable official interpretation or pronouncement that provides for a position with respect to such laws or regulations that differs from the previous generally accepted position which is issued or announced on or after the Issue Date,

payments by the Issuer on the Notes would or will no longer be fully deductible by the Issuer for Portuguese corporate income tax purposes and such risk cannot be avoided by the Issuer taking reasonable measures available to it.

A **Rating Agency Event** shall occur if the Issuer has received confirmation from any Rating Agency that, due to any amendment to, clarification of, or change in the assessment criteria under its hybrid capital methodology or in the interpretation thereof, in each case occurring or becoming effective after the Issue Date, any or all of the Notes will no longer be eligible (or if the Notes have been partially or fully re-financed since the Issue Date and are no longer eligible for equity credit from such Rating Agency in part or in full as a result, any or all of the Notes would no longer have been eligible as a result of such amendment to, clarification of or, change in the assessment criteria or in the interpretation thereof had they not been re-financed) for the same or a higher amount of “equity credit” as was attributed to the Notes as at the Issue Date (or, if equity credit is not assigned to the Notes by the relevant Rating Agency on the Issue Date, the date on which equity credit is assigned by such Rating Agency for the first time).

#### **4.5 Purchase of Notes**

The Issuer or any Subsidiary may, in compliance with applicable laws, at any time purchase Notes in the open market or otherwise and at any price. Such acquired Notes may be cancelled, held or resold.

In the event that the Issuer and/or any Subsidiary has, severally or jointly, purchased Notes equal to or in excess of 75 per cent. of the sum of the aggregate Principal Amount of the Notes issued at the Issue Date and the aggregate Principal Amount of any Notes issued pursuant to Condition 8 (a **Substantial Repurchase Event**), the Issuer may redeem the remaining Notes (in whole but not in part) at their Principal Amount, together with any interest accrued and outstanding up to (but excluding) the relevant Redemption Date and any outstanding Deferred Interest Payments, on the giving of not less than 30 and not more than 60 calendar days' irrevocable notice of redemption to the Holders in accordance with Condition 9 and to the Principal Paying Agent.

#### **4.6 No Holder right of redemption**

A Holder does not have the right to (a) require any Note to be declared due and payable (without prejudice to Condition 10) and/or (b) require the Issuer to redeem the Notes.

### **5. PAYMENTS**

#### **5.1 Payments in respect of Notes**

The Issuer undertakes to pay, as and when due, principal and interest as well as all other amounts payable on the Notes in euro. Payment of principal and interest in respect of the Notes will be (i) credited, according to the procedures and regulations of Interbolsa, by the Portuguese Paying Agent (acting on behalf of the Issuer) to the TARGET2 payment current accounts held (in the payment system of the Bank of Portugal or otherwise) by the Affiliate Members of Interbolsa whose control accounts with Interbolsa are credited with such Notes and (ii) thereafter, credited by such Affiliate Members of Interbolsa from the aforementioned payment current accounts to the accounts of the Holders or through Euroclear and Clearstream, Luxembourg to the accounts with Euroclear and Clearstream, Luxembourg of the beneficial owners of those Notes, in accordance with the rules and procedures of Interbolsa, Euroclear or Clearstream, Luxembourg, as the case may be. Payments to the Clearing System or to its order shall, to the extent of amounts so paid and provided the Notes are still held on behalf of the Clearing System, constitute the discharge of the Issuer from its corresponding obligations under the Notes.

#### **5.2 Payments subject to applicable laws**

Payments in respect of principal and interest on the Notes (including Deferred Interest Payments) are subject in all cases to (i) any fiscal or other laws and regulations applicable in the place of payment, but without prejudice to the provisions of Condition 6, and (ii) any withholding or deduction required pursuant to an agreement described in Section 1471(b) of the U.S. Internal Revenue Code of 1986 (the **Code**) or otherwise imposed pursuant to Sections 1471 through 1474 of the Code, any regulations or agreements thereunder, any official interpretations thereof, or (without prejudice to the provisions of Condition 6) any law implementing an intergovernmental approach thereto.

#### **5.3 Payments on Business Days**

If the due date for payment of any amount in respect of any Note is not a Business Day, the holder shall not be entitled to payment of the amount due until the next succeeding Business Day and shall not be entitled to any further interest or other payment in respect of any such delay.

#### **5.4 Paying Agents**

The names of the Principal Paying Agent and the Portuguese Paying Agent and their specified offices are set out in Condition 13. The Issuer reserves the right at any time to vary or terminate the appointment of, and to appoint additional or other, paying agents provided that there will at all times be a paying agent in Portugal capable of making payment in respect of the Notes as contemplated by these terms and conditions of the Notes, the Paying Agency Agreement and applicable Portuguese laws and regulations.

Notice of any termination or appointment and of any changes in specified offices will be given to the Holders promptly by the Issuer in accordance with Condition 9.

## 6. TAXATION AND GROSS-UP

### 6.1 Additional Amounts

All amounts payable (whether in respect of principal, interest or otherwise) in respect of the Notes by the Issuer will be made without withholding or deduction for or on account of any present or future taxes or duties of whatever nature imposed or levied by or on behalf of the Relevant Jurisdiction, unless the deduction or withholding of such taxes or duties is required by law. In that event, the Issuer will pay such additional amounts (**Additional Amounts**) as shall be necessary in order that the net amounts receivable by Holders after such deduction or withholding shall equal the respective amounts of principal and interest which would otherwise have been receivable in respect of the Notes in the absence of such deduction or withholding; except that no such additional amounts shall be payable in respect of any payment in respect of any Note:

- (a) to, or to a third party on behalf of, a Holder or Beneficial Owner who is liable for such taxes or duties in respect of such Note by reason of having some connection with the Relevant Jurisdiction other than the mere holding of the Note; or
- (b) to, or to a third party on behalf of, a Holder or Beneficial Owner in respect of whom the information (which may include certificates) required in order to comply with Decree-Law 193/2005 of 7 November, and any implementing legislation, is not received on or earlier than the second Business Day prior to the Relevant Date, or which does not comply with the formalities in order to benefit from tax treaty benefits, when applicable; or
- (c) to, or to a third party on behalf of, a Holder or Beneficial Owner resident for tax purposes in the Relevant Jurisdiction, or a resident in a country, territory or region subject to a more favourable tax regime included in the list approved by Ministerial Order ("*Portaria*") no. 150/2004 of 13 February ("*Lista dos países, territórios e regiões com regimes de tributação privilegiada, claramente mais favoráveis*") as amended from time to time (**tax havens**), issued by the Portuguese Minister of Finance and Public Administration, with the exception of (i) central banks and governmental agencies as well as international institutions recognised by the Relevant Jurisdiction of those tax havens and (ii) tax havens which have a double taxation treaty in force or a tax information exchange agreement in force with Portugal, provided that all procedures and all information required under Decree-Law no. 193/2005 regarding (i) and (ii) above are complied with; or
- (d) to, or to a third party on behalf of, a Holder or Beneficial Owner who would have been able to avoid such withholding or deduction by presenting the relevant Note to another Paying Agent in a Member State of the European Union; or
- (e) to, or to a third party on behalf of, a Holder or Beneficial Owner, including, for the avoidance of doubt, to an undisclosed Beneficial Owner, who would not be liable for or subject to the withholding or deduction by making a declaration of non-residence or other similar claim for exemption to the relevant tax authority; or
- (f) to, or to a third party on behalf of: (i) a Portuguese resident legal entity subject to Portuguese corporate income tax (with the exception of entities that benefit from an exemption from Portuguese withholding tax or from Portuguese income tax exemptions); or (ii) a non-resident legal person with a permanent establishment in Portugal to which the income or gains obtained from the Notes are attributable (with the exception of entities which benefit from a Portuguese withholding tax exemption); or
- (g) where such withholding or deduction is required pursuant to an agreement described in Section 1471(b) of the Code or otherwise imposed pursuant to Sections 1471 through 1474 of the Code, any regulations or agreements thereunder, any official interpretations thereof, or any law implementing an intergovernmental approach thereto.

**Beneficial Owner** means the holder of the Notes who is the effective beneficiary of the income attributable thereto.

The **Relevant Jurisdiction** means the Portuguese Republic or any political subdivision or any authority thereof or therein having power to tax or any other jurisdiction or any political subdivision or any authority thereof or therein having power to tax to which the Issuer becomes subject in respect of payments made by it of principal and interest on the Notes.

The **Relevant Date** means the date on which the payment first becomes due but, if the full amount of the money payable has not been received by the Portuguese Paying Agent on or before such due date, it means the date on which, the full amount of the money having been so received, notice to that effect has been duly given to the Holders by the Issuer in accordance with Condition 9.

## **6.2 References**

Any reference in these Conditions to "principal amount" and/or "interest" (including in relation to any Deferred Interest Payments) in respect of the Notes shall be deemed also to refer to any Additional Amounts which may be payable under this Condition 6. Unless the context otherwise requires, any reference in these Conditions to "principal" shall include any redemption amount and any other amounts in the nature of principal payable pursuant to these Conditions and "interest" shall include all amounts payable pursuant to Condition 3 and any other amounts in the nature of interest payable pursuant to these Conditions (including Deferred Interest Payments and additional interest accrued on such Deferred Interest Payments).

## **7. PRESCRIPTION**

Subject to Condition 6, claims for payment in respect of the Notes will become void unless such payment is claimed within 10 years (in the case of principal) and five years (in the case of interest) from the Relevant Date.

## **8. FURTHER ISSUES**

The Issuer may from time to time, without the consent of the Holders, issue further notes having the same terms and conditions as those of the Notes in all respects (or in all respects except for the amount and date of the first payment of interest) so as to form a single series with the Notes and upon any such further issue of notes pursuant to this Condition 8 references in these Conditions to the "Notes" shall, unless the context otherwise requires, be deemed to include such further notes.

## **9. NOTICES**

### **9.1 Notice to Holders**

All notices regarding the Notes will be deemed to be validly given if delivered to the Clearing System for communication by it to the persons shown in its records as having interests therein. The Issuer shall also ensure that notices are duly given or published in a manner which complies with the rules and regulations of any stock exchange or other relevant authority on or by which the Notes are for the time being listed or admitted to trading.

### **9.2 Effectiveness of notices**

Any notice referred to in Condition 9.1 will be deemed to have been validly given on the second Business Day after the date of such delivery to the Clearing System.

### **9.3 Notices from Holders**

Notices to be given by any Holder may be given through the Clearing System in accordance with its standard rules and procedures.

## 10. EVENTS OF DEFAULT

If any of the events below (an **Event of Default**) occurs and is continuing then Holders holding not less than one quarter of the aggregate Principal Amount of the Notes then outstanding may, by written notice addressed to the Issuer, declare the Notes immediately due and payable, whereupon the Notes shall become immediately due and payable at their Principal Amount together with accrued interest thereon and any outstanding Deferred Interest Payments without further action or formality:

- (a) upon the initiation of, or consent to, the liquidation, winding-up or dissolution of the Issuer or if the Issuer admits in writing its inability to pay its debts as and when the same fall due; or
- (b) upon the application to any court (that remains undischarged for sixty days) for, or the making by any court of, an insolvency order against the Issuer; or
- (c) upon the appointment by any court of an insolvency administrator or other similar officer over all or any part of the Issuer's assets (that remains undischarged for sixty days); or
- (d) if default is made in the payment of any principal or interest amount that is due and payable in respect of the Notes or any of them and the default continues for a period of 30 days,

provided that no such event shall constitute an Event of Default if it is being contested in good faith by appropriate means by the Issuer and the Issuer has been advised by recognised independent legal advisers of good repute that it is reasonable to do so.

## 11. GOVERNING LAW AND JURISDICTION

### 11.1 Governing law

The Interbolsa Instrument, the Paying Agency Agreement and the Notes, and any non-contractual obligations arising out of or in connection with the Interbolsa Instrument, the Paying Agency Agreement or the Notes, are governed by and shall be construed in accordance with, English law, with the exception of Conditions 1 and 2 which shall be governed by Portuguese law. The form ("*forma de representação*") and transfer of the Notes, creation of security over the Notes and the Interbolsa procedures for the exercise of rights under the Notes are governed by and shall be construed in accordance with, Portuguese law.

### 11.2 Meetings

The Paying Agency Agreement contains provisions for convening meetings of the Holders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution (as defined in the Paying Agency Agreement) of a modification of the Notes or any provisions of the Paying Agency Agreement.

### 11.3 Jurisdiction

- (a) Subject to Condition 11.3(c), the courts of England are to have exclusive jurisdiction to settle any disputes which may arise out of or in connection with the Notes (including any dispute as to their existence, validity, interpretation, performance, breach or termination or the consequences of their nullity and any dispute relating to any non-contractual obligations arising out of or in connection with the Notes) (a **Dispute**) and accordingly the Issuer submits to the exclusive jurisdiction of the English courts.
- (b) The Issuer irrevocably and unconditionally waives any objection to the English courts on the grounds that they are an inconvenient or inappropriate forum to settle any Dispute.
- (c) To the extent allowed by law, Holders may, in respect of any Dispute or Disputes, take (i) proceedings against the Issuer in any other court with jurisdiction, and (ii) concurrent proceedings in any number of jurisdictions.

#### 11.4 Process Agent

The Issuer appoints Law Debenture Corporate Services Limited at its registered office for the time being (being at the Issue Date at Fifth Floor, 100 Wood Street, London EC2V 7EX) as its agent for service of process in England in respect of any Dispute, and undertakes that, in the event of Law Debenture Corporate Services Limited ceasing so to act, it will appoint another person as its agent for service of process in England in respect of any Dispute. Nothing herein shall affect the right to serve proceedings in any other manner permitted by law.

#### 12. CONTRACTS (RIGHTS OF THIRD PARTIES) ACT 1999

No person shall have any right to enforce any term or Condition in respect of any Note under the Contracts (Rights of Third Parties) Act 1999, but this does not affect any right or remedy of any person which exists or is available apart from that Act.

#### 13. DEFINITIONS AND INTERPRETATION

Unless the context otherwise requires, the following terms shall have the following meanings in these Conditions:

**Additional Amounts** has the meaning specified in Condition 6.1.

**Adjustment Spread** has the meaning specified in Condition 3.8.

**Affiliate Member of Interbolsa** means each financial institution which is licensed to act as a financial intermediary under the Portuguese Securities Code ("*Código dos Valores Mobiliários*") and which is entitled to hold control accounts with Interbolsa on behalf of their customers (and includes any depositary banks appointed by Euroclear and/or Clearstream, Luxembourg for the purpose of holding accounts on behalf of Euroclear and/or Clearstream, Luxembourg).

**Agent Bank** means an independent investment bank, commercial bank or stockbroker appointed by the Issuer;

**Alternative Rate** has the meaning specified in Condition 3.8.

**Benchmark Amendments** has the meaning specified in Condition 3.8(a)(iv).

**Benchmark Event** has the meaning specified in Condition 3.8.

**Book Entry** has the meaning specified in Condition 1.3.

**Book-Entry Registry** has the meaning specified in Condition 1.3.

**Business Day** means a day on which (a) commercial banks and foreign exchange markets are open for general business in London and Lisbon; and (b) TARGET2 is open.

**Calculation Agent** means Deutsche Bank AG, London Branch, or any successor entity.

**Change of Control** has the meaning specified in Condition 3.7.

**Change of Control Event** has the meaning specified in Condition 3.7.

**Change of Control Period** has the meaning specified in Condition 3.7.

**Clearing System** and **Interbolsa** mean Interbolsa – Sociedade Gestora de Sistemas de Liquidação e de Sistemas Centralizados de Valores Mobiliários, S.A., as operator of the CVM.

**CMVM** means the *Comissão do Mercado de Valores Mobiliários*, the Portuguese Securities Commission.

**Code** has the meaning specified in Condition 5.2.

**Compulsory Payment Event** has the meaning specified in Condition 3.5.

**Conditions** means these terms and conditions of the Notes.

**CVM** means the Central de Valores Mobiliários, the centralised securities system managed by Interbolsa.

**Date of Announcement** has the meaning specified in Condition 3.7.

**Deferred Interest Payment** has the meaning specified in Condition 3.4.

**Dispute** has the meaning specified in Condition 11.3(a).

**Euro Swap Rate** means, in relation to a Reset Period and the Reset Determination Date in relation to such Reset Period:

- (i) the annual mid-swap rate for euro swap transactions with a maturity of five years, expressed as a percentage, which appears on the Reset Screen Page as of 11:00 a.m. (Central European Time) on such Reset Determination Date; or
- (ii) if such rate does not appear on the Reset Screen Page on the relevant Reset Determination Date at approximately that time, the Reset Reference Bank Rate as determined by the Agent Bank on such Reset Determination Date,

subject in each case to Condition 3.8.

**Event of Default** has the meaning specified in Condition 10.

**Executive Board of Directors** means the executive board of directors of the Issuer.

**First Call Date** has the meaning specified in Condition 4.2(a).

**First Reset Date** has the meaning specified in Condition 3.2(a).

**First Step-Up Date** has the meaning specified in Condition 3.2(b).

**Fitch** means Fitch Ratings Ltd. (or any of its subsidiaries or any successor in business thereto from time to time).

**General and Supervisory Board** means the general and supervisory board of the Issuer.

**Gross-up Event** has the meaning specified in Condition 4.3.

**Holders** means a holder of Notes in accordance with the Rules.

**Independent Adviser** has the meaning specified in Condition 3.8.

**Interbolsa Instrument** has the meaning specified in the preamble to these Conditions.

**Interest Amount** has the meaning specified in Condition 3.2 and shall include any interest accrued on such Interest Amount pursuant to Condition 3.4.

**Interest Payment Date** has the meaning specified in Condition 3.2.

**Investment Grade Rating** has the meaning specified in Condition 3.7.

**Investment Grade Securities** has the meaning specified in Condition 3.7.

**Issue Date** means 20 January 2020.

**Issuer** means EDP – Energias de Portugal, S.A.

**Issuer Shares** has the meaning given to it in Condition 2.2.

**Maturity Date** has the meaning specified in Condition 4.1.

**Moody's** means Moody's Investors Service Limited (or any of its subsidiaries or any successor in business thereto from time to time).

**Notes** has the meaning specified in the preamble to these Conditions.

**Original Reference Rate** has the meaning specified in Condition 3.8.

**Parity Security** means: (i) any security issued by the Issuer which ranks, or is expressed to rank, *pari passu* with the Notes; and (ii) any security guaranteed by, or subject to the benefit of a keep well agreement or support undertaking entered into by, the Issuer where the Issuer's obligations under the relevant guarantee, keep well agreement or support undertaking rank *pari passu* with the Issuer's obligations under the Notes.

**Paying Agency Agreement** has the meaning specified in the preamble to these Conditions.

**Paying Agent** has the meaning specified in the preamble to these Conditions.

**Payment Reference Date** has the meaning given to it in Condition 3.5.

**Portuguese Paying Agent** means Deutsche Bank Aktiengesellschaft – Sucursal em Portugal with its specified office at Rua Castilho, 20, 1250-069 Lisbon, Portugal.

**Principal Amount** has the meaning specified in Condition 1.1.

**Principal Paying Agent** means Deutsche Bank AG, London Branch with its specified office at Winchester House, 1 Great Winchester Street, London EC2N 2DB, United Kingdom.

**Rated Securities** has the meaning specified in Condition 3.7.

**Rate of Interest** has the meaning specified in Condition 3.2.

**Rating Agency** means: (a) for the purposes of Condition 3.7, Moody's, Standard & Poor's or Fitch or any other rating agency of equivalent international standing specified from time to time by the Issuer; and (b) for the purposes of Condition 4.4, any of Moody's, Standard & Poor's or Fitch.

**Rating Agency Event** has the meaning specified in Condition 4.4.

**Rating Downgrade** has the meaning specified in Condition 3.7.

**Redemption Date** means the day on which the Notes become due for redemption in accordance with these Conditions.

**Reference Banks** means five leading swap dealers in the Eurozone interbank market selected by the Agent Bank after consultation with the Issuer.

**Relevant Date** has the meaning specified in Condition 6.1.

**Relevant Jurisdiction** has the meaning specified in Condition 6.1.

**Relevant Nominating Body** has the meaning specified in Condition 3.8.

**Relevant Person** has the meaning specified in Condition 3.7.

**Reset Date** means the First Reset Date and each date that falls five, or a multiple of five, years following the First Reset Date.

**Reset Determination Date** means, in relation to any Reset Period, the second Business Day prior to the Reset Date on which such Reset Period commences.

**Reset Margin** means 1.844 per cent. per annum.

**Reset Period** means the period from and including the First Reset Date to but excluding the next Reset Date and each successive period from and including a Reset Date to but excluding the next succeeding Reset Date.

**Reset Rate of Interest** means, in relation to any Reset Period, the sum of the Euro Swap Rate in relation to that Reset Period (rounded to four decimal places, with 0.00005 being rounded down) and the Reset Margin, as determined by the Calculation Agent on the relevant Reset Determination Date.

**Reset Reference Bank Rate** means the percentage determined by the Agent Bank on the basis of the mid-market annual swap rate quotations provided by the Reference Banks at approximately 12:00 noon (Central European Time) on the relevant Reset Determination Date. For this purpose, the **mid-market annual swap rate** means 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 five-year term commencing on the first day of the relevant Reset Period and in an amount that is representative for a single transaction in the relevant market at the relevant time 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 6-month Eurozone interbank offered rate (EURIBOR) (expressed as a percentage rate per annum). The Agent Bank will request the principal office of each of the Reference Banks to provide a quotation of its rate. If at least three quotations are provided, the applicable Reset Reference Bank Rate will be the arithmetic mean of the 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 only two quotations are provided, the applicable Reset Reference Bank Rate will be the arithmetic mean of the quotations. If only one quotation is provided, the applicable Reset Reference Bank Rate will be the quotation provided. If no quotations are provided, the applicable Reset Reference Bank Rate shall be equal to the last Euro Swap Rate available on the Reset Screen Page as determined by the Calculation Agent.

**Reset Screen Page** means Reuters screen "ICESWAP2" or such other page as may replace it on that information service, or on such other equivalent information service as determined by the Calculation Agent, for the purpose of displaying the annual swap rates for euro swap transactions with a five-year maturity.

**Rules** means the legislation, rules, regulations and operating procedures from time to time applicable to or stipulated by Interbolsa in relation to the CVM.

**Second Step-Up Date** has the meaning specified in Condition 3.2.

**Senior Obligations** means all obligations of the Issuer (including any obligation assumed by the Issuer under any guarantee of, or any keep well agreement) other than the obligations of the Issuer in respect of any Parity Security or the Issuer Shares.

**Standard & Poor's** means S&P Global Ratings Europe Limited (French Branch) (or any of its subsidiaries or any successor in business thereto from time to time).

**Subsidiary** means an entity from time to time of which the Issuer (a) has the right to appoint the majority of the members of the board of directors or similar board or (b) owns directly or indirectly more than 50 per cent. of the share capital or similar right of ownership.

**Substantial Repurchase Event** has the meaning specified in Condition 4.5.

**Successor Rate** has the meaning specified in Condition 3.8.

**TARGET2** means the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET2) System.

**Tax Event** has the meaning specified in Condition 4.4.

## REPLACEMENT INTENTION

The Issuer intends (without thereby assuming a legal obligation), during the period from and including the Issue Date to but excluding the Second Step-Up Date, that in the event of a redemption of the Notes at the Issuer's option pursuant to Condition 4.2 or a repurchase of the Notes, if the Notes are assigned an "equity credit" (or such similar nomenclature then used by Standard & Poor's) by Standard & Poor's at the time of such redemption or repurchase, it will redeem or repurchase the Notes only to the extent the Aggregate Equity Credit of the Notes to be redeemed or repurchased does not exceed the Aggregate Equity Credit received by the Issuer or any Subsidiary from the sale or issuance by the Issuer or the relevant Subsidiary to third party purchasers (other than group entities of the Issuer) of replacement securities (but taking into account any changes in the assessment criteria under Standard & Poor's hybrid capital methodology or the interpretation thereof since the issuance of the Notes) (the **Restrictions**).

For the purpose of the Restrictions, **Aggregate Equity Credit** means:

- (x) in relation to the Notes, the part of the aggregate Principal Amount of the Notes that was assigned "equity credit" by Standard & Poor's at the time of their issuance; and
- (y) in relation to replacement securities, the part of the net proceeds received from issuance of such replacement securities that was assigned "equity credit" by Standard & Poor's at the time of their sale or issuance (or the "equity credit" Standard & Poor's has confirmed will be assigned by it upon expiry or waiver of issuer call rights which prevent the assignment of "equity credit" by Standard & Poor's on the issue date of such replacement securities).

The intention described above does not apply:

- i. if, on the date of such redemption or repurchase, the rating assigned by Standard & Poor's to the Issuer is the same as or higher than the long-term corporate credit rating assigned to the Issuer on the date when the Issuer's most recent additional hybrid security was issued (excluding refinancings) and the Issuer is of the view that such rating would not fall below such level as a result of such redemption or repurchase; or
- ii. if, on the date of such redemption or repurchase, the Issuer no longer has a corporate issuer credit rating by Standard & Poor's; or
- iii. in the case of a repurchase of the Notes if such repurchase, taken together with other repurchases of hybrid securities of the Issuer, is of less than (x) 10 per cent. of the aggregate principal amount of the Issuer's outstanding hybrid securities in any period of 12 consecutive months or (y) 25 per cent. of the aggregate principal amount of the Issuer's outstanding hybrid securities in any period of 10 consecutive years, provided that in each case such repurchase has no materially negative effect on the Issuer's credit profile; or
- iv. if, on the date of such redemption or repurchase, the statements made in the Restrictions set forth above are no longer required for the Notes to be assigned an "equity credit" by Standard & Poor's that is equal to or greater than the "equity credit" assigned by Standard & Poor's on the Issue Date; or
- v. if such replacement would cause the Issuer's outstanding hybrid capital which is assigned "equity credit" by Standard & Poor's to exceed the maximum aggregate principal amount of hybrid capital which Standard & Poor's, under its then prevailing methodology, would assign "equity credit" to based on the Issuer's adjusted total capitalisation.

## **USE OF PROCEEDS**

The net proceeds of the Notes, amounting to approximately €744,142,500, will be used by the Issuer to finance or refinance, in whole or in part, the Issuer's Eligible Green Project portfolio. The Issuer's Eligible Green Project portfolio includes existing or planned investments of EDP Renováveis S.A, a fully consolidated subsidiary of the Issuer, which support the transition to a low carbon economy, especially those that help increase the production of renewable energy. Eligible Green Projects include the design, construction, installation and maintenance of renewable energy production projects, such as wind power plants (onshore and offshore) and solar power plants (photovoltaic or concentrated solar power - CSP) and will be assessed and monitored according to a framework and set of criteria available on the Issuer's website.

## EDP AND THE EDP GROUP

### BUSINESS OVERVIEW

EDP – Energias de Portugal, S.A. (**EDP** and together with its subsidiaries, the **Group** or the **EDP Group**) is a listed company (*sociedade aberta*), whose ordinary shares are publicly traded on the regulated market of Euronext Lisbon. EDP is established in Portugal, organised under the laws of Portugal and registered with the Commercial Registry Office of Lisbon, under no. 500.697.256. Its registered head office is located at Av. 24 de Julho, 12, 1249 - 300 Lisbon, Portugal, and its telephone number is +351210012500.

EDP was initially incorporated as a public enterprise (*empresa pública*) in 1976 pursuant to Decree-Law no. 502/76, of 30 June 1976, as a result of the nationalisation and merger of the principal Portuguese companies in the electricity sector in mainland Portugal. Subsequently, EDP was transformed into a limited liability company (*sociedade anónima*) pursuant to Decree-Law no. 7/91, of 8 January 1991, and Decree-Law no. 78-A/97, of 7 April 1997.

Under Article 3.1 of its Articles of Association, the corporate purpose of EDP is the direct or indirect promotion, development and management of undertakings and activities in the energy sector, both at national and international levels, with the goal of growing and improving the performance of its group's companies.

The privatisation of EDP's share capital involved eight phases in total, the first one in 1997 and the last one concluded in February 2013. The most significant shareholdings in EDP's share capital (i.e. shareholdings equal to or higher than 2 per cent.) as of 30 November 2019 are: China Three Gorges Corporation (**CTG**), owning 23.27 per cent.; Oppidum Capital S.L., owning 7.19 per cent.; BlackRock, Inc., owning 5.00 per cent.; Mubadala Investment Company, owning 3.15 per cent.; Paul Elliott Singer, owning 2.45 per cent.; Fundação Millennium BCP and BCP Group Pension Fund, owning 2.43 per cent.; Sonatrach SpA, owning 2.38 per cent.; AllianceBernstein L.P., owning 2.30 per cent.; Qatar Investment Authority, owning 2.27 per cent.; Norges Bank, owning 2.22 per cent.; and State Street Corporation, owning 2.00 per cent. As of 30 September 2019, EDP has an issued share capital of €3,656,537,715, comprised of 3,656,537,715 shares with a nominal value of €1 per share, all of which have been paid up.

EDP is a vertically integrated utility company that has electricity, gas and renewable energy operations in Portugal, Spain and Brazil and further renewable energy operations in the United States, Romania, France, Italy, Poland, Mexico, Belgium, Canada, the United Kingdom, Greece, Peru and Colombia. EDP believes that it is the largest generator, distributor and supplier of electricity in Portugal in terms of gigawatt hours (**GWh**) and the third largest electricity generator in the Iberian Peninsula in terms of installed capacity. EDP also believes that it is one of Brazil's largest private generators, distributors and suppliers of electricity in terms of GWh and one of the largest onshore wind power operators worldwide in terms of GWh, with operations spanning across Europe, North America and Brazil. EDP also generates solar photovoltaic energy in Portugal, Romania and the United States.

Historically, EDP's core business had been focused on electricity generation, distribution and supply in Portugal. Given Spain's geographical proximity and its regulatory framework, the Iberian Peninsula's electricity market became EDP's natural home market, and EDP made this market the primary focus of its integrated electricity business. As at the date of this Prospectus, EDP's main subsidiaries in Portugal include its electricity generation company, EDP - Gestão da Produção de Energia, S.A. (**EDP Produção**), its electricity distribution company, EDP Distribuição de Energia, S.A. (**EDP Distribuição**), and its two supply companies EDP Serviço Universal, S.A. (**EDP SU**) and EDP Comercial - Comercialização de Energia, S.A. (**EDP Comercial**). In Spain, EDP's main subsidiary is EDP España, S.A.U. (formerly HC Energía Hidroeléctrica del Cantábrico, S.A.U.) (**EDP España**), which operates electricity generation plants and distributes and supplies electricity mainly in the Asturias region of Spain.

In addition to the electricity market, EDP is also present in the natural gas supply business in both Portugal and Spain. In Portugal, EDP supplies natural gas through EDP Comercial and EDP Gás Serviço Universal, S.A. (**EDP Gás Serviço Universal**). In Spain, EDP holds indirectly (through EDP España) EDP Comercializadora, S.A.U. (**EDP Comercializadora**), which EDP believes is one of the largest natural gas suppliers in the Spanish market in terms of number of clients. In July and October 2017, EDP sold 100 per cent. of its gas distribution networks in Spain and Portugal, respectively, in line with EDP's strategy of strengthening its financial profile and integrating its business portfolio.

EDP participates in the renewable energy sector through EDP Renováveis, S.A. (**EDP Renováveis**), a leading renewable energy company headquartered in Spain that designs, develops, manages and operates power plants that generate electricity using renewable energy sources: wind and solar. EDP currently holds an 82.6 per cent. stake in EDP Renováveis, with the remaining 17.4 per cent. traded on Euronext Lisbon. EDP Renováveis has built significant growth platforms in the North American, European and Latin American markets for the development and operation of power plants that generate electricity using these renewable resources and is continuously monitoring opportunities to expand its activities globally. In May 2019, EDP signed a memorandum of understanding with Engie for the creation of a co-controlled 50/50 joint venture for offshore wind, aiming to become a major global player in the field.

In Brazil, in addition to a renewable energy generation business, EDP has significant electricity generation, distribution, supply and transmission businesses in 11 states through its 51.3 per cent. stake in EDP Energias do Brasil, S.A. (**EDP Brasil**), a company listed on the São Paulo Stock Exchange. EDP Brasil is the holding company for the majority of EDP's investments in the Brazilian electricity industry, including (i) its distribution subsidiaries, EDP São Paulo Distribuição de Energia S.A. (formerly Bandeirante Energia, S.A.) (**EDP São Paulo**) and EDP Espírito Santo Distribuição de Energia S.A. (formerly Escelsa-Espírito Santo Centrais Elétricas S.A.) (**EDP Espírito Santo**); (ii) its generation subsidiaries, Energest, S.A. (**Energest**), EDP Lajeado Energia, S.A. (**Lajeado Energia**), Enerpeixe, S.A., (**Enerpeixe**) and Porto do Pecém Geração de Energia, S.A. (**Pecém**); (iii) its supply subsidiaries, EDP Comercialização e Serviços de Energia, Ltda. (**EDP Comercializadora de Energia**) and EDP Grid Gestão de Redes Inteligentes de Distribuição, S.A (**EDP Grid**); and more recently, (iv) its transmission subsidiary, EDP Transmissão, S.A. (**EDP Transmissão**). In 2016, EDP Brasil entered the transmission business, after being awarded the concession to operate a transmission grid in Brazil. In 2017, EDP Brasil was awarded a further four electricity transmission concessions and an additional one was acquired in May 2019. Additionally, EDP Brasil holds a 23.6 per cent. stake in Centrais Elétricas de Santa Catarina S.A. – CELESC (**CELESC**), a publicly held electricity utility company in Brazil, a 50 per cent. stake in each of Jari and Cachoeira Caldeirão; and a 33.3 per cent. stake in São Manoel.

The Group's revenues from energy sales and services and other for the nine months ended 30 September 2019 and 2018 amounted to €10,447 million and €11,311 million, respectively. The Group's revenues from energy sales and services and other for the years ended 31 December 2018 and 2017 amounted to €15,278 million and €15,746 million, respectively. As at 30 September 2019, the EDP Group employed 11,599 people and had total assets of €41,751.1 million and total equity of €12,671.8 million.

## STRATEGY OF EDP

In March 2019 EDP announced a new strategic update for 2019-2022. The strategic update contains a vision to lead energy transition and to create superior value for shareholders. The key elements of this strategy are: (i) accelerated and focused growth; (ii) continuous portfolio optimisation; (iii) preserving a solid balance sheet and a low-risk business profile; (iv) improving efficiency and enabling digitalisation of the business; and (v) delivering attractive shareholder remuneration.

### 1. Accelerated and focused growth

EDP intends to significantly increase its annual investments, targeting €2.9 billion per year in the period 2019-2022, a 60 per cent. increase from the €1.8 billion per year announced for the period 2016-2020. The faster deployment of renewables capacity will be combined with the sale of majority stakes in selected energy assets (targeted at over €4 billion in the period 2019-2022), to promote a less capital intensive growth model.

In line with EDP's objective to reinforce its distinctive "green" positioning and low risk profile, nearly 90 per cent. of capital expenditure is expected to be devoted to regulated and long-term activities with a focus on renewables (approximately 75 per cent. of total investment), networks (approximately 20 per cent. of total investment) and client solutions and energy management (approximately 5 per cent. of total investment). In geographical terms, approximately 40 per cent. of total investment is expected to be deployed in North America, 35 per cent. in Europe and the remaining 25 per cent. in South America.

EDP was an early mover in renewables energy and has built a strong track record. Based on its assessment of wind generation figures published by top wind market operators, EDP stands as one of the largest wind power operators worldwide with 10.8 GW of wind and solar power capacity installed as of 30 September 2019 (0.4 GW of which constitutes equity consolidated capacity). This position is the result, not only from competent execution, but also from EDP's competitive advantage in all the operational variables: availability, costs and load factor.

As of the 30 September 2019, EDP has a renewable energy installed capacity of 20.2 GW consisting of 9.3 GW of hydro power (in Iberia and Brazil) and 10.8 GW of wind and solar power (mostly in Europe and the United States). In 2018, 66 per cent. of EDP's generated electricity came from renewable sources of energy compared to 20 per cent. in 2005. EDP expects to add 7.2 GW of renewable capacity in the period 2019-2022, with a focus on wind onshore and solar photovoltaic (PV). As of September 2019, approximately 70 per cent. of the expected capacity additions was already PPA secured. By 2022, more than 70 per cent. of EDP's generated electricity is expected to come from renewable assets.

With regards to EDP's wind offshore portfolio, EDP's strategy has been to develop projects in partnerships with other operators in the market, seeking to diversify its risk exposure to this technology. As such, in May 2019, EDP announced the creation of a co-controlled 50/50 joint-venture with Engie for fixed and floating offshore wind. EDP and Engie were already partners in the development and construction of five wind offshore projects in Europe. The new entity will be the exclusive investment vehicle of EDP, through its subsidiary EDP Renováveis, and Engie for offshore wind opportunities worldwide which we expect will become a major global player in the field, bringing together the industrial expertise and development capacity of both companies. The joint-venture is expected to be operational by the end of the first quarter of 2020.

Another component of EDP's growth strategy is centred around networks. Networks are key assets for EDP as they provide stable and long term cash flow streams that act as a low-risk portfolio stabiliser. EDP is continuously seeking efficiency gains in networks' operations, while delivering superior quality of service. As part of these efforts, grids are being modernised and digitalised in order to respond to the challenges of the energy transition, that require smarter grids to accommodate an increasing weight of intermittent renewable generation and to manage demand on time.

An important driver of investment in networks is the growth in the transmission segment in Brazil. Between 2016 and 2017, EDP was awarded five transmission lines in Brazil, totalling nearly 1,300 km. Transmission line "24", in Espírito Santo state started operations in December 2018 (20 months ahead of the regulatory schedule). The remaining four lines are under construction and scheduled to be completed by 2021, again ahead of the regulatory schedule. More recently, in May 2019, EDP announced the acquisition of a further transmission line in Brasil (142 km), expected to enter in operation by 2021. The six transmission lines have an expected total investment of R\$3.9 billion until 2022, of which 37 per cent. was already executed as of September 2019.

In the client solutions and energy management segment, EDP is focused on active portfolio management, allowing for a natural hedge of generation with customers and also between renewables and thermal assets. Additionally, EDP seeks to enhance value for its approximately 11 million clients by improving quality of service and providing new solutions that meet clients' needs, while contributing to the energy transition. EDP's strategy consists in managing its client base to enhance value rather than market share, while promoting decentralisation.

## **2. Continuous portfolio optimisation**

EDP is continuously considering portfolio optimisation strategies that promote sustained value creation, growth acceleration and a low-risk profile supported by geographical diversification.

In parallel with the investment plan related to EDP's accelerated growth strategy, EDP intends to adjust its asset portfolio and generate over €6 billion in proceeds from:

- (i) asset rotations of majority stakes in renewable projects (€4 billion), which allows full upfront value crystallisation and capital recycling to accelerate growth in renewables. In December 2018, EDP executed its first asset rotation of a majority stake (80 per cent.) in a 499 MW wind farm in the United States with significant gains. A second transaction was announced in April 2019 and closed in July 2019, corresponding to the sale of EDP's 51 per cent. stake in a 997 MW wind onshore portfolio in Europe, equivalent to 491 MW equity share. A third transaction was announced in July 2019, corresponding to the sale of EDPR's full equity stake in Babilónia, a 137 MW wind farm in Brasil. This transaction is expected to be completed by the end of the first quarter of 2020.
- (ii) disposals of stakes mainly in Iberia, aiming to reduce exposure to market risk and/or thermal energy sources. EDP announced a disposal of this nature in December 2019 by confirming an agreement had been reached to sell six hydro plants in a transaction valued at €2.2 billion. The transaction is expected to be completed by the second half of 2020, following the fulfilment of the applicable corporate and regulatory conditions.

## **3. Preserving a Solid Balance Sheet and a Low Risk Business Profile**

A key element of EDP's strategy is to maintain a strong financial profile while delivering growth targets. EDP's financial deleveraging efforts aim to reinforce the visibility of free cash flow generation over the medium term, supported by strict financial criteria underlying investment decisions, timely execution of projects and a risk-controlled growth strategy.

EDP aims to reduce leverage in the period 2019-2022 through strong cash flow generation and proceeds from disposals. This reduction of leverage, together with an increase in operating results, is expected to lead to an improvement in financial indicators.

EDP intends to reinforce the deleveraging strategy with a low-risk operating profile. EDP seeks to maintain diversification in terms of markets and regulatory environments while also keeping a relatively low exposure to market volatility.

EDP has a high proportion of activities in its portfolio that are either long-term contracted or regulated. As such, its revenues are dependent on the outcome of regulatory decisions by governments and other authorities. To reduce its exposure to regulatory risk, EDP is in regular contact with regulatory authorities in order to ensure an accurate and appropriate regulatory treatment, including regarding the level of returns EDP receives on capital employed in connection with its networks activities, which are fully regulated.

Some of EDP's operations are exposed to liberalised energy markets, which are subject to fluctuations in energy demand, supply and prices both in EDP's core markets and in other related international markets. In order to reduce its exposure to these sources of volatility, EDP operates an integrated generation and supply model and maintains a hedging strategy that allows it to secure pricing for a significant portion of its fuel needs and electricity and gas sales in the liberalised markets for a period between 12 and 18 months.

Furthermore, EDP has focused a majority of its investments on geographies with low political and regulatory risk, such as Europe and the United States.

## **4. Improving efficiency and greater digitalisation of business**

EDP recognises the importance of regularly executing new initiatives to improve the efficiency of its operations and is committed to implementing its operational expenditures efficiency programme.

EDP aims to reach cumulative savings of €300 million for the period 2019-2022. The savings are expected to result primarily from implementing operating expenditure (**OPEX**) efficiency programmes (including zero based budgeting), maintaining generational replacement ratio, embedding new skills in the organisation, and from the strong investment in digitalisation, which aims to increase asset intelligence (for example, the installation of smart meters) and operational and process efficiency (for example, advanced analytics and predictive maintenance).

## **5. Delivering attractive shareholder remuneration**

EDP is committed to delivering attractive returns through a predictable and sustainable dividend policy based on a target payout ratio of 75 to 85 per cent. of Net Profit, with a dividend floor at €0.19 per share, thus allowing for future increases in the dividend per share in line with sustainable earnings per share growth.

Furthermore, EDP is pursuing growth under a sustainable business model for the long-term, that aims to deliver superior value to all stakeholders. In this way, EDP has already committed with sustainability targets for 2030, focused on a clear green positioning and anticipating the challenges of the energy transition.

## EDP'S BUSINESS SEGMENTS

Historically, EDP's core business has been electricity generation, distribution and supply in Portugal. Given Spain's geographical proximity and its regulatory framework, the Iberian Peninsula's electricity market has become EDP's natural home market. In addition to the electricity market, EDP is also present in the natural gas supply business in both Portugal and Spain. Through its subsidiary EDP Renováveis, EDP has a strong presence worldwide in terms of renewable energy generation with facilities across Europe, North America and Brazil. EDP also has electricity generation, distribution and supply activities in Brazil, and is currently investing in the electricity transmission segment in that country.

### GENERATION AND SUPPLY IN IBERIA

Electricity and gas supply activities in Portugal and Spain are managed centrally by EDP's Energy Management Business Unit, which monitors the financial position of the region's electricity power plants, short and medium-term risk profiles, as well as gas procurement contracts.

On 19 December 2019, EDP announced the recognition of a €0.3 billion impairment in its thermal Iberian portfolio to be booked in 2019, supported by the acceleration of the energy transition process during 2019 that led to a material deterioration of the operating outlook for coal plants in the Iberian market.

#### Portugal

Based on the REN Reports, total electricity consumption in mainland Portugal in 2018 reached 50.9 TWh, representing a year-on-year increase of 2.5 per cent. (when adjusted for temperature and working days, it increased year-on-year by 1.7 per cent.). As the largest generator, distributor and supplier of electricity in Portugal in terms of GWh, EDP currently holds the leading position in the Portuguese domestic electricity market, according to ERSE. As at 31 December 2018, the Group accounted for 57 per cent. of the installed capacity in the Portuguese National Electricity System (**SEN**).

#### *Generation (excluding wind power)*

Generation is the first activity in the energy sector's value chain. The Group is present in this activity in Portugal through EDP Produção, which operates an extended portfolio of generation facilities with a particular focus on hydroelectric energy, coal energy and natural gas combined cycle (**CCGT**). EDP's wind generation activities in Portugal are held via EDP Renováveis. See " — EDP Renováveis".

As at 31 December 2018, EDP Produção's generating facilities in Portugal had a total maximum capacity of 10,002 MW, 67 per cent. of which was represented by hydroelectric facilities, 20.3 per cent. by CCGT power plant facilities, 11.8 per cent. by coal-fired facilities, 0.6 per cent. by mini hydroelectric power plants and 0.2 per cent. by Fisigen's cogeneration facility. EDP does not own or operate any nuclear-powered facilities in Portugal.

EDP's hydroelectric portfolio in Portugal had an installed capacity of 6,702 MW as at 31 December 2018 organised in three generating centres, which generally correspond to the three regional locations in Portugal where these facilities are located. These operations are controlled from a remote command centre located in Porto, Portugal. Regarding the latest capacity additions in EDP Produção's hydroelectric portfolio, the Venda Nova III pumping facility (780 MW) and the Foz-Tua new hydro reservoir with pumping capacity (263 MW) became operational during the first half of 2017 and 2018, respectively.

On 19 December 2019, EDP announced an agreement had been reached to sell six hydro plants in a transaction valued at €2.2 billion. The transaction is expected to be completed by the second half of 2020, following the fulfilment of the applicable corporate and regulatory conditions. This transaction aims at optimising EDP's asset portfolio, decreasing the Group's exposure to concentrated hydro volatility and merchant prices and reinforcing the low risk profile, as well as improving financial leverage.

EDP Produção also operates a portfolio of mini hydro power plants (**HPPs**) with an installed capacity of 44 MW as at 31 December 2018, the bulk of which is remunerated under a feed-in tariff scheme. On 19 December 2018, EDP Produção sold 100 per cent. of EDP Small Hydro, S.A., the owner of seven small hydro plants and of Pebble Hydro – Consultoria, Invest. e Serv., Lda., the owner of 14 small hydro plants, for €164 million. The purpose of this sale, together with the disposal of a 50 per cent. stake in EDP Produção Bioelétrica S.A., agreed on 31 July 2018 for €55 million, was to optimise EDP's renewable portfolio by disposing of non-core and low-scale activities in Portugal and reallocating and investing the capital proceeds in more attractive projects and growth areas.

EDP's thermal infrastructure and operations in Portugal consist of four power plants, the largest being the coal-fired power station in Sines, with an installed capacity of 1,180 MW which was contracted under PPA/CMEC until 30 June 2017 and has been operating in the liberalised market since then. The remaining power plants are CCGT facilities located in Carregado (Ribatejo CCGT with an installed capacity of 1,169 MW) and in Figueira da Foz (Lares I and II CCGT

with an installed capacity of 863 MW). To reduce the emissions from its existing thermal plants, EDP installed DeSOx and DeNOx equipment in Sines. EDP is also currently evaluating new CO<sub>2</sub> sequestration technologies.

In 2018, net electricity generation from EDP Produção reached 24,989 GWh, which represented a year-on-year increase of 11.4 per cent., due to the severe drought in Portugal in the previous year. Hydro resources were approximately 51 per cent. short of the long-term average in Portugal in 2017.

### ***Supply of electricity and natural gas***

EDP supplies electricity and natural gas to customers in the liberalised market through EDP Comercial and in the regulated market through EDP SU and EDP Gás Serviço Universal.

#### ***Supply in the liberalised market***

All electricity consumers in Portugal have been free to choose their electricity supplier since 2006. After 2008, the size of the liberalised markets increased considerably. As of 31 December 2018, accumulated electricity consumption in the liberalised market represented approximately 94 per cent. of total consumption.

According to ERSE, EDP Comercial retained its liberalised market leadership in Portugal in 2018 both by number of clients and volume of electricity supplied, despite a strong increase in competition. EDP Comercial had an 83.8 per cent. liberalised market share in terms of annualised clients and a 42.1 per cent. liberalised market share in terms of volumes supplied in 2018. The electricity sold by EDP Comercial in 2018 amounted to 18,119 GWh, compared to 18,246 GWh in 2017. As at 31 December 2018 the number of customers was 4,118,610, compared to 4,153,315 customers at 31 December 2017.

All natural gas consumers in Portugal have been free to choose their gas supplier since the beginning of 2010. EDP's successful dual offer (electricity and gas) to residential and small business customers (**B2C**), continued to drive an increase in the number of EDP Comercial's B2C gas customers from 654,713 at 31 December 2017 to 656,234 at 31 December 2018, sustaining EDP as a major player in the liberalised gas market with a market share by number of clients of 55.0 per cent. in 2018 according to ERSE. The natural gas marketed by EDP in the Portuguese liberalised market in 2018 was 3,604 GWh, in line with the previous year (B2C increase offset by lower sales in the companies and institutions (**B2B**) market).

#### ***Companies and institutions (B2B)***

As at 31 December 2018, the B2B electricity business of EDP Comercial had a client portfolio amounting to 139,373 facilities, compared to 137,781 as at 31 December 2017. Volume supplied reached 7,590 GWh during 2018, which compares to 7,966 GWh during 2017. This volume reduction is consistent with EDP's strategy to focus on higher margin segments of the B2B market.

#### ***Residential and small business customers (B2C)***

Since 2006, EDP Comercial has been the most active B2C supplier in the liberalised market. As at 31 December 2018, the B2C electricity business of EDP Comercial had a client portfolio amounting to 3,979 thousand residential and small business customers, compared to 4,015 thousand as at 31 December 2017, to which it supplied 10,529 GWh in 2018, which accounts for a 2.0 per cent. year-on-year increase.

### ***Energy services***

EDP believes that its energy services business will play an increasingly important role in retaining customers, in strengthening their long-term partnership with EDP and in creating value for both EDP and its customers. This area's activity consists of designing and implementing value added energy solutions, for both B2B and B2C customers, ranging from energy efficiency and micro-generation, to electricity quality monitoring and electric equipment maintenance. It is also through this services activity that EDP deploys its initiatives under the Plan for Promoting Consumption Efficiency, an energy efficiency plan promoted by the regulator. In B2C energy services it is worth highlighting the growth of EDP Funciona service with 339.3 thousand contracts in 31 December 2018, compared to 294.4 thousand contracts in 31 December 2017.

#### ***Supply in the regulated market***

Under Portuguese law, transitory last resort supply tariffs are available to encourage Portuguese customers to switch to the liberalised natural gas and electricity markets. Customers can nevertheless opt for a regulated tariff if they have moved to the liberalised market.

In Portugal, EDP supplies electricity in the regulated market through EDP SU. The prices that EDP SU charges for the electricity supplied to the customers remaining in the regulated market are uniform throughout mainland Portugal and subject to extensive regulation. Revenues for last resort suppliers comprise different components according to the

regulated activity: (i) the costs related to the purchase and sale of energy and the access to the networks are fully recouped and recognised in the regulated cost base; (ii) regarding the commercialisation activity, OPEX is subject to a price-cap mechanism, with an efficiency factor of 1.5 per cent. Total clients supplied by EDP SU in 2018 declined by 8.0 per cent. year-on-year to 1,125,340 as at 31 December 2018. Volumes supplied by EDP SU fell from 3.75 TWh in 2017 to 3.34 TWh in 2018.

EDP Gás Serviço Universal is the entity responsible for the supply of natural gas in the regulated market. As at 31 December 2018, EDP Gás Serviço Universal had 40,573 customers and supplied 249 GWh during 2018 (a decrease of 8.9 per cent. and 10.4 per cent. year-on-year, respectively, mainly due to the switch of customers to liberalised suppliers).

## **Spain**

Based on the REE Reports, total electricity consumption in mainland Spain reached 253.6 TWh in 2018, representing a year-on-year increase of 0.4 per cent. (when adjusted for temperature and working days, it increased by 0.3 per cent.).

### ***Generation (excluding wind power)***

Through its subsidiary EDP España, the Group is present in electricity generation (excluding wind power) in the following regions of Spain: Asturias, Navarra and Guadalajara. EDP's wind generation activities in Spain are held via EDP Renováveis. See "*— EDP Renováveis*".

As at 31 December 2018, EDP España had a total installed capacity of 3,528 MW, with approximately 48.1 per cent. represented by CCGT power plant facilities, 34.7 per cent. by coal-fired facilities, 12.1 per cent. by hydroelectric facilities and 0.7 per cent. by cogeneration and biomass facilities. EDP España also holds a 15.5 per cent. interest in Central Nuclear Trillo I, A.I.E., which owns the Trillo nuclear power plant, corresponding to 156 MW of the plant's net capacity of 1,003 MW. To reduce emissions from its existing thermal plants, approximately 72 per cent. of the Group coal portfolio in Spain had DeSOx/DeNOx equipment as of 31 December 2018.

In 2018, net electricity generation from EDP España was stable year-on-year reaching 9,566 GWh.

### ***Supply of electricity and natural gas***

In Spain, EDP supplies electricity and natural gas to customers in the liberalised market through EDP España and EDP Comercializadora, whilst last resort customers are supplied by EDP Comercializadora de Último Recurso S.A. (**EDP CUR**).

#### ***Supply in the liberalised market***

In Spain, retail tariffs for electricity were phased out in June 2009, and substituted by a last resort tariff system. Thus, since 1 July 2009, last resort consumers (low-voltage consumers whose contracted power is less than or equal to 10 kW) have been able to choose between their last resort supplier and several common suppliers in the liberalised market. Gas retail tariffs no longer exist in Spain, meaning that gas customers are able to choose between their last resort supplier and several common suppliers in the liberalised market. EDP's subsidiary EDP CUR is the last resort supplier of electricity and gas in the Asturias and Basque Country regions, respectively.

As at 31 December 2018, the total number of electricity customers in the Spanish liberalised market supplied by EDP España and EDP Comercializadora was 932,867 and these customers were invoiced for 12,106 GWh of electricity supplied, a 10.7 per cent. year-on-year decrease. The energy sold represents 7 per cent. of the total energy sold in the liberalised market in Spain during 2018.

In 2018, the B2B segment recorded sales of 9,862 GWh, a year-on-year decrease of 13.6 per cent. in line with EDP's strategy to focus on the most attractive customer segments.

Within the B2C operation, sales of 2,243 GWh were achieved in 2018, representing a year-on-year increase of 4.7 per cent. The strategy in this segment has been focused on portfolio analysis in order to attract profitable customers and gain their loyalty. On the other hand, a campaign was carried out to protect the dual domestic customer segment by means of the *Fórmula Ahorro* (Savings Formula) plan. This promotional offer included electricity and gas supply and a maintenance service through the Funciona programme, an energy services programme where the customers are provided with an overhaul and maintenance of their electricity and gas installations, air conditioning equipment and electrical appliances. This programme has resulted in 573,374 contracts as at 31 December 2018.

Natural gas marketed in 2018 by EDP in Spain was 14,882 GWh, a 0.8 per cent. year-on-year increase, with a total of 843,966 clients at 31 December 2018, reflecting fewer and less appealing trading opportunities in the wholesale market and EDP's strategy of focusing on the most attractive customer segments. Gas sold in the B2B segment amounted to 10,233 GWh, and the remaining 4,649 GWh were sold in the B2C segment.

### *Supply in the regulated market*

As a result of the process of liberalising the Spanish electricity sector, since July 2009 low voltage customers with power less than or equal to 10 kW can receive power by contract or through a reference supplier, including EDP CUR, at a tariff determined by the Spanish government called the Voluntary Price for the Small Consumer.

As at 31 December 2018, EDP CUR had 221,080 electricity customers. These customers consumed 443 GWh of electricity during 2018, in line with previous year.

In respect of gas supply activity, EDP's efforts to move customers from the regulated to the liberalised market were effective (only a small percentage still remains on the last resort tariff system) when gas retail tariffs ended in Spain in June 2008. As at 31 December 2018, EDP CUR had 51,323 customers (a 0.8 per cent. year-on-year decrease) and supplied 261 GWh (a 7.0 per cent. year-on-year increase).

## REGULATED NETWORKS IN IBERIA

The Group engages in electricity distribution activity through EDP Distribuição in Portugal and EDP España in Spain. Transmission, distribution and supply of last resort are regulated activities provided through the award of licences or concessions.

EDP sold 100 per cent. of its natural gas distribution network in each of Spain and Portugal on 27 July 2017 and 4 October 2017, respectively. The Group has ceased gas distribution activity in both countries.

### Portugal

#### *Distribution of electricity*

EDP Distribuição is EDP's regulated Portuguese electricity distribution company acting under a public service concession. As part of its distribution activities, EDP Distribuição carries out approximately 99 per cent. of Portugal's local electricity distribution.

EDP Distribuição had over 226,000 kilometres of grid across Portugal as of 31 December 2018, (a 0.1 per cent. year-on-year increase), of which 36.7 per cent. correspond to high and medium-voltage grid and 63 per cent. to low voltage grid. During 2018 EDP Distribuição distributed 46,059 GWh of electricity (2.9 per cent. year-on-year increase) to over 6.2 million supply points for the year ended 31 December 2018 (0.6 per cent. year-on-year increase).

#### *Service quality*

The quality of EDP's technical service, which is monitored by ERSE, is measured by the indicator "Installed Capacity Equivalent Interruption Time" (**TIEPI**), which measures the specific amount of interruption time within the company's control. In 2018, TIEPI increased by 11 minutes year-on-year to 61 minutes, excluding extraordinary events, remaining below the regulator's reference.

EDP has continued to invest in the maintenance of its systems and is continuing to undertake new technical and organisational initiatives, which have allowed its grid to perform adequately despite adverse weather conditions. EDP is particularly focused on Portuguese regions that historically have recorded comparatively lower service quality levels with specific improvement plans that include maintenance, restructuring and reinforcement of the grids.

#### *Innovation*

EDP believes that smart grids have the potential to help distribution system operators address the technical challenges posed by new technologies, such as dispersed generation and electric vehicles, while also enhancing efficiency and quality of service. The evolution towards a smarter grid is an increasingly important part of EDP Distribuição's strategy. This transformation process affects a few different areas within the company.

InovGrid is EDP Distribuição's umbrella project for smart grids that has been framing and grouping the modernisation needs of the distribution network. This project includes increasing decentralised production of renewable energy and developing a more efficient management of the network, as well as the development of a range of new products and services, allowing more active participation of the client and the promotion of energy efficiency.

InovGrid's first significant milestone was the completion of a smart city pilot in the municipality of Évora in 2011. Following the Évora trial, EDP Distribuição started smart meter deployment with national reach. In 2018, 444,959 smart meters EDP Boxes (**EBs**) were installed in Portugal, resulting in a total installed base of 1,922,991 EBs as of 31 December 2018. EDP is prioritising the installation of EBs in the urban perimeter of district capitals.

Beyond smart metering, EDP Distribuição is developing other aspects of its smart grid vision, with projects such as the deployment of remote metering in all transformer sites and public lighting circuits and the installation of *Distribution Transformer Controller* devices to monitor the grid in important low voltage substations. As at 31 December 2018, there were a total of 19,074 distribution transformer controllers installed in Portugal, of which 4,189 units were installed between 1 January and 31 December 2018.

EDP Distribuição participates in a large number of European projects, actively collaborating with peers, industry, academia and policy-makers to share knowledge and advance the smart grids vision.

#### *Efficiency of operations*

Increases in operational efficiency at EDP Distribuição have enabled more customers to be served and more energy distributed with fewer employees. At EDP Distribuição, the ratio of supply points per employee, often used as a measure of productivity in distribution companies, increased from 1,052 in 2004 to 1,944 in 2018. As at 31 December 2018, the energy distributed per employee was 14.4 GWh. This has increased considerably in recent years; for the full 12-month period in 2004 the energy distributed per employee was 7.4GWh.

## **Spain**

EDP España is the Group's regulated Spanish electricity distribution company acting under a public service license. EDP España has an electricity distribution network that covers the regions of Asturias (accounting for a large majority of its network), Madrid, Valencia, Cataluña and Aragon, totalling 20,709 kilometres as at 31 December 2018. Electricity distributed in 2018 through EDP España's network amounted to 9,360 GWh, a 0.3 per cent. year-on-year increase. As at 31 December 2018, EDP España's electricity distribution business had 666,403 supply points, a 0.3 per cent. year-on-year increase.

### ***Distribution of electricity***

Distribution in the high and medium-voltage sector amounted to 7,110 GWh in 2018, in line with 2017, while in the low-voltage sector the total amount distributed in 2018 reached 2,250 GWh, representing a 1.3 per cent. year-on-year decrease.

### ***Service quality***

The investments carried out in recent years, as well as good working practices, allowed interruption to supply to continue to decrease. Despite the unfavourable topographical features in most of its market, EDP believes that EDP España leads in quality of service in the Spanish electricity system. In 2018, TIEPI decreased by 3 minutes year-on-year to 17 minutes, mainly due to unfavourable weather conditions in the same period of 2017.

### ***Efficiency of operations***

The results of EDP España's distribution network show the company's continuous efforts to maintain a high level of efficiency. In the electricity distribution area, productivity in 2018 remained high, with 30.5 GWh distributed per employee and 2,171 supply points per employee. Furthermore, EDP España has maintained high network availability levels, as shown by the TIEPI.

## EDP RENOVÁVEIS

EDP Renováveis is a global leader in renewable energy. While its revenue is mostly derived from wind energy activities it also earns revenue from solar energy. It currently operates renewable energy assets in Europe (Spain, Portugal, France, Belgium, Italy, Poland and Romania), North America (United States, Canada and Mexico) and Brazil and has various projects in different stages of construction and development in these countries, as well as in United Kingdom and Greece.

As at 31 December 2018, EDP Renováveis managed a global portfolio of 11,672 MW spread over 11 countries, of which 11,301 MW was fully consolidated and an additional 371 MW was accounted for in accordance with the equity method (related to EDP Renováveis's equity stakes in Spain and in the United States). The overall installed capacity of EDP Renováveis as of 31 December 2018 was spread across Europe (5,424 MW), North America (5,781 MW) and Brazil (467 MW), reflecting a total of 826 MW of new capacity added to its portfolio year-on-year. As at 31 December 2018, the average age of the 11,301 MW fully consolidated global portfolio was 8 years. Geographically, EDP Renováveis' portfolio had an average age of 9.1 years in Europe, 6.8 years in North America and 2.5 years in Brazil as at 31 December 2018. EDP Renováveis benefits from a balanced portfolio across different geographies and quality wind farms supported by solid wind assessment know-how, allowing it to maximise output even in periods with lower wind resource.

In 2018, EDP Renováveis produced 28,359 GWh of clean electricity (a 3 per cent. year-on-year increase), cutting 19.8 million tons of CO<sub>2</sub> emissions, which is calculated, geographically by country, by multiplying EDP Renováveis' wind generation in a country during a certain year with the emissions factor of the power sector for that same country for that same year (excluding nuclear generation). The increase in production benefitted mainly from capacity additions (year-on-year increase of 625 MW) with a higher expected load factor. The achieved load factor in 2018 was 30 per cent., compared to 31 per cent. in 2017. While the majority of EDP Renováveis's wind portfolio is concentrated on onshore assets, with over 344 MW onshore wind assets under construction across different jurisdictions as at 31 December 2018, the Group is committed to developing and expanding its offshore capabilities. As at 31 December 2018, the Group was developing offshore projects in the UK, France and the United States and a floating project in Portugal, which are expected to begin operations by 2020.

On September 2017, MOWEL was awarded a 15-year Contract for Difference (CfD) by the UK's Department for Business, Energy & Industrial Strategy (BEIS) for the delivery of 950 MW of offshore wind generation at £57.5/MWh (2012 tariff-based). MOWEL is expected to be completed by 2022. As of 31 December 2018, EDP Renováveis's stake in MOWEL was 33.3 per cent., along with DGE (33.4 per cent.), Engie (23.3 per cent.) and CTG (10 per cent.).

On 14 December 2018, EDP Renováveis announced that Mayflower Wind Energy LLC, a joint venture company owned by EDPR Offshore North America LLC and Shell New Energies US LLC (each holding 50 per cent. of the shares), was the provisional winner of an offshore wind auction for the exclusive rights to develop the federal commercial wind energy lease on the Outer Continental Shelf, located off the coast of Massachusetts (the **Mayflower Project**). Once constructed, the lease area can accommodate a total generation capacity of approximately 1.6 GW. On 30 October 2019, the Mayflower Project was chosen by Massachusetts to supply 804 MW of clean offshore wind energy. The Mayflower Project, located more than 20 miles south of Nantucket, is expected to be operational in 2025.

On 18 December 2018, EDP Renováveis announced the sale of a 13.5 per cent. equity stake in two French offshore wind projects, Yeu-Noirmoutier and Dieppe-Le Tréport (each with an expected capacity of 496 MW), to SRPN SAS and SRPT SAS (both of which are owned by Sumitomo Corporation. As part of this transaction, EDP Renováveis reduced its shareholding to 29.5 per cent. in both projects, in exchange for an upfront payment of €42.8 million. These offshore wind farms projects are currently under development and are expected to start operations by mid-2020s.

On 31 December 2018, EDP Renováveis closed an agreement with Axiom Infrastructure to sell an 80 per cent. equity shareholding in a portfolio of fully-owned wind onshore assets in the United States and Canada. The total capacity of the divested portfolio was 499 MW and comprised three wind farms. The divestment is part of EDP Renováveis' asset rotation programme, which contemplates sales by EDP Renováveis of majority stakes in projects in operation or under development. This strategy allows EDP to recycle capital, with up-front cash flow crystallisation, and create value by reinvesting the proceeds in accretive growth, while continuing to provide operating and maintenance services.

On 19 March 2019, EDP Renováveis secured two 20-year contracts at an auction organised by the Colombian Government for the construction of wind farms. The contracts refer to the Alpha (212 MW) and Beta (280 MW) onshore wind projects, which are currently being developed by EDPR and have an expected commercial operation date in 2022. Colombia is EDPR's fourteenth market and the third in Latin America, after Brazil and Mexico. On 23 October 2019, EDP Renováveis secured two 15-year Power Purchase Agreement for these projects.

On 23 April 2019, EDP Renováveis signed a Sale and Purchase Agreement with institutional investors advised by J.P. Morgan Asset Management to sell full equity shareholding and outstanding shareholder loans in a wind portfolio with

997 MW of installed capacity (491 MW net for EDPR – shareholding at 51 per cent. in most of the wind farms), for a total consideration of approximately €800 million (including loans), covering 388 MW in operation in France, 348 MW in operation in Spain, 191 MW in operation in Portugal (part of ex-ENEOP assets) and 71 MW in operation in Belgium. A master services agreement has also been executed pursuant to which EDP Renováveis will provide operating and maintenance services to the portfolio. This divestment is also part of the above-mentioned asset rotation programme.

On 21 May 2019, EDP Renováveis signed with Engie a strategic memorandum of understanding, to create a co-controlled 50/50 joint venture in fixed and floating offshore wind which will be the exclusive vehicle of investment of EDPR and Engie for offshore wind opportunities. Under the terms of the memorandum of understanding, EDP Renováveis and Engie, will combine their offshore wind assets and project pipeline in the newly-created joint venture, starting with:

- (i) 1.5 GW under construction: Moray East (950 MW), Wind Float Atlantic (25 MW), SeaMade (487 MW)<sup>1</sup>; and
- (ii) 4.0 GW under development: Moray West (800-950 MW), Tréport & Noirmoutier (992 MW), Leucate (24 MW), Mayflower (1,500 MW), B&C Wind (400 MW), California (100-150 MW)<sup>2</sup>.

On 29 July 2019, EDP Renováveis signed a sale and purchase agreement with an affiliate of Actis to sell EDPR's full equity shareholding in Babilónia, an operating onshore wind project with 137 MW of installed capacity, for a total consideration of approximately R\$ 650 million (equity value; subject to customary closing adjustments). The transaction is subject to regulatory and other precedent conditions and is expected to be completed by the end of the first quarter of 2020. This deal is also part of EDPR's asset rotation programme.

On 24 October 2019, EDP Renováveis North America, signed a build and transfer agreement with Northern Indiana Public Service Company LLC. The agreement enables the development and construction of EDPR's 302 MW Indiana Crossroads Wind Farm in the U.S. state of Indiana, which is expected to come online by 2021. The completion of this transaction is subject to regulatory approval and other customary closing conditions for a transaction of this nature.

On 29 October 2019, EDP Renováveis acquired a 50 per cent. stake in a 278 MW solar portfolio located in the U.S. EDP expects to make a total net equity investment in the portfolio of approximately \$150 million. The portfolio is expected to come online in early 2020 and comprises three projects, all secured with long-term power purchase agreements.

On 18 December 2019, EDP Renováveis secured a 20-year Contract for Difference at a Greek energy auction to sell electricity produced by Xironomi 33 MW wind farm, located in Central Greece, and with expected commercial operation in 2022. This new contract reinforces EDPR's footprint in Greece with c.120 MW to be commissioned between 2020 and 2022 in the country, a new market with a sustainable development of its renewable energy sources.

On 19 December 2019, EDP, through EDP Renováveis, secured 15-year Contract for Difference at a Polish energy auction to sell electricity produced by a portfolio of 11 wind farms with a total capacity of 307 MW. These projects are expected to become operational in 2021 and 2022. This new long-term contract reinforces EDP Renováveis's footprint in Poland, leading to a portfolio of over 750 MW of wind onshore capacity by 2022.

## Europe

Electricity generation in Europe in 2018 decreased by 2 per cent. year-on-year to 11,480 GWh. In Europe, EDP Renováveis reached a 26 per cent. load factor in 2018 (compared to 27 per cent. in 2017), representing 94 per cent. of the long-term average P50 production level.

In 2018, EDP Renewables Europe (**EDPR EU**) installed new net wind energy capacity of 211 MW in Europe which increased total installed capacity to 5,424 MW as at 31 December 2018 (of which 152 MW related to equity consolidated farms), spread over seven countries: Spain, Portugal, France, Belgium, Italy, Poland and Romania.

As at 31 December 2018, EDP Renováveis had 145 MW under construction in Europe: 29 MW in Spain; 50 MW in Italy; 19 MW in France; and 47 MW in Portugal.

## Spain

In Spain, EDP Renováveis' installed wind energy capacity as at 31 December 2018 amounted to 2,312 MW on a fully consolidated basis plus 152 MW equity consolidated.

In 2018, EDP Renováveis installed 68 MW of wind energy capacity in Spain. The contribution of renewable sources for total electricity consumption in Spain in 2018 was 40 per cent., a 6 basis point year-on-year increase compared to 2017.

<sup>1</sup> Corresponds to 100% of projects capacity

<sup>2</sup> Corresponds to 100% of projects capacity

EDP Renováveis in Spain reached a load factor of 26 per cent. in 2018, representing a decrease from 27 per cent. in 2017. Electricity output in 2018 increased by 1 per cent. year-on-year, amounting to 5,164 GWh.

As at 31 December 2018, EDP Renováveis had 29 MW of wind onshore energy capacity under construction in Spain.

### **Portugal**

In Portugal, EDP Renováveis' installed wind energy capacity as at 31 December 2018 totalled 1,309 MW including 5 MW of PV.

In 2018, EDP Renováveis installed 55 MW of wind energy capacity in Portugal. The contribution of renewable sources for total electricity consumption in Portugal in 2018 was 55 per cent., representing a 12 basis point year-on-year increase compared to 2017.

EDP Renováveis' load factor in Portugal in 2018 reached 27 per cent., which was stable year-on-year (27 per cent. in 2017) reflecting above average wind resource. As a result, as at 31 December 2018 the electricity output in Portugal increased 3 per cent. year-on-year from 2,912 GWh in 2017 to 2,995 GWh in 2018.

As at 31 December 2018, EDP Renováveis had 47 MW of wind onshore energy capacity under construction in Portugal and 14 MW from Windplus floating project.

### **Rest of Europe**

As at 31 December 2018, EDP Renováveis had 1,652 MW of capacity installed in the rest of Europe and was as follows: Romania 521 MW (of which 50 MW are PV), France 421 MW, Poland 418 MW, Italy 221 MW and Belgium 71 MW. In 2018, 88 MW of new wind energy capacity was installed in Italy (77MW) and France (11MW).

In 2018, the rest of EDP Renováveis' European operations delivered a 24 per cent. load factor, representing a decrease from 27 per cent. in 2017. The electricity output decreased by 9 per cent. year-on-year to 3,321 GWh in 2018, reflecting the lower realised load factor offset in part by capacity additions.

As at 31 December 2018, EDP Renováveis had 50 MW and 19 MW of wind onshore energy capacity under construction in Italy and France, respectively. Moreover, EDP Renováveis is pursuing opportunities for offshore platforms. As at 31 December 2018, EDP Renováveis had 316 MW of new capacity offshore under construction, corresponding to Moray East project.

### **North America**

In North America, EDP Renováveis' total installed capacity as at 31 December 2018 totalled 5,781 MW (of which 219 MW was equity consolidated) and was as follows: 5,551 MW spread across 14 different states in the United States, including 90 MW related to solar energy; 30 MW in Canada; and 200 MW in Mexico.

In 2018, EDP Renováveis installed 478 MW of wind energy capacity in the United States corresponding to 199 MW of Turtle Creek, 78 MW of Arkwright and 200 MW of Meadow Lake VI. Pursuing its Sell-Down strategy, in December 2018, EDP Renováveis sold an 80 per cent. stake (160 MW) in the Meadow Lake VI, consolidating the remaining 20 per cent. (40 MW) at equity level.

In 2018, the electricity output in North America increased by 4 per cent. year-on-year to 15,644 GWh, reflecting new capacity additions and benefitting from the higher wind resource of such projects. The average load factor decreased from 35 per cent. in 2017 to 34 per cent. in 2018.

As at 31 December 2018, EDP Renováveis had 199 MW of wind onshore under construction in the United States, related to Prairie Queen. EDPR sold an 80 per cent. stake in this project in December 2018 (keeping the responsibility to build the project until the commercial operation date).

### **Brazil**

EDP Renováveis' installed wind energy capacity in Brazil totalled 467 MW as at 31 December 2018, all of which operated under long-term contracts, providing visibility over cash flow generation. 137 MW of wind energy capacity was installed in 2018 relating to Babilonia wind project awarded at an energy generation auction with a PPA for a period of 20 years.

The average load factor in Brazil decreased from 43 per cent. in 2017 to 40 per cent. in 2018. Electricity output in 2018 increased by 43 per cent. year-on-year, amounting to 1,235 GWh.

## **EDP'S ENERGY BUSINESS IN BRAZIL**

### **Generation (excluding wind power)**

As at 31 December 2018, EDP Brasil's generating facilities had a total installed capacity of 2,320 MW fully consolidated, 68.9 per cent. of which was represented by hydroelectric facilities (1,599 MW located in the states of Tocantins, Espírito Santo, Amapá, Pará and Mato Grosso do Sul) and 31.0 per cent. by the Pecém coal thermal plant (720 MW located in Ceará). Additionally, EDP Brasil has 539 MW accounted for in accordance with the equity method through its interest in Santo Antônio do Jari HPP (corresponding to 50 per cent. of 393 MW total installed capacity) and Cachoeira Caldeirão HPP (corresponding to 50 per cent. of 219 MW total installed capacity), both in partnership with CTG, as well as a 33.34 per cent. equity stake in São Manoel HPP (700 MW) in partnership with CTG and Furnas.

In 2018, the total volume of energy sold by EDP's fully consolidated plants in Brazil reached 9,050 GWh, a 5 per cent. increase compared to the previous year, which includes 3,455 GWh from Pecém coal thermal plant.

During 2018 EDP Brasil completed its São Manoel HPP project. The first generation unit (175 MW) became operational in December 2017, four months ahead of schedule. Construction of the second, third and fourth generation units, 175 MW each, was completed in January, March and April 2018, three and a half months, two months and a few days ahead of schedule, respectively.

On 21 December 2018, EDP Brasil sold EDP Pequenas Centrais Hidrelétricas S.A., owner of seven mini-hydro plants, and Santa Fé Energia S.A., owner of one mini-hydro plant, all located in the state of Espírito Santo, with a total installed capacity of 131.9MW, for R\$601 million.

### **Distribution**

Electricity distribution services are provided to a market that is divided into captive customers, who acquire electricity provided by the distributor and pay for their use of the network, and free customers, who choose a different electricity supplier and pay the distributor only for the use of the distribution network.

The distribution activities of EDP Brasil are currently developed by two concessionaires, which had approximately 3.45 million customers as of 31 December 2018, in regions where the total population is approximately 8 million people:

- EDP São Paulo – Supplies energy to approximately 1.8 million customers in 28 municipalities in the regions of Alto Tietê, Vale do Paraíba and Litoral Norte from the state of São Paulo, where approximately 4.5 million people live. The area has a large concentration of companies from important economic sectors, such as aviation, paper and pulp manufacturing.
- EDP Espírito Santo – Provides services to a population of approximately 3.3 million inhabitants in 70 of the 78 municipalities from the state of Espírito Santo, supplying electricity to about 1.5 million customers. The main economic activities of the region are metallurgy, iron mining, production of paper and oil and gas.

In 2018, the volume of electricity distributed totalled 25.0 TWh, representing a 3.1 per cent. year-on-year increase, reflecting higher industrial production and a 2.2 per cent. year-on-year increase in customer base.

The volume of electricity sold to captive customers increased by 0.6 per cent. year-on-year in 2018, primarily due to the switch of consumers to liberalised suppliers. In the residential, commercial and other segments, the volume sold in 2018 increased by 2.1 per cent. year-on-year while in the industrial segment, the volume of electricity sold fell by 8.2 per cent. year-on-year.

### **Supply**

EDP supplies electricity in the liberalised market in Brazil through EDP Comercializadora de Energia, which operates both inside and outside the concession areas of the two distributors of EDP Brasil that operate in the regulated market.

The volume of energy supplied by EDP Comercializadora de Energia in 2018 was 18,102 GWh, representing a 1.7 per cent. increase compared to 2017, primarily due to an increase in market liquidity and an increase in the number of free market customers, offset in part by a decline in captive market customers (as they switched to the free market). Based on publicly available information, EDP Comercializadora de Energia ranked as the fifth largest private trading company in terms of volumes supplied in Brazil in 2018.

### **Transmission**

In April 2017, EDP Brasil strengthened its position in the Brazilian electric transmission market by earning the right to build and operate four additional transmission lines in a regulated area. Together with the line that was awarded at the end of 2016, EDP Brasil has committed to invest an expected R\$3.1 billion in nearly 1,300 km transmission lines in the states of Santa Catarina, São Paulo, Minas Gerais, Espírito Santo and Maranhão.

On 23 December 2018, transmission line "24" begun its commercial operation. The start of operations is 20 months ahead of ANEEL's schedule and 10 months ahead of the assumption adopted by the company in the auction. Transmission line "24", consisting of a 113 km transmission line in the state of Espírito Santo, was acquired in an auction held on 28 October 2016.

On 28 May 2019, EDP announced the acquisition, through its 51.3 per cent. owned subsidiary EDP Brasil, of 100 per cent. of a transmission line, with a total length of 142 km including two sub-stations, from CEE Power and Brafer. The transmission line was initially awarded on 13 April 2016, in Line Q. The annual contracted gross profit for the transmission line is R\$46 million, to be inflation rate updated. The total amount of investment, acquisition value and Capex, amounts to R\$407 million, with financial leverage of 85 per cent. This transaction is subject to Agência Nacional de Energia Elétrica – ANEEL approval.

#### **Other**

In March 2018, EDP Brasil concluded the acquisition of 33.1 per cent. of ordinary shares and 1.9 per cent. of preferred shares of CELESC from Caixa de Previdência dos Funcionários do Banco do Brasil – PREVI. CELESC is the main company in the electricity sector in the state of Santa Catarina, operating in the distribution, generation and transmission of electric energy. These shares amount to 14.46 per cent. of the total shares of CELESC and the transaction price was R\$244 million.

Following the CELESC share acquisition, on 27 March 2018, EDP Brasil launched a voluntary take-over bid for up to 32 per cent. of the preferred shares of CELESC for a price of R\$27 per share, which corresponded to a potential purchase price of R\$199 million for 19.1 per cent. of the total shares of CELESC.

In April 2018, following the completion of the tender offer auction, EDP Brasil acquired 1,990,013 preferred shares for a total of R\$53.7 million. In November 2018, EDP Brasil acquired 1,518,000 preferred shares of CELESC for a total of R\$63.7 million. On 2 December 2019, EDP Brasil acquired a further 691,700 preferred shares of CELESC for a total of R\$ 28.5 million. As a result of these acquisitions, EDP owns 4,637,520 preferred shares and 5,140,868 common shares, totalling 9,778,388 shares in CELESC. As at the date of this Prospectus, EDP Brasil holds 25.35 per cent. of the total shares of CELESC, reinforcing its focus on regulated networks in the distribution segment and the transmission segment.

## **EDP'S OTHER ACTIVITIES**

EDP also has financial interests in other energy and non-energy related assets, namely a 10.6 per cent. indirect interest in Companhia de Electricidade de Macau – CEM, S.A. which is a utility company that acts as the exclusive concessionaire for transmission, distribution and commercialisation of electricity in the Macau Special Administrative Region since 1985.

## REGULATORY FRAMEWORK

### EUROPEAN ENERGY POLICY

#### 1. Clean Energy for All Europeans

The European Union (EU) has issued a comprehensive update to its energy policy framework to facilitate the transition from fossil fuels towards cleaner energy and to deliver on the EU's Paris Agreement commitments (COP21) for reducing greenhouse gas (GHG) emissions.

On 30 November 2016, the European Commission (EC) presented a package proposal, known as the Clean Energy for All Europeans (CEP), that marks a significant step towards the implementation of the energy union strategy, adopted under the Paris Agreement in 2015, and to keep the EU competitive during the clean energy transition. CEP consists of eight legislative acts comprising five main areas: (i) Energy Efficiency, (ii) Renewables, (iii) Market Design; (iv) Security of Supply and (v) Governance, with three key goals: (i) putting energy efficiency first, (ii) achieving leadership in renewable energies and (iii) providing a fair deal for consumers.

After two years of debate, the EC, the European Council and the European Parliament reached a political agreement on the CEP. These eight legislative acts were already published in the Official Journal (OJ) of the EU (after publication in the OJ, Regulations apply directly to all EU Member States while Directives have to be transposed into national law):

- On 19 June 2018, Directive 2018/844 of the European Parliament and of the Council of 30 May 2018, amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency;
- On 21 December 2018, Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action;
- On 21 December 2018, Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast);
- On 21 December 2018, Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency;
- On 14 June 2019, Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC;
- On 14 June 2019, Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators;
- On 14 June 2019, Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity; and
- On 14 June 2019, Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU.

The changes in the EU energy policy framework intend to bring considerable benefits from a consumer perspective, from an environmental perspective and from an economic perspective. It also underlines EU leadership in tackling global warming and aims to provide an important contribution to the EU's long-term strategy of achieving carbon neutrality by 2050.

#### Renewable Energy

The promotion of electricity from renewable energy sources (RES) is a priority in the EU for purposes of security and diversification of energy supply, environmental protection and social and economic development. On the Climate Action policy area one of the main goals is to make the EU a global leader in renewables, in compliance with the Paris Agreement. CEP establishes the following targets for RES: (i) binding RES target of 32 per cent. by 2030 at EU level, with a review clause by 2023 for a possible upward revision (ii) no country-specific targets, but through governance legislation there will be three intermediate points (18 per cent. of the 2030 target must be met by 2022, 43 per cent. by 2025 and 65 per cent. by 2027) to be achieved at national and EU level (iii) the annual increase of energy from renewable sources in heating & cooling will be 1.3 per cent. indicatively, or 1.1 per cent. if waste heat is not taken into account.

Those Member States which fall below their reference points for renewable energy will have to cover the gap by implementing measures at national level within one year following assessment. They can opt for: (i) presenting additional measures to accelerate renewable installed capacity (ii) increase percentage RES in heating and cooling or in

transports (iii) use financing platform and (iv) make a voluntary financial payment to the EU renewable energy financing mechanism, and (iv) use the cooperation mechanisms set out in Directive (EU) 2018/2001.

CEP also establishes several provisions to enable the large-scale investment in RES, namely regarding financial support mechanisms:

- Member States will be allowed to have technology-specific auctions and will have to provide at least five years visibility on public support, including the timing, volumes and budget for auctions;
- An "investment protection clause" has been introduced that prevents retroactive policy changes affecting existing renewable projects; and
- Direct price support schemes shall be granted in the form of market premium, which could be, inter alia, sliding or fixed.

### **Energy Efficiency**

Energy efficiency is one of the priorities of the EU, and one of the corner stones of the Energy Union strategy. The Energy Efficiency Directive, Directive 2012/27/EU of the European Parliament and the Council, of 25 October (**EED**), sets rules and obligations in order to meet the 2020 energy efficiency target of a 20 per cent. increase. To reach the EU energy efficiency target, each EU Member State defined its own indicative national energy efficiency targets, which can be based on primary or final energy consumption, primary or final energy savings or energy intensity.

The 2030 climate and energy framework sets a target of 27 per cent. improvement in energy efficiency for 2030.

Directive (EU) 2018/2002 of the European Parliament and of the Council amending Directive 2012/27/EU on energy efficiency now includes a more ambitious energy efficiency target for the EU for 2030 of at least 32.5 per cent. with an upwards revision clause by 2023.

Member States must achieve a cumulative end-use savings requirement for the entire obligation period 2021-30, equivalent to new annual savings of at least 0.8 per cent. of final energy consumption and may make use of an energy efficiency obligation scheme (where obligated parties such as DSO and retail energy sales companies shall achieve their cumulative end-use energy savings requirement among final customers) or alternative policy measures or both.

The Primary Energy Factor (**PEF**) value for electricity was established at 2:1 and will be reviewed by 25 December 2022 every four years thereafter.

### **Market Design**

The CEP sets a framework for the evolution of the electricity market design:

#### ***Day-ahead and intraday markets***

Electricity markets should deliver market-based prices, with no price caps or floors and equal treatment should be given to generators, storage and demand response. Day-ahead and intraday markets will have harmonised gate closure times and consistent characteristics (products, volumes, market times and principles).

#### ***Balancing markets, curtailment and redispatch***

Balancing capacity must be procured by TSO, separately for upward and downward capacity, and may be facilitated on a regional level.

Balancing energy/imbalance should pursue the following key principles: (i) imbalance pricing not determined in contract for balancing capacity, must reflect the "real-time value" of energy (15-minute imbalance settlement period by 2021); (ii) balancing energy to be settled at marginal price; and (iii) bids as close to real time as possible, and at least after gate closure for intraday cross-zonal market.

Curtailment and re-dispatching should respect the following principles: (i) non-discriminatory and market-based, being open to all technologies (including storage); (ii) balancing energy bids for re-dispatching not to set the balancing energy price; (iii) if non-market-based, then compensation shall be paid up to the highest of the additional operating costs or the total lost day-ahead market revenue; and (iv) system operators have increased reporting obligations to ACER, notably on the volumes of and reasons for redispatch and the corrective measures foreseen.

#### ***Capacity remuneration mechanisms***

One of the key aims for the European Union is to be leader in electricity generation using renewable sources. This is an important goal to achieve: secure, clean and affordable energy supply to European consumers. But it does add some challenges, as those energy sources have an intermittent nature which reflects into a growing concern for security of supply.

To prevent possible electricity shortages, some Member States have designed different types of capacity remuneration mechanisms (**CRM**) to assure backup capacity by remunerating electricity generators and other capacity providers, such as demand response operators, for being available in case of need.

The new EU legislation does not exclude the need for CRM, as CRM addresses the need for sufficient investment, but it discourages the usage of CRM as a substitute for market reforms that may be required to address regulatory and market failures causing capacity shortages. These mechanisms must be designed to suit specific problems and should rely on competitive processes to avoid failing the achievement of the goal or over compensation.

When a Member State decides to take complementary measures in the form of capacity mechanisms likely to involve state aid, such Member State must notify the EC for approval under state aid rules. Some capacity mechanisms were approved by the EC under EU state aid rules.

The introduction of a CRM is presented in CEP as a last resort decision. Regarding their design, mechanisms must be temporary (no longer than 10 years), subject to non-discriminatory and competitive processes and technology neutral (including storage and demand side management). Participation is not allowed to new generation capacity emitting more than 550 gCO<sub>2</sub>/kWh and, as of 1 July 2025, to generation capacity emitting more than 550g CO<sub>2</sub>/kWh and more than 350 kgCO<sub>2</sub>/kW/year on average. Existing capacity mechanisms had to adapt to these requirements by 31 December 2019, but existing contracts have not been amended.

### **Role of Network Operators**

The CEP clarifies the roles of TSO and DSO, setting limits to ownership of storage and e-mobility infrastructure:

#### ***TSO***

TSO must create "regional coordination centres" by 1 July 2022, under plans approved by NRA, to coordinate: (i) capacity calculation and procurement of balancing capacity; (ii) supporting security and restoration and adequacy forecasting; (iii) interconnector entry capacity for cross-border CRMs; (iv) risk preparedness and liability to TSO established in plans; and (v) costs approved by NRAs recovered in TSO tariffs,

TSO must also guarantee a minimum availability of 70 per cent. of capacity for cross-border trade taking into account network contingencies and reliability margin (the total capacity used for reliability margins, loop flows and internal flows in the capacity calculation process must not exceed 30 per cent. on each critical network element) and shall procure ancillary services in a market-based way (with criteria of transparency, non-discrimination and openness), defining the specifications for the non-frequency ancillary services procured and, where appropriate, standardised market products for such services.

#### ***DSO***

Member States shall incentivise DSO to procure flexibility services, including congestion management, in coordination with TSO and according to transparent, non-discriminatory and market-based procedures. Where a DSO is responsible for the procurement of products/services necessary for the efficient, reliable and secure operation of the distribution system, it shall procure its non-frequency ancillary services in a market-based way (with criteria of transparency, non-discrimination and openness).

The distribution network development plans will be published at least every two years and in consultation with all relevant system users and must include medium and long-term flexibility service's needs.

DSOs must create an "EU-DSO", focused on digitalisation and data, network codes, integration of RES for electricity and demand side response, among others.

#### ***Storage***

TSO and DSO are not allowed to own, develop, manage and operate energy storage facilities as a principle where the ownership/development/management/operation of energy storage facilities shall be a market activity.

A public consultation shall be organised by regulatory authorities at least every 5 years to assess the interest of market parties in existing storage facilities.

#### ***Electric mobility charging infrastructure***

DSO are not allowed to own, develop, manage or operate recharging points for electric vehicles, with the exception private recharging points owned solely for their own use. A public consultation shall be organised by regulatory authorities at least every 5 years to assess the interest of market parties in developing, operating or managing recharging points for electric vehicles.

## Supply

The revised Electricity Directive (Directive (EU) 2019/944) promotes a consumer-centred electricity market with consumer protection provisions:

### **Smart metering & dynamic prices**

Member States shall ensure the implementation of smart meters (**SM**), which may be subject to a cost-benefit assessment (**CBA**) of costs and benefits and prepare a timetable with a target of up to 10 years for the deployment of SM. If the roll-out of SM is assessed positively, they should cover at least 80 per cent. of customers within seven years from the date of the positive assessment or by 2024 for those with systematic deployment prior this Directive enters into force.

In case of SM deployment, Member States shall adopt and publish the minimum requirements of SM, according to what is established in the Electricity Directive, ensure interoperability and ensure that final customers contribute to the roll-out costs in a transparent and non-discriminatory manner. Otherwise, Member States shall perform new CBA at least every four years (or more frequently if there are significant changes in the underlying assumptions) and ensure customers are entitled to a SM (bearing the costs), within a reasonable time and no later than four months after they request it.

Member States shall enable electricity suppliers to offer a dynamic electricity price contract and ensure that final customers with a smart meter can request a dynamic electricity price contract from every supplier with more than 200,000 final customers. Member States shall also publish an annual report (for at least 10 years), on the main developments of dynamic price contracts including market offers, impact on consumers' bills and level of price volatility.

### **Price intervention**

Member States may apply public interventions in the price setting for the supply of electricity, which should pursue a general economic interest, be limited in time and proportionate and not result in additional discriminatory costs for market participants.

By 1 January 2022 and 1 January 2025 Member States shall submit a report to the EC on the necessity and proportionality of the intervention and an assessment of the progress towards achieving effective competition between suppliers and the transition to market-based prices. By the end of 2025 the Commission shall review and submit a report on this and issue a legislative proposal, if appropriate, to the European Parliament and to the Council, which may include an end date for regulated prices.

### **Consumer Participation**

The CEP defines several frameworks for customers to actively participate in electricity markets (directly or through aggregators). Amongst jointly acting groups of customers and energy communities there are four very similar concepts between the Electricity and the Renewables Directives (Directive (EU) 2019/944 and Directive (EU) 2018/2001, respectively):

- Jointly acting customers (jointly acting final customers and jointly acting renewables self-consumers); and
- Energy communities (citizens energy community (**CEC**) and renewable energy community (**REC**))

Both jointly acting groups of customers and energy communities are allowed to generate energy, consume the self-generated energy, store and sell (subject to inherent responsibilities as a balance responsible party).

Both jointly acting final costumers and renewable self-consumers and active customers may operate directly or through aggregators, though these activities should not constitute their primary commercial or professional activity. Renewables self-consumers shall be entitled to sell excess production and receive remuneration from grid injections (reflecting market value and which may take into account its long-term value to the grid, environment and society).

The energy communities (REC and CEC) are legal entities and may be established between natural persons, local authorities. The main purpose must be to provide environmental, social and economic benefits, rather than financial profit and engage in activities such as electricity generation, distribution, supply, consumption, or other energy services, within a level-playing field.

Member States shall allow and foster participation of demand response through aggregation and allow final customers (including through aggregation) to participate in all electricity markets at a level playing field with generators. They shall also ensure that TSO and DSO procuring ancillary services treat demand response aggregators in a non-discriminatory manner alongside generators.

## 2. European Green Deal

On 11 December 2019, the EC presented the European Green Deal, an ambitious package of measures that is meant to enable European citizens and businesses to benefit from a sustainable green transition. Measures were accompanied with an initial roadmap of key policies range from cutting emissions, to investing in cutting-edge research and innovation, to preserving Europe's natural environment.

The European Green Deal's design is based on ten transformative policies (as well as 50 initiatives):

- i. Increasing the EU's climate ambition for 2030 and 2050.
- ii. Supplying clean, affordable and secure energy.
- iii. Mobilising industry for a clean and circular economy.
- iv. Building and renovating in an energy and resource efficient way.
- v. Accelerating the shift to sustainable and smart mobility.
- vi. From 'Farm to Fork': designing a fair, healthy and environmentally-friendly food system.
- vii. Preserving and restoring ecosystems and biodiversity.
- viii. A zero pollution ambition for a toxic-free environment.
- ix. The EU as a global leader.
- x. Working together – a European Climate Pact.

## 3. Managing and Reducing Emissions

The EU emissions trading system (**EU ETS**), the first large GHG emissions trading scheme in the world, was launched in 2005 as a component of the EU's climate policy. The EU ETS is currently in phase 3 and works on a cap and trade principle, with a single EU wide-cap on emissions (rather than the previous national caps system). Under the EU ETS system, emission allowances for the period from 2013 to 2020 are mainly allocated by auction (the default method), in accordance with Directive 2009/29/EC of the European Parliament and of the Council, of 23 April, which amended Directive 2003/87/EC of the European Parliament and of the Council, of 13 October<sup>3</sup>. The EU ETS currently represents over three-quarters of international carbon trading.

The global amount of emission allowances available at the European Union level was determined by Commission Decision no. 2010/634/EU, of 22 October, subsequently amended by Commission Decision no. 2013/448/EU, of 5 September, amended by Commission Decision no. 2017/126/EU, of 24 January, and the methodology for allocation was set by Commission Decision no. 2011/278/EU, of 27 April, later amended by Commission Decisions no. 2011/745/EU, of 11 November (repealed by Commission Decision no. 2014/746/EU, of 27 October 2014), no. 2012/498/EU, of 17 August, and no. 2014/9/EU, of 18 December.

The revised EU ETS Directive (Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March) entered into force in April 2018 and sets out Phase 4 (2021-2030) of the EU ETS (**Phase 4**). Phase 4 has a strong focus on reinforcing the Market Stability Reserve, the mechanism established by the European Union to reduce the surplus of emission allowances in the carbon market and to improve the EU ETS's resilience to future shocks. Between 2019 and 2023, the allowances put in the reserve will double to 24 per cent. of the allowances in circulation. The regular rate of 12 per cent. will then be restored as of 2024.

This is the first step in delivering on the EU's target to reduce GHG emissions by at least 43 per cent. (under the revised system) as part of its contribution to the Paris Agreement.

In November 2018, the European Commission adopted a strategic long-term vision for a climate-neutral Europe by 2050, which does not set targets, but rather invited national parliaments to submit their draft National Climate and Energy Plans by the end of 2018, while the European Union should be able to adopt and submit an ambitious strategy by early 2020 to the United Nations Framework Convention on Climate Change (**UNFCCC**) as requested under the Paris Agreement (Communication (2018) 773: *A Clean Planet for all*).

Apart from CO<sub>2</sub>, the major waste products of electricity generation using fossil fuels are sulphur dioxide (**SO<sub>2</sub>**), nitrogen oxide (**NO<sub>x</sub>**) and particulate matter, such as dust and ash.

The Industrial Emissions Directive (**IED**), Directive 2010/75/EU of the European Parliament and the Council, of 24 November, is the main EU instrument regulating pollutant emissions from industrial installations and was entered into force on 6 January 2011 to be transposed by Member States by 7 January 2013. The IED aims to reduce harmful industrial emissions, in particular, through better application of Best Available Techniques (**BAT**). Chapter III of the IED

<sup>3</sup> Afterwards amended by Decision (EU) no. 2013/1359 of the European Parliament and of the Council, of 17 December, by Regulation (EU) no. 421/2014 of the European Parliament and of the Council, of 16 April, by Decision (EU) no. 2015/1814 of the European Parliament and of the Council, of 6 October, by Regulation (EU) no. 2017/2392 of the European Parliament and of the Council, of 13 December and by Directive (EU) no. 2018/410 of the European Parliament and of the Council, of 14 March.

on large combustion plants includes certain flexibility instruments (Transitional National Plan, limited lifetime derogation, etc.), namely regarding emission limit values for selected pollutants.

The IED consolidates seven existing Directives and replaces them with a single clear and coherent legislative instrument. The directives that were consolidated include the then-existing Integrated Pollution Prevention and Control (IPPC) Directive, the Large Combustion Plant (LCP) Directive, the Waste Incineration Directive, the Solvents Emissions Directive and three Directives on Titanium Dioxide.

With the revised EU ETS Directive (Directive (EU) 2018/410), some dispositions must be coordinated with Directive 2010/75/EU regarding the integration of a few changes – for instance, Member States shall take the necessary measures to ensure that, where installations carry out activities that are included in Annex I to Directive 2010/75/EU of the European Parliament and of the Council, the conditions and procedure for the issue of a GHG emissions permit are coordinated with those for the issue of a permit provided for in that Directive.

The Medium Combustion Plants (MCP) Directive, Directive (EU) 2015/2193 of the European Parliament and the Council, of 25 November, was triggered by the EC Clean Air Policy Package, adopted in December 2013, and regulates emissions of SO<sub>2</sub>, NO<sub>x</sub> and dust in the air from the combustion of fuels in plants with a rated thermal input equal to or greater than 1 megawatt (MW<sub>th</sub>) and less than 50 MW<sub>th</sub>. The MCP Directive entered into force on 18 December 2015 and had to be transposed by Member States by 19 December 2017. The emission limit values set in the MCP Directive will have to be applied from 20 December 2018 for new plants and by 2025 or 2030 for existing plants, depending on their size.

Regulation (EU) no. 517/2014 of the European Parliament and of the Council, of 16 April, on fluorinated greenhouse gases, aims to achieve the reduction of fluorinated-gases emissions by two-thirds by 2030. This regulation was followed by the allocation of quotas to companies selling hydrofluorocarbons (HFCs) in the EU, with a gradual phase-down until one-fifth of 2014 sales in 2030.

#### **4. Other EU initiatives**

##### ***New Gas Directive (The 2020 Gas Package)***

The creation of an integrated gas market is a cornerstone of the EU's project to create an Energy Union. The internal gas market is considered to function well when gas can flow freely between Member States to where it is needed most and at a fair price. A functioning gas market is a prerequisite for enhancing security of gas supply in the EU.

While EU law in general applies in the territorial waters and the exclusive economic zone of EU Member States, Directive 2009/73/EC does not explicitly set out a legal framework for gas pipelines to and from third countries, which was now included in the proposed amendment to this Directive.

The amendment proposal to Directive 2009/73/EC seeks to address the remaining obstacles to the completion of the internal market in natural gas resulting from the non-application of Union market rules to gas pipelines to and from third countries and to ensure that the rules applicable to gas transmission pipelines connecting two or more Member States, are also applicable to pipelines to and from third countries within the Union. This will make the EU's legal framework more consistent, enhance transparency and ensure legal certainty for both investors in gas infrastructure and users of the network.

This amendment to the gas directive was proposed by the European Commission in November 2017, on 12 February 2019, an agreement was reached between the European Commission, Council and Parliament for the new Gas Directive, and on 3 May 2019, was published in OJ the Directive (EU) 2019/692 amending Directive 2009/73/EC, concerning common rules for the internal market in natural gas.

##### ***European Commission Mobility Package***

The European Commission's Mobility Package is a collection of 3 initiatives concerning the governance of commercial road transport in the European Union. It represents the biggest change to EU road transport rules, covering many aspects of the industry's activities.

The Mobility Packages were released in three waves: the first wave in May 2017 (*Europe on the Move*), the second in November 2017 (*Clean mobility*) and the third in May 2018 (*Clean, safe and autonomous mobility*).

On 12 February 2019, the European Parliament and the Council reached a provisional agreement on the European Commission's proposal to reform the Clean Vehicles Directive, which is part of the Clean Mobility Package, aiming to help accelerate the transition to low- and zero emission vehicles. Following this provisional agreement, Directive 2019/1161, of 20 June, was published in the OJ on 12 July 2019.

### ***Long Term Strategy for 2050 - Clean Planet 4 all***

On 28 November 2018, the European Commission adopted a strategic long-term vision for a prosperous, modern, competitive and climate neutral economy by 2050.

The Commission's strategic vision is an invitation to all stakeholders, to participate in a debate that should allow the EU to adopt and submit an ambitious long-term strategy by early 2020 to the UNFCCC as requested under the Paris Agreement.

## **IBERIAN PENINSULA**

### **MIBEL overview**

Since 1 July 2007, the electricity wholesale market in the Iberian Peninsula has been operated as a single, integrated electricity market for Portugal and Spain within the wider context of the European single electricity market, which is provided for in European Union directives. This integrated market for Portugal and Spain is known as Mercado Ibérico de Electricidade (**MIBEL**). The creation of MIBEL required both countries to acknowledge a single market in which all agents have equal rights and obligations and in which all agents must comply with principles of transparency, free competition, objectivity and liquidity.

MIBEL operates with an electricity spot market, which includes daily and intraday markets that are managed by Spanish market operator – Operador del Mercado Ibérico de Energía, Polo Español, S.A., (**OMIE**) – and an electricity forward market that is managed by the Portuguese market operator – Operador do Mercado Ibérico de Energia – Pólo Português, S.A. (**OMIP**).

Because the electricity spot market is a single and integrated market, prices are the same for Portugal and Spain, except for a residual number of hours during which there are congestions in the interconnection capacity and therefore a market split occurs.

## PORTUGAL

### Electricity Sector: Regulatory framework

#### 1. Overview

Since 2000, the regulation of the electricity industry in Portugal has been subject to significant changes, such as the unbundling of the transmission network and the liberalisation of power generation and supply.

The main features of the current organisation of the Portuguese electricity system were first set out in EU Directive 2003/54/EC of the European Parliament and of the Council, of 26 June, concerning common rules for the internal market in electricity (the **Electricity Directive**), which was transposed into Portuguese national law by Decree-Law no. 29/2006, of 15 February, as amended. Decree-Law no. 172/2006, of 23 August, further modified by Decree-Law no. 76/2019, of 3 June, developed this legal framework and established rules for the activities in the electricity value chain (the **Electricity Framework**).

Following implementation of the Electricity Framework, the former organisation of the Portuguese electricity system was replaced by a single market system, and the generation and supply of electricity are now fully open to competition, subject to obtaining the requisite licences and approvals or simple registration in the case of the liberalised supply. However, the transmission and distribution components of the value chain continue to be regulated activities provided through the award of public concessions.

To further the integration of the European electricity markets, a new legislative package was adopted in 2009 by the European Parliament and European Council, comprising (i) Directive 2009/72/EC of the European Parliament and of the Council, of 13 July, concerning common rules for the internal electricity market and replacing Directive 2003/54/EC; (ii) Regulation (EC) no. 713/2009 of the European Parliament and of the Council, of 13 July, establishing an Agency for the Cooperation of Energy Regulators; and (iii) Regulation (EC) no. 714/2009 of the European Parliament and of the Council, of 13 July, on conditions for access to the network for cross-border exchanges in electricity. Regulation (EC) no. 713/2009 was last amended by Regulation (EC) no. 347/2013, of 17 April, which also amended Regulation (EC) no. 714/2009 has in the meantime been repealed by Regulation (EU) no. 2019/942 of the European Parliament and of the Council establishing a European Union Agency for the Cooperation of Energy Regulators.

Directive 2009/72/EC was partially transposed into Portuguese national law by Decree-Law no. 78/2011, of 20 June, which amended Decree-Law no. 29/2006, and introduced changes to the Electricity Framework. The main impact is related to a regime of stricter separation between the entities acting in the generation and supply of energy and the transmission and distribution system operators, by attributing new powers to the national energy regulator and reinforcing the protection rights of consumers. In 2012, the sector's framework laws were once more amended in order to complete the implementation of Directive 2009/72/EC. Decree-Laws no. 215-A/2012 and 215-B/2012, of 8 October, were published, introducing new modifications to Decree-Law no. 29/2006 and to Decree-Law no. 172/2006, respectively.

Hence, under the amended Electricity Framework, the Portuguese electricity system is divided into six major activities: generation, storage, transmission, distribution, supply, and the logistic operations for switching between suppliers. Subject to certain exceptions, each of these functions must be operated independently, from a legal, organisational and/or decision-making standpoint.

Decree-Law no. 138/2014, of 15 September, introduced a legal framework to safeguard strategic assets essential to ensure national defence and security and to guarantee the supply of services fundamental to the public interest related to the energy, transport and communications sectors. Under the new legal framework, a change in EDP's control structure involving direct or indirect control by a person or persons from a country that is not a member of the European Union or the European Economic Area may be denied by the Portuguese government under certain circumstances if there are real and serious reasons to believe that national defence and security or the safety of energy supply are at risk.

#### 2. The National Strategy for the Energy Sector

The current organisation of the Portuguese energy sector is mostly the result of a significant restructuring initiated pursuant to the National Strategy for the Energy Sector first established by Resolution of the Council of Ministers no. 169/2005, of 24 October, later replaced by Resolution of the Council of Ministers no. 29/2010, of 19 March.

Resolution of the Council of Ministers no. 20/2013, of 10 April, replaced the Resolution of the Council of Ministers no. 29/2010, of 19 March, and set two main policy plans for the energy sector, the National Plan of Action for Energy Efficiency 2013-2016 (the **PNAEE 2016**) and the National Plan of Action for Renewable Energies 2013-2020 (the **PNAER 2020**). These plans of action establish the means to comply with the international commitments assumed by Portugal in matters of energy efficiency and the use of renewable resources, without losing sight of the need to ensure adequate levels of energy prices, which do not harm the competitiveness of the Portuguese companies or the minimum living

standards of the general population. PNAEE 2016 and PNAER 2020 focus primarily on the reduction of the country's energy dependence, the increase in the generation of electricity from RES and the promotion of energy efficiency and sustainable development, namely by: (i) ensuring the continuance of measures that guarantee the development of an energy model with sustainable energy costs; (ii) ensuring a substantial improvement in the country's energy efficiency; and (iii) reinforcing the diversification of primary energy sources, while re-evaluating the investments made in renewable technologies and presenting a new remuneration model for more efficient and prominent technologies.

The CEP, that includes a Regulation on the Governance of the Energy Union (Regulation (EU) 2018/1999), calls for each Member State to prepare a National Energy and Climate Plan (**PNEC 2030**) for the period 2021-2030, covering all the five dimensions of the Energy Union and taking into account the long-term perspective.

These PNEC are to be comparable throughout the EU should include a description of the national objectives, targets and contributions for each of the dimensions, the policies and measures foreseen to meet them, and an assessment of the estimated impacts.

The Portuguese government delivered to the EC a preliminary PNEC in December 2018, which will replace PNAEE 2016 and PNAER 2020. On 28 January 2019, the Portuguese government presented PNEC 2030, that include ambitious targets, such as setting energy consumption from renewable resources at 47 per cent. by 2030, which implies duplicating installed capacity, and a reduction of GHG emissions from 45 per cent. to 55 per cent., compared to 2005. The PNEC 2030 was subject to a public consultation until 5 June 2019 and should be finalised later in the year. However, on 18 June 2019, the EC published a Communication assessing the 28 draft PNECs as a whole, together with specific recommendations and a detailed "Staff Working Document" for each country, in order to help Member States, finalise their plans by the end of 2019, and to implement them effectively in the years to come. On 19 December 2019, the Council of Ministers approved the final version of PNEC 2030. PNEC 2030 set a 47 per cent. target of energy from renewable sources and a reduction of 35 per cent. in consumption of primary energy, focusing on the decarbonisation of the energy sector, taking into view carbon neutrality in 2050. On 4 December 2018, the Portuguese government presented its Roadmap to Carbon Neutrality (RCN 2050). One of the aims of RCN 2050 is decarbonisation and includes ambitious targets such as setting electricity generation from renewable sources at 80 per cent. in 2030 and 100 per cent. in 2050. Recently, Resolution of the Council of Ministers no. 107/2019, of 1 July, approved RCN 2050, that establishes all the decarbonisation vectors and action lines for a carbon neutral society in 2050.

### **Renewable Energy**

Decree-Law no. 39/2013, of 18 March, as amended by Decree-Law no. 68-A/2015, of 30 April, set the national targets for the use of RES in gross final energy consumption and energy consumption in transport by 2020 (31 per cent. and 10 per cent., respectively), besides establishing a mechanism for issuing guarantees of origin for the electricity obtained from RES.

The above mentioned PNEC 2030 has set the targets for the use of RES in gross final energy consumption and energy consumption in transport by 2030: 47 per cent. and 20 per cent., respectively.

### **Emissions**

Decree-Law no. 38/2013, of 15 March, as amended by Decree-Law no. 42-A/2016, of 12 August, transposed the Directive 2009/29/EC and established a new approach for licensing emission allowances with a transitional regime for the allocation of free allowances. This foresees the annual decrease of the percentage of free allocation to a 30 per cent. free allocation in 2020 and aims for its full elimination in 2027.

Ministerial Order no. 3-A/2014, enacted on 7 January and amended by Rectification no. 15/2014, of 6 March, established governance ground rules regarding the allocation of revenues provided by the auctioning of GHG emissions allowances, including the annual plan for the use of those revenues in close link and cooperation with the Environmental Fund "*Fundo Ambiental*" (previously, the Portuguese Carbon Fund), created by Decree Law no. 42-A/2016, of 12 August, namely the amount used to offset the special regime generation overcost.

Decree-Law no. 10/2019, of 18 January, amended Decree-Law no. 38/2013, of 15 March and partially transposed Directive (EU) 2018/410 of the European Parliament and of the Council, of 14 March, established new rules regarding the revenues allocation from auctions of GHG emissions allowances. This diploma determines that 60 per cent. of the revenues provided by the auctions of GHG emissions allowances shall be transferred to the National Electricity System in order to offset the special regime generation overcost each year, up to a limit of 100 per cent. of that overcost (which also includes the renewable portion of generation through renewable cogeneration plants). With this new methodology, a 60 per cent. floor of the revenues generated by the auctions is established, with the possibility that this percentage is higher, depending on the expected revenues and the actual revenues of the auctions. These revenues are deducted to the Global Use of the System Tariff (**UGS Tariff**) in order to relieve consumers and electricity bills. Decree-Law no. 127/2013, of 30 August, which implemented Directive 2010/75/EU into Portuguese national law, established an

industrial emissions regime aiming for integrated prevention and control of pollution, as well as rules to prevent and reduce air, water and soil emissions and waste generation in order to achieve a high level of environmental protection.

Also, in relation to measures enacted to address climate change, Resolution of the Council of Ministers no. 56/2015, of 30 July (as amended by Rectification no. 41/2015, of 17 September), approved the Strategic Framework for Climate Policy, the Climate Change National Programme and the National Strategy for Climate Change Adjustment. This Resolution, among other things, also determined that Portugal must reduce its greenhouse gas emissions from 18 per cent. to 23 per cent. by 2020 and from 30 per cent. to 40 per cent. by 2030, both calculated on the basis of the 2005 levels. Recently, Resolution of the Council of Ministers no. 107/2019, of 1 July, that approves RCN 2050, established the reduction of GHG emissions to Portugal between 85 per cent. and 90 per cent. by 2050 compared to 2005, and offsetting the remaining emissions through land use and forests, to be achieved through an emission reduction path between 45 per cent. and 55 per cent. by 2030, and between 65 per cent. and 75 per cent. by 2040, compared to 2005.

In what concerns the emissions of air pollutants other than CO<sub>2</sub>, Decree-Law no. 39/2018, of 11 June, which transposes the MCP Directive into Portuguese national law, establishes rules to control the emissions of SO<sub>2</sub>, NO<sub>x</sub> and dust resulting from the combustion of fuels in medium combustion plants. It also introduces changes on the environmental licensing procedure and the issuing of environmental permits.

Decree-Law no. 84/2018, of 23 October, which transposes Directive (EU) 2016/2284, of the European Parliament and of the Council, of 14 December, on the reduction of national emissions of certain atmospheric pollutants into Portuguese national law, sets national commitments for the reduction of anthropogenic atmospheric emissions of SO<sub>2</sub>, NO<sub>x</sub>, non-methane volatile organic compounds (**NM VOC**), ammonia (**NH<sub>3</sub>**) and fine particulate matter (**PM<sub>2,5</sub>**), for 2020 and 2030, and requires a national air pollution control programme to be drawn up, adopted and implemented.

### ***Energy Efficiency***

Decree-Law no. 319/2009, of 3 November, while transposing Directive no. 2006/32/EC of the European Parliament and of the Council, of 5 April, established indicative objectives and the institutional, financial and legal framework necessary to eliminate the current market deficiencies and obstacles that prevent the efficient use of electricity. In addition, it created the conditions for the development and promotion of an energy services market and of other measures to improve energy efficiency. This legislation, applicable, among others, to electricity distributors, suppliers and certain types of consumers, also set out an indicative objective to achieve an energy economy of 9 per cent. by 2016. Such energy economy was to be reached through the use of energy services and through the improvement of energy efficiency. In 2015, Decree-Law no. 319/2009, of 3 November, was revoked by Decree-Law no. 68-A/2015, of 30 April (which transposed into Portuguese law Directive 2012/27/UE, of the European Parliament and of the Council, of 25 October), amended by Rectification no. 30-A/2015, of 26 June, save for certain provisions. The objective to achieve an energy economy of 9 per cent. was rescheduled to be achieved by 2020.

## **3. The Electricity Value Chain**

### ***A. Electricity Generation***

Electricity generation is subject to licensing and is carried out in a competitive environment. Electricity generation is divided into two regimes: an ordinary regime and a special regime.

The special regime covers: (i) the generation of electricity subject to a specific legal framework (namely in what concerns licensing and tariffs), such as electricity generation through cogeneration (renewable or non-renewable) or endogenous resources (e.g. wind, solar, biomass, biogas), small scale generation and generation without network injection; and (ii) the generation of electricity using endogenous resources, either renewable or non-renewable, which is not subject to a specific legal framework and, thus, falls under the general framework applicable to the special regime generation (namely in what concerns licensing and tariffs). All the remaining generation units which fall outside the scope of these criteria are included in the ordinary regime generation.

#### *Ordinary Regime*

##### *Overview*

Prior to 1 July 2007, electricity generated by EDP Produção's power plants and other power plants was sold under PPAs to REN (acting as a single buyer), allowing these power plants to achieve a return on assets of 8.5 per cent. in real pre-tax terms. The price of electricity provided for in each PPA consisted of capacity and energy charges, together with other costs associated with the generation of electricity, such as self-generation and operation and maintenance costs. The capacity and energy charges were passed through to the final tariff paid by customers.

The Portuguese government set out the framework for the early termination of the PPAs in laws and decree-laws promulgated in 2004 and 2007, the CMEC. These laws provide for changing the single buyer status of REN and defining compensatory measures concerning stranded costs for the respective contracting parties through the passing on of

charges to all electrical energy consumers as permanent components of the **UGS Tariff**. The market reference price for the calculation of the compensation payable to the generators was set at €50/MWh. The conditions precedent for early termination of the PPAs set forth in the various laws and decree-laws, as well as in the PPA termination agreements entered into between EDP Produção and REN on 27 January 2005, were met in 2007, and the PPAs to which EDP Produção was a party were terminated on 1 July 2007 and replaced with the CMEC mechanism.

The amount of the initial global gross compensation due to EDP Produção as a result of the early termination of the PPAs was set at €833.5 million, to be recovered over a 20-year period, starting from July 2007. The amount of compensation is capped at a maximum set for each generator and was subject to an annual adjustment during the first ten years of the CMEC, along with a final adjustment at the end of the first ten-year period. The purpose of these adjustments is to ensure parity between the revenues expected in a market regime based on the assumptions underlying the initial compensation value and the revenues effectively obtained in the market, thereby protecting generators from market risk during the first ten-year period.

The initial global gross compensation due to EDP Produção is reflected in the electricity tariffs paid by all consumers in Portugal as a separate component of the UGS Tariff, designated as "*Parcela Fixa*" (fixed charge), and recovered by EDP Produção or its assignees. Ministerial Order no. 85-A/2013, of 27 February, set at 4.72 per cent. the interest rate applicable to the "*Parcela Fixa*" between 1 January 2013 and 31 December 2027.

The adjustments to the initial global gross compensation are also reflected in electricity tariffs, and if those adjustments are to EDP Produção's benefit, they shall be due from all consumers in Portugal as a separate component of the UGS Tariff, designated as "*Parcela de Acerto*" (variable charge). Dispatch no. 4694/2014, of 21 February, published on 1 April, and Dispatch no. 10840/2016, of 26 August and published on 5 September, set out the guidelines of the procedures to be followed in the calculation of the annual adjustment regarding the participation of the CMEC power plants in the ancillary services market.

The final adjustment is meant to be recovered over a ten-year period, starting in 2018, with reference to July 2017. In this regard, the 2017 State Budget Law (Law no. 42/2016, of 28 December) mandated ERSE to carry out a study to determine the amount of the final adjustment of the CMEC mechanism. ERSE submitted its study to the Portuguese government in September 2017, having presented an amount of €154 million, which differs from the sum calculated by the EDP/REN Technical Working Group, which amounted to €256 million. The EDP/REN Technical Working Group calculations result from the strict application of the relevant legal framework, particularly the Decree-Law no. 240/2004, while ERSE's computations are a mere theoretical simulation which jeopardises the economic neutrality in which the early termination of the PPAs was based upon. EDP was notified on 3 May 2018 of the Portuguese's government's decision, dated 25 April 2018, homologating the amount of the final adjustment of the CMEC mechanism as proposed by ERSE in its study. EDP has on 3 September 2018 filed a suit with the administrative courts of Lisbon (*Tribunal Administrativo do Círculo de Lisboa*) to challenge the amount of the final adjustment of the CMEC mechanism homologated by the Portuguese government.

On 27 September 2018, EDP informed the market that it was notified by the DGEG (as defined below) of the Secretary of State for Energy's decision, issued on 29 August 2018, regarding alleged overcompensation payments made to EDP in relation to the calculation of the real availability factor of power plants under the CMEC regime due to "innovative" factor having been applied when compared to what was foreseen in the PPA early termination agreements. The Secretary of State for Energy stated such alleged overcompensation payments amounted to €285 million and that a further €72.9 million overcompensation claim for power plants operating on the ancillary services market was under analysis. EDP considers the decision to be unfounded and intends to take the necessary measures to protect its rights and interests, including all legal means available.

On 4 October 2018, the Secretary of State for Energy issued a further dispatch, which was made known to EDP by ERSE on 12 November 2018, declaring the calculation of the annual adjustments to the initial global gross compensation for the early termination of the PPAs null and void concerning only the part where the abovementioned "innovative" factor had been weighed.

EDP considers the dispatches from the Secretary of State for Energy lack technical, economic and legal basis and, on 8 October 2018, submitted an administrative appeal. Concurrently, EDP filed a suit with the administrative courts on 4 February 2019, waiting for a court decision.

In addition, Resolution of the Portuguese Parliament no. 126/2018, of 11 May, created a Parliamentary Inquiry Commission (**CPI**) to ascertain, within 120 days, whether there are excessive rents in the electricity generation sector, namely in the remuneration of both the ordinary regime (CMEC, PPAs, capacity payments) and the special regime generators, and, if so, establish any responsibility of political officeholders who had influence over the definition of the energy rents. The Resolution of the Portuguese Parliament no. 2/2019, of 8 January, has suspended CPI's works between 21 December 2018 and 8 January 2019 (suspending the abovementioned deadline), and has extended the inquiry for an additional period of 60 days from 17 January 2019. Additionally, the Resolution of the Portuguese

Parliament no. 39-A/2019, of 18 March, extended the inquiry for an additional period of 30 days from 18 March 2019, in order to enable further hearings to take place and the drafting of the Final Report. A preliminary version of the Report has been submitted for the analysis of the CPI on 6 April 2019. On 15 May 2019, CPI held its last meeting to discuss and approve its final Report. At that meeting, the CPI globally approved the final Report with votes in favour by the Socialist Party (**PS**), Left Block Party (**BE**), the Portuguese Communist Party (**PCP**) and Ecological Green Party (**PEV**) and votes against by the Social Democratic Party (**PSD**) and CDS - Popular Party (**CDS**). Most of the conclusions and recommendations stated in the preliminary version were kept in the Final Report. On 3 July 2019, the Final Report of CPI was discussed in a Parliament Plenary session. The discussion in the Parliament Plenary formally closes the work that CPI developed for over a year. Although the conclusions and recommendations included in the Final Report are not formally binding, in light of the approved Report the Parliament and/or the Portuguese government may approve legislation or other future measures in relation to SEN, the potential effects of which on EDP and/or its activities cannot be anticipated at this stage.

In the CPI, the current Secretary of State of Energy underlined that it was his opinion the overcompensation payments in relation to the ancillary services market is not an innovative feature issue but rather a competition issue that is being handled by the Competition Authority.

In September 2013, the EC opened a formal investigation into the extension of the hydro power concessions granted by the Portuguese government to EDP in accordance with Decree-Law no. 226-A/2007, of 31 May, as amended by laws no. 17/2014 of 10 April, no. 12/2018, of 2 March and Decree-Law no. 97/2018, of 27 November. During the formal investigation, the Commission verified that the compensation paid by EDP for the mentioned extension was in line with market conditions. On this basis, the Commission issued a press release on 15 May 2017 stating that it had concluded that the compensation paid by EDP for the extension of the concessions did not involve state aid. As a result, EDP has retained the rights to operate 26 hydro power plants under market conditions (with 4.094 MW of installed capacity), whose average term of operation is until 2047. This decision does not address compliance with other provisions of EU law, such as EU public procurement rules and antitrust rules based on Articles 106/102 TFEU. According to the EC's press release of 7 March 2019, the EC considers that the legislation and the practice of Portuguese authorities is contrary to EU law, by allowing for some hydropower concessions to be renewed or extended without the use of tender procedures. For that reason, the EC sent a letter of formal notice to the Portuguese Republic – as well as seven other Member States – on the grounds of an alleged breach of European Union rules on public procurement and concessions, to ensure that public contracts in the hydroelectric power sector are awarded and renewed in conformity with EU law. The eight Member States were given two months to respond to the arguments raised by the Commission.

Dispatch no. 5443/2017, of 6 June, published on 22 June, created a working group to determine the rights over the Hydrological Correction Account (**CCH**) following the termination of the account as of 31 December 2016, as provided for by Decree-Law no. 110/2010, of 14 October. This working group was dissolved pursuant to Dispatch no. 11246/2017, of 13 December, published on 22 December. Afterwards, the Secretary of State for Energy created a new working group with the same stated purpose by means of Dispatch no. 2224/2018, of 27 February, published on 5 March. This working group presented the Final Report to the Portuguese government at the end of August of 2018, in which it concluded that the charges supported by EDP for this purpose should be unrecoverable.

On 21 May 2019, EDP presented a request to the State Prosecution, Ministry of Finance and Portuguese Treasury and Debt Management Agency (IGCP, E.P.E.), requesting compensation of €546 million, under the terms of paragraph (e) of article 3(2) of Decree-Law no. 453/88, of 13 December (as in force prior to the enactment of Law no. 75-A/2014, of 30 September). This amount corresponds to the impact of error or inaccuracy that could be committed in the evaluations that preceded the various reprivatisation stages of EDP, regarding the responsibility arising from the hydrological correction.

Those responsibilities were not effectively considered for the evaluation process of the company (as a liability deductible for the determination of its asset value). However, the report produced by the working group created by Dispatch no. 2224/2018, of 5 March, of the Secretary of State for Energy, to analyse the impact of the termination of the CCH concluded that the charges supported by EDP for this purpose were unrecoverable.

For this reason, and with respect to the conclusion presented in this report, EDP understands that in accordance with paragraph (e) of article 3(2) of Decree-Law no. 453/88, of 13 December, the Portuguese State should assume as an expense the amount of impact of error or inaccuracy in the mentioned evaluations.

In parallel with the process concerning the rights over the CCH, Dispatch no. 2258/2017, of 6 February, published on 15 March, created a different working group to study the hydrological impacts in terms of the stability of the wholesale electricity prices. This working group was expected to deliver a Report, to the Portuguese government, by the end of March 2017, with a focus on the review and implementation of the hydrological mechanism, taking into account principles of harmonisation within the Iberian Peninsula, chiefly considering the need to implement mechanisms to limit the remuneration of hydroelectric energy. However, no information has ever been made public regarding the presentation of any report concerning this matter.

### *Capacity remuneration mechanism*

Ministerial Order no. 41/2017, of 27 January, replaced the former capacity remuneration mechanism, based on a targeted capacity payment scheme, with a market mechanism that remunerates the availability services through a competitive auction, as of 1 January 2017. The power plants that benefit from the CMEC mechanism have been excluded from taking part in the auction. The auction for 2017 was carried out on 30 March and the total bid size (1,766 MW) was awarded to three entities, including the last resort supplier, at a settlement price of €4,775 per MW. In compliance with the 2018 State Budget Law (Law no. 114/2017, of 29 December), Ministerial Order no. 93/2018, of 3 April, postponed the auction for 2018 and beyond, awaiting a decision by the EC, that raised concerns about the compatibility of this mechanism with the guidelines on state aid for environmental protection and energy.

Alongside, hydro power plants that are not under a PPA or under the CMEC mechanism, with the exception of power reinforcements without pumping, may benefit from an investment incentive under Ministerial Order no. 251/2012, of 20 August, provided that its generation licenses were granted between the dates of entry into force of Decree-Law no. 264/2007, of 24 July, and of Ministerial Order no. 251/2012, of 20 August, or that such power plants are included in the Portuguese National Programme of Dams with a Significant Hydroelectric Potential and the relevant generation license was obtained before 31 December 2013. If granted, the investment incentive shall take effect for a period of ten years, starting from the month following the request for eligibility, in an amount calculated based on the current criteria for national supply coverage set out in Ministerial Order no. 251/2012 and related regulations. The annual reference values of the investment incentive correspond to the amounts set out in the Annex to Ministerial Order no. 251/2012, of 20 August.

### *Competition Balance Mechanism (Clawback)*

Decree-Law no. 74/2013, of 4 June, as amended by Decree-Law no. 104/2019, of 9 August, provides for the establishment of a mechanism designed to restore the competitive equilibrium in the wholesale electricity market in Portugal, with an impact on the allocation of costs of general economic interest (**CIEG**) between participants in the electricity system. Its purpose is to capture the alleged windfall profits reaped by the Portuguese generators caused by higher pool prices following the introduction of taxes on Spanish generators.

This mechanism shall apply to: i) ordinary regime generators, except to the ones operating power plants that are still trading electricity under a PPA that has been executed according to Decree-Law no. 183/95, of 27 July; ii) generators operating hydroelectric power plants with an installed capacity equal or higher than 10 MVA; and iii) generators that do not benefit from a guaranteed remuneration scheme, except the ones under the obligation to pay compensations to the National Electric System in the context of a competitive procedure launched under the terms of article 5-B of Decree-Law no. 172/2006, of 23 August, as well as generators operating power plants with an installed power lower than 5 MW.

Pursuant to the enactment of Decree-Law no. 104/2019, of 9 August, a payment per account is now possible, applied to the electric energy producers which are covered by the competition balance mechanism. The payment per account's value may be established yearly by an order of the member of the government responsible for the energy area.

The same government member shall decide the amounts to be invoiced to the electric energy producers due to the competition balance mechanism, based on the results of a study carried out annually by ERSE, which should take into consideration the effects of capacity remuneration mechanisms and other policies related to security of supply that are in place in other Member States.

Additionally, in terms of tariff repercussions, the prices of tariff terms (unit clawback) to be applied to the electricity injected into the grid (defined annually) may be differentiated by technology/regime of electricity generation.

Decree-Law no 74/2013, of 4 June was further complemented with the publication of the Ministerial Order no. 288/2013, of 20 September, amended by Ministerial Order no. 225/2015, of 30 July, which established procedures to study the impact on pool prices of off-market measures and events registered within the European Union and the redistributive effects impacting electricity tariffs. It also established the partitioning of CIEG to be paid by generators in the ordinary regime and other generators that are not included in the guaranteed remuneration regime, and the deduction of these amounts of CIEG to be recovered by the UGS Tariff.

Pursuant to the enactment of Decree-Law no. 104/2019, of 9 August, Ministerial Order no. 288/2013, of 20 September was revoked by Ministerial Order no. 282/2019, of 30 August, which established the procedure for the elaboration of ERSE's study, as well as the mechanism to determine the amount of the payment per account and the compensation due by generators that had unexpected benefits as a result of off-market events.

Dispatch no. 8521/2019, published on 26 September, defined the unit value for 2019 payment on account: €2.71/MWh for coal power plants and €4.18/MWh for the remaining technologies under Decree-Law no. 104/2019, of 9 August.

Royal Decree-Law 15/2018, of 5 October, suspended the generation tax (7.0 per cent.) on Spanish electricity generators for a period of six months, from the beginning of October 2018 to the end of March 2019, which corresponded to the suspension of all off-market measures and events verified within the European Union in the context of Decree-Law no. 74/2013.

Following the suspension of such taxes, Law no. 71/2018, of 31 December, which approved the State Budget for 2019, establishes that the Portuguese government shall "*by the end of the first quarter of 2019, review the regulatory mechanism to ensure the fair competition in the wholesale electricity market in Portugal, established under Decree-Law 74/2013 of 4 June, adapting it to the new rules of the Iberian Electricity Market, with the aim of creating coordinated regulatory mechanisms that strengthen competition and protection of consumers.*"

Following this, the Secretary of State issued Dispatch no. 895/2019, published on 23 January, acknowledging the suspension, for a 6-month period from 1 October 2018, of measures with tax impacts over power plants in Spain and thus determining that the unit value of the parameter that reflects the impact of off-market measures and events registered within the European Union, and which is included in the mathematical formula used to calculate the amount to be paid by generators under the terms of Decree-Law no. 74/2013, is zero.

However, based on the amendments introduced by Decree-Law no. 104/2019, of 9 August and on the provisions of Dispatch no. 8521/2019, of 6 September and published on 26 September, there are three applicable values for 2019 (which are also considered in ERSE's 2020 tariff proposal): i) 1 January – 31 March: €0/MWh (the mechanism was suspended); ii) 1 April – 26 September: €4.75/MWh (as Decree Law no. 104/2019 set the application of unit value defined in 2017); and iii) 27 September – 31 December: €4.18/MWh (€2.71/MWh for coal power plants), according to Dispatch no. 8521/2019.

The payment on account may be subject to a possible adjustment, following the study to be conducted by ERSE (in 2020) regarding impacts from off-market events.

Dispatch no. 12424-A/2019, published on 27 December 2019, identifies off-market events to be considered in the study prepared by ERSE in 2020 (with reference to 2019). Therefore, the following off-market events are considered: i) Taxation on oil and energy products used in the generation of electricity (**ISP**); ii) Extraordinary Contribution to the Energy Sector (**CESE**); and iii) Electricity Social Tariff.

In 2017, the publication of Dispatch no. 9955/2017, of 31 October, forbade the consideration of the Social Tariff and CESE as national off-market events in evaluating the net competitive advantage of Portuguese generators (as set by Decree-Law no. 74/2013), thus supposedly artificially increasing the amount of net windfall profits to be returned by EDP Produção. Furthermore, Dispatch no. 9371/2017, of 10 October, determined the retroactive refund of the amounts related to the allegedly illegal passing of the Social Tariff and CESE costs to consumers in 2016 and 2017. EDP Produção decided to take legal action against the latter Dispatches.

### Special Regime

#### *Overview*

The Portuguese legal provisions applicable to the generation of electricity based on renewable resources are primarily governed by Decree-Law no. 172/2006, of 23 August, amended with the entry into force of Decree-Law no. 215-B/2012, of 8 October, and further modified by Law no. 7-A/2016, of 30 March, Decree-Law no. 38/2017, of 31 March, Decree-Law no. 152-B/2017, of 11 December, Law no. 114/2017, of 29 December and Decree-Law no. 76/2019, of 3 June. Special regime generation is also governed by Decree-Law no. 29/2006, of 15 February, which sets out the principles for the organisation and functioning of the Portuguese Electricity System.

Since the enactment of Decree-Law no. 215-B/2012, special regime generation is no longer distinguished from the ordinary regime generation solely because it benefits from specific remuneration schemes under pro-investment policies. Indeed, as laid down in article 33-G of Decree-Law no. 172/2006, as amended by said Decree-Law, the special regime generators are remunerated either through market schemes (general regime) or through guaranteed remuneration schemes.

Decree-Law no. 76/2019, which entered into force on 4 June 2019, has rearranged the systematic organisation of Decree-Law no. 172/2006: even though there is still a distinction between special regime generation and ordinary regime generation, the corresponding licensing procedures are no longer separated.

Pursuant to article 55 of Decree-Law no. 172/2006, the supplier of last resort has the obligation of acquiring the special regime generated power that benefits from specific remuneration schemes, which are largely based on a feed-in tariff business model, paying special regime generators a feed-in tariff that depends on their generation technology and the contractual conditions under which their licencing request was submitted.

Conversely, generators that do not benefit from a feed-in tariff must sell the generated energy in the organised electricity markets (along with the provision of balancing services) or through bilateral agreements. To facilitate energy trading by these generators, Decree-Law no. 215-B/2012 foresaw the creation of a Market Facilitator/Aggregator, to be selected under a public tender procedure, to receive and trade the energy of the special regime generators operating under market rules. However, the Market Facilitator/Aggregator is still to be appointed. As such, until the appointment of the Market Facilitator, EDP Serviço Universal (**EDP SU**), in its capacity as supplier of last resort, must purchase the electricity generated by special regime generation power plants with an injection power no higher than 1 MW operating under the general regime, if such plants so request, at a price calculated through a mathematical expression set out by Decree-Law no. 76/2019.

Article 239 of Law 71/2018, of 31 December, which approves the State Budget for 2019, foresees the approval by the Portuguese government of a special regime of electricity suppliers, who shall act as market aggregators, at a national or local level, which shall be bound to acquire the electricity generated under the special regime under market conditions (i.e. without a feed-in tariff). This activity shall be subject to a licence attributed following a public tender.

Furthermore, the referred Decree-Law 215-B/2012 announced the development of a Guarantee of Origin (**GO**) scheme, to allow an additional payment to the electricity sold by special regime generators, which was later regulated by Decree-Law no. 39/2013, of 18 March, which amended Decree-Law no. 141/2010, of 31 December.

Given the absence of any developments regarding this subject, the Portuguese government committed to take the necessary measures to assure the creation of the manual of procedures by the issuing entity and its approval by DGEG in the 2019 State Budget Law. REN is currently the entity which is responsible for the issuing of the GO scheme.

On 8 October 2019, Dispatch no. 8965/2019 was published. This Dispatch sets the need to both implement a mechanism able to register and issue GOs, and a mechanism to trade those GOs in a secondary market. This Dispatch further establishes that REN should coordinate the platform's interoperability with secondary market operators and should ensure the exchange of information with other operators (namely with any potential operator responsible for GO trades in secondary market). On 8 October 2019, after a public consultation, the procedures manual was approved by REN. The GO mechanism is expected to be implemented shortly, though additional legislation is yet to be approved.

#### *Licenses*

The licensing regime applicable to power plants included in the special regime generation is governed by Decree-Law no. 172/2006, of 23 August, Ministerial Order no. 237/2013, of 24 July, and Ministerial Order no. 243/2013, of 2 August, amended by Rectification no. 38-A/2013, of 1 October, and Ministerial Order no. 133/2015, of 15 May.

Ministerial Order no. 237/2013, of 24 July, establishes the regime for the prior communication procedure regarding the installation of power plants under the special regime, which do not require a generation licence and sell energy under general market rules, and Ministerial Order no. 243/2013, of 2 August, establishes the licensing regime for power plants under the special regime that benefit from a guaranteed remuneration scheme. Pursuant to the enactment of Decree-Law no. 76/2019, of 3 June, power plants licensed after its date of entry into force are either subject to the attainment of generation and operation licenses or to a previous registration and to the attainment of an operation certificate, in case of renewable energy projects based on one single generation technology with a maximum installed capacity of 1 MW with the purpose of selling all electricity generated to the grid. Licensing procedures initiated prior to the entry into force of Decree-Law no. 76/2019 without prior grid capacity reservation are suspended until the corresponding generation license is obtained.

The attainment of a generation license depends on the prior reservation of grid capacity, by means of; (i) a permit issued by the relevant system operator; (ii) an agreement entered into by and between the applicant and the relevant system operator, whereby the former undertakes to pay the costs with the grid's construction or reinforcement; or (iii) a permit issued by the relevant system operator under the terms established by the corresponding competitive procedure.

Reservation of grid capacity depends on the provision of a bond by the applicant to guarantee that it obtains the relevant generation license. The amount varies according to the procedure and the reservation title that has been obtained.

After obtaining the grid capacity reservation permit or agreement, the applicant shall initiate the procedure to obtain the corresponding generation license. Neither the grid capacity reservation permit nor the corresponding generation licence may be transferred before the relevant operation licence has been obtained.

Without prejudice to the guaranteed remuneration foreseen in specific regimes, special regime generation may benefit from a guaranteed remuneration regime, which shall be granted: (i) in the context of a competitive procedure to new power plants; or (ii) to power plants with an installed power up to 1 MW; or (iii) in case of overpowering or to generation units that are installed within a pre-existing power plant and use a different primary energy source.

## Tariffs

Decree-Law no. 189/88, of 27 May, and the amendments thereto, including Decree-Law no. 313/95, of 24 November, Decree-Law no. 168/99, of 18 May, Decree-Law no. 312/2001, of 10 December, Decree-Law no. 339-C/2001, of 29 December, Decree-Law no. 33-A/2005, of 16 February, Decree-Law no. 225/2007, of 31 May and Decree-Law no. 35/2013, of 28 February, set out a specific formula for calculating the tariffs to be paid to generators for the electricity generated by power plants using renewable energy (excluding large hydro power plants) that initiated their licensing procedure prior to the entering into force of Decree-Law no. 215-B/2012, of 8 October.

As a consequence of the entry into force of Decree-Law no. 215-B/2012, of 8 October, the licencing of any new renewable energy project (with the exception of large hydro power plants) must be obtained under general market rules or under a tender procedure that grants the right to benefit from a guaranteed remuneration scheme. There is currently no guaranteed remuneration regime applicable to new renewable energy projects licensed under Decree-Law no. 172/2006, of 23 August.<sup>4</sup> However, pursuant to the enactment of Decree-Law no. 76/2019, of 3 June, which amended Decree-Law no. 172/2006, new rules have been approved with regard to the licensing of special regime generation projects under which the Portuguese government approved the launch of tenders to grant grid capacity to projects wishing to benefit from a guaranteed remuneration, as well as to merchant projects.

Pursuant to Ministerial Order no. 69/2017, of 16 February, the last resort supplier is under the obligation to deduct the amounts received by generators that benefited from guaranteed remuneration along with other public incentives destined to promote and develop renewable energy. In order to do so, the former Secretary of State for Energy was supposed to approve a dispatch, on a proposal from the *Direção-Geral de Energia e Geologia (DGEG)*, identifying the amounts due by each power plant and its respective unit value, which has not yet occurred. For the time being there are no new developments to report, it being unclear what to expect in the foreseeable future.

### *Wind farms optional regime*

Wind farms licensed before the entry into force of Decree-Law no. 33-A/2005, of 16 February, are remunerated in accordance with the formula defined in Schedule II of Decree-Law no. 189/88, of 27 May, as amended by Decree-Law no. 339-C/2001, of 29 December.

With the publication of Decree-Law no. 35/2013, of 28 February, a new remuneration regime came into force for wind farms licensed between the entry into force of Decree-Law no. 33-A/2005, of 16 February (i.e. 17 February 2005), and the entry into force of Decree-Law no. 215-B/2012, of 8 October (i.e. 7 November 2012). Consequently:

- (i) wind farms that were already in operation as of 17 February 2005, sell their electricity at a set tariff, that decreases with the cumulative number of operating hours, for a period of 15 years starting from the entry into force of Decree-Law no. 33-A/2005;
- (ii) wind farms, for which the licensing procedures began after 17 February 2005 and which fall under the transitory regime approved by article 4 of Decree-Law no. 33-A/2005, sell their electricity at a set price, dependent on their generation profile, for a period of 15 years starting from the date the operation licence was granted;
- (iii) wind farms for which the licensing procedures began after 17 February 2005 and which do not fall under the transitory regime approved by Decree-Law no. 33-A/2005 sell up to 33 GWh per MW of installed capacity at a price based on a formula set out in Decree-Law no. 33-A/2005, for a period of 15 years starting from the date the operation licence is granted. After this 15-year period has elapsed or, if earlier, when the 33 GWh per MW of installed capacity limit is reached, the electricity produced is sold at the prevailing market price, in addition of the price received for the sale of Green Certificates, if applicable.

<sup>4</sup> Projects licensed under Ministerial Order no. 202/2015, of 13 July, which establishes the remuneration scheme applicable to offshore windfarms at the experimental or pre-commercial stage, may benefit from a feed-in tariff determined under the terms of such regime, as well as Order no. 12573/2015, of 6 November, and Order no. 11001/2015, of 2 October.

Additionally, biomass projects which were granted either grid connection points in the context of the 2006 public tender procedures or generation licenses prior to the entry into force of Decree-Law no. 5/2011, of 10 January, may benefit from an incentive corresponding to a higher coefficient which is relevant to determine the applicable feed-in tariff under the terms of Decree-Law no. 189/88, of 27 May. These legal regimes apply exclusively to projects which have already been granted rights to initiate construction of the corresponding power plants and that should enter into operation by the end of 2019. In fact, new capacity may only benefit from support measures if licensed under (i) the special and extraordinary legal regime approved by Decree-Law no. 64/2017, of 12 June, as amended by Decree-Law no. 120/2019, of 22 August, which establishes the terms under which municipalities, intermunicipal communities or municipal associations may install and operate new biomass power plants, (ii) the cogeneration legal regime, approved by Decree-Law no. 23/2010, of 25 March, as amended, and (iii) the small scale generation regime, approved by Decree-Law no. 153/2014, of 20 October, as amended.

Furthermore, the publication of Decree-Law no. 35/2013, of 28 February, establishes an alternative remuneration regime, which allows generators to reduce their exposure to market risk, once the period of the initial remuneration regime has expired, by paying an annual compensation to the National Electricity System.

EDP Renováveis chose to pay €5,800 per MW of installed capacity between 2013 and 2020, to benefit from the alternative remuneration regime, which consists of selling all electricity generated at a set price, corresponding to the average market price of the previous twelve months, subject to a floor of €74/MWh and a cap of €98/MWh, for a period of seven years upon the conclusion of the initial 15-year term.

On 7 April 2015, Ministerial Order no. 102/2015 was published, which established the procedures for the placement of additional energy and for the repowering of wind farms (i.e., increasing the number of wind turbines in existing wind farms) on the terms established by Decree-Law 94/2014, of 24 June. The main measures introduced by this legislation were: (i) the energy produced by repowering wind farms is remunerated at a fixed rate of €60/MW; (ii) the energy corresponding to the difference between installed capacity and the injected energy in the network is remunerated at 60€/MW; and (iii) the repowering of wind farms is recognised as an independent generator, Ministerial Order no. 102/2015 has been amended by Ministerial Order no. 246/2018, of 3 September, which establishes that DGEG must always consult with ERSE prior to authorising a repowering of wind farms to consider the impact on the public interest and on consumer interests. In addition, Dispatch no. 7087/2017, of 1 August, established that, in the context of a repowering authorisation procedure, DGEG must consult with ERSE on the impacts of the repowering's feed-in tariff on the National Electricity System. This consultation was later included on Ministerial Order no. 102/2015, of 7 April through the enactment of Ministerial Order no. 246/2018, of 3 September, later amended by Ministerial Order no. 43/2019, of 31 January.

Nevertheless, Ministerial Order no. 43/2019, of 31 January, has further determined that ERSE's consultation shall be dismissed if the applicant explicitly accepts that the feed-in tariff applicable to the energy generated in connection with the wind farm repowering is € 45/MWh (instead of € 60/MWh, as established by Decree-Law no. 94/2014, of 24 June), which, in accordance with ERSE' study, is likely to avoid the adverse impacts of such feed-in tariff to the public and the consumer's interests. In this case, this tariff is awarded for a period of 15 years, after which the energy remuneration is carried out in accordance with the general regime, and cannot be included in the additional period and respective remuneration regime foreseen in the Decree-Law no. 35/2013.

#### *Small Hydro Plants (PCH)*

Decree-Law no. 35/2013, of 28 February, has shortened the duration of the remuneration regime applicable to PCH benefiting from the remuneration conditions established by Decree-Law 33-A/2005, of 16 February, from the expiration date on their water use license (of 35 years on average) to, if earlier, 25 years since the date they were attributed their operation license, after which date the electricity produced by these plants will be sold at market prices.

#### *Self-consumption and small scale generation*

Decree-Law no. 153/2014, of 20 October, further regulated by Ministerial Orders nos. 14/2015 and 15/2015, of 23 January, and Ministerial Order no. 60-E/2015, of 2 March, defines the legal regimes concerning generation for self-consumption and small scale generation activities.

Ministerial Order no. 15/2015, of 23 January, set the reference tariff to be applied in 2015 to the electricity produced by small scale generation to €95/MWh and determined the percentages to be applied to the reference tariff, according to the energy source used by those generators: 100 per cent. for PVs, 90 per cent. for biomass and biogas, 70 per cent. for wind farm and 60 per cent. for small hydro. By enacting Ministerial Order no. 115/2019, of 15 April, the Secretary of State for Energy decided to extend these tariffs to 2019, as in the previous years.

Pursuant to the enactment of Decree-Law no. 76/2019, of 3 June, which amended Decree-Law no. 172/2006, of 23 August, the licensing of new renewable energy projects based on one single generation technology with a maximum installed capacity of 1 MW with the purpose of selling all electricity generated to the grid shall now be governed by the latter and are subject to a previous registration and to the attainment of an operation certificate. The remuneration scheme is identical to the one established on Decree-Law no. 153/2014, i.e., it is based on a competitive bidding where applicants offer discounts to the reference tariff established by the Portuguese government. Applicants may also choose to sell electricity under a market regime.

Decree-Law no. 76/2019, of 3 June, repeals the provisions of Decree-Law no. 153/2014, of 20 October, in what concerns renewable small scale generation units where the grid connection capacity is equal to or less than 250 kV and which output is to be entirely delivered to the grid. This repeal shall take effect 4 months from the enactment of Decree-Law no. 76/2019 and shall not affect small scale generation units using renewable sources with a capacity of up to 1MW, provided that such provisions do not conflict with the provisions enacted by Decree-Law no. 76/2019.

On 25 October 2019, Decree-Law no. 162/2019 was published, establishing the new legal framework for self-consumption through renewable energy generation units (**UPAC**), by individual or collective consumers and by energy communities (**CER**). This Decree-Law has revoked Decree-Law no. 153/2014, of 20 October (even though it shall continue to apply to non-renewable energy UPAC that have been licensed under the terms of Decree-Law no. 153/2014 and to power purchase agreements that have been entered into by consumers operative renewable UPAC and the last resort supplier, EDP SU) and partially transposed Directive (EU) 2018/2001. Decree-Law no. 162/2019 implements two phases:

- a) on 1 January 2020, for individual self-consumption and collective self-consumption or CER projects, with smart metering systems and that have been installed at the same voltage level; and
- b) on 1 January 2021, for other self-consumption projects.

DGEG Dispatch no. 46/2019, of 30 December, defined the rules for the operation of the online platform regarding individual self-consumption, collective self-consumption and CER.

Furthermore, on 20 December 2019, ERSE launched a public consultation process for the regulation of the self-consumption regime for projects with smart metering systems and which have been installed at the same voltage level. This public consultation shall be open for contributions until 4 February 2020.

Additional regulation is therefore expected to be approved until 31 December 2020.

### *Cogeneration*

Decree-Law no. 23/2010, of 25 March, as amended by Law no. 19/2010, of 23 August, Decree-Law no. 68-A/2015, of 30 April (the latter amended by the Rectification no. 30-A/2015, of 26 June) and by Law no. 71/2018 of 31 December, establishes the legal framework applicable to the generation of electricity through cogeneration.

As significant amendments were made to the cogeneration legal regime, the terms of the applicable remuneration schemes depend on the time the licensing procedure was carried out.

For cogeneration power plants operating at the time of its entry into force, Decree-Law no. 23/2010, as amended by Law no. 19/2010, of 23 August, established a transitory regime, allowing for generators with an operation license to choose between the previous remuneration scheme (for a maximum period of 15 years from the beginning of the operation license or, if earlier, 10 years after the entry into force of Decree-Law no. 23/2010) and the remuneration scheme approved by said decree-law.

The terms for the calculation of the reference tariff and the efficiency, renewable and market participation premiums, as well as the provisions regarding the transition into the remuneration scheme approved by Decree-Law no. 23/2010, of 25 March, were enacted by Ministerial Order no. 140/2012, of 14 May, as amended by Rectification no. 35/2012, of 11 July, and Ministerial Order no. 325-A/2012, of 16 October.

The amendments introduced by Decree-Law no. 68-A/2015, of 30 April, set out a more expeditious regime for obtaining a licence for generation of electricity through cogeneration, a new way of calculating the reference tariff payable to cogenerators, as well as new rules on the transitory remuneration scheme.

The remuneration mechanism is currently based on two methods subject to the choice of the cogeneration generator: a general regime where the compensation is either defined by market value or, if the injection capacity is less than or equal to 20 MW and the energy is self-consumed, a feed-in tariff based on market value and paid by the last resort supplier; and a special regime that is only available for generators with an injection capacity lower than or equal to 20 MW, defined by a temporary reference tariff plus an efficiency premium and a renewable premium, if applicable. The values of the reference tariffs are defined quarterly by DGEG.

### *Solar*

The country's potential for solar energy is substantial and far from fully realised. However, Portugal has recently witnessed a significant increase in capacity-licensing requests for utility-scale solar energy projects running under general market rules, which has resulted in a shortage of grid capacity. This shortage resulted in the establishment of new rules to obtain a generation licence when the requested capacity exceeds the grid capacity (Ministerial Order no. 62/2018, of 2 March). These rules were revoked by Decree-Law no. 76/2019, of 3 June, which, conversely, approved new rules for dealing with the mentioned scarcity and granting licenses for electricity generation projects. The approval of Decree-Law no 76/2019, paves the way for PV Auction implementation announced by the Portuguese Energy Secretary of State.

On 6 June 2019, the Dispatch 5532-B/2019 established the auction for 1.400MW of PV and approved the legal pieces with further details on this Simultaneous Ascending Auction. The auction will be managed by OMIP and potential candidates had until July 7th to show their interest and submit all the requested documents, to a prior assessment of

qualification to further participation in the bidding process. The platform will compare all the bids (either for a fixed tariff of merchant) on NPV basis, with differentiation of discount rates between the two remuneration types. This auction applies to 24 injection nodes on the grid, and the conditions are valid for a period of 15 years. The maximum price allowed is €45/MWh and this figure is expected to come down with competition. The final results of the solar auction were announced by DGEG on 7 August 2019 and EDP was not directly awarded any of the 24 tendered allotments. In one of the allotments (no.12), a solar project at Ribatejo, EDP (through EDP Renováveis) was the only bidder and, according to the rules regarding the minimum number of auction participants, this allotment was consequently not awarded at the price EDP bid. The DGEG, has however accepted EDP Renováveis' revised proposal for interconnection capacity to develop the project for allotment no.12, with an installed capacity of 142 MW with a tariff of €20,89/MWh (which is the weighted average price resulting from the auction). With this new contract, EDP has approximately 750 MW of contracted solar capacity to be built until 2022, across Portugal, the United States and Brazil.

### ***B. Electricity Transmission***

Electricity transmission is carried out through the national transmission network, under an exclusive concession granted by the Portuguese government for a 50-year period. The concession for electricity transmission was awarded to REN until 2057, under article 69 of Decree-Law no. 29/2006, of 15 February, following the concession already granted to REN under article 64 of Decree-Law no. 182/95, of 27 July, as amended and republished by Decree-Law no. 56/97, of 14 March.

The activities of the transmission system operator (or the concessionaire for the electricity transmission network) must be independent, both legally and organisationally, from other activities in the electricity sector. On 9 September 2014, ERSE issued a decision certifying that REN complies with the relevant legal requirements to be considered a full ownership unbundling transmission system operator, subject to the conditions set out therein.

### ***C. Electricity Distribution***

Electricity distribution is carried out through the national distribution network, consisting of a medium and high voltage network, and through the low voltage distribution networks.

Currently, the national medium and high voltage distribution network is operated under an exclusive concession granted by the Portuguese State for a 35-year period. This concession was awarded to EDP's subsidiary, EDP Distribuição, pursuant to article 70 of Decree-Law no. 29/2006, of 15 February, after converting the licence held by EDP Distribuição under the former regime into a concession agreement, signed on 25 February 2009. The terms of the concession are set forth in Decree-Law no. 172/2006, of 23 August.

The low voltage distribution networks are operated under concession agreements granted by the municipalities. Most of the low voltage distribution networks are handled by EDP Distribuição, alongside some local concessionaires with less than 100,000 clients.

Although the existing municipal concession agreements were maintained pursuant to Decree-Law no. 172/2006, of 23 August, the new concessions must be awarded after a competitive procedure to be implemented by the relevant municipalities. To this end, Law no. 31/2017, of 31 May, established the principles and general rules of the upcoming public tenders. Accordingly, regardless of the end date of the prevailing concession agreements, the public tender procedures are scheduled to take place simultaneously in 2019, covering all the municipalities that choose not to carry out the distribution activity directly. Pursuant to Law no. 31/2017, the concession agreements which terminated prior to 2019 (which is the case for the agreements with the municipalities of Lisbon, set to have ended in 2017, and São João da Madeira, set to have ended in 2016, both of which continue to be operated by EDP Distribuição up to this date) must be extended by the relevant municipalities that choose not to carry out the activity directly until the new concessions enter into force. In order to ensure the launch of the public tender procedures in early 2019, the Council of Ministers issued Resolution no. 5/2018, of 11 January, approving the programme of preparatory studies and actions to be carried out by ERSE in coordination with DGEG and the National Association of Portuguese Municipalities (**ANMP**), which is currently underway.

Pursuant to such Resolution, ERSE has proposed on 22 January 2019 that the municipalities shall be grouped in three areas (north, centre and south) and that the public tender procedures shall be launched jointly by the municipalities located in such geographical areas.

By law, the entities carrying out the low voltage distribution which supply more than 100,000 customers and which are vertically integrated must be independent from other activities unrelated to the distribution activity, from a legal, organisational and decision-making standpoint. In turn, the operators of low voltage distribution networks who supply less than 100,000 customers are only obliged to have separate accounts and are not subject to a full ownership or legal unbundling obligation.

Under the Electricity Framework, the distribution system operator must prepare a network development and investment plan to be submitted to DGEG and subject to a public consultation and an opinion from ERSE, before discussion by the Portuguese Parliament and approval by the member of the Portuguese government responsible for energy issues.

The prices that EDP Distribuição charges for access to the distribution networks are subject to extensive regulation by ERSE. The access tariffs set by ERSE are paid by all consumers, whether in the regulated or the liberalised market. The allowed revenues of EDP Distribuição for the 2018-2020 regulatory period are set as follows: (i) concerning the low voltage network, a price cap mechanism, with an efficiency factor of 2.0 per cent. is applied to the total expenditure (**TOTEX**); (ii) regarding the high and medium voltage network, the capital expenditure (**CAPEX**) is remunerated through the application of a rate of return to the net regulated asset base and the operating expenditures (**OPEX**) are subject to a price-cap mechanism, with an efficiency factor of 2.0 per cent. The regulated asset base is remunerated by a 5.75 per cent. reference rate of return, indexed to the evolution of the yield of 10-year Portuguese Treasury bonds between October of year "t-1" and September of year "t". This mechanism sets a floor and a cap of 4.75 per cent. and 9.75 per cent., respectively.

#### **D. Electricity Supply**

Electricity supply is open to competition, subject only to a registration regime. Suppliers may freely buy and sell electricity. For this purpose, they have the right to access the national transmission and distribution networks upon payment of access tariffs set by ERSE. EDP operates as a supplier in the liberalised market, through its subsidiary EDP Comercial.

Electricity suppliers must comply with certain public service obligations to ensure the quality and continuity of supply, as well as consumer protection with respect to prices, access tariffs and access to information in simple and understandable terms.

In addition to the information requirements established on ERSE's regulation, Law no. 5/2019, of 11 January, further determines that the invoices issued by electricity suppliers must contain all elements necessary to a complete and accessible understanding of the total and disaggregated amounts, in particular the estimated and actual consumption, energy tariffs, grid access tariffs, supply tariffs, social tariffs (when applicable), primary energy, payment deadlines and methods and consequences of failure to pay the charged amounts. Suppliers shall also provide annual information to all customers, until 30 June of each year, regarding, in particular, the tariffs and prices to be applied that year, CO<sub>2</sub> emissions and political, sustainability and energy efficiency measures proposed by ERSE and the DGEG.

Failure to comply with the obligations set out on Law no. 5/2019, of 11 January, may be considered an administrative offence by the National Entity for the Energy Sector ("*Entidade Nacional para o Setor Energético, E. P. E.*"), which will be supervising compliance with this legal regime on a transitional basis, until the creation of a new supervisory entity for the energy sector.

Decree-Law no. 60/2019, of 13 May, established a reduced VAT rate (6 per cent.) regarding the fixed component of the third-party access from electricity supply (for natural gas, please see natural gas supply), maintaining the remaining invoice at the normal VAT rate (23 per cent.).

This is applicable to the electricity supply (contracted capacity  $\leq$  3,45 kVA) and entered into force on 1 July 2019.

As required by the Electricity Directive, the Electricity Framework establishes a last resort supplier, licensed by DGEG, subject to universal service obligations and regulation by ERSE. Besides supplying electricity to customers who haven't switched to the liberalised market, the last resort supplier is responsible for the purchase of the special regime generation that benefits from a guaranteed remuneration scheme (feed-in tariff). This energy is sold by the last resort supplier in the organised markets or at energy auctions promoted and organised by ERSE. The last resort supplier is entitled to recoup the overcosts with the acquisition of the special regime generation relative to the revenues obtained from its sale in the market.

Pursuant to amendments introduced by Decree-Law no. 264/2007, of 24 July, the last resort supplier is also further required to buy energy through market mechanisms, namely auctions, with conditions defined by the Portuguese government. The purchases are recognised for the purpose of regulated costs whenever they reach maturity. The last resort supplier must manage the different forms of contracts in order to acquire energy at the lowest cost. All unneeded surplus electricity acquired by the last resort supplier is resold on the organised market.

Since 1 January 2007, the role of last resort supplier has been carried out by: (i) an independent entity, from an organisational and legal standpoint, EDP SU, which was created by EDP's subsidiary, EDP Distribuição; and (ii) some local low voltage distribution concessionaires with less than 100,000 clients.

The prices that EDP SU charges for the electricity supplied to the customers remaining in the regulated market are uniform throughout mainland Portugal and subject to extensive regulation.

Revenues for last resort suppliers comprise different components according to the regulated activity: (i) the costs with the purchase and sale of energy and the access to the networks are fully recouped and recognised in the regulated cost base; and (ii) regarding the commercialisation activity, OPEX is subject to a price-cap mechanism, with an efficiency factor of 1.5 per cent. concerning the current regulatory period.

#### *Logistics for Switching Suppliers*

The ability to switch to the liberalised market was opened to all electricity consumers as of September 2006. Since then, electricity consumers are free to choose their electricity supplier and are exempt from any payment when switching suppliers. Switching suppliers should not take more than three weeks, and there is no limitation on the number of switches any customer can make.

Decree-Law no. 172/2006, of 23 August, introduced a new legal entity, the logistic operator for switching suppliers (**OLMC**), regulated by ERSE, responsible for overseeing the logistical operations that facilitate consumer switching. While waiting for the creation of a switching operator, ERSE determined that, in the meantime, EDP Distribuição, the operator of the medium and high voltage distribution network, should take on that role.

In 2017, Decree-Law no. 38/2017, of 31 March, established the legal regime applicable to the OLMC for electricity and natural gas, attributing this function to Agência para a Energia (**ADENE**), the national agency for energy.

#### *Phasing out of end-user regulated tariffs*

The phasing out of end-user regulated tariffs began in 2011, pursuant to Decree-Law no. 104/2010, of 29 September, which approved the termination of the end-user regulated tariff for clients other than normal low voltage (comprising the very high, high, medium and special low voltage levels) as of 1 January 2011 and their replacement by a transitory end-user regulated tariff, set by ERSE. In turn, Resolution of the Council of Ministers no. 34/2011, of 1 August, approved the timetable for the termination of the end-user regulated tariff and the introduction of a transitory end-user regulated tariff for normal low voltage electricity consumers as follows: (i) 1 July 2012 for consumers with contracted power equal or greater than 10.35 kVA; and (ii) 1 January 2013 for consumers with contracted power lower than 10.35 kVA.

By law, the last resort supplier must continue to supply electricity consumers that have yet to migrate to the liberalised market. To encourage customers to switch to the liberalised market, Decree-Law no. 75/2012, of 26 March, approved the application of an aggravating factor to the transitory end-user regulated tariffs set by ERSE.

The termination of the transitory end-user regulated tariffs was initially scheduled to occur on: (i) 31 December 2011 for all segments other than normal low voltage; and (ii) 31 December 2014 for normal low voltage customers with contracted power equal or greater than 10.35 kVA; and (iii) 31 December of 2015 for the remainder. However, the termination of the transitory end-user regulated tariffs has been continuously postponed, except for the very high voltage level, which ended in 2013. Following Ministerial Order no. 39/2017, of 26 January, the phasing out of the remaining transitory end-user regulated tariffs is now scheduled to be completed by 31 December 2020.

In addition, Decree-Law no. 75/2012, of 26 March, as amended by Law no. 105/2017, of 30 August, determined that the normal low voltage consumers that have already switched to the liberalised market may choose pricing conditions comparable to the end-user regulated tariffs and, ultimately, return to the last resort supplier when the relevant supplier does not offer such pricing conditions, under the terms established in Ministerial Order no. 348/2017, of 14 November. Moreover, Law no. 105/2017 provides for the elimination of the aggravating factor established by Decree-Law no. 75/2012, of 26 March.

#### *Electricity Tariffs*

According to ERSE statutes, approved by Decree-Law no. 97/2002, of 12 April, as amended by Decree-Law no. 212/2012, of 25 September, by Decree-Law no. 84/2013, of 25 June, by Decree-Law no. 57-A/2018, of 13 July and by Decree-Law no. 76/2019 of 3 June, ERSE is responsible for the establishment and for the approval of tariffs and regulated prices applicable in Portugal, under the Tariff Code of the electricity sector. The tariffs and prices for electricity and other services in 2019 were approved by ERSE's document "*Tarifas e Preços para a Energia Elétrica e outros Serviços em 2019*", published in December 2018 and available at [www.erse.pt](http://www.erse.pt), and by ERSE's Directive no. 5/2019, of 17 December 2018, published in the Portuguese official gazette on 18 January 2019.

The tariffs and prices for electric energy in 2020 were approved by ERSE's Directive no. 12/2019, of 16 December and is available at [www.erse.pt](http://www.erse.pt). This document assumes a 0.4 per cent. average decrease for normal low voltage electricity tariffs.

#### *Costs deferral*

The regulatory period from 2006 to 2008 brought little change in the method of tariff calculation. However, in 2006 and 2007, a "tariff deficit" was generated, which meant that the end-user tariffs charged by the last resort supplier (EDP

Distribuição in 2006 and EDP SU in 2007) were not covering all the costs of the system, generating a loss for the last resort supplier and for the transmission system operator, REN. This deficit resulted from two different decree-laws: (i) Decree-Law no. 187/95, of 27 July, amended by Decree-Law no. 157/96, of 31 August, and Decree-Law no. 44/97, of 20 February, which prevented the low voltage tariffs from rising above the expected rate of inflation in 2006; and (ii) Decree-Law no. 237-B/2006, of 18 December, which limited the rise in tariffs for residential customers (normal low voltage) in 2007 to a maximum of 6 per cent. These deficits were fully recovered in ten years, beginning in 2008, through annual rises in the access tariffs.

When ERSE set the tariffs for 2009, another, and significantly larger, tariff deficit was generated, mainly due to the increase in electricity prices in the wholesale market. Given the need to regulate the creation of these deficits and to clarify how they could be recovered, Decree-Law no. 165/2008, of 21 August, defined the rules applicable to: (i) tariff adjustments resulting from the electric energy acquired by the last resort supplier in exceptional cost situations; and (ii) the tariff repercussion of certain costs related to energy, sustainability and general economic interest policy measures. Namely, this decree-law stated that every tariff deficit generated thereon, on such conditions, should be recovered over a maximum period of 15 years. In the case of the tariff deficit of 2009, an instalment worth 1/15 of the total deficit plus the corresponding interest has been added to the tariffs each year, beginning in 2010.

In 2012, to prevent an increase in electricity tariffs, the Portuguese government deferred the CMEC annual adjustments of 2010, according to Decree-Law no. 109/2011, of 18 November. Another deferral was enacted pursuant to Decree-Law no. 256/2012, of 29 November, applying to the CMEC and PPA annual adjustments of 2011, earning interests at an annual rate of 5 per cent. and 4 per cent., respectively, as set by Ministerial Order no. 145/2013, of 9 April.

Decree-Law no. 32/2014, of 28 February, deferred the CMEC annual adjustment of 2012 in the electricity tariffs for 2014, to be recovered in equal parts in the allowed revenues of the distribution network operator for 2017 and 2018. The Decree-Law also determined the payment of a compensation for this deferral, according to a remuneration rate computed pursuant to Ministerial Order no. 500/2014, of 26 June, applied to the parameters being established by Dispatch no. 9480/2014, of 22 July, resulting in an annual interest rate of 5 per cent.

In 2011, a change in Decree-Law no. 29/2006, of 15 February, was established by Decree-Law no. 78/2011, of 20 June, and further amended by Decree-Law no. 75/2012, of 26 March, by Decree-Law no. 112/2012, of 23 May, by Decree-Law no. 215 A/2012, of 8 October, by Decree-Law no. 178/2015, of 27 August, and Law no. 42/2016, of 28 December, in order to allow for the deferral of overcosts with the acquisition of electricity under the special regime generation over a period of five years, mandatory for the 2012 overcosts and optional for the overcosts up until 2020. Accordingly, since 2012, ERSE has been deferring for a 5-year period the recovery of the special regime generation overcosts expected for each year. Ministerial Order no. 279/2011, of 17 October, further regulated by Ministerial Order no. 146/2013, of 11 April and Ministerial Order no. 262-A/2016, of 10 October, set the methodology to calculate the rate of return applicable to the deferral of the recovery of the overcosts with the acquisition of special regime generation. The final value of the rate of return depends on parameters defined annually in supplementary legislation. The parameters for 2019 were set by Dispatch no. 11392-B /2018, of 29 November, and considered by ERSE in the tariffs for 2019.

### *Social tariffs*

The electricity social tariff was established by Decree-Law no. 138-A/2010, of 28 December, as amended by Decree-Law no. 172/2014, of 14 November, and Law no. 7-A/2016, of 30 March, corresponding to a 20.0 per cent. discount applied to the low voltage access tariff, borne by the electricity generators in the ordinary regime.

Decree-Law no. 102/2011, of 30 September, as amended by Decree-Law no. 172/2014, of 14 November, regulated by Ministerial Orders no. 275-A/2011 and no. 275-B/2011, of 30 September, introduced an additional support mechanism, by establishing the extraordinary social support to the energy consumer (**ASECE**), corresponding to a 13.8 per cent. discount applied to the electricity bill before taxes, born by the Portuguese taxpayers.

The 2016 State Budget Law (Law no. 7-A/2016, of 30 March) introduced important changes in the support mechanisms addressing energy poverty, creating a unique and automatic model to assign social tariffs to economically vulnerable customers. Concurrently, it revoked Decree-Law no. 102/2011, of 30 September, determining the incorporation of ASECE into the social tariff discount, thereby increasing the amount financed by the ordinary regime generation.

The rate of discount of the social tariff is established annually by Dispatch of the member of the Portuguese government responsible for energy affairs. Accordingly, for 2020, Dispatch no. 8900/2019, published on 7 October, keeps the discount unchanged at a rate equivalent to 33.8 per cent. of the electricity bill before taxes.

### *Electric Mobility*

On 4 November 2019, Regulation no. 854/2019 (Electric Mobility Regulation) was published and revoked the previous regulation (in force since December 2015). This regulation defines how the charging stations network should be managed and delineates the roles of the key players involved in the operation of the mobility network.

Under the current legal model there is a regulated entity, Mobi.E, to which every charging station integrated in the public network must be connected. In the majority of the European countries, there are several roaming hubs that ensure the interoperability between different charging stations' operators, allowing users to charge their electric vehicle in every charging station, either in or outside their country. The Portuguese regulation ensures that any electrical vehicle user (**EVU**) is allowed to use any charging station (at national level), though it does not consider ad hoc charging and it imposes a regulated roaming entity.

The network tariff structure applied to electric mobility is fully variable (€/kWh), though it reflects some costs related with contracted capacity (kW). In addition, for those private charging stations which decide not to integrate the electric mobility network under a contract with Mobi.E, there may still be the necessity to contract additional capacity.

On 27 December 2019, a public tender was launched through Procedure Notice no. 14283/2019 for the concession of the operation of electric mobility charging stations.

#### *Extraordinary Contribution to the Energy Sector*

The 2014 State Budget Law (Law no. 83-C/2013, of 31 December, as amended by Law no. 33/2015, of 27 April) introduced an extraordinary contribution applicable to the energy sector (**CESE**), with the stated purpose of funding mechanisms that promote the energy sector systemic sustainability, through the establishment of a fund – the Systemic Sustainability Fund for the Energy Sector – intended to finance social and environmental policies (two-thirds of CESE revenue) and to contribute to the reduction of the tariff debt of the National Electricity System (one-third of CESE revenue). CESE corresponds to a tax on the net assets of the energy operators that develop the following activities: (i) generation, transport or distribution of electricity; (ii) transport, distribution, storage or wholesale supply of natural gas; and (iii) refining, treatment, storage, transport, distribution and wholesale supply of crude oil and oil products.

Pursuant to Law no. 71/2018, of 31 December, which approved the State Budget for 2019, CESE shall now also be levied on generators operating renewable energy power plants that have been licensed under the guaranteed remuneration scheme, i.e., selling electricity to the last resort supplier against payment of a legally or contractually determined feed-in tariff. These generators were, to this date, exempted from paying CESE. CESE initially emerged as an extraordinary measure, with a temporary nature. Nevertheless, and unlike originally proposed, CESE has been continuously extended under each year's State budget law, while its revenue has not been serving the legal stated purpose. Although having paid this levy since its introduction in 2014, EDP has disputed its payment with the competent authorities, for disagreeing with the legal and constitutional basis of CESE, and initially suspended payment in 2017.

However, Law no. 71/2018, of 31 December reinforced CESE temporary nature, associating it with the evolution of the tariff debt of the National Electricity System, and Decree-Law 109-A/2018, of 7 December, established an allocation of a greater part of this levy revenue (two-thirds) to the reduction of such debt.

In this context, and despite considering that it should continue to dispute the legality and constitutionality of this tax, EDP proceeded with CESE payments related to 2017 and 2018.

REN – Armazenagem S.A. was also contesting CESE and, on 10 January 2019, REN – Redes Energéticas Nacionais, SGPS, S.A. announced that it was notified of the decision of the Constitutional Court that analysed the appeal filed by REN Armazenagem S.A. towards the declaration of illegality of the collection of CESE in 2014 and that:

- (i) the Constitutional Court ruled against the unconstitutionality of the applicable rules of the legal framework of CESE approved by Law 83-C/2013 of 31 December; and
- (ii) the Constitutional Court limited the scope of the appeal to the CESE in force in 2014 and did not analyse the constitutionality of the rules that govern CESE for the following years, i.e. from 2015 to 2019.

It is not possible at this stage to make an assessment of the impact (if any) of this decision for EDP.

The State Budget Law Proposal for 2020 maintains CESE in the same conditions that were in force in previous years.

However, a Legislative Authorization is proposed so that the Government may, within 90 days, approve legislation that ensures that CESE keeps up with the evolution of the Electricity System's tariff debt - in particular, the Government is allowed to reduce CESE tax rates, having as a limit the percentage of the tariff deficit reduction foreseen in ERSE's tariff and prices proposal for 2020 (14 per cent.).

This Proposal is still subject to the Parliament's discussion and, therefore, subject to amendments/changes and introduction of new measures.

#### *Taxation of energy products and electricity (ISP) and CO2 additional tax*

The 2018 State Budget Law (Law no. 114/2017, of 29 December), removed certain exemptions in the scope of the tax regime of energy products, in particular, i) bituminous coal used to produce electricity and/or used in cogeneration

facilities ii) bituminous coal, fuel oil and natural gas used to produce electricity and/or used in cogeneration facilities subject to ETS. The elimination of this exemption shall apply to Sines power plant. This tax, both for ISP and CO<sub>2</sub> added tax, will increase its rate progressively until 2022 (10 per cent. for 2018; 25 per cent. for 2019; 50 per cent. for 2020; 75 per cent. for 2021; 100 per cent. for 2022). Half of the tax revenues shall be allocated to the National Electricity System or to reduce the tariff deficit and the remaining 50 per cent. shall be allocated to the Environmental Fund.

The 2019 State Budget Law (Law no. 71/2018, of 31 December), kept the percentage of the tax over energy products for coal power-plants unchanged (25 per cent. for 2019), both for ISP and CO<sub>2</sub> added tax. Regarding the CO<sub>2</sub> added tax, this 25 per cent. are applied to the difference between a CO<sub>2</sub> reference price of 20€/ton CO<sub>2</sub> and the average price from CELE auctions, considering a cap of 5€/ton of CO<sub>2</sub> (for 2019 this difference is set at 5€/ton). 50 per cent. of this revenue shall be allocated to National Electricity System or to a reduction of the tariff deficit, 40 per cent. shall be assigned to the Environmental Fund and the remaining 10 per cent. shall be allocated to the Fund for Innovation, Technology and Circular Economy.

On 4 January 2019, Ministerial Order no. 6-A/2019 was published, which established, for 2019, that CO<sub>2</sub> added tax foreseen in article 92-A (2) in the Excise Duty Code is € 12.74 ton/ CO<sub>2</sub>.

The State Budget Law Proposal for 2020 sets the following percentages for the tax over oil and energy products used in the generation of electricity in 2020: for coal power-plants – 50 per cent., both for ISP and CO<sub>2</sub> added tax; for natural gas used in electricity generation – 10 per cent., both for ISP and CO<sub>2</sub>; for fuel oil used in electricity generation – 25 per cent. both for ISP and CO<sub>2</sub>.

Is proposed that the corresponding tax revenue is allocated to the National Electricity System or to the reduction of the tariff deficit and to the Environmental Fund.

This proposal is still subject to the Parliament's discussion and, therefore, subject to amendments/changes and introduction of new measures.

## **Natural Gas Sector: Regulatory Framework**

### **1. Overview**

The general basis, principles and model of organisation of the Portuguese Natural Gas System (**SNGN**), were established through Decree-Law no. 30/2006, of 15 February, and Decree-Law no. 140/2006, of 26 July, both amended by Decree-Law no. 66/2010, of 11 June, and the former amended by Decree-Law no. 77/2011, of 20 June.

Thereafter, Decree-Laws no. 230/2012 and 231/2012, of 26 October, were published, completing the transposition of the Directive 2009/73/EC of the European Parliament and of the Council, of 13 July, concerning common rules for the internal market in natural gas (**Directive 2009/73/EC**), and introducing new modifications to Decree-Law no. 30/2006, of 15 February, and to Decree-Law no. 140/2006, of 26 July. These acts introduced important modifications: (i) the requirements related to the independence, legal separation and ownership unbundling of the transmission network operator were reinforced, with the aim of assuring the independence and eliminating the network access discrimination risk; (ii) the legal separation requirements were equally clarified for all the remaining operators in the gas sector (LNG terminal, underground natural gas storage and distribution network operators); and (iii) the statutes of the suppliers were clarified, with particular reference to the last resort suppliers playing in the SNGN.

The SNGN is currently divided into six major activities: reception, storage and regasification of LNG, underground storage of natural gas, transmission, distribution, supply and logistic operations for switching between suppliers.

Activities related to the reception, storage and regasification of LNG, underground storage of natural gas, and transmission of natural gas are regulated and provided through the award of public service concessions. Natural gas distribution is regulated and carried out through the award of public service concessions or licences. The supply of natural gas is open to competition and only requires compliance with a licensing or registration procedure.

On 1 April 2019, ERSE published an update to natural gas regulations (the Tariff, Commercial Relations and Access to the Networks, Infrastructure and Interconnections Regulations) that had been under public consultation since January, aiming to prepare the next regulatory period. One of the outcomes of the public consultation was the extension of the regulatory periods to four years.

#### *MIBGAS*

During the last decade, the Portuguese and Spanish governments made their best efforts to establish a stable framework that would enable gas system operators in both countries to develop their activity in the Iberian Peninsula, the Iberian Natural Gas Market (**MIBGAS**).

The construction of this framework started with the creation of the market operator MIBGAS, S.A., which started the negotiation of natural gas products on 16 December 2015. MIBGAS, S.A. started trading Portuguese products in 2017.

MIBGAS liquidity is below the liquidity levels of the main European gas hubs. Therefore, measures were taken to increase market liquidity, including the regular appointment of voluntary market creators and compulsory market creators.

### **2. Natural Gas Value Chain**

#### ***A. Reception, Storage and Regasification of LNG and Underground Storage***

There are no natural gas deposits in Portugal and therefore there is no domestic natural gas production. The supply of natural gas to the Portuguese market is carried out through two physical interconnections with Spain (Campo Maior and Valença) and a container terminal in the industrial area of Sines' port.

Galp Gás Natural, S.A., the gross last resort supplier of the SNGN, has long-term take-or-pay contracts with two main suppliers: Sonatrach in Algeria and NLNG in Nigeria. The natural gas from Sonatrach is transported via the Maghreb pipeline while the natural gas from NLNG is transported via LNG carriers. Both supply the regulated Portuguese gas market.

The reception, storage and regasification of LNG in Sines' terminal are operated by REN Atlântico, S.A. (**REN Atlântico**), under a concession regime and are subject to regulation by ERSE. Access to the LNG terminals is based on specific tariffs applicable to all market agents, approved and published by ERSE.

The underground storage of natural gas comprises the following components: the reception, compression, underground storage and gas depressurisation and drying for posterior delivery to the transmission network. These activities are performed in Carriço, near the Portuguese city of Leiria, and are operated by REN Armazenagem, S.A. (**REN Armazenagem**) and Transgás Armazenagem, under a concession regime and subject to regulation by ERSE. Since 2012, with Decree-Law no. 231/2012, of 26 October, Portuguese legislation stipulates that access to underground storage facilities is based either on negotiated access with the operators or regulated access, or through a combination of both.

EDP has a contract with REN Armazenagem, to take advantage of the underground storage facilities for maintaining gas safety reserves in order to ensure power to its plants and/or to its clients during peaks in demand. EDP also has an agreement with REN Atlântico to provide storage and regasification of LNG for clients supplied by the autonomous units of reception (**UAG**).

### **B. Transmission**

The transmission of natural gas is carried out under an exclusive 40-year concession granted by the Portuguese government. Following the decision to unbundle the activity of natural gas distribution from that of transmission, the concession of the transmission network was awarded, in September 2006, to REN Gasodutos, S.A. (**REN Gasodutos**). The terms of the concession contract were established by the Council of Ministers Resolution no. 105/2006, of 23 August.

On 9 September 2014, ERSE issued a decision certifying that REN Gasodutos complies with the relevant legal requirements to be considered a full ownership unbundling transmission system operator, subject to the conditions set out therein.

### **C. Distribution**

Natural gas distribution involves the distribution of natural gas through medium and low-pressure pipelines and is carried out through concessions or licences granted by the Portuguese government. Pursuant to article 66 (since revoked by Decree-Law no. 230/2012, of 26 October) of Decree-Law no. 30/2006, of 15 February, the entities operating the natural gas distribution network at the date of its enactment continued to do so as concessionaires or licensed entities under an exclusive territorial public service regime.

Natural gas distribution operators supplying more than 100,000 customers are required to be independent, from a legal, organisational and decision-making standpoint, from other activities unrelated to the distribution activity. The relevant concessionaires are required to grant third party access to the natural gas distribution networks at tariffs set by ERSE, which are applicable to all customers, including supply companies.

Under Portuguese law, municipalities are allowed to charge a tax for the occupation of the subsoil. According to the distribution concession agreements, these amounts may be borne by the natural gas consumers. However, pursuant to Law no. 42/2016, of 28 December, which approved the State Budget for 2017, the tax shall be paid by the *infrastructures companies* and cannot be reflected on the clients' invoices.

### **D. Supply**

The supply of natural gas is open to competition, subject only to prior registration with DGEG. EDP's licensed supplier of natural gas for the liberalised market is EDP Comercial.

Decree-Law no. 60/2019, of 13 May, also established a reduced VAT rate (6 per cent.) regarding the fixed component of the third-party access from the natural gas supply, maintaining the remaining invoice at the normal VAT rate (23 per cent.). This is applicable to the natural gas supply (low pressure  $\leq 10\,000$  m<sup>3</sup>/year) and will entry in force on 1 July 2019.

Suppliers may openly buy and sell natural gas. For this purpose, they have the right to access the natural gas transmission and distribution networks upon payment of an access tariff set by ERSE. The Natural Gas Framework enumerates certain public service obligations for suppliers to ensure the quality and continuity of supply, as well as consumer protection with respect to prices, access tariffs and access to information in simple and understandable terms.

The Natural Gas Legal Framework also establishes the existence of a gross last resort supplier and of retail last resort suppliers, licensed by DGEG and subject to regulation by ERSE. As last resort suppliers are required to be legally separated from all other activities (unless they supply less than 100,000 clients), EDP's last resort supplier activity is undertaken by its subsidiary, EDP Gás Serviço Universal (**EDP Gás S.U.**), in the concession area of REN Portgás Distribuição, S.A. (**REN Gás Distribuição**), which covers the districts of Oporto, Braga and Viana do Castelo, in the Northern coastal region of Portugal.

The allowed revenues of the last resort suppliers are defined by ERSE on an annual basis according to the parameters set at the beginning of each regulatory period. On 30 June 2016, ERSE released the parameters for the new regulatory period 2016-2019. The allowed revenues of EDP Gás SU were set as follows: (i) the retailing activity is remunerated through the application of a rate of return to the working capital, in addition of a retail margin of €4/client/year; (ii) and the OPEX is subject to a price-cap mechanism, with an efficiency factor of 2.0 per cent. The working capital is remunerated by a 6.20 per cent. reference rate of return indexed to the evolution of the yield of the 10-year Portuguese Treasury bonds between April of year "t-1" and March of year "t". This mechanism sets a floor and a cap of 5.70 per cent. and 9.30 per cent., respectively.

ERSE Directive no. 12/2019, of 31 May, published in the Portuguese official gazette on 1 July, approved the regulated tariffs to be applicable between July 2019 and June 2020.

#### *Logistic operations for switching suppliers*

Switching to the liberalised market is open to all natural gas consumers as of January 2010. Since then, natural gas consumers are free to choose their supplier and are exempt from any payment when switching suppliers. Decree-Law no. 140/2006, of 26 July, introduced a new entity, the OLMC, regulated by ERSE, responsible for overseeing the logistical operations that facilitate consumer switching in both the electricity and the natural gas sectors. Decree-Law no. 38/2017, of 31 March, established the legal regime applicable to the OLMC for electricity and natural gas, attributing this function to ADENE.

#### *Phasing out of end-user regulated tariffs*

The phasing out of end-user regulated tariffs began in 2010, pursuant to Decree-Law no. 66/2010, of 11 June, which approved the termination of the end-user regulated tariff for large clients (with an annual gas consumption greater than 10,000 m<sup>3</sup>) as of 1 July 2010, and their replacement by a transitory end-user regulated tariff, set by ERSE. In its turn, Decree-Law no. 74/2012, of 26 March, approved the timetable for the termination of the end-user regulated tariff and the introduction of a transitory end-user regulated tariff for clients with annual gas consumption lower than 10,000 m<sup>3</sup> as follows: (i) 1 July 2012 for clients with an annual gas consumption greater than 500 m<sup>3</sup>; and (ii) 1 January 2013, for the remainder. By law, the last resort suppliers must continue to supply the natural gas consumers that have yet to migrate to the liberalised market.

To encourage customer switching to the liberalised market, Ministerial Order no. 108-A/2015, of 14 April, amended by Ministerial Order no. 359/2015, of 14 October, approved the application of an aggravating factor to the transitory end-user regulated tariffs set by ERSE. Dispatch no. 11412/2015, of 30 September, updated the parameters used to compute the aggravating factors according to the mechanism established in Ministerial Order no. 108-A/2015, of 14 April.

The termination of the transitory end-user regulated tariffs was initially scheduled to occur on (i) 31 March 2011 for large clients; (ii) 31 December 2014 for clients with an annual gas consumption between 10,000 m<sup>3</sup> and 500 m<sup>3</sup>; (iii) 31 December 2015 for the remainder. However, these deadlines have been continuously postponed and, following Ministerial Order no. 144/2017, of 24 April, the phasing out of the transitory end-user regulated tariffs is now scheduled to be completed by 31 December 2020.

From 2021 onwards, last resort suppliers will only be allowed to supply economically vulnerable consumers, as defined by Decree-Law no. 231/2012, of 26 October. However, economically vulnerable consumers were granted the right to choose whether to continue to be supplied by the last resort supplier or by a regular supplier, maintaining in any case the right to benefit from the legally established tariff discounts.

#### *Social Tariffs*

The natural gas social tariff was established by Decree-Law no. 101/2011, of 30 September, corresponding to a discount applied to the low-pressure access tariff borne by natural gas customers.

In addition, Decree-Law no. 102/2011, of 30 September, regulated by Ministerial Orders no. 275-A/2011 and no. 275-B/2011, of 30 September, introduced the ASECE, corresponding to a 13.8 per cent. discount applied to the natural gas bill before taxes, borne by the Portuguese taxpayers.

The 2016 State Budget Law (Law no. 7-A/2016, of 30 March) introduced important changes in the support mechanisms addressing energy poverty, creating a unique and automatic model to assign social tariffs to economically vulnerable customers. At the same time, it determined the incorporation of ASECE into the social tariff discount (revoking Decree-Law no. 102/2011, of 30 September).

The rate of discount of the social tariff is established annually by Dispatch of the member of the Portuguese government responsible for energy issues. Accordingly, for the period between July 2018 and June 2019, Dispatch no. 3121/2018, of 20 March, keeps the discount unchanged at a rate equivalent to 31.2 per cent. of the natural gas bill before taxes.

The 2018 State Budget Law (Law no. 114/2017, of 29 December) provides for changes to the way the costs with the social tariff are funded, by determining that these costs should be borne by the natural gas transportation companies and suppliers, as a *pro rata* of the amount of gas supplied in the previous year.

As per the Portuguese government's request, the Attorney General's office issued an opinion on the State Budget Law's provision that establishes social tariff's funding in which it argues that all companies responsible for the transportation of natural gas shall borne the costs with the social tariff and that these shall include the TSO, as well as the DSO.

Following the homologation of such opinion by the Secretary of State for Energy, and even though the interpretation contained therein only binds the public services that requested said opinion, ERSE amended the Tariff Code as to reflect the interpretation of the Attorney General's office opinion.

In fact, these changes became effective as of 1 July 2018, after ERSE introduced the necessary amendments to the Natural Gas Tariff Code and to the Natural Gas Commercial Relations Code, with the adoption of Regulations no. 385/2018, of 1 June, published in the Portuguese official gazette on 21 June, and no. 387/2018, of 1 June, published in the Portuguese official gazette on 22 June, respectively.

## **Market Regulators**

Responsibility for regulation of the Portuguese energy sector is shared between DGEG, ERSE and the Portuguese Competition Authority, according to their respective functions and responsibilities.

### **DGEG**

DGEG has primary responsibility for the conception, promotion and evaluation of policies concerning energy and geological resources and has the stated aim of assisting the sustainable development and the security of energy supply in Portugal. Namely, DGEG is responsible for: assisting in defining, enacting, evaluating and implementing energy policies; promoting and preparing the legal and regulatory framework underlying the development of the generation, transmission, distribution and consumption of electricity; supporting the Ministry of the Economy at an international and European level; supervising compliance with the legal and regulatory framework that underpins the Portuguese energy sector (particularly in connection with the electricity transmission network and the electricity distribution network); approving the issuance, modification and revocation of electricity generation licences; conducting the public tender procedure for the attribution of network interconnection points in the renewable energy sector; and issuing opinions concerning the energy sector.

DGEG is also responsible for proposing the Distribution Network Regulation and the Transmission Network Regulation of the Portuguese Electricity System. These regulations identify the assets of both networks and set out the conditions for their operation, notably regarding the control, management and maintenance of the network, technical conditions applicable to the installations connected to the network, support systems and reading and measurement systems. Both the Distribution Network Regulation and the Transmission Network Regulation were approved by Ministerial Order no. 596/2010, of 30 July.

### **ERSE**

ERSE was appointed as the independent regulator of electricity services in February 1997. On 2002, ERSE's authority with respect to the electricity sector was extended to the autonomous regions of Madeira and Azores and later, on 2006, to the natural gas sector. Recently, Decree-Law no. 57-A/2018, of 13 July, expanded the scope of ERSE's regulatory overview to the sectors of Liquefied Petroleum Gas (**LPG**), oil-based fuels and biofuels.

In 2012, Decree-Law no. 212/2012, of 25 September, revised ERSE's statutes with an emphasis on the reinforcement of the regulator's powers, namely those applicable to sanctions. Accordingly, Law no. 9/2013, of 28 January, established the sanctioning regime applicable to the electricity and natural gas sectors and formally granted ERSE powers to initiate legal proceedings and apply sanctions to the entities operating in these sectors.

According to ERSE statutes, ERSE is responsible for the establishment and for the approval of tariffs and regulated prices for electricity and natural gas. No later than 15 December of each year, ERSE publishes a document defining the allowed revenues of the regulated activities and the electricity tariffs for the following year. The procedure is identical for gas, but with nearly a 6-month lag, taking place no later than 1 June of each year. Every three years, ERSE publishes a document containing the parameters for each new regulatory period. The tariffs and prices for electricity and other services in 2020 were approved by ERSE Directive no. 12/2019, of 16 December 2019. The tariffs and prices for natural gas in the gas year 2019-2020 were approved by ERSE Directive no. 12/2019, of 31 May, published in the Portuguese official gazette on 1 July.

The approval of the main regulations applicable to the Portuguese electricity and natural gas systems is also assigned to ERSE as set forth below:

- (i) The Electricity Tariff Code (Regulation no. 619/2017, of 23 November, published in the Portuguese official gazette on 18 December, as amended by Regulation no. 76/2019, of 13 December and published in the Portuguese official gazette on 18 January) and the Natural Gas Tariff Code (Regulation no. 361/2019, of 1 April, published in the Portuguese official gazette on 23 April) established the methodology for determining the allowed revenues of the regulated companies and setting the regulated tariffs, including the criteria to settle the tariff structure.
- (ii) The Electricity Commercial Relations Code (Regulation no. 561/2014, of 10 December, published in the Portuguese official gazette on 22 December, amended by Regulation no. 632/2017, of 23 November, published in the Portuguese official gazette on 21 December) and the Natural Gas Commercial Relations Code (Regulation no. 416/2016, of 14 April, published in the Portuguese official gazette on 29 April, amended by Regulation no. 224/2018, of 2 April, published in the Portuguese official gazette on 16 April, Regulation no. 387/2018, of 1 June, published in the Portuguese official gazette on 22 June, and Regulation no. 365/2019, of 1 April, published in the Portuguese official gazette on 24 April) set the provisions governing the commercial and contractual relationship between the agents operating in the electricity and natural gas sectors, including the commercial conditions under which the connection to the energy grid can be established and the rules to be

observed in the process of switching suppliers. ERSE has proposed to unify the Commercial Relations Code for both the electricity and the gas sectors in one single Commercial Relations Code. This document is currently under public consultation and encompasses other changes to the provisions of each Commercial Relations Code.

- (iii) The Quality of Service Code (Regulation no. 629/2017, of 23 November, published in the Portuguese official gazette on 20 December) set the standards for the technical and commercial quality of service to be rendered in all services provided by the network operators and suppliers of the Portuguese electricity and natural gas systems.
- (iv) The Electricity Access to the Network and Interconnections Code (Regulation no. 560/2014, of 10 December, published in the Portuguese official gazette on 22 December, amended by Regulation no. 620/2017, of 23 November, published in the Portuguese official gazette on 18 December) and the Natural Gas Access to the Networks, Infrastructure and Interconnections Code (Regulation no. 435/2016, of 14 April, published in the Portuguese official gazette on 9 May, as amended by Regulation no. 362/2019, of 1 April, published in the Portuguese official gazette on 23 April) defined the technical and commercial conditions under which third parties may access the energy infrastructure, including the criteria for the network operators to refuse access.
- (v) The Electricity Networks Operation Code (Regulation no. 557/2014, 10 December, published in the Portuguese official gazette on 19 December, amended by Regulation no. 621/2017, of 23 November, published in the Portuguese official gazette on 18 December) and the Natural Gas Infrastructure Operation Code (Regulation no. 417/2016, of 14 April, published in the Portuguese official gazette on 29 April) laid down the procedures for managing the electricity/natural gas flows in the electricity transmission network/ natural gas transmission network, underground storage facilities and LNG terminals, while ensuring interoperability with the networks connected to these infrastructures.

#### **Portuguese Competition Authority**

From 8 July 2012, Portugal has in place a new competition act, approved by Law no. 19/2012, of 8 May, which follows closely the wording of the fundamental anti-trust provisions contained in the Treaty on the Functioning of the European Union and of the EU Merger Control Regulation.

Competition rules in Portugal are enforced by an independent agency, the Portuguese Competition Authority (**AdC**). To that end, AdC enjoys of a number of sanctioning, supervisory and regulatory powers which include investigative prerogatives to perform inquiries of legal representatives of companies or associations of companies, request documents or information and conduct searches at business and non-business premises, including private domiciles. It may also impose severe fines on companies and individuals that do not comply with competition rules. Penalties can amount to 10 per cent. of a group's annual turnover or 10 per cent. of an individual's annual income.

## SPAIN

### Electricity Sector: Regulatory Framework

#### 1. Overview

The main characteristics of the Spanish electricity sector are the existence of the wholesale Spanish generation market since 1998 (also referred to as the **Spanish Pool**), and the fact that all consumers have been free to choose their supplier since 1 January 2003. Additionally, since 2006, bilateral contracts and the forward market (long-term energy acquisition contracts) have made up a larger part of the market.

All generators provide electricity at market prices to the Spanish Pool and under bilateral contracts to consumers and other suppliers at agreed prices. Suppliers, including last resort suppliers, and consumers can buy electricity in this pool. Foreign companies may also buy and sell in the Spanish pool and in the forward markets.

The market operator and agency responsible for the market's economic management and bidding process is OMIE (see "*Regulatory framework—Iberian Peninsula—MIBEL Overview*"), while REE- Red Eléctrica de España, S.A. is the operator and manager of the transmission grid and sole transmission agent. REE, as the transmission company, together with the regulated distributors, provide network access to all consumers. However, consumers must pay an access tariff or toll for the transmission and the distribution.

Comisión Nacional de los Mercados y la Competencia (**CNMC**) is the national regulatory authority of the Spanish energy markets according to Law 3/2013.

Liberalised suppliers are free to set a price for their customers. The main direct activity costs of these entities are the wholesale market price and the regulated access tariffs to be paid to the distribution companies. Electricity generators and suppliers or consumers may also engage in bilateral contracts without participating in the wholesale market.

As from 1 July 2009, last resort suppliers, appointed by the Spanish government, supply electricity at a regulated tariff set by the Spanish government to the last resort consumers (low-voltage electricity consumers whose contracted power is less than or equal to 10 kW). Since then, distributors have not been permitted to supply electricity. In January 2014, the last resort tariff was replaced by the "Voluntary Price for the Small Consumer" (*precio voluntario para el pequeño consumidor*).

Royal Decree-Law no. 6/2010 created a new player responsible for developing the supply of energy to recharge electric vehicles. However, since the introduction of Royal Decree-Law 15/2018, customers meeting certain requirements are allowed to supply energy to recharge electric vehicles without licencing.

As part of the unbundling of the transmission system operator, Spanish distributors sold their remaining transmission assets to REE in 2011, completing the process required by Law no. 17/2007, which established REE as the sole transmission agent.

Through Royal Decree-Law no. 13/2012 and Royal Decree-Law 1/2019 Directive 2009/72/EC has been transposed to the Spanish regulation.

Royal Decree-Law no. 9/2013, of 13 July, included a set of regulatory modifications applicable to the Spanish electricity sector that affected the return ratio of energy assets. These modifications were confirmed by the enactment of Law no. 24/2013 of the Electricity Sector, of 26 December, and were primarily aimed at eliminating the tariff deficit. The main modification directly implemented by Royal Decree-Law no. 9/2013 was that the return ratio pre-tax of regulated activities was indexed to the yield associated with Spanish ten-year sovereign bonds plus a spread. The spread mentioned above for distribution and transmission activities was established at 100 basis points for the second half of 2013 and has been set at 200 basis points from 2014 onwards. The spread for renewable and combined heat and power (**CHP**) generation has been set at 300 basis points since the enactment of Royal Decree-Law no. 9/2013.

Following the enactment of Law no. 24/2013, the Spanish government implemented a set of additional Royal Decrees that included modifications to regulations governing all activities relating to the provision of energy, including renewables, electricity distribution and transmission, as further detailed in the following sections.

Royal Decree-Law no. 7/2016 established that discounts in tariffs to vulnerable customers (**Social Voucher**) would be supported by all supply companies. Royal Decree no. 897/2017 established requirements to become vulnerable customer and the applicable discounts.

Royal Decree-Law 15/2018 banished charges and access tariffs to self-customers and allows the shared self-consumption (which is, in effect, a pooling system for consumers). However, some points of this decree are still not in force until further regulatory development.

Royal Decree-Law 17/2019 set the return ratio for renewable and CHP plants at 7.09 per cent. with effect from 1 January 2020. However, the power plant may maintain the previous return ratio (7.4 per cent. for power plants built before July 2013 and 7.503 per cent. for power stations built since July 2013) if the owner of the power plant gives up all lawsuits and arbitration processes against the remuneration scheme approved after Royal Decree no. 661/2007.

Royal Decree-Law 1/2019 gave CNMC the powers to set the return ratio for transmission and distribution activities. Thereby, Circular 2/2019 of CNMC established that, with effect from 1 January 2020 onwards, the return ratio for these activities will be 5.58 per cent.

### ***The National Strategy for the Energy Sector***

Following the publication of Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, the Spanish government elaborated a draft a National Energy and Climate Plan (**PNIEC**) in March 2019 as well as a draft Law for Climate Change and Ecological Transition where the Spanish objectives for 2030 were appointed. These documents were subject to a public hearing. According to the documents published on the web of the Ministry for the Ecological Transition energy consumption from renewable resources will have to be at least 35 per cent. by 2030 (more than 70 per cent. in the electricity sector), which implies at least 3.000 MW of new renewable capacity in the electricity sector every year. The final PNIEC is likely to be approved the beginning of 2020.

### ***Electricity Sector Act***

The enactment of Law no. 54/1997 (the **Electricity Sector Act**) gradually changed the Spanish electricity sector from a state-controlled system to a free-market system with elements of free competition and liberalisation. The Electricity Sector Act is intended to guarantee that the supply of electricity in Spain is provided at high quality and lowest possible cost. In order to achieve those targets, the Electricity Sector Act provides for:

- the unbundling of regulated (transmission, distribution, technical management of the system and economic management of the wholesale market) and liberalised activities (generation, trading, international transactions and energy supply for recharging electric vehicles);
- a wholesale generation market, or electricity pool;
- freedom of entry to the electricity sector for new operators carrying out liberalised activities;
- the ability of all consumers to select their electricity supplier and their method of supply as of 1 January 2003;
- the right of all operators and consumers to access the transmission and distribution grid by paying access tariffs approved by the Spanish government; and
- the protection of the environment.

Law no. 17/2007 amended the Electricity Sector Act, bringing it into conformity with the Electricity European Directive of 2003, with the intention of reconciling the liberalisation of the electricity system with the twin national objectives of guaranteeing supply at the lowest possible price and minimising environmental damage. Royal Decree-Law no. 13/2012 built upon the achievement of that target by introducing the Electricity Directive of 2009 (2009/72/EC) in the Spanish regulation.

In December 2013, a new electricity sector act (Law no. 24/2013) entered into force substituting Law no. 54/1997. This law is based on the reforms announced by the Ministry of Industry in July 2013 and maintains the main principles of Law no. 54/1997, but reinforces the objectives of economic and financial sustainability in the electricity sector, thus preventing a new tariff deficit. This law has been amended several times to adapt to new situations in the sector (for instance, self-consumption or social voucher).

## **2 The Electricity Value Chain**

### ***A. Electricity Generation***

Generation facilities have several methods of contracting for the sale of electricity and determining a price for the electricity:

- *Wholesale energy market or pool.* This pool was created on 1 January 1998 and includes a variety of transactions that result from the participation of market agents (including generators, suppliers and direct consumers and, until 30 June 2009, distributors) in daily and intra-day market sessions.

- *Bilateral contracts.* Bilateral contracts are private contracts between market agents, where terms and conditions are freely negotiated and agreed. Information about these contracts must be given to the energy market in order to retain transparency within the electricity industry.
- *Auctions for purchase options or primary emissions of energy.* Principal market participants could be required by law to offer purchase options for a pre-established amount of their power. Some of the remaining market participants are entitled to purchase such options during a specified period. However, these options are currently not regulated in Spain.

These sales can be subject to Regulation (EU) No. 1227/2011 of the European Parliament and of the Council on wholesale energy market integrity and transparency (**REMIT**). REMIT imposes certain obligations on market participants, mainly transparency and information obligations. It is compulsory for members of the EU.

Power plants also participate in ancillary services markets managed by the system operator, REE. Participation is mandatory for some of these services and for certain kind of power plants.

Until December 2013, power plants that used renewable, waste and CHP energy sources were regulated under a "special regime", but the distinction between an ordinary and a special regime ceased to apply after the enactment of Law no. 24/2013.

Order no. ITC 2794/2007 established a new regime of fixed payments applicable to generators operating in the ordinary regime. This regime established an investment incentive, for a period of ten years, set at an initial amount of €20,000 per MW installed, later increased to €26,000 per MW installed by Order ITC/3127/2011 and lowered to €10,000 per MW installed by Royal Decree-Law no. 9/2013.

Referred Order ITC/3127/2011 has also regulated an incentive regarding the availability of certain facilities in the short-term. This incentive ended as of July 2018.

Royal Decree-Law no. 14/2010 imposed on generators the payment of a €0.5 per MWh fee for the use of the networks.

Law no. 15/2012 imposed a set of taxes on generators in order to cover the costs of the electricity system: (i) a 7 per cent. generation tax on income from electricity output; (ii) a 22 per cent. charge on the use of inland water for electricity generation (increased to 25.5 per cent. by means of Royal Decree-Law 10/2017, of 9 June); (iii) a tax on the production of nuclear waste and a tax on storage of this waste; (iv) a tax on natural gas of €0.65/GJ applying to all natural gas consumers (derogated by means of Royal Decree-Law 15/2018 since October 2018); and (v) a tax on coal of €0.65/GJ applicable to generators. Royal Decree-Law 15/2018 also temporarily suspended the application of the 7 per cent. tax on income from electricity output during the fourth quarter of 2018 and first quarter of 2019.

Law no. 24/2013 also foresees the temporary closure of generation facilities, which would be subject to a prior administrative authorisation scheme.

Royal Decree-Law 15/2018 of October 2018 modified Law 24/2013 creating a new framework for promoting self-consumption. Since then, access tariffs or charges for self-generated energy (the informally called "sun tax" that was created by Royal Decree no. 900/2015) were banished and self-customers only have to pay access tariffs if they use the distribution network. Royal Decree 244/2019 of April 2019 establishes the new administrative, technical and economic regime for self-consumption allowing shared self-consumption, the use of the distribution network for exchanging self-generated energy in the proximity of the self-customers and also a simplified remuneration mechanism where self-customers can opt for getting a discount in their energy invoices if they deliver their excess generation to their supplier (**net billing**).

#### *Specific remuneration regime for renewables, CHP and waste generation*

Prior to July 2013, the electricity system was required to acquire the electricity offered by special regime generators at tariffs that were fixed by a royal decree or order and that varied depending on the type of generation. These tariffs were generally higher than the average Spanish electricity market prices. Application of the Spanish special regime was discretionary for companies that owned eligible facilities. Generally, eligible facilities were those with an installed capacity of 50 MW or less that used cogeneration, CHP, waste or any renewable energy source as their primary energy.

Royal Decree no. 661/2007 provided the previous regulation of the Spanish special regime. This decree was framed within the commitment of the Spanish government to encourage investments in renewable energy in Spain.

Under this decree, Spanish special regime power facilities could select between a fixed tariff or to participate in the market. If the generator sold electricity in the market, it received the market price plus a premium, subject to a cap and floor on final prices.

However, since January 2012, the special regime has suffered several adjustments as part of the measures taken by the Spanish government to ensure the financial sustainability of the electricity system:

- (i) In January 2012, Royal Decree-Law no. 1/2012 suspended feed-in tariffs and premiums for new projects.
- (ii) In December 2012, Act no. 15/2012 introduced a tax on energy generation (7 per cent. of incomes).
- (iii) In February 2013, Royal Decree-Law no. 2/2013 encompassed a set of regulatory modifications mainly the elimination of the premium, cap and floor schemes.
- (iv) In July 2013, Royal Decree-Law no. 9/2013 changed the remuneration scheme of the special regime and repealed Royal Decree no. 661/2007.
- (v) The new scheme was confirmed by Law no. 24/2013, of December 2013, replacing the "special regime" with the "specific remuneration regime".

As a consequence of the enactment of Royal Decree-Law no. 9/2013, in July 2013, during the first regulatory period, which applies from July 2013 to December 2019, the return ratio pre-tax during the remaining useful life of the assets under the special regime must be equal to the yield associated with Spanish ten-year sovereign bonds plus a spread of 300 basis points. The new return ratio pre-tax has been set at 7.4 per cent. during the regulatory life of the power plant (20 years in the case of existing wind generation, 25 years in the case of CHP generation and generation from waste, and 30 years in the case of photovoltaic generation).

As a result of the enactment of Law no. 24/2013, in December 2013, the special regime for renewables, CHP and waste generation was replaced by a specific remuneration regime which applies to the facilities that were regulated under the special regime prior to July 2013. As of July 2013, any new facilities that would have been eligible facilities under the special regime receive the same treatment as facilities that belong to the ordinary regime, the only difference being the regulated supplements that are received from the specific remuneration regime.

The specific remuneration additional to market revenues consists of: (i) a capacity supplement in €/MW to cover investments not recovered in the market; and (ii) if applicable, an operation supplement in €/MWh when operating costs cannot be recovered in the market. This specific remuneration is calculated taking into account standard installations throughout the regulatory life of the power plant, and assuming an efficient and well-managed company. The granting of this specific remuneration scheme for new facilities will be determined on a competitive basis through auctions. The result of the auctions will determine the value of the supplement in €/MW applicable.

Royal Decree no. 413/2014, published in June 2014, established the detailed regulation applicable to the specific remuneration regime. Remuneration values for the first half of the six-year regulatory period for power plants under the special regime prior to July 2013 were set out in Ministerial Order no. 1045/2014. Order ETU/130/2017, published in February 2017, set the remuneration parameters of the second regulatory semi-period 2017-2019.

The amount of the capacity supplement for existing wind farms varies depending on the year the power plant went into operation and will be paid for 20 years after the power plant was commissioned. Interim revisions are conducted every three years to correct deviations from the expected pool price. Farms with a commissioning date earlier than 2004 were not given any capacity supplement. EDP Renováveis installed capacity in Spain, according to the start-up date, was 9 per cent. up to 2003, 39 per cent. between 2004 and 2007 and 52 per cent. from 2008 onwards.

On 12 April 2017, the Spanish government authorised auctions of up to 3 GW of specific remuneration for renewable facilities in mainland Spain in accordance with Royal Decree 359/2017. In accordance with this Decree, an auction was held on 17 May 2017 which awarded 3 GW (almost all of which related to wind capacity). On 25 May 2017, the Spanish government announced that a new auction of 3 GW would take place, with substantially similar rules as the previous auction. This auction was held on 25 July 2017 and awarded a total of 5 GW of renewable capacity (4 GW of solar and 1 GW of wind capacity). No new auctions were made so far. Under this regime, if a power plant was not finished before 1 January 2020, it may face penalties. This does not apply to EDP power plants.

In December 2018, the Ministry for Ecological Transition published a draft Law for establishing the new return ratios for regulated activities in Spain for the new regulatory period 2020-2025. According to a previous report made by CNMC, the Ministry proposed a new ratio pre-tax of 7.09 per cent. for renewable and CHP power plants with the possibility of keeping the ratio of 7.4 per cent. if the owner of the power plant gives up all lawsuits and arbitration processes against the remuneration scheme approved after Royal Decree no. 661/2007. This law was approved urgently in November 2019 as Royal Decree-Law 17/2019.

In March 2019, the Ministry for Ecological Transition published a draft law for Climate Change and Ecological Transition for public hearing where they stated the Spanish government's intention of changing the auction system and the

remuneration regime for new auctions of renewables in order to allow a fixed remuneration of the project during its lifetime. It is not clear if this law will ever enter into force.

The authorisation of renewable, CHP and waste plants with a capacity of up to 50 MW falls within the authority of regional governments due to their small size. However, as a result of Royal Decree-Law no. 6/2009, since 2009 all facilities have had to be entered in a register managed by the Ministry of Industry in order to benefit from the premiums and tariffs of the Spanish special regime (Royal Decree 661/2007), and since 2013 the specific remuneration scheme created by Royal Decree-Law no. 9/2013.

### **B. Electricity tariffs, supply and distribution**

Since January 2003, all consumers have become qualified consumers. All of them may choose to acquire electricity under any form of free trading through contracts with suppliers, by going directly to the organised market or through bilateral contracts with producers. Royal Decree-Law 15/2018 also foresees other ways of acquiring electricity directly from producers but further regulatory development is required.

With the adoption of the Last Resort Supply (*Suministro de Último Recurso*) on 1 July 2009 (Law no. 17/2007 that amended the Electricity Sector Act in order to adapt it to the Electricity Directive), the regulated tariff system was replaced by a last resort tariff system. Last resort tariffs (now called "*precio voluntario para el pequeño consumidor*") are set by a methodology approved by the Spanish government on an additive basis and can only be applied to low-voltage electricity consumers whose contracted power is less than or equal to 10 kW. According to Royal Decree no. 216/2014, the last resort tariff is calculated taking into account the sum of the following components: (i) costs of the electricity generation (which is indexed to the Spanish hourly pool price); (ii) access tariffs; and (iii) regulated costs of supply management.

Last resort consumers can choose between being supplied at last resort tariffs or being supplied in the liberalised market.

The regulated cost of supply management methodology was approved by Royal Decree 469/2016. Ministerial Order ETU/1948/2016 established the cost of supply during 2017 and 2018. Due to several Supreme Court decisions, and according to the referred Ministerial Order, the regulated cost of supply in the last resort market between 2014 and 2016 had to be re-invoiced to customers during 2017 and 2018. The cost of supply for 2019 is still not regulated by the Ministry for Ecological Tourism so the Ministerial Order TEC/1366/2018 established that the values for 2018 will remain until further instructions.

Electricity transmission and distribution activities are regulated given that their particular characteristics impose severe limitations on the possibility of introducing competition. The regulatory framework established in 2008 changed the manner in which electricity businesses receive payments in order to promote efficiency and quality of service. The regulations take into account the investment and operational costs related to transmission activities. Fixed remuneration for distribution is based on investment and operational and maintenance costs. Currently, the economic regime for distributors is contained in Royal Decree-Law no. 9/2013, Law no. 24/2013 and Royal Decree no. 1048/2013, and the settlement system is contained in Royal Decree no. 2017/1997. Until July 2013, remuneration to distribution activities was determined by Royal Decree no. 222/2008 and Royal Decree-Law no. 13/2012, which had already established that capital costs would only be paid for net assets and postponed the remuneration until the second year after new assets have been brought into operation.

In July 2013 there was a change in the methodology used to remunerate distribution and transmission activities. The main change introduced was setting the return ratio of energy assets based on the yield associated with Spanish ten-year sovereign bonds plus a spread, set at 100 basis points for the second half of 2013 and 200 basis points from 2014 until at least the end of 2019. Royal Decree no. 1048/2013, approved in December 2013, establishes the general remuneration framework which is mainly based on the regulatory asset base (**RAB**). This RAB is determined by taking into consideration audited physical units affected by efficiency factors. After approval of Royal Decree no. 1073/2015 and Ministerial Order no. 980/2016, the new remuneration model has come into effect producing a substantial improvement in EDP's remuneration through its subsidiary Hidrocantábrico Distribución. In the meantime, Royal Decree-Law no. 9/2013 established a transitory phase of the remuneration scheme between 2013 and 2015.

The Supreme Court's decision of 25 October 2017 ordered the Ministry to increase the RAB calculated in Ministerial Order no. 980/2016 to compensate all distributors for an incorrect valuation of assets transferred from customers. The impact of this decision is expected to occur during 2020.

In April 2018, the Spanish government declared that the remuneration established in the Ministerial Order IET 980/2016 was prejudicial for customers. The Ministry of Energy considered that one of the parameters (remaining useful life of the assets) of the remuneration was wrongly estimated, in favour of some distributors (including Hidrocantábrico Distribución) and harming the interest of electricity customers. This declaration only produced the effect of allowing the Ministry of Energy to appeal this Order before the Supreme Court. During the corresponding

contentious-administrative proceeding, it is responsibility of the Supreme Court to analyse the Order and issue a decision on its conformity to Law and eventual cancellation. The impact of this process is expected to occur in the beginning of 2020.

Royal Decree-Law no. 1/2019 defined that starting from the new regulatory period 2020-2025 CNMC is responsible for approving the methodology and values for remunerating distribution and transmission as well as the new return ratio. A CNMC report of October 2018 estimated that the new return ratio for the new regulatory period should be 5.58 per cent. In July 2019, CNMC launched a draft circular (piece of legislation to be approved by CNMC board) establishing the regulated return ratios for distribution and transmission of both electricity and gas system in their respective new regulatory periods. For electricity distribution they maintain the proposed value of 5.58 per cent. The draft circular was under public consultation until 9 August and it was approved in November 2019 as Circular 2/2019. By means of a Law, the State can as well put an upper limit to the ratio fixed by CNMC if the Law is approved before starting the new regulatory period.

In July 2019, CNMC launched several draft regulations where it established the methodology of remunerating distribution and transmission of electricity in period 2020-2025. The new methodology for electricity distribution would maintain the recognised RAB and OPEX in 2020, but it would introduce several adjustments in the way of calculating OPEX of the following years (for instance by means of an efficiency factor or eliminating the "delay" factor that recognised financial costs in the OPEX). According to the CNMC report accompanying the draft regulation, the average impact in sector's remuneration during the regulatory period would be -7per cent. However, EDP's subsidiary may be less impacted than its peers due to an improvement of quantities destined to incentives of quality and losses.

In accordance with the provisions of Law no. 24/2013, regulated energy costs are paid from access tariffs and prices applicable to consumers and from specific items from the National Budget (Law no. 15/2012); from 1 January 2011, all facilities are obliged to pay access tariffs for the energy they generate (Royal Decree-Law no. 14/2010). Regulated incomes must be sufficient to cover all regulated costs, including transmission and distribution costs, specific remuneration schemes costs, and other costs.

The electricity system costs have to be funded through access tariffs, charges and other regulated prices. Up to 2019 all the regulated prices were established by Ministerial Order of the Minister of Energy. However, from 2020 onwards the portion of access tariffs that is designated to cover transmission and distribution costs will have to be fixed by the national regulatory authority Comisión Nacional de los Mercados y la Competencia (**CNMC**) in order to fulfil Directive 2009/72/EC transposed through Royal Decree Law 1/2019. CNMC will have to elaborate first a methodology that it is expected to be approved during 2019. The Ministry of Energy will establish the charges to cover for other costs of the system using a methodology that should have been approved during 2019 and is now expected during the first half of 2020. Access tariffs and regulated prices are uniform throughout Spain, although regional extra costs, if approved, may be added to the tariffs. Access tariffs for 2019 were established in Ministerial Order TEC/1366/2018.

On 1 July 2009, the regulated system of electricity tariffs was extinguished. Since then, distributors have ceased to supply electricity, and function only as network operators. Accordingly, from that date, all consumers have been in the liberalised market. However, Royal Decree no. 216/2014, provides that the low voltage final consumers who use 10 kW or less are eligible for the tariff of last resort, which applies a regulated price to that supply. This tariff will be applied by the designated suppliers of last resort (called "*comercializadores de referencia*"), among which is EDP Comercialización Último Recurso, S.A.

Following the approval of Act 25/2009, prior to commencing the supply of electricity, suppliers are obliged to provide a statement to the Ministry of Energy or to the respective regional authority where they wish to engage in the supply, which includes a confirmation of: (i) the dates for beginning and ending their supply activity; (ii) proof of their capacity for the development of the supply; and (iii) the guarantees required. CNMC is entitled to publish on its web site an up-to-date list of electricity suppliers that have communicated the commencement of their supply.

Due to the disappearance of the Supplier Switching Office (*Oficina de Cambio de Suministrador* or **OCSUM**), the CNMC supervises the process for consumers changing their electricity supplier under principles of transparency, objectivity and independence. CNMC also maintains a price comparison tool for household suppliers.

Last resort suppliers may acquire electricity in the spot or forward markets to meet last resort demand. In Spain, following the enactment of Royal Decree-Law no. 17/2013, last resort suppliers are no longer permitted to hold energy auctions to purchase electricity.

Law no. 18/2014 implemented Directive 2012/27/EU of Energy Efficiency, establishing mandatory contributions from suppliers of gas, electricity and petroleum products to a National Energy Efficiency Fund in order to support efficiency measures to comply with that Directive. Every year a Ministerial Order is published with the mandatory contributions to this fund, being obliged subjects the following suppliers belonging to the EDP Group: EDP Comercializadora, S.A., EDP Energía, S.A. and EDP Comercializadora de Ultimo Recurso, S.A. The ministerial order of 2019 is Order TEC/322/2019.

### *Tariff Deficit in electricity sector*

Regulatory developments in the electricity sector in Spain during 2012 and 2013 were aimed at eliminating the tariff deficit in order to ensure the sustainability of the system. These measures have contributed to the following positive developments: (i) the definitive settlements of 2014-2017 produced a surplus of more than €1,600 million; (ii) in 2015, the Spanish government approved two reductions of the regulated prices of capacity paid by consumers through Royal Decree-Law no. 9/2015 and Ministerial Order no. 2735/2015 in August 2015 and December 2015, respectively, and (iii) in October 2018, the government approved the elimination of a green tax on natural gas power plants of €0.65/GJ since an increase of revenues coming from CO<sub>2</sub> allowances auctions had been produced.

However, according to a CNMC report of February 2019, the past debts of tariff deficit amounted to €18.900 million as of 31 December 2018 (more than €2,000 million less than in 2017), none of which is currently being financed by electric companies. Deficits prior to 2014 were securitised as described below.

Law no. 24/2013 provides that access tariffs, regulated prices and other regulated income must be sufficient to recover the full costs of the regulated activities without any deficit. Although some deficit was permitted until 2013 (as provided by Royal Decree-Law no. 6/2009 and Royal Decree-Law no. 14/2010), Law no. 24/2013 limits tariff deficits incurred as of 2014 to a 2 per cent. yearly cap.

The deficit produced up to 2012 was fully transferred from the electricity companies to a Securitisation Fund called Depreciation Fund of Electric Tariff Deficit (**FADE**), which is guaranteed by the Spanish State Budget. Financing costs of FADE are included in the regulated costs to be recovered through access tariffs.

In 2012 and 2013 the Spanish government took important steps in order to address the key aspects of the problem of the tariff deficit:

- (i) Royal Decree-Law no. 1/2012 suspended temporarily all new renewable premiums.
- (ii) Royal Decree-Laws no. 13/2012 and 20/2012 reduced system costs in 2012 up to €1,000 million (in transmission and distribution activities, in capacity payments to generators, in coal subsidies, in system operation and payments to interruptible customers) while increasing system revenues in €700 million from some budget surpluses. Some of these measures were only in force during 2012.
- (iii) Access tariffs were updated as from April 2012 to all customers resulting in a revenue increase for the system of €1,600 million.
- (iv) Due to the inadequacy of previous measures for containing the tariff deficit, the Spanish government approved Law no. 15/2012 in December 2012, which imposed new taxes on generators and natural gas customers in order to cover the costs of the electricity system. Additionally, the Spanish government has allocated and will continue to allocate up to €450 million per year of the revenues from the sale of emission allowances to the tariff (temporarily in 2018 this amount was up to €750m). The implementation of the above measures increased system revenues by €3,300 million annually although some of those measures have been modified in 2018 by means of Royal Decree-Law 15/2018.
- (v) Royal Decree-Law no. 2/2013 described above.
- (vi) Royal Decree-Law no. 9/2013 with an estimated yearly impact of €4,500 million, borne by customers (€900 million), National Budget (€900 million) and companies (€2,700 million).

The deficit produced in 2013 (€3,200 million) was transiently financed by electricity companies until December 2014 when it was securitised through the mechanism approved by Royal Decree no. 1054/2014.

Several Supreme court's decisions ordered the Spanish government to give back the Social Voucher funded by companies between 2014 and 2016 (€500 million). State Budget Laws of 2017 and 2018 authorised the cost of court decisions to be charged to the tariff surpluses obtained since 2014. However, this refund is under review as in April 2019 the Plenary of the Constitutional Court decided to estimate the appeal brought by the General State Administration against decisions of the Supreme Court because of procedural issues. The Supreme Court therefore has to restart the procedures against the Social Voucher for 2014-2016.

### *Last Resort Tariff to vulnerable customers*

Royal Decree-Law no. 6/2009 has created the "Social Voucher" for some consumers benefiting from the tariff of last resort (the **TUR**). The TUR complies with the social, consumer and economic conditions as determined by the Ministry of Energy. Currently, as provided by Royal Decree no. 216/2014, this tariff for vulnerable customers consists of a discount on the regulated tariff PVPC (*precio voluntario para el pequeño consumidor*).

Until 2016, discounts applied to vulnerable customers were funded by all vertically integrated companies according to the rules established in Law no. 24/2013 and Royal Decree no. 968/2014. However, in August 2016 several Supreme Court rulings abolished this funding mechanism. Royal Decree-law no. 7/2016, of December 2016, approved a new framework of protection for vulnerable customers and a new funding mechanism consisting of all supply companies financing the cost of the discounts proportionally to the number of their customers. From then on, EDP has contributed approximately 3,6 per cent. of the national cost of the Social Voucher.

From 1 July 2009, individual consumers with a contracted capacity of less than 3 kW in their residence, consumers over 60 years old with minimum pensions, large families and families of which all the members are unemployed were entitled to the Social Voucher.

From October 2017, Royal Decree no. 897/2017 established the requirements to become vulnerable and thus eligible for the Social Voucher: customers in their residence being; (i) large families; (ii) families with all members with minimum pensions; or (iii) families with incomes less than certain thresholds established in Ministerial Order no. 943/2017. The discounts include a 25 per cent. discount for vulnerable customers, a 40 per cent. discount for severe vulnerable customers and a 100 per cent. discount for customers at risk of social exclusion. In the latter case, local social services should contribute at least 50 per cent. of the cost.

Customers benefitting from the "old" social voucher that do not apply for renewal or do not fit into the new criteria lost the discount from October 2018 onwards.

Additionally, since the implementation of Royal Decree-Law 15/2018, the funding mechanism of the Social Voucher will also cover the non-payments of certain types of customers benefiting from the Social Voucher in order to protect them from disconnection.

### **3. Authorisations and Administrative Procedures**

All power plants require certain permits and licences from public authorities at local, regional and national levels before starting construction and operation.

Administrative registration, permits and licences are generally required for the construction, enlargement, modification and operation of power plants and ancillary installations. In addition, power plants using RES or CHP must be registered on the **specific remuneration** register managed by the Minister of Energy, Tourism, and Digital Agenda before the power plant is entitled to benefit from the specific remuneration regime. New power plants in mainland Spain will only be included in the specific remuneration register through a competitive process of capacity auctions.

Facilities must also obtain an authorisation in order to connect to the relevant transmission and distribution networks. If interconnection authorisation is not granted, administrative authorisation cannot be granted.

However, interconnection authorisation can only be denied due to lack of current or future network capacity.

Royal Decree no. 1699/2011, regulating the connection of small power plants to distribution networks, aims to streamline administrative procedures to speed up the connection of small power plants (renewable energy power plants below 100 kW and CHP installations below 1 MW) to the electricity grid.

Royal Decree no. 244/2018 and Royal Decree-Law 15/2018 specify the administrative procedures that apply to self-consumption facilities.

## **Natural Gas Sector: Regulatory Framework**

### **1. Overview**

The general basis, principles and model of organisation of the gas sector in Spain were established through the Hydrocarbons Act no. 34/1998, of 7 October 1998 (the **Hydrocarbons Act**), Royal Decree no. 949/2001, of 3 August, and Royal Decree no. 1434/2002, of 27 December.

The approval of Act no. 12/2007, of 2 July, which modifies the Hydrocarbons Act, in order to adapt it to EU Directive 2003/55/EC of the European Parliament and of the Council, of 26 June, has continued the process of deregulation that was started in the sector in 1998, and Royal Decree-Law no. 13/2012 has completed this process by introducing Directive 2009/73/EC in the Spanish regulation. The regulated supply system ended on 1 July 2008 and was substituted by a last resort supply system. According to Law no. 12/2007, the scope of consumers that can be supplied under the last resort tariff systems has been reduced to only domestic and low consumption users. However, these clients will have the option to choose between being supplied under the last resort system (by last resort suppliers appointed by the Spanish government) or in the liberalised market (at the prices freely agreed with suppliers).

The gas system costs have to be funded through access tariffs, charges and other regulated prices. Up to 2019, all the regulated prices were established by Ministerial Order of the Minister of Energy. However, from 2020 onwards the portion of access tariffs that is designated to cover regasification, transmission and distribution costs will have to be fixed by the national regulatory authority Comisión Nacional de los Mercados y la Competencia (**CNMC**) in order to fulfil Directive 2009/73/EC transposed through Royal Decree Law 1/2019. CNMC will have to elaborate first a methodology that it is expected to be approved during 2019. CNMC will also be responsible for determining the remuneration of regasification, transmission and distribution costs. The Ministry of Energy will establish the charges to cover for other costs of the system using a methodology that will have to be as well approved during 2019. The Ministerial Order TEC/1367/2018, of 20 December establishes the access tariffs and the revenues related to access to gas sector installations by third parties and remuneration of regulated activities for the year 2019.

Following the same criteria established for the electricity sector, the Spanish government has amended the Hydrocarbons Act, through Royal Decree-Law no. 8/2014, of 4 July, included in Act no. 18/2014, in order to regulate the financial stability of the gas system. The amendments to Law no. 34/1998 are focused on the economic and financial balance of the system, thus aiming to avoid new tariff deficits.

In 2015, the approval of Act no. 8/2015, of 21 May, modified the Hydrocarbons Act, with the main goal of creating an organised market of natural gas in the Spanish system that, once it becomes liquid, should give a price reference to the market and increase competition in the sector. The organised market MIBGAS has since then the role of market operator. There are other important changes in the act, for example, the liberalisation of the periodic check-ups of users' installations (which was a distributor duty in the past).

In October 2015, Royal Decree no. 984/2015 was approved which: (i) defined the general principles of the operation of the organised market of natural gas in the Spanish system (the operative details of which were established in December 2015 pursuant to resolutions); (ii) modifies the system of contracting access capacity to the gas sector installations by third parties; and (iii) develops the model of liberalisation for periodic check-ups of users' installations, the responsibilities of each party and recognises the administrative cost of the distribution system operator. Royal Decree-Law 1/2019 established that CNMC is also responsible for determining the rules of third parties access to gas system facilities. In June 2019, CNMC launched a draft circular (a piece of legislation approved by CNMC) regarding access to gas system facilities which will substitute part of the above mentioned Royal Decree 984/2015. This piece of legislation is expected to be approved in early 2020.

With respect to the supplier of last resort, Royal Decree no. 485/2009 and Royal Decree no. 216/2014 allowed for the possibility of merging firms that have to supply both electricity and gas, under the supplier of last resort requirements, into a single company. As a result, by Decision no. 12/02/2009 of the General Director for Energy Policy and Mines, EDP CUR holds the qualification of supplier of last resort in both sectors from 1 January 2010.

Spanish law distinguishes between: (i) regulated activities, which include transportation (regasification of LNG, underground storage and transportation of natural gas) and distribution; and (ii) non-regulated activities, which include supply.

Any company engaging in a regulated activity must engage in only one regulated activity. However, a group of companies may conduct unrelated activities whenever they are independent at least in terms of their legal form, organisation and decision making with respect to other activities not relating to transmission, distribution and storage (Law no. 34/1998 and Law no. 12/2007). Royal Decree-Law no. 13/2012 incorporated new rules from Directive 2009/73/EC to achieve an effective separation between regulated activities and non-regulated activities carried out by Spanish companies. This Royal Decree-Law also establishes the ownership unbundling model for the gas transmission system operator in relation to the main network for the primary transmission of natural gas transmission pipeline/grid,

**red troncal.** However, any vertically integrated company established prior to 3 September 2009 may opt between an ownership unbundling model or the independent system operator or regional transmission organisation (**ISOs**) model.

There have been several mergers and acquisitions in the Spanish gas market, resulting in changes to the market structure. During 2017 EDP completed the sale of all its gas network business in Spain. As a consequence, EDP remains in the gas sector only in liberalised activities (trading and supply).

The Spanish gas market has developed significantly in recent years, with 7.9 million customers in 2018.

## **2. Natural Gas Value Chain**

### **A. Natural Gas Transportation**

The construction, expansion, operation and closure of gas pipelines, storage facilities and regasification plants require prior administrative authorisation. In addition, for the construction and operation of gas transmission, regasification and storage facilities, other licences and permits are necessary, including an environmental impact assessment; licences related to infrastructure construction and land rights; and licences related to construction (for example, an activity licence, opening licence and works licence).

Preliminary authorisation is granted by either the Ministry of Energy, if the proposed facilities are basic transportation facilities, or, if they affect more than one autonomous community, by the regional authorities where such facilities will be located.

Once the preliminary authorisation has been granted, either the Ministry of Energy or the applicable autonomous regional authority will authorise the engineering construction project. Such authorisation enables the applicant to begin construction of the facility. Definitive authorisations are then granted upon completion of the facility.

### **B. Natural Gas Distribution**

An administrative authorisation is required for the conduct of distribution activities. Any legal entity with Spanish nationality or any member of the European Union may apply for an administrative authorisation. Applicants must give evidence of their legal, financial and technical capacity for distribution.

Distribution companies are under a legal duty to provide access to their networks to suppliers and consumers. The main principles governing third-party access to the distribution networks are the same as those applicable to access to the transportation network.

Remuneration system of distribution companies is currently established in Law 18/2014. Royal Decree-Law no. 1/2019 defined that, starting from the new regulatory period 2020-2025, CNMC is now responsible for approving the methodology and values for remunerating distribution, transmission and regasification as well as the new return ratio. In July 2019, CNMC launched several draft circulars establishing the regulated return ratios for distribution and transmission of both electricity and gas system in their respective new regulatory periods, and the methodology for remunerating gas regulated activities in the new regulatory period 2021-2026. The draft circulars are under public consultation until 9 August and they are expected to be approved before the end of 2019.

### **C. Natural Gas Supply**

EDP participates in the ordinary supply market through EDP Comercializadora S.A.U., and in the last resort market through its subsidiary EDP CUR in selling natural gas to end consumers all over Spain.

Suppliers acquire natural gas from producers or other suppliers and sell it to other suppliers or to consumers in the liberalised market on terms and conditions freely agreed among the parties. In order to enable suppliers to conduct their business, transporters and distributors are under an obligation to grant access to their network in exchange for regulated tolls and fees. Royal Decree-Law no. 6/2009 has appointed the companies that can supply consumers under the last resort supply system.

Due to the disappearance of OCSUM, the CNMC supervises the process for consumers changing their gas supplier under principles of transparency, objectivity and independence.

Following the approval of Act no. 25/2009, prior to commencing supply activity gas suppliers are obliged to provide a statement to the Ministry of Energy or to the respective regional authority where they wish to engage in supply activity (who will transfer the information to the CNMC) which includes confirmation of: (a) the dates for commencing (and ending) their activity, (b) proof of their technical capacity for the development of the activity, and (c) the guarantees required. A prior administrative authorisation is only required for the conduct of supply activities if a company or its parent company is from a country outside of the European Union that does not recognise equivalent rights. The CNMC is entitled to publish on its web site an up-to-date list of gas suppliers that have communicated the exercising of their activities.

The implementation of supply of last resort in the natural gas sector was established by Royal Decree no. 104/2010, of 5 February, and Royal Decree-Law no. 13/2012 which has partially transposed Directive 2009/73/EC into Spanish regulation.

*Tariff Deficit in natural gas sector*

In the Spanish natural gas sector, the main regulatory developments in the period from 2012 to 2014 aimed to reduce the tariff deficit. In this context, the Spanish government approved Royal Decree Law no. 8/2014 in July 2014, which main measures are summarised as follows:

- (i) Reduction of €238 million per year in regulated activities remuneration (distribution and transportation);
- (ii) New remuneration models for regulated activities, during a new six-year regulatory period, which applies from July 2014 to December 2020. For distribution, the new model is still demand based, but the price updating component (IPH) disappears. In the case of transportation, there is a new variable component of remuneration linked to the system demand evolution;
- (iii) Financing of the 2014 tariff deficit by regulated companies in 15 years. New deficits occurring from 2015 onwards financed by regulated companies in five years; and
- (iv) New yearly cap to tariff deficits, which leads to automatic tariffs and tolls increase.

However, these measures have not been enough to contain the tariff deficit and almost every year since then a small new tariff deficit has been produced, which is financed by companies with regulated revenues from the tariff system, mainly distribution, regasification and transmission operators.

The accumulated deficit as of 31 December 2018 amounted to €1,024 million as estimated by EDP from the data provided by CNMC. This amount does not include the approximately €1,400 million debt for the unsuccessful underground storage project, named "Castor", as Spain's Constitutional Court has annulled the compensation due to Castor's owner (Judgement 152/2017, of 21 December 2017).

## BRAZIL

### 1. Overview

The Ministry of Mines and Energy (**MME**) is the Brazilian government's office responsible for conducting the country's energy policies. Main duties include formulating and implementing policies for the energy sector, according to the guidelines defined by the National Energy Policy Council (**CNPE**). The MME is responsible for establishing national energy sector planning, monitoring the security of supply of the Brazilian electricity sector and defining preventive actions to guarantee supply restoration in case of structural imbalances between supply and demand of energy.

According to Law no. 10848/2004 (the **New Electricity Act**), the Brazilian government, acting primarily through MME, undertook certain duties that were previously the direct responsibility of the Brazilian Electrical Energy Regulatory Agency (**ANEEL**), including granting concessions and issuing directives governing the bidding process for concessions relating to public services.

ANEEL has the authority to regulate and enforce the production, transmission, distribution and sale of electricity, ensuring the service quality provided by the universal service and tariff establishment to the network users, while preserving the economic and financial viability of agents and industry. The 2004 Electricity Act introduced significant changes to the regulation aimed at providing new incentives to maintain the country's generation capacity adequate to supply the electricity market. Furthermore, through competitive electricity public auctions, energy supply and demand are expected to produce lower tariffs.

The main feature of the New Electricity Act is the creation of two markets for electricity trading (regulated contracting market for the sale and purchase of electricity towards the distribution companies, which is operated through electricity purchase auctions; and the unregulated market or free contracting market for the sale and purchase of electricity for generators, free consumers and electricity trading companies).

Several significant changes in regulation regarding the electricity sector occurred during 2012, such as the Provisional Measure 579/2012, later converted to Law no. 12783, in which the Brazilian government presented measures to reduce electric energy bills. The expected average reduction for Brazil amounts to 20.2 per cent. of total electric energy bills due to government actions aimed at concession renewals (13 per cent.) and sector charges (7 per cent.).

Regarding concession renewals, generation utilities with contracts that expired between 2015 and 2017 were able to renew their concessions and shall guarantee that they make available physical energy to the quotas system for the distributors in proportion to the market size of each distributor.

On 23 January 2013, Provisional Measure 605 was published, which has the objective of increasing the scope of application of the resources of the Energy Development Fund – *Conta de Desenvolvimento Energético* (**CDE**). As a result, the CDE began using resources to help offset the discounts applied to the tariffs and the involuntary exposure of distributors resulting from the decision of some generation companies not to extend their generation concessions. This measure amended Law no. 10438/2002, which established the application of the CDE resources.

On 6 March 2013, the CNPE issued the Resolution CNPE 3/2013, which set a new methodology for sharing additional costs incurred using thermoelectric power plants out of the order of merit, which would normally give preference to hydro power plants. According to this new resolution, thermal power plants may operate out of the typical order of merit ahead of the hydroelectric plants to maintain the safety of the system in light of the hydrological crisis in Brazil.

Hydro power plants in Brazil have adopted the Energy Reallocation Mechanism (the **MRE**), a hydrological risk sharing mechanism. The Generating Scaling Factor is a measurement of the amount of energy generated compared against the amount of energy guaranteed under the MRE. If a hydro plant generates less energy than the amount guaranteed, it will have a deficit. This can occur due to unfavourable hydrological conditions, such as extended or severe drought. When a deficit occurs, hydro generators must buy energy in the spot market, generally at higher prices, to accomplish their contractual commitments.

Since distribution network operators (**DNOs**) had cash flow difficulties due to Involuntary Exposure and high energy costs as a result of insufficient raining season in 2014, the Federal government issued Decree no. 8221/2014. This decree created an account in the Regulated Contracting Environment (the **ACR-Account**) to cover the additional costs of electricity distributors due to involuntary exposure in the context of high price levels in the spot market and high usage of thermoelectric plants. The Commercialisation Chamber (the **CCEE**) manages the account, and is responsible for contracting loans, as well as for ensuring the transfer of costs incurred in the operations of the CDE.

The Tariff Flag System started operating through Decree 8401/2015. This system signals to regulated consumers the real costs of electricity generation, and consists of three flags: green, yellow and red. The green flag indicates that the cost of energy production is low and therefore no extra charges are applied to the energy tariff. The yellow and red

flags represent differing levels of increase in energy production cost, and that an additional charge has been added to the tariff. Consumers classified as low income residential subclass will receive a discount on the additional amount applied by the yellow and red flags.

ANEEL approves transfers to the distribution companies on a monthly basis. Any costs not covered by the Tariff Flag revenue will be considered in the next tariff process.

In the Provisional Measure no. 688, issued in August 2015 and converted into Law no. 13203 on 8 December 2015, ANEEL introduced optional insurance for hydro generators to cover the risk of a deficit. The cost of the insurance varies depending on the hedge level. The hedge option, under conditions provided by Law no. 13203, was conditioned on the inability to receive the amount of energy not covered in the MRE via legal proceedings. EDP Brasil has an insurance policy for 7 of 15 of its hydro plants, covering 51 per cent. of the company's guaranteed energy.

The Provisional Measure no. 735, issued on 23 June 2016 and converted into Law no. 13360 on 18 November 2016, aims to restructure the Brazilian Energy Sector Funds' management whose current values are approximately R\$20 billion, made up of: (i) the CDE, (ii) Global Reversion Reserve (**RGR**) and (iii) Fuel Consumption Account.

It is an important step forward in the governance of the Brazilian Energy Sector. The management of the resources migrated from Eletrobras, a state-owned company with assets in the electricity sector, to a board composed of representatives of the CCEE, with recent history of control and audit of their accounts, subject to the regulation of the ANEEL.

Law no. 13360 also determines that by 2030 the CDE's apportionment between DNOs will be proportional to their markets. The transition period between the current allocation, which overloads the South, Southeast and West Central regions, and the proportional allocation to markets will be 2017-2030. The participation of high voltage installations will be lower than low voltage.

The measure creates favourable conditions for the transfer of shareholding control of concessions and simplifies the bidding process and the terms of payment to the Union.

It also authorises the transfer of debts with Itaipu from Federal Reserve to end-consumer tariffs and revokes the possibility of extension of the concessions whose start-up of the plants was delayed, even if there is recognition of exclusive responsibility.

Finally, it also permits distribution companies to sell their energy excedents to the free market so that they can enhance their energy overcontract condition.

According to Decree no. 9022, of 31 March 2017, MME detailed sources to support the CDE account (as well as RGR utilisation) and the situations in which they can be used, implemented and managed, as stated in previous legislation (Laws no. 7891/2013, 10438/2002, 12111/2009 and 12783/2013).

The Dispatch 2379, of 17 October 2018, authorised EDP Comercialização Varejista Ltda to act as an Electricity Energy Trading Agent within the scope of the Electricity Energy Trading Chamber (**CCEE**).

Through Normative Resolution 831, of 30 October 2018, ANEEL changed the parameters for the calculation of the price ceiling for new auctions.

More recently, on 14 November 2018, the Brazilian government passed Provisional Measure 855, enabling privatisation of Eletrobras Discos after Senate rejection of a bill proposed by the Brazilian government to establish legal framework for the transaction. Up to R\$ 3 billion could be paid by consumers in 60 months to cover uncovered debts due to economics and energetic efficiency low performance.

On the same day, Provisional Measure 856 was issued, which delegated the responsibility for contracting last resort and temporary providers of the public service power distribution to ANEEL.

Through Normative Resolution 839, of 26 December 2018, ANEEL incorporated a new load levels representation for the planning/programming of the electroenergetic operation.

On 28 December 2018, the Brazilian government issued Decree no 9642, which gradually removes subsidies that incorporated electricity tariffs at a rate of 20 per cent. per year (for 5 years period). The subsidies subject to reduction are those relating to the discount for the "rural", "irrigation/aquaculture" and "water/sewage/sanitation" classes. The Decree also ends up with the cumulateness of discounts for the beneficiaries of the "rural" and "irrigation/aquaculture" classes.

ANEEL reviewed and detailed criteria for entry into service of the Transmission Functions (**FT**), which are the functional units that must be handled jointly for their regulatory treatment through Normative Resolution 841, of 28 December 2018. This Normative Resolution shall enter into force as from 1 July 2019 and shall revoke REN 454/2011. The new REN

creates the Revenue Release Term (**TLR**), which, in the case of facilities capable of operating with third party impediments pending, receives 100 per cent. of the Allowed Annual Revenue (**RAP**). In addition, the new REN maintains the receipt of 90 per cent. of the RAP portion for the Partial Release Terms (**TLP**), and, if the impediments pending enter into force for more than 12 months, the transmitter will receive 80 per cent. of the RAP portion.

On 29 December 2018, Ministerial Order no. 514 was published, which decreases the load limits for consumers contracting electricity of the liberalised market. From 1 July 2019, consumers with a load of 2,500 kW or more, regardless of the connection voltage level, will be able to acquire power in the liberalised market. From 1 January 2020, the possibility extends to 2,000 kW.

On 29 January 2019, the Ministerial Council for Disaster Response Supervision published Resolution No. 1, dated 28 January 2019, which establishes that federal supervisory agencies have to require the immediate updating of Dam Safety Power-Plans, in accordance with Law no. 12334, of 2010. Therefore, ANEEL implemented a special campaign to inspect dams in power-plants, which includes documental evaluation and on-site inspection in all hydroelectric plants in operation.

On 12 February 2019, Ministerial Order 124 creates a Working Group with the scope of coordinating the development of studies to subsidise the process of revision of Itaipu Treaty Annex C.

Homologatory Resolution No. 2514, dated 19 February 2019, updates ANEEL reference bank to be used in the authorisation processes, bidding for concession granting and revision of the annual allowed revenues of electricity power transmission concessionaires.

On 1 March 2019, MME published Ministerial Order No. 151, which established the dates of the new energy auctions in: (i) 2019: A-4 in June and A-6 in September; (ii) 2020: A-4 in April and A-6 in September; and (iii) 2021: A-4 in April and A-6 in September. Ministerial Order No. 152 established the schedule for existing A-1 and A-2 energy auctions in December 2019, 2020 and 2021.

Homologatory Resolution No. 2521, of 20 March 2019, changes the amount of CDE fees to be paid by the distributors, referring to the Regulated Contracting Environment Account (**ACR Account**). The ACR Account was created to cover the loan passed on to the distributors in 2014. At that time, the fee collection was established including an additional fund formation. Based on ANEEL's forecasts for the ACR account that still has to be collected, the previously formed fund will have sufficient funds to repay the loan in September 2019.

Decree Law 9744, published by MME on 3 April 2019, establishes the cumulative subsidies for consumers in the rural and irrigation / low voltage aquaculture classes from the date of its publication.

On 3 April 2019, Ministerial Order no. 186 was also published, establishing the guidelines for the auction of purchase of electricity from new generation, named "A-4", of 2019.

On 4 April 2019, a working group was created by Ministerial Order No. 187 to develop proposals for the Electricity Sector Modernisation, dealing, with an integrated point of view, of the following topics: (i) market environment and mechanisms to make feasible the expansion of the Electricity System; (ii) pricing mechanisms; (iii) rationalisation of charges and subsidies; (iv) Energy Reallocation Mechanism - MRE; (v) allocation of costs and risks; –(vi) insertion of new technologies; and –(vii) sustainability of distribution services.

ANEEL approved improvements in the Settlement Price of Differences (**PLD**), through Normative Resolution 843, of 2 April 2019, establishing the general guidelines for the process of price formation and disclosure of data to the market, reinforcing anticipation and transparency, as well as consolidating various agency regulations.

On 19 July 2019, ANEEL approved Resolution 851/19 which established rules for thermoelectric plants dispatching to provide complementary grid frequency control.

On 1 August and 4 September 2019, Ordinances MME 304 and 337, respectively, established auctions from existing generation projects A-1 and A-2 and from new generation projects A-6.

Order ANEEL 2506 of 10 September 2019 approved research and development projects for electrical mobility. The three EDP projects were approved.

On 7 August 2019, MME Public Consultation 76 proposed mandatory representation by retailers in the free market for consumers with a load of less than or equal to 1,000 kW. On 21 October 2019, MME withdraw this idea.

On 26 August 2019, MME Public Consultation 77 proposed a reduction of market reserve for renewable energy sources. On 12 December, Ordinance 465 enabled consumers with a load more than or equal to 1500 kW to free market on 1 January 2021, reducing to 1000 kW on 1 January 2022 and to 500 kW on 1 January 2023.

## 2. Distribution tariffs

Power distribution companies in Brazil operate with regulated tariffs, and their operating results are therefore subject to regulation. Their concession contracts contain provisions for periodic and annual tariff adjustments and the possibility of extraordinary tariff revisions (i.e. revisions that can be taken by the regulator if some unexpected exogenous factor occurs that affects the financial or economic equilibrium of the concession).

### *Periodic tariff revisions*

Every three, four or five years, depending on the concession contract, ANEEL establishes a new set of tariffs, reviewing all concessionaire costs and expected revenue. To calculate periodic tariff revisions, ANEEL determines the annual revenue required for a power distribution company to cover what a concession contract refers to as the sum of "Portion A" and "Portion B" costs. Portion A costs consist of a distribution company's costs of power supply, transmission costs as well as tariff charges. Portion B costs consist of the distribution company's operating costs, taxes, depreciation and return on investment, accepted by the regulator.

The required revenue of EDP's electricity distribution companies is calculated on an annual basis and regards a revenue flow compatible with the regulatory economic costs calculated according to specific rules established by ANEEL, over a past 12-month period called a test year. The regulatory regime in Brazil provides for price caps, and if the estimated required revenue for the year under analysis is different from the actual revenue of the concessionaire for that year, the risk is allocated to the concessionaire. Recent modifications in the tariff methodology have reduced this risk, called market risk, and for almost all of Portion A costs the market risk has been allocated to the customers: if the revenue is higher than expected, the tariff for the next year is reduced, and vice versa.

Periodic tariff revisions are conducted every three years for EDP Espírito Santo and every four years for EDP São Paulo.

On 28 April 2015, through Resolution no. 660, ANEEL approved changes in the methodology applicable to the processes of Periodic Tariff Review for distributors as of 6 May 2015. The changes related to the following: (i) general procedures; (ii) operating costs; (iii) X-Factor (productivity gains); (iv) non-technical losses; (v) unrecoverable revenues; and (vi) other income. The most significant changes are as follows:

- (i) the tariff cycle concept was extinguished. The methodologies and parameters prevailing at the time of the tariff review will be used. The parameters and the methodologies will be updated every two to four years and every four to eight years respectively in each case counted from 2015;
- (ii) the weighted average cost of capital (**WACC**) increased from 7.5 per cent. to 8.09 per cent. (after tax). The points taken into account in the update were: (i) standardisation of the series; (ii) use of average credit risk of companies in the debt capital; and (iii) recalculation of the cost of capital every three years, with a methodology review every six years;
- (iii) remuneration for the risk associated with investment operations funded by third-party funds (subsidies);
- (iv) the definition of efficient operating costs was changed to comprise the "consumer energy index" and "non-Technical losses";
- (v) in determining the level of non-technical losses, the variable "low-income" was included and the database updated based on three statistical models;
- (vi) the level of unrecoverable revenues (percentage) shall be calculated based on past 60 months of non-compliance by the concessionaire;
- (vii) the percentage share of other revenue has been changed to 30 per cent. in the services of: (i) efficiency of energy consumption; (ii) qualified cogeneration facility; and (iii) data communication services. The percentage share of other services was set at 60 per cent.; and
- (viii) the calculation of X-Factor now includes consideration of commercial quality.

On 6 March 2018, ANEEL has decided to maintain the WACC at 8.09 per cent. (after tax) until December 2019. From 2020 onward it will be applied a new methodology. The preliminary proposal of the regulator in the public consultation of October 2019 reduces WACC from 8.09 to 7.17 per cent.

Normative Resolution 833, dated 19 December 2018, detailed the procedure for calculation and settlement of the Surplus Selling Mechanism, object of Normative Resolution 824/2018.

Normative Resolution 835, of 19 December 2018, improved and adjusted the criteria for tariff review of the distributors belonging to the same economic group that opted for the concessions grouping.

Following the Regulatory Agenda 2020, several methodological changes are expected. Public Query 011/2019 discussed improvements for benchmark methodology for operational costs. Public Query 018/2019 proposed simplification of non technical losses model. Public Query 023/2019 discussed some changes for the productivity X-Factor Pd (the "Pd" component in X-Factor measures productivity gains of the electricity distribution companies), such as the time period of databases. Public Query 025/2019 proposed reducing discounts to Distribution Generation prosumers. Public Query 026/2019 discussed a new methodology for calculating WACC components. Public Query 038/2019 proposed to exclude equivalent interruption frequency per consumer unit (**FEC**) from the X-Factor Q (the "Q" component in X-Factor is to encourage continuous improvement of quality of service indicators), and to amplify penalty or benefit signals. Tariff flags and two part tariffs will also be discussed in 2020.

### **Tariff adjustments**

Because the revenues of electricity distribution companies are affected by inflation, they are afforded an annual tariff adjustment to address the impact of inflation in the period between periodic revisions. For the purposes of the annual adjustment, a tariff adjustment rate (referred to as the Tariff Adjustment Index) is applied, through which Portion A costs are adjusted to account for variations in costs and Portion B costs are adjusted to account for variations in the General Price Index Market (**IGP-M**) inflation index. For Portion B, the tariff adjustment rate also takes into account a measure of the distributor's operating productivity power quality, called the X-Factor. The main objective of the X-Factor is to ensure an efficient balance between revenues and costs, established at the time of revision, by taking into account standard values established by the regulator. The X-Factor has three components: (i) expected productivity gains; (ii) quality of service; and (iii) cost efficiency.

On 20 October 2015, ANEEL approved the fourth periodic tariff review result for EDP São Paulo for the four-year regulatory period beginning in 23 October 2015. The RAB was set at R\$1.67 billion (from the previous R\$1.55 billion). Technical regulatory losses were fixed at 4.59 per cent. while commercial losses were set through a descending trajectory that starts at 9.83 per cent. in 2016 and ends at 8.45 per cent. in 2019.

On 18 October 2017, ANEEL approved the 2017 annual tariff readjustment for EDP São Paulo which will apply from 23 October 2017 to 22 October 2018. The average effect was 24.37 per cent. Portion B was readjusted by -2.68 per cent., considering an IGP-M of -1.45 per cent. and an X-Factor of 1.23 per cent., in result of 1.14 per cent. of productivity gains, 0.33 per cent. of incentives to quality of service and -0.24 per cent. of trajectory to adequacy of operational costs.

On 2 August 2016, ANEEL approved the seventh periodic tariff review result for EDP Espírito Santo for the three-year regulatory period beginning in 7 August 2016. The RAB was set at R\$2.02 billion (from the previous R\$1.59 billion). Technical regulatory losses were fixed at 7.14 per cent., while commercial losses were set at 11.45 per cent. in 2016 until the next tariff revision. These indexes are constant during the term of the tariff cycle, with no trajectory of reduction.

On 31 July 2017, ANEEL approved the 2017 annual tariff readjustment for EDP Espírito Santo which will apply from 7 August 2017 to 6 August 2018. The average effect was 9.34 per cent. Portion B was readjusted by -2.52 per cent., considering an IGP-M of -1.33 per cent. and an X-Factor of 1.2 per cent. resulting from 1.15 per cent. of productivity gains, 0.05 per cent. of incentives to quality of service and 0.00 per cent. of trajectory to adequacy of operational costs. The effect of the new tariffs for use of the transmission system, approved by ANEEL's regulatory resolution No. 2259/2017, which will be incorporated in the transportation costs to be collected in the next 12 months, explained the increase of 6.68 percentage points of the total of 9.34 per cent. of the average effect to be passed on to consumers.

On 7 August 2018, ANEEL approved the 2018 annual tariff readjustment for EDP Espírito Santo which will apply from 7 August 2018 to 6 August 2019. The average effect was 15.87 per cent. Portion B was readjusted by 7.19 per cent., considering an IGP-M of 8.24 per cent. and an X-Factor of 1.05 per cent. resulting from 1.15 per cent. of productivity gains, -0.10 per cent. of incentives to quality of service and 0.00 per cent. of trajectory to adequacy of operational costs.

On 16 October 2018, ANEEL approved the 2018 annual tariff readjustment for EDP São Paulo which will apply from 23 October 2018 to 22 October 2019. The average effect was 16.12 per cent. Portion B was readjusted by 9.48 per cent., considering an IGP-M of 10.04 per cent. and an X-Factor of 0.56 per cent., in result of 1.14 per cent. of productivity gains, -0.34 per cent. of incentives to quality of service and -0.24 per cent. of trajectory to adequacy of operational costs.

On 6 August 2019, ANEEL approved the 2019 tariff revision for EDP Espírito Santo which will apply from 7 August 2019 to 6 August 2020. The average tariff effect perceived by the consumer was -4.84 per cent. Portion B was revised by 13.6 per cent., considering an X-Factor of 0.84 per cent. resulting from 1.12 per cent. of productivity gains, -0.28 per cent. of incentives to quality of service and -1.05 per cent. of trajectory to adequacy of operational costs. Technical regulatory losses were fixed at 7.06 per cent., while commercial losses were set at 10.74 per cent. over low tension market in 2019, reducing to 9.58 per cent until 2021.

On 23 October 2019, ANEEL approved the 2019 tariff revision for EDP Sao Paulo which will apply from 24 October 2019 to 23 October 2020. The average tariff effect perceived by the consumer was -5.33 per cent. Portion B was revised by 2.7 per cent., considering an X-Factor of 0.88 per cent. resulting from 0.96 per cent. of productivity gains, and -0.08 per cent. of incentives to quality of service. Technical regulatory losses were fixed at 4.06 per cent., while commercial losses were set at 8.43 per cent. over low tension market in 2019, reduced to 8.42 per cent until 2022.

### ***Transmission's Revenue***

On 14 May 2019, ANEEL approved the new Reference Prices to be practiced in transmission substation and lines.

Transmission readjustment tariff occurred on 25 June 2019 (Homologatory Resolution 2562), affecting EDP Transmission revenue by establishing the value of the Tariffs for the Use of the Transmission System (**TUST**) for electricity, components of the National Interconnected System for the 2019-2020 cycle.

On 31 July 2019 ANEEL, approved the acquisition of Litoral Sul Transmission Company by EDP and hence a new transmission line has been constructed.

On 3 September 2019, ANEEL approved the RAP value regarding the third autotransformer implementation at SE Siderópolis 2 of EDP Aliança. The approval allows the equipment fabrication and installation to occur simultaneously with the rest of the transmission assets.

## UNITED STATES

### 1. Overview

Federal, state and local energy statutes regulate the development, ownership, business organisation and operation of electric generating facilities in the United States. In addition, the federal government regulates wholesale sales of electricity and certain environmental matters, and the state and local governments regulate the construction of electric generating facilities, retail electricity sales and environmental and permitting matters.

### 2. Federal regulations related to the electricity industry

The federal government regulates wholesale power sales and the transmission of electricity in interstate commerce through the Federal Energy Regulatory Commission (**FERC**), which draws its jurisdiction from the Federal Power Act, as amended (the **FPA**), and from other federal legislation such as the Public Utility Regulatory Policies Act of 1978, as amended (**PURPA 1978**), and the Public Utility Holding Company Act of 2005 (**PUHCA 2005**).

#### *Electricity generation*

All of the Group's project companies in the United States operate as exempt wholesale generators (**EWGs**) under PUHCA 2005 or as owners of qualifying facilities (**QFs**) under PURPA 1978, or are dually certified. In addition, most of the project companies are regulated by FERC under Parts II and III of the FPA and have market-based rate authorisation from FERC. Such market-based rate authorisation allows the project companies to make wholesale power sales at negotiated rates to any purchaser that is not an affiliated public utility with a franchised electric service territory.

EWGs are owners or operators of electric generation (including producers of renewable energy, such as wind and solar projects) that are engaged exclusively in the business of owning and/or operating generating facilities and selling electric energy at wholesale. An EWG cannot make retail sales of electric energy or engage in other business activities that are not incidental to the generation and sale of electric energy at wholesale. An EWG may own or operate only those limited interconnection facilities necessary to connect wholesale generation to the grid.

Under the FPA, FERC has exclusive rate-making jurisdiction over "public utilities" that engage in wholesale sales of electric energy or the transmission of electric energy in interstate commerce. With certain limited exceptions, the owner of a renewable energy facility that has been certified as an EWG in accordance with FERC's regulations is subject to regulation under the FPA and to FERC's rate-making jurisdiction. FERC typically grants EWGs the authority to charge market-based rates as long as the EWG can demonstrate that it does not have, or has adequately mitigated, market power and it cannot otherwise erect barriers to market entry. Currently, none of the Group's project companies or their affiliates has been found by FERC to have the potential to exercise market power in any U.S. markets. In the event that FERC's analysis of market power changes or if certain other conditions of market-based rate authority are not met, FERC has the authority to impose mitigation measures or withhold or rescind market-based rate authority and require sales to be made based on cost-of-service rates which could result in a reduction in rates.

FERC generally grants EWGs with market-based rate authority waivers from many of the accounting and record-keeping requirements that are otherwise imposed on traditional public utilities under the FPA. However, EWGs with market-based rate authority are subject to ongoing review of their rates under FPA sections 205 and 206, advance review of certain direct and indirect dispositions of FERC-jurisdictional facilities under FPA section 203, regulation of securities issuances and assumptions of liability under FPA section 204 (subject to certain blanket preauthorisation), and supervision of interlocking directorates under FPA section 305. FERC has authority to assess substantial civil penalties (i.e. up to approximately \$1.3 million USD per day per violation) for failure to comply with the conditions of market-based rate authority and the requirements of the FPA.

Certain small power production facilities may qualify as QFs under PURPA 1978. A wind-powered generating facility (or the aggregation of all such facilities owned or operated by the same person or its affiliates and located within one mile of each other) with a net generating capacity of 80 MW or less may be certified by FERC or self-certified with FERC as a QF. Certain QFs, including renewable energy facilities with a net generating capacity of 30 MW or less, are exempt from certain provisions of the FPA. Additionally, renewable energy QFs with a net generating capacity of 20 MW or less are exempt from FERC's rate-making authority under the FPA. QFs that are not located in competitive wholesale markets have the right to require an electric utility to purchase the power generated by such QFs at the utility's avoided cost rate. QFs also have the right to require an electric utility to interconnect it to the utility's transmission system, and to sell firm power service, back-up power, and supplementary power to the QF at reasonable and non-discriminatory rates. However, states have generally been permitted broad authority to determine avoided cost rates, set additional limitations on the nameplate capacity of QFs eligible for standard offer contracts and modify the tenor of certain contracts for QF sales. Therefore, the precise terms of sale for generation from QF projects vary from state to state. Finally, a renewable energy QF with a net capacity of 30 MW or less is exempt from regulation under PUHCA 2005 and the state laws and regulations respecting the rates of electric utilities and the financial and organisational regulation of electric utilities.

On 19 September 2019, FERC published a notice of proposed rulemaking (**NOPR**) to revise its PURPA 1978 regulations. The NOPR proposes to grant state regulatory authorities more flexibility in setting the avoided cost rates utilities must pay to QFs and establishing criteria that QFs must meet prior to obtaining a contract or other legally enforceable obligation for the sale of power to utilities. In addition, the NOPR proposes revisions to the utilities' obligation to purchase power from small power production QFs under 20 MW, the process for challenging a QF self-certification, and the rules used to aggregate and treat as a single facility (for purposes of the 80 MW size limit and other thresholds) small power production QFs that use the same fuel source, are owned or operated by the same person or its affiliates, and are located within a certain distance of each other. The public comment period on the NOPR closed on 3 December 2019.

FERC also implements the requirements of PUHCA 2005, which imposes certain obligations on "holding companies" that own or control 10 per cent. or more of the direct or indirect voting interests in companies that own or operate facilities used for the generation of electricity for sale, including renewable energy facilities. As a general matter, PUHCA 2005 imposes certain record-keeping, reporting and accounting obligations on such holding companies and certain of their affiliates. However, holding companies that own only EWGs, QFs or foreign utility companies are exempt from the federal access to books and records provisions of PUHCA 2005.

Wholesale electricity transactions in the United States are either bilateral in nature, which allows two parties to freely contract for the sale and purchase of energy, or take place within centralised clearing markets for capacity and spot energy which facilitates the efficient distribution of energy. Regional power markets have formed within the transmission systems operated by independent system operators (**ISOs**), such as the Midcontinent, California, New York, PJM Interconnection, Southwest, and New England ISOs.

EDP's project companies typically sell power and the associated renewable energy credits (**RECs**) from EDP's electric generation facilities under long-term bilateral power purchase agreements. However, additional energy or ancillary services may be sold on a short-term basis to the market, generally at short-term clearing prices or, in the case of Reactive Supply and Voltage Control Service, at cost-based rates accepted by FERC or at rates set by the relevant ISO. In addition, EDP's project companies may sell RECs under long-term or short-term bilateral agreements. All of EDP's electric generating facilities are typically interconnected to the grid through long-term interconnection agreements, under which transmission-owning utilities (in combination with any ISO in which the utility is a member) agree to construct and maintain system-operated interconnection facilities and provide interconnection service to the facilities. As such, successful and timely completion of EDP's projects and electric sales from EDP's projects are dependent on the performance of EDP's counterparties under the interconnection agreements.

### ***NERC reliability standards***

FERC has jurisdiction over all users, owners, and operators of the bulk power system for purposes of approving and enforcing compliance with certain reliability standards. Reliability standards are requirements to provide for the reliable operation of the bulk power system. Pursuant to its authority under the FPA, FERC certified the North American Electric Reliability Corporation (**NERC**) as the entity responsible for developing reliability standards, submitting them to FERC for approval, and overseeing and enforcing compliance with reliability standards, subject to FERC review. FERC authorised NERC to delegate certain functions to six regional reliability entities. All users, owners and operators of the bulk power system that meet certain materiality thresholds are required to register with the NERC and comply with FERC-approved reliability standards. Violations of mandatory reliability standards may result in the imposition of civil penalties of up to approximately \$1.3 million USD per day per violation. All of EDP's projects in the United States that meet the relevant materiality thresholds are required to comply with applicable FERC-approved reliability standards for Generation Owners and/or Generator Operators. NERC may also require generators that own certain interconnection facilities to register as Transmission Owners and/or Transmission Operators. Such a change may impose additional reliability standards on EDP's projects.

### **3. State Regulations Related to the Electricity Industry**

State regulatory agencies have jurisdiction over the rates and terms of electricity service to retail customers. As noted above, an EWG is not permitted to make retail sales. States may or may not permit QFs to engage in retail sales.

In certain states, approval of the construction of new electricity generating facilities, including renewable energy facilities such as wind farms, is obtained from a state agency, with only limited additional ministerial approvals required from state and local governments. However, in many states the permit process for power plants (including wind farms) also remains subject to land-use and similar regulations of county and city governments. State-level authorisations may involve a more extensive approval process, possibly including an environmental impact evaluation, and are subject to opposition by interested parties or utilities.

#### **4. Renewable Energy Policies**

The marked growth in the U.S. renewable energy industry has been driven primarily by federal and state government policies designed to promote the growth of renewable energy, including wind and solar power. The primary U.S. federal renewable energy incentive programmes have been the production tax credit (**PTC**), investment tax credit (**ITC**), and a modified accelerated cost recovery system (**MACRS**), which allows the accelerated depreciation of certain major equipment components over a five-year period. The principal way in which many states have encouraged renewable generation development is through the implementation of renewable portfolio standards (**RPS**), under which a utility must demonstrate that a certain percentage of its energy supplied to consumers within the applicable state comes from renewable sources. Under many RPS, a utility may demonstrate its compliance through its ownership of RECs. RECs are generally tradable and considered separate commodities from the underlying power that is generated by the resource. A majority of states, the District of Columbia and three U.S. territories have implemented mandatory RPS requirements, and a number of other states and one U.S. territory have implemented voluntary, rather than mandatory, renewable energy goals. Additionally, some states and localities encourage the development of renewable resources through reduced property taxes, state tax exemptions and abatements, and state grants.

##### ***Federal Tax Incentives***

In the United States, the federal government has supported renewable energy primarily through income tax incentives. Historically, the main tax incentives have been the federal PTC, ITC and the five-year depreciation for eligible assets under MACRS under the Internal Revenue Code of 1986. The PTC is a per kilowatt-hour tax credit for electricity that is generated by qualified energy resources including wind, and sold by the taxpayer to an unrelated person during the taxable year. In 2009, the American Recovery and Reinvestment Act allowed renewable energy projects to elect, in lieu of the PTC, an ITC equal to 30 per cent. of the capital invested in the project. The PTC and ITC for wind projects are available for new projects that begin construction before 1 January 2020. The value of the PTC and ITC was reduced by 20 per cent. for projects that began construction in 2017, and was reduced by 40 per cent. for projects that began construction in 2018, and is reduced by 60 per cent. for projects that begin construction in 2019. As of the date of this Prospectus, there can be no assurance that the wind PTC and ITC will be extended so as to be available for projects beginning construction after 2019.

Historically, the main federal tax incentives for solar projects have been an ITC equal to 30 per cent. of the capital invested in the project and the five-year depreciation for eligible assets under MACRS. The 30 per cent. ITC for solar projects is currently scheduled to be reduced to 26 per cent. for projects that begin construction in 2020, to 22 per cent. for projects that begin construction in 2021, and to 10 per cent. for projects that begin construction after 31 December 2021. With respect to asset depreciation under MACRS, in February 2008, the Economic Stimulus Act of 2008 provided for a temporary 50 per cent. bonus depreciation with 5-year MACRS utilised to recover the remaining basis for eligible property, including wind and solar property, placed in service before 28 September 2017. In December 2017, The Tax Cuts and Jobs Act (**TCJA**) expanded bonus depreciation to 100 per cent. for eligible property, including wind and solar property, acquired after 27 September 2017 and placed in service before 1 January 2023. The value of bonus depreciation is scheduled to be reduced for property placed in service in 2023 to 80 per cent., in 2024 to 60 per cent., in 2025 to 40 per cent., and in 2026 to 20 per cent., after which the bonus depreciation expires. As of the date of this Prospectus, there can be no assurance that the bonus depreciation will be extended beyond its current expiration. The TCJA also added a requirement that limits the amount of business interest expense that is deductible to the sum of business interest income plus 30 per cent. of the business operating results plus provisions and amortisations and impairments for taxable years beginning before 1 January 2022 and operating results for taxable years beginning on or after that date.

EDP's ability to take advantage of the benefits of the PTC, ITC and depreciation incentives is based in part on the investment structures that EDP entered into with institutional investors in the United States (the Partnership Structures). Even assuming that the PTC, ITC and depreciation incentives continue to be available in the future, there can be no assurance that (i) EDP will have sufficient taxable income in the United States to utilise the benefits generated by these tax incentives or (ii) EDP will otherwise be able to realise the benefits of these incentives. In particular, there can be no assurance that EDP will be able to realise the benefits of these incentives through Partnership Structures entered into with investors who offer acceptable terms and pricing (or that there will be a sufficient number of such suitable investors).

##### ***State Renewable Portfolio Standards***

In addition to U.S. federal tax incentives, at the state level, RPS provide support for EDP's business by specifying that a certain percentage of a utility's energy supplied to consumers within the state must come from renewable sources (typically between 15 per cent. and 25 per cent. by 2020 or 2025, although recently some states raised to 50 per cent. or more the target for procurement from renewable or carbon-free sources) and, in certain cases, make provision for various penalties for non-compliance. According to the Database of State Incentives for Renewables and Efficiency as of June 2019, 29 U.S. states, the District of Columbia and three U.S. territories have mandatory RPS requirements, while

an additional eight states and one US territory have adopted non-mandatory renewable energy goals. Within states, municipalities that have authority over electric utilities may also choose to adopt renewable energy incentives. For states with mandatory targets, most state RPS administrators require utilities to secure RECs to demonstrate compliance with the RPS requirement. Although additional states may consider the enactment of an RPS, there can be no assurance that they will decide to do so, or that the existing RPS will not be discontinued or adversely modified.

## 5. Permitting and Environmental Compliance

Construction and operation of wind and solar generation facilities and the generation and transport of renewable energy are subject to environmental regulation by U.S. federal, state and local authorities. Typically, environmental laws and regulations require a lengthy and complex process for obtaining licences, permits and approvals prior to construction, operation or modification of a project or generating facility. Prior to development, permitting authorities may require that wind project developers consider and address, among other things, impact on birds, bats and other biological resources, noise impact, paleontological and cultural impact, wetland and water quality impact, compatibility with existing land uses and impact on visual resources. In addition, projects which propose to impact federal land or require some federal licence or permit, or federal funding, generally require the review of the potential environmental effects of the action pursuant to the National Environmental Policy Act (**NEPA**), which requires that the public be afforded an opportunity to review and comment on the proposed project. Other federal environmental reviews that would be triggered by a discretionary federal agency action to license, permit or fund a project include a review of the project's effects on listed species and designated critical habitat under section 7 of the Endangered Species Act (**ESA**) to ensure that the permitted project includes sufficient avoidance, minimisation and mitigation measures to avoid jeopardising the continued existence of a species and/or adversely modifying designated critical habitat. In August 2019, the U.S. Fish and Wildlife Service (**USFWS**) and the National Marine Fisheries Service (**NMFS**) finalised three separate rules to revise their regulations implementing the ESA, including: modifying the procedures for listing and delisting species and designating critical habitat under section 4 of the ESA; revising regulations governing the ESA section 7 consultation process; and requiring USFWS to adopt species-specific section 4(d) rules to apply the ESA "take" prohibition to newly listed threatened species.

Depending on the species, USFWS and NMFS are charged with enforcement of federal environmental laws protecting endangered and threatened species, marine mammals, migratory birds, and bald and golden eagles as well as the habitat supporting such species. The ESA, Marine Mammal Protection Act (**MMPA**), Migratory Bird Treaty Act (**MBTA**) and Bald and Golden Eagle Protection Act (**BGEPA**) each prohibit the "take" of species protected by the particular statute. Generally, prohibited "take" of species includes activities that kill, injure, or capture a protected species and, for the ESA and MMPA, extend to certain activities that modify habitat or disrupt normal behavioural patterns.

The USFWS has issued voluntary guidelines for land-based wind energy projects, which outline the USFWS regulatory requirements under the ESA, MBTA and BGEPA and provide project developers with guidance as to how to assess potential impacts and avoid or minimise significant adverse impacts of a project on species and habitats. While a project developer who adheres to the USFWS guidelines is not relieved of legal culpability should a violation of any of these statutes arise, the USFWS may consider a developer's documented efforts to engage with the agency and follow the guidelines in the scoping of any enforcement action or penalty. Additionally, the USFWS also manages a permitting regime for take under BGEPA through which developers adopt conservation measures to avoid and/or minimise the "take" of eagles to the maximum extent possible. Under the permitting regime, the USFWS may issue a permit for a set duration, between five and thirty years, depending on the nature of the activities, impact on eagles, and mitigation measure taken by the recipient. Special requirements for avoidance, minimisation, or mitigation measures are required for permits with a duration of greater than five years. At present, there is no similar permitting or incidental take authorisation programme for the MBTA; however, on 22 December 2017, the U.S. Department of the Interior (**DOI**) formally issued a legal opinion concluding that "*consistent with the text, history, and purpose of the MBTA, the statute's prohibitions on pursuing, hunting, taking, capturing, killing, or attempting to do the same apply only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs.*" On 11 April 2018, the USFWS issued policy guidance consistent with the DOI opinion. The USFWS also recently announced that it is no longer considering a proposal to develop an incidental take permitting programme under the MBTA, or preparing a corresponding programmatic Environmental Impact Statement. Under the MMPA, USFWS or NMFS can authorise the incidental harassment or incidental take of small numbers of marine mammals if there will be a negligible impact on the species. These authorisations are for a set duration, one to five years depending on the severity and duration of the impact, and include mitigation, monitoring, and reporting measures.

The Bureau of Ocean Energy Management (**BOEM**), a federal agency within the DOI, oversees the production, transportation, or transmission of energy from renewable energy projects, including offshore wind projects, which are developed on the Outer Continental Shelf (**OCS**). BOEM has authorisation to issue leases, easements and rights of way to allow for renewable energy development on the OCS. BOEM is required to coordinate with relevant federal agencies and affected state and local governments with respect to leases and grants issued, and ensure that renewable energy

development takes place in a safe and environmentally responsible manner. In addition, developers of offshore wind projects must comply with the Marine Mammal Protection Act, which prohibits the "take" of marine mammals.

Other federal reviews, permits, or authorisations may be required where a renewable energy project involves or impacts federal lands, federally regulated natural resources, or other areas of federal authority. For example, wind farms with structures which exceed 200 feet in height must meet the lighting and safety regulations of the Federal Aviation Administration. Likewise, wind and solar projects must comply with permitting and mitigation requirements relating to impacts on wetlands, water quality, and wastewater discharge under the Clean Water Act, for project activities in or in proximity to waters of the United States. It is possible that wind farms may in the future be subject to further federal restrictions intended to minimise interferences with military radar systems. Further, the designation of new species as well as new or revised critical habitat protected under the ESA can adversely affect new project development as well as impose new restrictions upon existing project operations where there is retained federal discretionary authority associated with the project permit, license or funding.

Various states have also implemented environmental laws and regulations that impact renewable energy projects. In addition to state permitting regimes for the protection of waterways and other natural resources. Certain state environmental laws require the preparation of an environmental assessment or impact report similar to the federal review required under NEPA, while some states require a meeting be held to solicit comments from affected local landowners and local authorities.

The United States is one of the most attractive markets globally for wind energy generation in terms of total installed wind capacity and continued growth. As of 2018, the U.S. wind industry accounted for 16 per cent. of global wind energy capacity. According to the American Wind Energy Association (**AWEA**), the U.S. wind energy industry installed 7,588 MW in 2018, which brought the U.S. total installed wind power capacity to 96,488 MW. According to the U.S. Energy Information Administration, in 2018 wind energy provided approximately 6.6 per cent. of the United States' electricity. According to AWEA's 2018 Annual Report, EDP Renováveis was the fourth largest owner of wind projects in the United States, based on installed capacity, at the end of 2018. EDP Renováveis' main competitors, based on installed wind capacity, include Berkshire Hathaway Energy, Avangrid Renewables, Enel Green Power, and NextEra Energy Resources. EDP Renováveis and these four companies represent 37.9 per cent. of total installed wind capacity in the U.S. according to AWEA's 2018 Annual Report.

## MANAGEMENT

### Corporate governance model

EDP's shareholders approved its current corporate governance model at the annual general shareholders meeting (when referring to EDP, the **AGSM**) held on 30 March 2006, which entered into force on 30 June 2006. The corporate governance model is structured as a two-tier system, composed of an executive board of directors (the **Executive Board of Directors**) and a general and supervisory board (the **General and Supervisory Board**). The Executive Board of Directors is EDP's managing body and is responsible for its management and for developing and pursuing EDP's strategy. Since the AGSM held on 5 April 2018, the Executive Board of Directors must be composed of at least five and no more than nine directors, all of whom undertake executive positions. This decision to enlarge the number of members was made to give more flexibility regarding the number of members that compose the Executive Board of Directors of EDP, in accordance with Law no. 62/2017, of 1 August, which establishes a balanced representation between women and men at the management and supervision boards of listed companies, imposing a ratio of 20 per cent. of the under-represented gender on those corporate bodies at the first elective general shareholders' meeting occurring after 1 January 2018. Under the current mandate of 2018-2020, the Executive Board of Directors is composed of nine directors who were elected at the AGSM held on 5 April 2018. The General and Supervisory Board is a supervisory and consulting body and is responsible for, among other things, supervising the EDP Group's activities and reviewing and approving important transactions involving the EDP Group. The General and Supervisory Board must be composed of at least nine members and must at all times have more members than the Executive Board of Directors. All members of the General and Supervisory Board undertake non-executive positions. EDP complies with the corporate governance provisions included in the Portuguese Companies Code and in the Portuguese Securities Code and, in 2018, EDP has adopted the Corporate Governance Code issued by the Portuguese Institute for Corporate Governance following the entry into force of the Protocol signed on 13 October 2017 between the Portuguese Securities Market Commission (**CMVM**) and the Portuguese Institute for Corporate Governance. EDP fully complies with the provisions included in the Corporate Governance Code issued by the Portuguese Institute for Corporate Governance, with the exception of the following two recommendations:

- (i) *Recommendation II.4: The company should implement adequate means in order for its shareholders to be able to digitally participate in general meetings:*

This recommendation has not been adopted on the basis of the considerations below.

In recent years, the shareholders' participation rate in the AGSM stood between 69.5 per cent. and 77.9 per cent. From this referential, it should be pointed out that the postal vote has always represented less than 1 per cent. (exception made to the AGSM that took place on 19 April 2017, in which the postal vote stood at 3.2 per cent.), which illustrates the shareholders' clear option for the on-site presence in such meetings. These data substantiate and comfort EDP's position striving for the maximisation of the shareholders' participation in general meetings, as such involvement provides a direct interaction with shareholders and, therefore, represents a positive factor for the proximity to the shareholder structure, for the efficient operation of EDP and for the fulfilment of its corporate purpose. It is certain that, without prejudice of this matter being revisited in the future, the non-adoption of telematic mechanisms to date has not prevented the shareholders' significant participation on such forum, as referred above. In addition, the clear preference of the shareholders to participate in general meeting in person is further represented by the reduced participation rate of shareholders by means of postal vote.

- (ii) *Recommendation II.5: The articles of associations, which specify the limitation of the number of votes that can be held or exercised by a sole shareholder, individually or in coordination with other shareholders, should equally provide that, at least every 5 years, the amendment or maintenance of this rule will be subject to a shareholder resolution — without increased quorum in comparison to the legally established — and in that resolution, all votes cast will be counted without observation of the imposed limits.*

This recommendation has not been adopted on the basis of the considerations below.

Over the past few years, the subject of statutory limitation on voting rights has already been discussed by the AGSM on three occasions. The limitation of the number of votes set out in Article 12 of the articles of association reflects the will of the shareholders of EDP expressed through resolutions of the AGSM, in the defence of EDP's specific interests: (i) change of the limit from 5 per cent. to 20 per cent. was approved by the AGSM of 25 August 2011, involving the participation of 72.25 per cent. of the capital and approval of a majority of 94.16 per cent. of the votes cast; (ii) a later increase to the current 25 per cent. was approved at the AGSM of 20 February 2012, involving the participation of 71.51 per cent. of the capital and approval by a majority of 89.65 per cent. of the votes cast. The shareholders have thus been called on to decide on limiting the number of votes. The continued existence of the limitation has prevailed and the reflection on the adjustment of the relevant ceiling for counting voting rights, precisely to progressively increase this level. The momentum of EDP's shareholders has thus proven to be perfectly in tune with the sense advocated in the

recommendation and sufficiently apt for pursuing its goals, avoiding rigid formulas for this review set down in the articles of association, which has also fostered the particularly intense scrutiny of this clause by shareholders.

### Executive Board of Directors

The Executive Board of Directors, together with EDP's executive officers, manages EDP's affairs and monitors the daily operation of EDP's activities in accordance with Portuguese law and EDP's articles of association. Executive officers are in charge of EDP's various administrative departments and report directly to the Executive Board of Directors. Companies within the Group are managed by their respective boards of directors. The names of the current directors on the Executive Board of Directors, along with their principal affiliations and certain other biographical information, are set forth below:

<b>Name</b>	<b>Year of Birth</b>	<b>Position</b>	<b>Year Originally Elected</b>	<b>Last Election</b>
António Luís Guerra Nunes Mexia	1957	Chief Executive Officer	2006	2018
João Manuel Manso Neto	1958	Executive Director	2006	2018
António Fernando Melo Martins da Costa	1954	Executive Director	2006	2018
João Manuel Veríssimo Marques da Cruz	1961	Executive Director	2012	2018
Miguel Stilwell de Andrade	1976	Chief Financial Officer	2012	2018
Miguel Nuno Simões Nunes Ferreira Setas	1970	Executive Director	2015	2018
Rui Manuel Rodrigues Lopes Teixeira	1972	Executive Director	2015	2018
Maria Teresa Isabel Pereira	1965	Executive Director	2018	----
Vera de Morais Pinto Pereira Carneiro	1974	Executive Director	2018	----

<b>Full Name</b>	<b>António Luís Guerra Nunes Mexia</b>
<b>Position</b>	Executive Board of Directors Chairman elected in March 2006 (reappointed in April 2009, February 2012, April 2015 and April 2018)
<b>Skills and Experience</b>	Degree in Economy – Geneva University (1980)   Assistant of the Economy Department   Professor at Nova University of Lisbon and Portuguese Catholic University (1982-1995)   Portuguese Institute for foreign Trade Vice-Chairman of the Board of Directors (1988-1990)   Board of Directors Member – Banco Espírito Santo de Investimentos (1990-1998)   Board of Directors Chairman - Gás de Portugal and Transgás (1998-2000)   Board of Directors Vice-Chairman - Galp Energia (2000-2001)   Executive Chairman - Galp Energia (2001-2004)   Minister of Public Works, Transport and Communications - Portuguese government (2004-2005)   President - Eurelectric (2015-2017)
<b>Current External Appointments</b>	Does not hold any other office or was appointed to any executive position outside EDP Group

<b>Full Name</b>	<b>João Manuel Manso Neto</b>
<b>Position</b>	Executive Board of Directors Member elected in March 2006 (reappointed in April 2009, February 2012, April 2015 and April 2018)
<b>Skills and Experience</b>	Degree in Economy – Higher Institute of Economics (1981)   Postgraduate in European Economy - Portuguese Catholic University (1982)   Course - American Bankers Association (1982)   Advanced Management Programme for Overseas Bankers - Wharton School

(1985) | Financial and Commercial Retail South Central Director – Banco Português do Atlântico (1981-1995) | Financial Directorate, Large Institutional Businesses and Treasury General Director, Board Member - BCP – Investment Bank and Vice Chairman of BIG Bank Gdansk (1995-2002) | Board Member - Grupo Banco Português de Negócios (2002-2003) | General Director and Board Member - EDP Produção (2003-2005)

**Current External Appointments**

Director - Mibgas, S.A. | Director - OMIP – Operador do Mercado Ibérico (Portugal), SGPS, S.A. | Counsellor - Operador del Mercado Ibérico de Energía, Polo Español, S.A. (OMEL) | CEO – EDP Renováveis

**Full Name**

**António Fernando Melo Martins da Costa**

**Position**

Executive Board of Directors Member elected in March 2006 (reappointed in April 2009, February 2012, April 2015 and April 2018)

**Skills and Experience**

Degree in civil engineering – Porto University (1976) | MBA - Porto Business School (1989) | Executive Course - INSEAD, Fontainebleau – (1995) | PADE - AESE (2000) | Advanced Management Programme - Wharton School (2003) | Assistant Professor –Engineering Institute of Oporto (1976-1989) | Hydraulic Production – EDP (1981-1989) | General Director - Banco Millennium BCP and Executive Board Member of several insurance, pension and financial asset management companies – BCP Group (1989-2003) | Executive Director - Eureka BV, Chairman - Eureka Polska and Executive Vice-Chairman – PZU (1999-2002) | Director and Board of Directors Vice-Chairman – EDP Brasil (2003-2007) | Vice-Chairman – Portuguese Chamber of Commerce in Brazil (2003-2007) | Chairman – Brazilian Electricity Distributors Association (2003-2007) | Chairman and CEO - EDP Renováveis EUA (2007-2009) | Member of the Board of Directors - EDP Renováveis (2008-2011) | Vice-Chairman - Chamber of Commerce of USA in Portugal | Vice-Chairman – Proforum | Vice-Chairman- APGEI

**Current External Appointments**

Does not hold any other office or executive position outside of the EDP Group

**Full Name**

**João Manuel Veríssimo Marques da Cruz**

**Position**

Executive Board of Directors Member elected in February 2012, (reappointed in April 2015 and April 2018)

**Skills and Experience**

Degree in Management – Technical University of Lisbon (1984) | MBA - Technical University of Lisbon (1989) | Post-graduation in Marketing and Airlines Marketing - International Air Travel Association / Bath University (1992) | Several positions including General Director - TAP Air Portugal (1984-1999) | Director - TAPGER (1997-1999) | Director – EMEF and other companies - Grupo CP (2000-2002) | Executive Committee Chairman - Air Luxor (2002-2005) | President – External Trade Institute of Portugal (2005-2007)

**Current External Appointments**

Vice-Chairman - Companhia de Electricidade de Macau - CEM, S.A. | Director - KNJ Global Limitada (Macau) | President – Portuguese-Chinese Chamber of Commerce and Industry | Supervisory Board Member – European Union Chamber of Commerce in China

**Full Name** Miguel Stilwell de Andrade

**Position** Executive Board of Directors Member elected in February 2012, (reappointed in April 2015 and April 2018)

**Skills and Experience** Degree in Mechanic Engineering – Strathclyde University (1998) | MBA - MIT Sloan (2003) | Mergers and Acquisitions – UBS Investment Bank (UK) (1998-2000) | Strategy and Corporate Development Area – EDP (2000-2005) | Strategy and Corporate Development Director – EDP (2005-2009) | Board of Directors Member – EDP Distribuição and Board Member of other companies within the Group (2009-2012)

**Current External Appointments** Does not hold any other office or executive position outside of the EDP Group

**Full Name** Miguel Nuno Simões Nunes Ferreira Setas

**Position** Executive Board of Directors Member elected in April 2015 (reappointed in April 2018)

**Skills and Experience** Degree in Physics Engineering – Higher Technical Institute (1993) | Masters in Electronic and Computing Engineering – Higher Technical Institute (1995) | MBA – Nova University of Lisbon (1996) | Consultant – McKinsey & Company (1995-1998) | Corporate Director - GDP - Gás de Portugal (1998-2000) | Board Member - Setgás (1999-2001) | Executive Board Member – Lisboagás (2000-2001) | Strategic Marketing Director – Galp Energia (2001-2004) | Board Member – Comboios de Portugal (2004-2006) | Chief of Staff of the Chairman of the Executive Board of Directors Chairman – EDP (2006-2007) | Board Member – EDP Comercial (07-08) | Board Member - EDP Inovação (2007-2008 / 1912-1914) | Vice-Chairman – EDP Brasil (2008-2013)

**Current External Appointments** CEO – EDP Brasil (2014)

**Full Name** Rui Manuel Rodrigues Lopes Teixeira

**Position** Executive Board of Directors Member elected in April 2015 (reappointed in April 2018)

**Skills and Experience** Degree in Naval Engineering - Higher Technical Institute (1995) | MBA – Nova University of Lisbon (2001) | Advanced Management Programme - Harvard Business School (2013) | Assistant Director of the Naval Commercial Department - Gellweiler (1996-1997) | Project manager - Det Norske Veritas (1997-2001) | Consultant - McKinsey & Company (2001-2004) | Corporate Control and Planning Director – EDP (2004-2007) | Board Member – EDP Renováveis (2007-2015)

**Current External Appointments** Does not hold any other office or executive position outside of the EDP Group

**Full Name** Maria Teresa Isabel Pereira

**Position** Executive Board of Directors Member elected in April 2018

**Skills and Experience** Law Degree – Law School, Lisbon University (1993) | Lecturer in Law of

Obligations – Law School, Lisbon University (1993-1997) | Lawyer registered at the Portuguese Bar Association (1997) | Jurist - Proet Projectos (EDP Group) (1994-1998) | Legal Director - ONI SGPS (1998-2005) | Legal Director and General Secretariat, Company Secretary – EDP (2006-2018)

**Current External Appointments**

Does not hold any other office or executive position outside of the EDP Group

**Full Name**

**Vera de Morais Pinto Pereira Carneiro**

**Position**

Executive Board of Directors Member elected in April 2018

**Skills and Experience**

Economics Degree – Nova University of Lisbon (1996) | Post-graduation in Economics – Nova University of Lisbon (1998) | MBA – INSEAD, Fontainebleau (2000) | Associate – Mercer (1996-1999) | Founder – Innovagency Consulting (2001-2003) | Television Service Director – TV Cabo – PT Multimédia (2003-2007) | Television Service Director – MEO (2007-2014) | Executive Vice-Chairman and General Director (Portugal and Spain) - Fox Networks Group (2014-2018)

**Current External Appointments**

Board Member – Portuguese Institute of Corporate Governance

**General and Supervisory Board**

In accordance with the applicable law and EDP's articles of association, the General and Supervisory Board has created specialised Committees for dealing with matters of particular importance, which is composed exclusively of Members of the Board itself with appropriate qualifications, experience and availability. Their main mission is to carry out the continuous monitoring of the matters entrusted, in order to facilitate the analysis and main decision-making processes of the General and Supervisory Board.

The General and Supervisory Board holds four specialised committees:

- the Financial Matters Committee / Audit Committee;
- the Remuneration Committee;
- the Corporate Governance and Sustainability Committee; and
- the Strategy and Performance Committee.

In the case of the Financial Matters Committee / Audit Committee and the Remuneration Committee, they were set up in response to legal and statutory requirements. The Corporate Governance and Sustainability Committee and the Strategy and Performance Committee were created at the initiative of the General and Supervisory Board.

<b>Name</b>	<b>Year of Birth</b>	<b>Position</b>	<b>Year Originally Elected</b>	<b>Last Election</b>
Luís Filipe Marques Amado	1953	Chairman	2015 (as Vice-Chairman)	2018
China Three Gorges Corporation (represented by Dingming Zhang)	1963	Vice-Chairman	2012 (as Chairman represented by Eduardo Catroga)	2018
China Three Gorges International Corp. (represented by Shengliang Wu)	1972	Member	2018	-
China Three Gorges (Europe), S.A. (represented by Ignacio Herrero Ruiz)	1974	Member	2012	2018
China Three Gorges Brasil Energia Ltda (represented by Li Li)	1963	Member	2019	-
China Three Gorges (Portugal), Sociedade Unipessoal, Lda. (represented by Eduardo de Almeida Catroga)	1942	Member	2015	2018
DRAURSA, S.A. (represented by Felipe Fernández Fernández)	1952	Member	2015	2018
Fernando María Masaveu Herrero	1966	Member	2012	2018
Banco Comercial Português, S.A. (represented by Nuno Manuel da Silva Amado)	1957	Member	2015	2018
Société Nationale pour la Recherche, la Production, le Transport, la Transformation et la Commercialisation des Hydrocarbures (the "Sonatrach") (represented by Karim Djebbour)	1957	Member	2007	2018
Senfora BV (represented by Mohamed Al Huraimel Al Shamsi)	1978	Member	2015	2018
Maria Celeste Ferreira Lopes Cardona	1951	Member	2012	2018
Ilídio da Costa Leite de Pinho	1938	Member	2012	2018
Jorge Avelino Braga de Macedo	1946	Member	2012	2018
Vasco Joaquim Rocha Vieira	1939	Member	2012	2018
Augusto Carlos Serra Ventura Mateus	1950	Member	2013	2018
João Carvalho das Neves	1956	Member	2015	2018
María del Carmen Fernández Rozado	1952	Member	2015	2018
Laurie Fitch	1970	Member	2018	-
Clementina Maria Dâmaso de Jesus Silva Barroso	1958	Member	2018	-
Luís Maria Viana Palha da Silva	1958	Member	2019	-

On 26 July 2018, António Manuel de Carvalho Ferreira Vitorino, appointed as member of the General and Supervisory Board at the AGSM held on 5 April 2018, presented his resignation as Chairman of the General Shareholders' meeting and, in accordance with EDP's articles of association, as member of the General and Supervisory Board.

In the last quarter of 2018, (i) Ya Yang, former representative of China Three Gorges Corporation has resigned as Vice-Chairman of the General and Supervisory Board; (ii) Zhang Dingming, representative of China Three Gorges International Corp. has resigned and then was appointed as representative of China Three Gorges Corporation and as Vice-Chairman of the General and Supervisory Board; (iii) Shengliang Wu, representative of China Three Gorges

(Europe), S.A., has resigned and then was appointed as representative of China Three Gorges International Corp.; and (iv) Ignacio Herrero Ruiz was appointed as representative of China Three Gorges (Europe), S.A.

At the AGSM held on 24 April 2019, Luís Maria Viana Palha da Silva was appointed Chairman of the Board of EDP's AGSM who, under and pursuant to article 21, section 2, of EDP's articles of association is, inherently, a Member of the General and Supervisory Board of EDP, for the remaining period of the current mandate (triennium 2018-2020).

On 24 December 2019, Yinsheng Li tendered his resignation as representative of China Three Gorges Brasil Energia Ltda. in the General and Supervisory Board and, on the same date, China Three Gorges Brasil Energia Ltda. informed EDP of the appointment of Li Li as its representative.

<b>Full name</b>	<b>Luís Filipe Marques Amado</b>
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Chairman
<b>Committees</b>	Corporate Governance and Sustainability Committee Chairman   Financial Matters Committee/Audit Committee Chairman
<b>Skills and Experience</b>	Degree in Economics – Lisbon University (1979)   Auditor – Court of Auditors   Auditor – National Defence Institute (1989-1990)   Deputy –National Assembly of Portugal (1991/1995/1999/2005/2009)   Deputy Secretary of State – Internal Administration Minister (1995-1997)   Secretary of State – Foreign Affairs and Cooperation Minister (1997-2002)   National Defence Minister (2005-2006)   State and Foreign Affairs Minister (2006-2011)   Non-Executive Board Member - Sociedade de Desenvolvimento da Madeira (2013-2019)   Chairman of the Board of Directors - Banco Internacional do Funchal, S.A. (2012-2016)   Chairman of the General Meeting Board - Banco Cabo-Verdiano de Negócios, S.A. (2013-2014)   Chairman of the Board of Directors - Banco Cabo-Verdiano de Negócios, S.A. (2015-2017)   Non-executive member of the Board of Directors - Francisco Manuel dos Santos Foundation (2013-2017)
<b>EDP Historic</b>	General and Supervisory Board Vice Chairman (April 2015 - April 2018)   General and Supervisory Board Chairman (April 2018)
<b>Current External Appointments</b>	Curator - Oriente Foundation (2012)   Curator - Francisco Manuel dos Santos Foundation (2018)   Member of Global Advisory Board - SONAE (2018)   Chairman of the General Meeting Board - Tabaqueira, S.A. (2018)   Invited Professor - ISCSP (2012)   Invited Professor - Paris School of International Affairs (2016)
<b>Full name</b>	<b>Dingming Zhang</b>
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Vice Chairman
<b>Committees</b>	-
<b>Skills and Experience</b>	Bachelor's degree in Power System and Automation - Huazhong University of Science and Technology (1984)   Master's degree in Management - Huazhong University of Science and Technology (2001)   Deputy Director of Power Production Department - China Three Gorges Corporation (2002)   Executive Vice President - China Yangtze Power Company (2002-2011)   Director - Guangzhou Development Industry
<b>EDP Historic</b>	General and Supervisory Board Vice Chairman, in representation of China Three Gorges (February 2012 – April 2015)   General and Supervisory Board Member, in representation of CWEI (Europe), S.A. (April 2015 - April 2018)   General and Supervisory Board Member, in representation of China Three Gorges International Corporation (April 2018 - December 2018)   General and Supervisory Board Vice Chairman, in representation of China Three

Gorges Corporation, since December 2018

**Current External Appointments**

President - Beijing Yangtze Power Capital (2015)

**Full name**

**Shengliang Wu**

**Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Remuneration Committee Chairman | Strategy and Performance Committee Member

**Skills and Experience**

Bachelor's degree in Engineering –Wuhuan University (1992) | Master's degree in Technical Economics and Management – Chongqing University (2000) | Secretary of Corporate Affairs Department - Gezhouba Hydropower Plant (1998-2000) | Deputy Director of the Board - China Yangtze Power Company (2002-2003) | Director of Capital Operating Department - China Yangtze Power Company (2004-2006) | Executive Vice-President - Beijing Yangtze Power Capital (2006-2011) | Deputy Director of Strategic Planning Department – China Three Gorges Corporation (2011-2015)

**EDP Historic**

General and Supervisory Board Member, in representation of China Three Gorges International (Europe), S.A. (February 2012 – April de 2015) | General and Supervisory Board Member, in representation of China Three Gorges (Portugal), Sociedade Unipessoal, Lda. (April 2015 - April 2018) | General and Supervisory Board Member, in representation of China Three Gorges (Europe), S.A (April 2018 - December 2018) | General and Supervisory Board Vice-Chairman in representation of China Three Gorges International Corporation, since December 2018

**Current External Appointments**

Executive Vice-President – China Three Gorges International Corporation (2015) | Chairman - China Three Gorges (Europe), S.A. (2015)

**Full name**

**Ignacio Herrero Ruiz**

**Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Corporate Governance and Sustainability Committee Member| Strategy and Performance Committee Member

**Skills and Experience**

Degree in Economics - Carlos III University (Madrid) (1997) | Mergers and Acquisitions Department - Citigroup (1997-1998) | Mergers and Acquisitions Department - Deutsche Bank Investment (1998- 2003) | Mergers and Acquisitions Department - Credit Suisse (2003-2016)

**EDP Historic**

General and Supervisory Board Member, in representation of China Three Gorges (Europe), S.A., since December 2018

**Current External Appointments**

Executive Vice-Chairman at China Three Gorges Corporation (Europe), S.A. (2016)

**Full name**

**Li Li**

**Status**

Non-independent

<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	-
<b>Skills and Experience</b>	Bachelor's degree in International Business with major in Hydropower Engineering   Engineer in several companies of CWE (1984-1999)   Project manager – CWE (2000-2003)   Deputy General Manager, International Business – CWE (2003-2006)   General Manager, International Business – CWE (2006 – 2011)   Vice President – CWE (2011-2015)   President – CWE (2015-2017)   Executive Director – CWE (2017-2019)
<b>EDP Historic</b>	General and Supervisory Board Member, in representation of China Three Gorges Brasil Energia Ltda., since December 2019
<b>Current External Appointments</b>	Deputy Chief Economist – China Three Gorges (2019)
<b>Full name</b>	<b>Eduardo De Almeida Catroga</b>
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Strategy and Performance Committee Chairman
<b>Skills and Experience</b>	Degree in Finance – Instituto Superior de Economia e Gestão (1966)   Programme for Management Development Course - Harvard Business School (1979)   Honorary Doctor – Lisbon University   Minister of Finance – Portuguese government (1993-1995)   Invited Full Professor - MBA of Instituto Superior de Economia e Gestão   Director with executive and non-executive functions in particular as Chief Executive Officer and Chairman on several national and international companies in several fields namely chemical, agrochemical, major consumer products, energy and investment banking
<b>EDP Historic</b>	Independent member of the General and Supervisory Board (June 2006 – February 2012)   Chairman and independent member of the General and Supervisory Board (February 2012 - April 2015)   Chairman and Member of the General and Supervisory Board, in representation of China Three Gorges Corporation (April 2015 – April 2018)   General and Supervisory Board Member, in representation of China Three Gorges (Portugal), Sociedade Unipessoal, Lda., since April 2018
<b>Current External Appointments</b>	Chairman (non-executive) of the Board of Directors – Finantipar, holding which control Finantia Bank (2017)   Investment Committee Member - Portugal Venture Capital Initiative managed by the European Investment Fund (2008)
<b>Full name</b>	<b>Felipe Fernández Fernández</b>
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Corporate Governance and Sustainability Committee Member
<b>Skills and Experience</b>	Degree in Administrative and Economic Sciences – Bilbao University (1975)   Professor of Business and Economic Faculty – Oviedo University (1984-1990)   Director of Economics and Regional Planning - Principality of Asturias (1984-1990)   Counsellor of Organisation of the Territory and Housing – Principality of Asturias (1990-1991)   Counsellor of countryside and fishing - Principality of Asturias (1991-1993) Manager on several

companies on in numerous fields

**EDP Historic** General and Supervisory Board Member in representation of Cajastur Inversiones S.A., (February 2012 - April 2015) | General and Supervisory Board Member, in representation of DRAURSA, S.A., since April 2018

**Current External Appointments** Board of Director Member – Liberbank (2011) | Chairman of Board of Directors - Lico Leasing (2017) | Executive Commission Member - Lico Leasing (2018) | Board of Director Member - Tudela Veguín (2011) | Masaveu Inmobiliaria (2014) | Cimento Verde do Brasil (2014) | Board of Director Member – Molecular Oncology Medicine Institute of Asturias (2014)

**Full name** **Fernando María Masaveu Herrero**

**Status** Non-independent

**Position** General and Supervisory Board Member

**Committees** Remuneration Committee Member | Strategy and Performance Committee Member

**Skills and Experience** Law Degree – Navarra University (1992) | Manager on several companies of Masaveu Group in numerous fields such as energy, finance, transport, environment and real state, among others

**EDP Historic** General and Supervisory Board Member, since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments** Chairman - Masaveu Corporation | Chairman - Cementos Anónima Tudela Veguín | Chairman - Masaveu International | Board Member - Bankinter | Executive Committee Member - Bankinter | Board Member - EGEO, SGPS | Board Member - Olmea Internacional | Chairman - Maria Cristina Masaveu Peterson Foundation | Chairman - San Ignacio de Loyola Foundation | Protector – Asturias Princess Foundation | Executive Committee Member - Asturias Princess Foundation | Chairman of the Board of Directors - Oppidum Capital

**Full name** **Mohammed Issa Khalfan Al Huraimel Al Shamsi**

**Status** Non-independent

**Position** General and Supervisory Board Member

**Committees** Strategy and Performance Committee Member

**Skills and Experience** Bachelor’s degree in Business Administration – American University of Sharjah (2001) | MBA - HEC School of Management (2005) | Consultant - McKinsey & Company (2005-2007) | Director of Strategy & Policy - UAE Prime Minister's Office (2009-2011) | Board Member - Tabreed District Cooling (2014) | Board Member - Jiangsu Suyadi (2012-2014) | Board Member - Shariket Kahraba Hadjret-En-Nous (2014-2016) | Board Member - SMN Power Company (2013-2016)

**EDP Historic** General and Supervisory Board Member, in representation of Senfora BV, since October 2017 (re-elected in April 2018)

**Current External Appointments** Director of Utilities Investments - Mubadala Investments Company (2011)

<b>Full name</b>	<b>Nuno Manuel da Silva Amado</b>
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Strategy and Performance Committee Member
<b>Skills and Experience</b>	Degree in Companies Organisation and Management – Advances Institute of Labour and Business Sciences (1980)   Advanced Programme in Management – INSEAD (2004)   Audit and Consulting Department - KPMG Peat Marwick (1980-1985)   Citibank (1985-1990)   Banco Fonecas & Burnay (1990-1992)   Board of Director Member - Deutsche Bank Portugal (1993-1997)   Executive Committee Member - Banco de Comércio e Indústria (1997-2004)   Vice-Chairman of the Executive Committee - Crédito Predial Português (2000-2004)   Vice-Chairman of the Board of Directors and Chairman of the Executive Committee - Banco Santander Totta, SGPS (2006-2012)   Chairman of the Executive Committee - Banco Comercial Português (2012-2018)
<b>EDP Historic</b>	General and Supervisory Board Member, since May 2013 (re-appointed in April 2015 and April 2018)
<b>Current External Appointments</b>	Chairman – Banco Comercial Português (2018)

<b>Full name</b>	<b>Karim Djebbour</b>
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Strategy and Performance Committee Member
<b>Skills and Experience</b>	Degree in Agronomic Engineering - (1983)   Degree in Assessment Economic and Financial Project - C.E.F.E.B Paris (1989)   Several positions - Banque de l’Agriculture et du Développement Rural (1984-1991)   Sub-director - Ministry of Economy (1991-1993)   General Manager Assistant in Project Financing, Finance Director - SONATRACH’s branch, General Manager (1993-1999)   CEO - Brown and Root Condor (2007)   General Manager - SONATRACH Investissements et Participations SIP (2008)   Chief of Staff of the CEO – Sonatrach (2014-2015)
<b>EDP Historic</b>	General and Supervisory Board Member, in representation of Sonatrach, since April 2018
<b>Current External Appointments</b>	Official in the General Directorate – Sonatrach Group (2015)

<b>Full name</b>	<b>Maria Celeste Ferreira Lopes Cardona</b>
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Corporate Governance and Sustainability Committee Member   Financial Matters Committee/Audit Committee Member
<b>Skills and Experience</b>	Law Degree – Lisbon University (1981)   Master degree in Law - Lisbon University (1994)   Doctorate in Law - Lisbon University (2015)   Assistant Professor – Lisbon University (1982)   Tax Studies Center Member (1983)   Portuguese Representative – Organisation for

Economic Cooperation and Development (1985) | Justice Minister – Portuguese government (2002-2004) | Non-Executive Member of the Board of Directors - Caixa Geral de Depósitos, S.A. (2004-2008)

**EDP Historic** Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments** Lawyer (1982) | Consultant - M. Cardona Consulting, Unipessoal, Lda. (1993) | Supervisory Board Member - SIBS (2012) | Associate Professor – Lusíada University (2017)

**Full name** **Ilídio da Costa Leite de Pinho**

**Status** Independent

**Position** General and Supervisory Board Member

**Committees** Remuneration Committee Member

**Skills and Experience** Electronic and Machinery Engineering degree – Porto Industrial Institute (1964) | Non-Executive member, in representation of the National Industry, of the Board of Directors – ICEP (1986-1991) | President – Municipal Council of Vale de Cambra (1973-1983) | President – General Meeting of Vale de Cambra (1993-1997) | Founder of COLEP Group | Founder of Nacional Gás and its associates | CEO of several companies and associations

**EDP Historic** Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments** CEO – Grupo Ilídio Pinho (1994)

**Full name** **Jorge Avelino Braga De Macedo**

**Status** Independent

**Position** General and Supervisory Board Member

**Committees** Corporate Governance and Sustainability Committee Member | Strategy and Performance Committee Member

**Skills and Experience** Law Degree – Lisbon University (1971) | International Relations Master degree – Yale University (1973) | Doctorate in Economics – Yale University (1979) | Professor – Princeton University (1980-1986) | Minister of Finances – Portuguese government (1991-1993) | Chairman of the European Affairs Parliamentary Committee (1994-1995) | President – Tropical Research Institute (2004-2015) | Consultant – European Bank for Reconstruction and Development (1996-1999) | Consultant – United Nations (1982-1984) | Consultant – World Bank (1984-1988) | Trainee – International Monetary Fund (1978-1979)

**EDP Historic** Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments** Economics Professor – Nova University of Lisbon (1976) | Director – Globalisation and Governance Center – Economy Faculty - Universidade Nova de Lisboa (2008) | Distinguished Fellow - Board of Governors of the International Centre for International Governance Innovation in Waterloo (2014) | Chairman of the General Meeting Board – Sociedade de Desenvolvimento da Madeira (2012)

**Full name** **Vasco Joaquim Rocha Vieira**

**Status** Independent

**Position** General and Supervisory Board Member

**Committees** Remuneration Committee Member | Strategy and Performance Committee Member

**Skills and Experience** Degree in Civil Engineering – Military Academia (1969-1970) | Complementary Course of General Staff at the Army (1970-1972) | Course of Command and Direction for Official General (1982-1983) | Course of National Defence (1984) | Brigadier (1984) | General (1987) | Governor of Macao (1991-1999) | Minister of the Republic for the Azores (1986-1991) | Deputy Secretary of Communications and Public Works – Macao Government (1974-1975) | Chief of Army Staff (1976-1978) | National Military Representative at NATO Supreme Headquarters Allied Powers in Europe (1978-1984)

**EDP Historic** Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments** Council Member of the Order of Engineers (2000) | Member of the Representatives General Meeting of the Order of Engineers (2004)

**Full name** **Augusto Carlos Serra Ventura Mateus**

**Status** Independent

**Position** General and Supervisory Board Member

**Committees** Corporate Governance and Sustainability Committee Member | Strategy and Performance Committee Member

**Skills and Experience** Economics Degree – Higher Economics and Management Institute (1972) | Invited Professor - Higher Economics and Management Institute (1972-1914) | Industry Secretary of State (1995-1996) | Minister of Economy (1996-1997)

**EDP Historic** Independent General and Supervisory Board Member since May 2013 (re-elected in April 2015 and April 2018)

**Current External Appointments** Consultant on macroeconomics fields, economic policies, strategy and business (1986)

**Full name** **João Carvalho das Neves**

**Status** Independent

**Position** General and Supervisory Board Member

**Committees** Remuneration Committee Member | Financial Matters Committee/Audit Committee Vice-Chairman

**Skills and Experience** Degree in Companies Organisation and Management - Economics and Management College Institute - Lisbon University (1981) | MBA – Economics and Management College Institute (1985) | Doctorate - Manchester Business School (1992) | Leadership Development Programme - Creative Leadership Center (2010) | Coaching for Performance - London Business School (2010) | Leadership - Kennedy Harvard Government School (2009) | Finance and Control - IMD (1986) | Management Control - HEC Paris (1987) | Executive course - International Finance - INSEAD (1987) | Chairman – Central

Administration of Health System (2011-2014) | Director - BPN (2008) | CEO and CFO - SLN (2008-2009); Judicial Manager: TVI (1998); Torralta (1993-1998) - Casino Hotel de Tróia (1994-1995) | Chairman Management Department – ISEG (2010-2011)

**EDP Historic** Independent General and Supervisory Board Member since April 2015 (re-elected in April 2018)

**Current External Appointments** School Board Member (2014) | Professor – Financing and Management Control (1992) | Director – Post-graduation in Management and Real Estate Evaluation - ISEG (2000) | Invited Professor in Financing, Negotiation and Health Contracting - ISCSP (2012) | Independent non-executive member - Montepio - Valor SGFI (2017) | Management Consultant in Management through the company Zenaction Business Consulting (2014) | Statutory Auditor (2016)

**Full name** **María del Carmen Fernández Rozado**

**Status** Independent

**Position** General and Supervisory Board Member

**Committees** Financial Matters Committee/Audit Committee Member

**Skills and Experience** Degree in Economics and Business Administration and Political Sciences and Sociology - Complutense University of Madrid (1978) | PhD in Public Finance - Complutense University of Madrid (2004-2005) | PADE Management Programme MBA - IESE Business School (2004-2005) | Chief-Inspector – Spanish Minister of Economy and Finance Economy and Finance Minister (1984-1999) | Member of the Board - Spanish National Energy Commission (1999-2011) | President of the Task Force for Renewable Energies, Sustainability and Carbon Markets - ARIAE (1999-2011) | Member of the Advisory Board - EY (2012-2013) | Chief Inspector - Ministry of Economy and Finance of Spain (1984 -1999) | Auditor (1988)

**EDP Historic** Independent General and Supervisory Board Member since April 2015 (re-elected in April 2018)

**Current External Appointments** Consultant (2011) | Chairman of Audit Committee – ACS Group (2017) | Member of the Advisory Board - Beragua Capital | Lecturer in several Universities

**Full name** **Laurie Lee Fitch**

**Status** Independent

**Position** General and Supervisory Board Member

**Committees** Strategy and Performance Committee Member

**Skills and Experience** B.A. in Arabic - American University (1991) | M.A. - Georgetown University's School of Foreign Service (1994) | Assistant Vice-President - Bank of New York (1994-1999) | Associate - Schroders plc (1999-1900) | Associate - UBS Warburg (2000-2002) | Managing Director and Director of International Equity Research - TIAA-CREF (2002-2006) | Senior Analyst and Partner - Artisan Partners (2006-2011) | Managing Director and Co-Head, Global Industrial Group, Investment Division - Morgan Stanley (2012-2016)

**EDP Historic** General and Supervisory Board Member since April 2018

**Current External Appointments** Partner at PJT Partners (2016) | Non-Executive Director and member of the Remuneration Committee - Enquest PLC (2018) | Member of the Audit and Finance & Operations subcommittees - Tate Board of Trustees (2015) | Chairs the Advisory Board of Georgetown

University's Center for Contemporary Arab Studies (2013) | Trustee of The American University in Cairo (2019)

<b>Full name</b>	<b>Clementina Maria Dâmaso de Jesus Silva Barroso</b>
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Financial Matters Committee/Audit Committee Member
<b>Skills and Experience</b>	Degree in Management – Advanced Institute of Labour and Business Sciences (ISCTE) (1976-1981)   Master's in Business Management - Economy and Management Superior Institute (ISEG) (1984-1985)   Doctorate in Advanced Company Management – ISCTE (2005)   Several positions - Banco Espírito Santo e Comercial Lisboa (1988-1990)   Board of Directors Member and General Director – INDEG ISCTE (1999-2003)
<b>EDP Historic</b>	General and Supervisory Board Member since April 2018
<b>Current External Appointments</b>	Invited Professor - ISCTE (1982)   Statutory auditor and external auditor (1990)   Non-Executive Director and Audit Committee Member – CTT Bank, S.A. (2015)   Non-Executive Director and Audit Committee Member - Sociedade Gestora de Fundo de Investimento FundBox, SFIM, S.A. (2011)   Board of Directors Member - Portuguese Corporate Governance Institute (2016)   Chairman of the Board of the General Meeting – Science4You, S.A. (2014)

<b>Full name</b>	<b>Luís Maria Viana Palha da Silva</b>
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	-
<b>Skills and Experience</b>	BSc Economics, Higher Institute of Economics (1978)   BSc Business Management, Portuguese Catholic University (1981)   AMP – University of Pennsylvania – Wharton School of Economics   Member of the Board of Directors - Oi, S.A. (2015-2018)   Vice Chairman of the Board of Directors da Galp Energia, SGPS, S.A.   Member of the Board of Directors of Petróleos de Portugal – Petrogal, S.A.   Member of the Board of Directors of Olá – Produção de Gelados e Outros Produtos Alimentares, S.A.   Manager of Unilever Jerónimo Martins, Lda.   Chairman of the Board of AEM – Associação dos Emitentes Portugueses   Non-Executive Member of the Board of Directors of NYSE Euronext and Member of Audit Committee of NYSE Euronext
<b>EDP Historic</b>	General and Supervisory Board Member since April 2019
<b>Current External Appointments</b>	Chairman of the Board and CEO of Pharol, SGPS, SA and Director in its affiliates   Bratel B.V. and Bratel S.à.r.l.   Chairman of the Statutory Audit Committee of Seguradoras Unidas, S.A.   Non-executive Board Member of Nutrinveste, S.A.   Chairman of the Board of the General Meeting of Gesbanha – Gestão e Contabilidade, S.A.

#### **Financial Matters Committee / Audit Committee**

The Financial Matters Committee/Audit Committee is made up of 5 independent members with the appropriate qualifications and experience, including at least one member with a degree in the area of the committee's duties and specific knowledge of auditing and accounting.

In accordance with the internal regulations of the Financial Matters Committee/Audit Committee, this Committee is assigned the following general powers:

- Financial matters and accounting practices;
- Internal procedures for internal auditing;
- Matters relating to the risk management system;
- The activity and independence of the Statutory Auditor of EDP; and
- The compliance function.

The membership, role and functioning of the Financial Matters Committee/Audit Committee are in line with the European Recommendations as well as the recommendations provided for by the Corporate Governance Code of the Portuguese Institute for Corporate Governance.

In view of these duties, the Financial Matters Committee/Audit Committee held fifteen meetings in 2018, as envisaged in its Activity Plan. The matters addressed in those meetings were: supervision of the financial reporting and business of EDP, monitoring the activity of Internal and Compliance Audit Department, monitoring the activity of the Risk Management Department of the EDP group, monitoring litigation processes in the EDP group, monitoring the activity of the Pensions Fund of the EDP Group, monitoring the contractual relationship with the Statutory Auditor, their activities and assessing the objective conditions of their independence, and monitoring reports of irregularities (whistleblowing) and the relationship with the Audit Committees of the subsidiaries.

### **Remuneration Committee**

The Remuneration Committee is made up of members of the General and Supervisory Board with the appropriate qualifications and experience, all of whom are independent from the managing body. This committee always has at least one representative present at the AGSM.

In accordance with the internal regulations of the Remuneration Committee, this Committee is assigned the following general powers:

- To define the policy and corporate objectives for setting the remuneration of the Chairman and Members of the Executive Board of Directors;
- Set the compensation of the Chairman of the Executive Board of Directors and directors;
- Monitor and assess the performance of the Chairman of the Board of Directors and directors for purposes of determining variable remuneration; and
- Monitor the dissemination of external information on remuneration and the Executive Board of Directors remuneration policy.

According to the articles of association, the Remuneration Committee of the General and Supervisory Board must submit a declaration on the remuneration policy followed for the members of the Executive Board of Directors and which it has approved.

The Remuneration Committee held two meetings during 2018, considering its duties. The following topics were discussed: (i) annual statement on the Executive Board of Directors Members remuneration Policy activity report and (ii) variable annual and multi-annual remuneration of Executive Board of Directors Members.

### **Corporate Governance and Sustainability Committee**

The Corporate Governance and Sustainability Committee is a specialised committee of the General and Supervisory Board. Its purpose is to monitor and supervise, on a permanent basis, all matters related with the following:

- Corporate governance;
- Strategic sustainability;
- Internal codes of ethics and conduct;
- Systems for assessing and resolving conflicts of interests, in particular pertaining to relations between EDP and its shareholders; and
- Internal proceedings and relationship between EDP and Subsidiary or Group companies and their employees, clients, providers and remaining stakeholders.

In the scope of its responsibilities, the Corporate Governance and Sustainability Committee supports the activity of the General and Supervisory Board in the continuous assessment of the management, as well as of the performance of the General and Supervisory Board itself. Based on the work of the Corporate Governance and Sustainability Committee, the General and Supervisory Board annually carries out the above mentioned assessments,

which conclusions are included in the annual report of the General and Supervisory Board and presented to the shareholders at the AGSM.

Another two very important activities carried out by the Corporate Governance and Sustainability Committee are the monitoring of the corporate governance practices adopted by EDP and the management of human resources and succession plans.

The functioning of the Corporate Governance and Sustainability Committee is governed by an internal regulation approved by the General and Supervisory Board.

This Committee held topics five meetings during 2018, in compliance with its specific duties. The following topics were discussed: (i) analysis of potentially relevant situations in terms of conflicts of interest, (ii) conduct and ethics, (iii) sustainability, (iv) human resources strategy including appointments and succession and (v) corporate governance.

### Strategy and Performance Committee

The work of the Strategy and Performance Committee is governed by its internal regulations approved by the General and Supervisory Board.

The mission of the Strategy and Performance Committee is to oversee the following areas on a continuous basis:

Short, medium and long-term strategies and scenarios;

- Strategic execution, business planning and respective budgets;
- Investments and divestments;
- Debt and financing;
- Strategic alliances;
- Markets trends and competitiveness;
- Regulation;
- Analysis of the Group's and its business units' performance;
- Benchmarking the Group's performance in relation to the sector's leading companies; and
- Assessment of the competitiveness of EDP's business portfolio.

In 2018, the Strategy and Performance Committee held seven meetings with the following matters being discussed: (i) the performance within the capital market, (ii) the competitiveness of EDP, (iii) the rentability of EDP Group in terms of geography and by business unit, (iv) the analysis of the performance of conventional generation, (v) the follow-up on the execution of a strategic plan and budget and (vi) the monitoring of EDP budget of EDP for 2019.

### Executive Officers

EDP has 23 executive officers in charge of various business and administrative departments which report directly to the Executive Board of Directors. Selected information for the executive officers in charge of EDP's principal business activities is set forth below:

<b>Name</b>	<b>Year of Birth</b>	<b>Year of Appointment</b>	<b>Position</b>
<b>Support to Governance Area</b>			
Rita Ferreira de Almeida	1977	2018	Company Secretary and Head of The General Secretariat
Alexandra Cabral	1970	2018	Head of Legal Department
Teresa Lobato	1988	2018	Chief of Staff of the Chairman of the Executive Board
Azucena Viñuela Hernández	1965	2006	Head of Internal Audit Department
Rita Sousa	1974	2019	Head of Compliance Department
Maria Manuela Silva	1955	2018	Ethics Ombudsman
<b>Strategic Area</b>			
Ana Quelhas	1976	2016	Head of Energy Planning Department
António Castro	1959	2016	Head of Risk Management Department
Pedro Vasconcelos	1982	2017	Head of Business Analysis Department
Maria Joana Simões	1961	2018	Head of Regulation and Markets Department

<b>Name</b>	<b>Year of Birth</b>	<b>Year of Appointment</b>	<b>Position</b>
Ricardo Ferreira	1971	2018	Head of Studies and Competition Department
António Castro	1959	2016	Head of Sustainability Department
<b>Financial Area</b>			
Paula Guerra	1973	2008	Head of Financial Management Department
João Gouveia Carvalho	1979	2015	Head of Planning and Control Department
Miguel Ribeiro Ferreira	1967	2004	Head of Consolidation, IFRS Reporting Global Coordination Department
Miguel Viana	1972	2006	Head of Investor Relations Department
<b>Resources Area</b>			
Paula Carneiro	1967	2019	Head of People Experience Unit Department
Martim Salgado	1984	2019	Head of Transformation and Talent Unit Department
José Manuel Careto	1962	2018	Head of Digital Global Unit Department
Carlos Mata	1963	2019	EDP University
<b>Marketing and Communication Area</b>			
Paulo Campos Costa	1965	2015	Head of Global Coordination of the Trademark, Marketing and Communication Department
Ana Sofia Vinhas	1972	2019	Head of Institutional Relations and Stakeholders Department
<b>Business Units</b>			
Pedro Neves Ferreira	1975	2019	Head of Energy Management Business Unit

The business address of each member of the Executive Board of Directors and each executive officer of EDP is Avenida 24 de Julho, 12, 1249 - 300 Lisbon, Portugal. The business address of each member of the General and Supervisory Board is Avenida 24 de Julho, 12, 1249 - 300 Lisbon, Portugal.

#### **Conflicts of Interest**

The members of the Executive Board of Directors, the General and Supervisory Board and the executive officers of EDP do not have any conflicts, or any potential conflicts, between their duties to EDP and their private interests or other duties.

## TAXATION

### Portugal

The following is a general summary of the Issuer's understanding of current law and practice in Portugal as in effect as of the date of this Prospectus in relation to certain current relevant aspects to Portuguese taxation of the Notes and is subject to changes in such laws, including changes that could have a retroactive effect.

The following summary is intended as a general guide only and is not exhaustive. It is not intended to be, nor should it be considered to be, legal or tax advice to any beneficial owner of the Notes. It does not take into account or discuss the tax laws of any country other than Portugal and relates only to the position of persons who are the absolute beneficial owners of the Notes. Prospective investors are advised to consult their own tax advisers as to the Portuguese or other tax consequences resulting from the purchase, ownership and disposition of Notes, including the effect of any state or local taxes, under the tax laws of Portugal and each country where they are, or are deemed to be, residents.

The reference to "interest", "other investment income" and "capital gains" in the paragraphs below means "interest", "other investment income" and "capital gains" as understood in Portuguese tax law. The statements below do not take any consideration of any different definitions of "interest", "other investment income" or "capital gains" which may prevail under any other law or which may be created by the "Terms and Conditions of the Notes" or any related documentation.

The summary below in relation to the Notes assumes that the Notes would be treated by the Portuguese tax authorities as corporate bonds ("*obrigações*") as defined under Portuguese law. If the Portuguese tax authorities do not treat the Notes as *obrigações*, no assurance can be given that the same tax regime would apply.

#### 1. General tax regime applicable on debt securities

Interest and other types of investment income obtained on the Notes by a Portuguese resident individual are subject to individual income tax. If the payment of interest or other investment income is made available to Portuguese resident individuals, withholding tax applies at a rate of 28 per cent., which is the final tax on that income unless the individual elects to aggregate it to his taxable income, subject to tax at progressive rates of up to 48 per cent. In this circumstance, an additional income tax rate will be due on the part of the taxable income exceeding €80,000 as follows: (i) 2.5 per cent. on the part of the taxable income exceeding €80,000 up to €250,000 and (ii) 5 per cent. on the remaining part (if any) of the taxable income exceeding €250,000. In this case, the tax withheld is deemed a payment on account of the final tax due.

Interest and other investment income paid or made available ("*colocado à disposição*") to accounts in the name of one or more accountholders acting on behalf of undisclosed entities are subject to a final withholding tax of 35 per cent., unless the beneficial owner of the income is disclosed, in which case the general rules will apply.

Capital gains obtained by Portuguese resident individuals on the transfer of Notes are taxed at a rate of 28 per cent., levied on the positive difference between the capital gains and capital losses realised on the transfer of securities and derivatives of each year, which is the final tax on that income, unless the individual elects to aggregate it to his taxable income, subject to tax at progressive rates of up to 48 per cent. In this circumstance, an additional income tax rate will be due on the part of the taxable income exceeding €80,000 as follows: (i) 2.5 per cent. on the part of the taxable income exceeding €80,000 up to €250,000 and (ii) 5 per cent. on the remaining part (if any) of the taxable income exceeding €250,000. In this case, the tax withheld is deemed a payment on account of the final tax due. Accrued interest qualifies as interest for tax purposes.

Interest and other investment income derived from the Notes and capital gains obtained with the transfer of Notes by legal persons resident for tax purposes in Portugal and by non-resident legal persons with a permanent establishment therein to which the income or gains are attributable to are included in their taxable income and are subject to corporate income tax at a 21 per cent. tax rate or at a 17 per cent. tax rate on the first €15,000 in the case of small or medium-sized enterprises, to which a municipal surcharge ("*derrama municipal*") of up to 1.5 per cent. of its taxable income may be added. A state surcharge ("*derrama estadual*") also applies at 3 per cent. on taxable profits in excess of €1,500,000, 5 per cent. on taxable profits in excess of €7,500,000 and up to €35,000,000 and at 9 per cent. on taxable profits in excess of €35,000,000.

Withholding tax at a rate of 25 per cent. applies on interest and other investment income, which is deemed a payment on account of the final tax due. Financial institutions subject to Portuguese corporate income tax (including branches of foreign financial institutions located in Portugal), and inter alia pension funds, retirement and/or education savings funds, share savings funds and venture capital funds constituted under the laws of Portugal are not subject to withholding tax.

Interest and other types of investment income obtained by non-resident legal persons without a Portuguese permanent establishment to which the income is attributable to are subject to withholding tax at a rate of 25 per cent., which is the final tax on that income. Interest and other types of investment income obtained by non-resident

individuals without a Portuguese permanent establishment to which the income is attributable to are subject to withholding tax at a rate of 28 per cent., which is the final tax on that income. The rate is 35 per cent. in the case of individuals or legal persons domiciled in a country, territory or region included in the “tax havens” list approved by Ministerial Order (“*Portaria*”) no. 150/2004 of 13 February (“*Lista dos países, territórios e regiões com regimes de tributação privilegiada, claramente mais favoráveis*”) as amended from time to time. Interest and other investment income paid or made available (“*colocado à disposição*”) to accounts in the name of one or more accountholders acting on behalf of undisclosed entities are subject to a final withholding tax of 35 per cent., unless the beneficial owner of the income is disclosed, in which case the general rules will apply.

Under the tax treaties entered into by Portugal which are in full force and effect as of the date of this Prospectus, the withholding tax rate may be reduced to 15, 12, 10 or 5 per cent., depending on the applicable treaty and provided that the relevant formalities (including certification of residence by the tax authorities of the beneficial owners of the interest and other investment income) are met. The reduction may apply at source or through the refund of the excess tax. The forms currently applicable for these purposes were approved by Order (“*Despacho*”) no. 4743-A/2008 (2nd series), of 8 February 2008, published in the Portuguese official gazette, second series, no. 37, of 21 February 2008 of the Portuguese Minister of Finance (as amended), available for viewing and downloading at [www.portaldasfinancas.gov.pt](http://www.portaldasfinancas.gov.pt).

Income paid to an associated company of the Issuer who is resident in the European Union is exempt from withholding tax.

For these purposes, an associated company of the Issuer is:

(i) a company which is subject to one of the taxes on profits listed in Article 3 (a) (iii) of Council Directive 2003/49/EC without being exempt, which takes one of the forms listed in the Annex to that Directive, which is deemed to be a resident in an European Union Member State and is not, within the meaning of a double taxation convention on income concluded with a third state, considered to be a resident for tax purposes outside the Community; and

(ii) which holds a minimum direct holding of 25 per cent. of the capital of the Issuer, or is directly held by the Issuer at least by 25 per cent. or which is directly held at least by 25 per cent. by a company which holds at least 25 per cent. of the capital of the Issuer; and

(iii) provided that the holding has been maintained for an uninterrupted period of at least two years; if the minimum holding period is met after the date the withholding tax becomes due, a refund may be obtained.

The associated company of the Issuer to which payments are made must be the beneficial owner of the interest, which will be the case if it receives the interest for its own account and not as an intermediary, either as a representative, a trustee or authorised signatory, for some other person.

The exemption from withholding tax may take place at source or through the refund of tax withheld.

Capital gains obtained on the transfer of Notes by non-resident individuals without a permanent establishment in Portugal to which gains are attributable to are exempt from Portuguese capital gains taxation unless the beneficial owner resides in a country, territory or region subject to a clearly more favourable tax regime included in the “low tax jurisdictions” list approved by Ministerial Order (“*Portaria*”) no. 150/2004 of 13 February (“*Lista dos países, territórios e regiões com regimes de tributação privilegiada, claramente mais favoráveis*”) as amended from time to time. If the exemption does not apply, the gains will be subject to personal income tax at a rate of 28 per cent. However, under the tax treaties entered into by Portugal, such gains are usually not subject to Portuguese tax, but the applicable rules should be confirmed on a case-by-case basis. Accrued interest does not qualify as capital gains for tax purposes.

Gains obtained on the disposal of Notes by a legal person non-resident in Portugal for tax purposes and without a permanent establishment therein to which gains are attributable to are exempt from Portuguese capital gains taxation, unless the share capital of the beneficial owner is more than 25 per cent. directly or indirectly held by Portuguese resident entities or if the beneficial owner is resident in a country, territory or region subject to a clearly more favourable tax regime included in the “low tax jurisdictions” list approved by Ministerial order (“*Portaria*”) no. 150/2004 of 13 February (“*Lista dos países, territórios e regiões com regimes de tributação privilegiada, claramente mais favoráveis*”) as amended from time to time. If the exemption does not apply, the gains will be subject to corporate income tax at a rate of 25 per cent. However, under the tax treaties entered into by Portugal, such gains are usually not subject to Portuguese tax, but the applicable rules should be confirmed on a case-by-case basis.

Stamp Duty at a rate of 10 per cent. applies to the acquisition through gift or inheritance of Notes by an individual who is domiciled in Portugal. An exemption applies to transfers in favour of the spouse, de facto spouse, descendants and parents/grandparents. The acquisition of Notes through gift or inheritance by a Portuguese resident legal person or a non-resident acting through a Portuguese permanent establishment is subject to corporate income tax at a 21 per cent. tax rate or at a 17 per cent. tax rate on the first €15,000 in the case of small or medium-sized enterprises, to which a municipal surcharge (“*derrama municipal*”) of up to 1.5 per cent. of its taxable income may be added. A state surcharge (“*derrama estadual*”) also applies at 3 per cent. on taxable profits in excess of €1,500,000 and

up to €7,500,000, 5 per cent. on taxable profits in excess of €7,500,000 and up to €35,000,000 and 9 per cent. on taxable profits in excess of €35,000,000.

No Stamp Duty applies on the acquisition through gift and inheritance of Notes by an individual who is not domiciled in Portugal. The acquisition of Notes through gift or inheritance by a non-resident legal person is subject to corporate income tax at a rate of 25 per cent. However, under the tax treaties entered into by Portugal, such gains are usually not subject to Portuguese tax, but the applicable rules should be confirmed on a case-by-case basis.

There is neither wealth nor estate tax in Portugal.

## **2. Notes integrated in a centralised control system foreseen under Decree-Law no. 193/2005, of 7 November 2005**

Pursuant to the Special Tax Regime for Debt Securities, approved by Decree-Law no. 193/2005, of 7 November 2005, as amended from time to time (**Decree-Law no. 193/2005**), investment income paid on, as well as capital gains derived from a sale or other disposition of the Notes, to non-resident territory beneficial owners will be exempt from Portuguese income tax provided the debt securities are integrated in (i) a centralised system for securities managed by an entity resident for tax purposes in Portugal (such as the CVM managed by Interbolsa), or (ii) an international clearing system operated by a managing entity established in a Member State of the EU other than Portugal or in a European Economic Area Member State provided, in this case, that such State is bound to cooperate with Portugal under an administrative cooperation arrangement in tax matters similar to the exchange of information schemes in relation to tax matters existing within the EU Member States or (iii) integrated in other centralised systems not covered above provided that, in this last case, the Portuguese Government authorises the application of the Decree-Law no. 193/2005, and the beneficiaries are:

(i) central banks or governmental agencies; or

(ii) international bodies recognised by the Portuguese State; or

(iii) entities resident in countries or jurisdictions with whom Portugal has a double tax treaty in force or a tax information exchange agreement; or

(iv) other entities without headquarters, effective management or a permanent establishment in Portuguese territory to which the relevant income is attributable to and which are not domiciled in a blacklisted jurisdiction as set out in the Ministerial Order ("*Portaria*") no. 150/2004 of 13 February ("*Lista dos países, territórios e regiões com regimes de tributação privilegiada, claramente mais favoráveis*"), as amended from time to time.

For purposes of application at source of this tax exemption regime, Decree-Law no. 193/2005 requires completion of certain procedures and the provision of certain information. Under these procedures (which are aimed at verifying the non-resident status of the Holder), the beneficial owner is required to hold the Notes through an account with one of the following entities:

(i) a direct registered entity, which is the entity with which the debt securities accounts that are integrated in the centralised system are opened;

(ii) an indirect registered entity, which, although not assuming the role of the "direct registered entities", is a client of the latter; or

(iii) an international clearing system, which is an entity that proceeds, in the international market, to clear, settle or transfer securities which are integrated in centralised systems or in their own registration systems.

The special regime approved by Decree-Law no. 193/2005 sets out the detailed rules and procedures to be followed on the proof of non-residence by the beneficial owners of the Notes to which it applies.

Under these rules, the direct registered entity is required to obtain and retain proof, in the form described below, that the beneficial owner is a non-resident entity that is entitled to the exemption. As a general rule, the proof of non-residence should be provided to, and received by, the direct registered entities prior to the relevant date for payment of any interest and, in the case of domestically cleared Notes, prior to the transfer of Notes, as the case may be.

The following is a general description of the rules and procedures on the proof required for the exemption to apply at source, as they stand as of the date of this Prospectus.

## Domestically Cleared Notes

The beneficial owner of Notes must provide proof of non-residence in Portuguese territory substantially in the terms set forth below:

(i) If a Holder of Notes is a central bank, a public law entity or agency or an international organisation recognised by the Portuguese state, a declaration of tax residence issued by the Holder, duly signed and authenticated or proof of non-residence pursuant to the terms of paragraph (iv) below;

(ii) If the Holder is a credit institution, a financial company, pension fund or an insurance company domiciled in any OECD country or in a country with which Portugal has entered into a double taxation treaty, certification shall be made by means of the following: (A) its tax identification official document; or (B) a certificate issued by the entity responsible for its supervision or registration, or by the tax authorities, confirming the legal existence of the Holder and its domicile; or (C) proof of non-residence, pursuant to the terms of paragraph (iv) below;

(iii) If the Holder is either an investment fund or other type of collective investment undertaking domiciled in any OECD country or any country or jurisdiction with which Portugal has entered into a double tax treaty or a tax information exchange agreement in force, certification shall be provided by means of any of the following documents: (A) declaration issued by the entity which is responsible for its registration or supervision or by the tax authorities, confirming its legal existence, domicile and law of incorporation; or (B) proof of non-residence pursuant to the terms of paragraph (iv) below;

(iv) In any other case, confirmation must be made by way of (A) a certificate of residence or equivalent document issued by the relevant tax authorities or, (B) a document issued by the relevant Portuguese consulate certifying residence abroad, or (C) a document specifically issued by an official entity of the public administration (either central, regional or peripheral, indirect or autonomous) of the relevant country certifying the residence; for these purposes, an identification document such as a passport or an identity card or document by means of which it is only indirectly possible to assume the relevant tax residence (such as a work or permanent residency permit) is not acceptable. There are rules on the authenticity and validity of the documents, in particular that the Holder must provide an original or a certified copy of the residence certificate or equivalent document. This document must be issued up to until 3 months after the date on which the withholding tax would have been applied and will be valid for a 3 year period starting on the date such document is issued.

In cases referred to in paragraphs (i), (ii) and (iii) above, proof of non-residence is required only once, the beneficial owner having to inform the register entity of any changes that impact the entitlement to the exemption. The Holder must inform the register entity immediately of any change that may preclude the tax exemption from applying.

No Portuguese exemption shall apply at source under the special regime approved by Decree-law no. 193/2005 if the above rules and procedures are not followed. Accordingly, the general Portuguese tax provisions shall apply as described above.

If the conditions for an exemption to apply are met, but, due to inaccurate or insufficient information, tax is withheld, a special refund procedure is available under the regime approved by Decree-law no. 193/2005. The refund claim is to be submitted to the direct register entity of the Notes within 6 months from the date the withholding took place.

The refund of withholding tax after the above 6-month period is to be claimed to the Portuguese tax authorities through an official form available at <http://www.portaldasfinancas.gov.pt> (approved by Order (“*Despacho*”) no. 2937/2014, issued by the Portuguese Secretary of State for Tax Matters) within 2 years, starting from the term of the year in which the withholding took place. The refund is to be made within 3 months, after which interest is due.

## Administrative cooperation in the field of taxation

On 10 November 2015, the Council of the European Union adopted Council Directive (EU) 2015/2060 of 10 November 2015 repealing Council Directive 2003/48/EC of 3 June 2003 (**Savings Directive**) from 1 January 2016 in the case of Portugal (subject to on-going requirements to fulfil administrative obligations such as the reporting and exchange of information relating to, and accounting for withholding taxes on, payments made before those dates) to prevent an overlap between the Savings Directive and a new automatic exchange of information regime to be implemented under Council Directive 2014/107/EU of 9 December 2014, which amended Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation and repealing Directive 77/799/EEC, of 19 December 1977, which is based on the format established by the Organisation for Economic Co-operation and Development (**OECD**) called Common Reporting Standard (**CRS**). This new global standard for automatic exchange of information on investment income is generally broader scope than the Savings Directive.

The Council Directive 2014/107/EU of 9 December 2014 regarding the mandatory automatic exchange of information in the field of taxation was transposed into the Portuguese Law through the Decree-Law no. 64/2016, of 11

October. Under such law, the Issuer will be required to collect information regarding certain accountholders and report such information to Portuguese Tax Authorities – which, in turn, will report such information to the relevant Tax Authorities of EU Member States or third States which have signed the Multilateral Competent Authority Agreement on Automatic Exchange of Financial Account Information for the Common Reporting Standard.

Under Council Directive 2014/107/EU, of 9 December 2014, financial institutions are required to report to the tax authorities of their respective Member State (for the exchange of information with the state of residence) information regarding bank accounts, including custodial accounts, held by individual persons residing in a different Member State or entities which are controlled by one or more individual persons residing in a different Member State, after having applied the due diligence rules foreseen in the Directive. The information refers to the account balance at the end of the calendar year, income paid or credited in the account and the proceeds from the sale or redemption of the financial assets paid or credited in the account during the calendar year to which the financial institution acted as custodian, broker, nominee, or otherwise as an agent for the account holder, among others. In view of the regime enacted by Decree-Law no. 64/2016, of 11 October, which has been amended through Law no. 98/2017, of 24 August, all information regarding the registration of the financial institution, the procedures to comply with the reporting obligations arising thereof and the applicable forms were approved by Ministerial Order (“*Portaria*”) no. 302-B/2016, of 2 December, Ministerial Order (“*Portaria*”) no. 302-C/2016, of 2 December, Ministerial Order (“*Portaria*”) no. 302-D/2016, of 2 December, as amended by Ministerial Order (“*Portaria*”) no. 255/2017, of 14 August, and by Ministerial Order (“*Portaria*”) no. 58/2018, of 27 February, and Ministerial Order (“*Portaria*”) no. 302-E/2016, of 2 December.

### **The Proposed Financial Transactions Tax (FTT)**

On 14 February 2013, the European Commission published a proposal (the **Commission's Proposal**) for a Directive for a common FTT in Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia (the **participating Member States**). However, Estonia has since stated that it will not participate.

The Commission's Proposal has very broad scope and could, if introduced, apply to certain dealings in Notes (including secondary market transactions) in certain circumstances. The issuance and subscription of Notes should, however, be exempt.

Under the Commission's Proposal the FTT could apply in certain circumstances to persons both within and outside of the participating Member States. Generally, it would apply to certain dealings in the Notes where at least one party is a financial institution, and at least one party is established in a participating Member State. A financial institution may be, or be deemed to be "established" in a participating Member State in a broad range of circumstances, including (a) by transacting with a person established in a participating Member State or (b) where the financial instrument which is subject to the dealings is issued in a participating Member State.

However, the FTT proposal remains subject to negotiation between participating Member States and the scope of any such tax is uncertain. It may therefore be altered prior to any implementation, the timing of which remains unclear. Additional EU Member States may decide to participate.

Prospective holders of the Notes are advised to seek their own professional advice in relation to the FTT.

### **Foreign Account Tax Compliance Act**

Pursuant to certain provisions of the U.S. Internal Revenue Code of 1986, commonly known as FATCA, a “foreign financial institution” may be required to withhold on certain payments it makes (**foreign passthru payments**) to persons that fail to meet certain certification, reporting, or related requirements. The Issuer may be a foreign financial institution for these purposes. A number of jurisdictions (including Portugal) have entered into, or have agreed in substance to, intergovernmental agreements with the United States to implement FATCA (**IGAs**), which modify the way in which FATCA applies in their jurisdictions. Under the provisions of IGAs as currently in effect, a foreign financial institution in an IGA jurisdiction would generally not be required to withhold under FATCA or an IGA from payments that it makes. Certain aspects of the application of the FATCA provisions and IGAs to instruments such as the Notes, including whether withholding would ever be required pursuant to FATCA or an IGA with respect to payments on instruments such as the Notes, are uncertain and may be subject to change.

The United States has reached a Model 1 IGA with Portugal, signed on 6 August 2015 and ratified by Portugal on 5 August 2016 and which has entered into force on 10 August 2016. Portugal has implemented, through Law 82-B/2014, of 31 December, the legal framework based on reciprocal exchange of information on financial accounts subject to disclosure in order to comply with FATCA. Through Decree-Law no. 64/2016, of 11 October amended through Law no. 98/2017, of 24 August, and Ministerial Order (“*Portaria*”) no. 302-A/2016, of 2 December, as amended by Ministerial Order (“*Portaria*”) no. 169/2017, of 25 May, the Portuguese government approved the complementary

regulation required to comply with FATCA. Under the referred legislation the Issuer is required to obtain information regarding certain accountholders and report such information to the Portuguese Tax Authorities, which, in turn, will report such information to the United States Internal Revenue Service.

Holders should consult their own tax advisors regarding how these rules may apply to their investment in the Notes. In the event any withholding would be required pursuant to FATCA or an IGA with respect to payments on the Notes, no person will be required to pay additional amounts as a result of the withholding.

## SUBSCRIPTION AND SALE

Banca IMI S.p.A., Banco Comercial Português, S.A., Banco Santander Totta, S.A., BNP Paribas, CaixaBank, S.A., Mediobanca – Banca di Credito Finanziario S.p.A., MUFG Securities (Europe) N.V., NatWest Markets Plc and UniCredit Bank AG (the **Joint Lead Managers**) and Liberbank S.A. (the **Co-Lead Manager** and, together with the Joint Lead Managers, the **Managers**) have, pursuant to a Subscription Agreement dated 16 January 2020 (the **Subscription Agreement**), agreed with the Issuer, subject to the satisfaction of certain conditions, to subscribe and pay for the Notes at 99.744 per cent. of the principal amount of the Notes less a combined management, underwriting and selling commission. The Issuer has agreed to reimburse the Managers for certain of their expenses in connection with the issue of the Notes.

The Managers are entitled to terminate the Subscription Agreement in certain circumstances prior to payment to the Issuer.

### United States

The Notes have not been and will not be registered under the Securities Act 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**).

The 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 of 1986 and regulations thereunder.

Each Manager has agreed that, except as permitted by the Subscription Agreement, it will not offer, sell or deliver the Notes (i) as part of their distribution at any time or (ii) otherwise until 40 days after the later of the commencement of the offering and the Issue Date, 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 any 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 this paragraph have the meanings given to them by Regulation S.

In addition, until 40 days after the commencement of the offering of the Notes, an offer or sale of Notes within the United States by any dealer (whether or not participating in the offering) may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with an available exemption from registration under the Securities Act.

### Prohibition of sales to EEA Retail Investors

Each Manager has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes to any retail investor in the European Economic Area. For the purposes of this provision, 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 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.

### Portugal

Each Manager has represented and agreed that the Prospectus has not been and will not be registered or filed with or approved by the Portuguese Securities Exchange Commission ("*Comissão do Mercado de Valores Mobiliários*" or the **CMVM**) nor has a prospectus recognition procedure been commenced with the Portuguese Securities Exchange Commission. The Notes may not be and will not be offered in Portugal under circumstances which are deemed to be a public offer under the Portuguese Securities Code ("*Código dos Valores Mobiliários*") enacted by Decree-Law no. 486/99 of 13 November (as amended and restated from time to time) (or under any legislation which may replace or complement it in this respect, from time to time) unless the requirements and provisions applicable to the public offering in Portugal are met and the above mentioned registration, filing, approval or recognition procedure is made. In addition, each Manager has represented and agreed that (i) it has not directly or indirectly taken any action or offered, advertised, marketed, invited to subscribe, gathered investment intentions, sold, re-sold, re-offered or delivered and will not directly or indirectly take any action, offer, advertise, invite to subscribe, gather investment intentions, sell, re-sell, re-offer or deliver any Notes in circumstances which could qualify as a public offer ("*oferta pública*") of securities pursuant to the Portuguese Securities Code (or under any legislation which may replace or complement it in this respect, from time to time), notably in circumstances which could qualify as a public offer addressed to individuals or entities resident in Portugal or having permanent establishment located in Portuguese territory, as the case may be; (ii) all offers, sales and distributions by it of the Notes have been and will only be made in Portugal in circumstances that,

pursuant to the Portuguese Securities Code or other securities legislation or regulations, qualify as a private placement of Notes only ("*oferta particular*"); (iii) it has not distributed, made available or caused to be distributed, and will not distribute, make available or cause to be distributed, the Prospectus or any other offering material relating to the Notes to the public in Portugal; and (iv) it will comply with all applicable provisions of the Portuguese Securities Code, the Prospectus Regulation, the Commission Delegated Regulation (EU) 2019/979 and the Commission Delegated Regulation (EU) 2019/980 and any applicable CMVM Regulations and all relevant Portuguese securities laws and regulations, in any such case that may be applicable to it in respect of any offer or sale of Notes by it in Portugal or to individuals or entities resident in Portugal or having permanent establishment located in Portuguese territory, as the case may be, including compliance with the rules and regulations that require the publication of a prospectus, when applicable, and that such placement shall only be authorised and performed to the extent that there is full compliance with such laws and regulations.

#### **United Kingdom**

Each Manager has represented, warranted and agreed that:

- (i) 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
- (ii) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Notes in, from or otherwise involving the United Kingdom.

#### **General**

No action has been or will be taken by the Issuer or the Managers that would permit a public offering of the Notes, or the possession or distribution of this Prospectus, or any other offering material relating to the Notes, in any country or jurisdiction where action for that purpose is required.

Each Manager has undertaken that it will not, directly or indirectly, offer or sell any Notes or distribute the Prospectus or publish any prospectus, form of application, advertisement or other document or information in any country or jurisdiction except in circumstances that will, to the best of its knowledge and belief, result in compliance with any applicable laws and regulations and the Issuer shall not have responsibility for the action of the Managers.

Other persons into whose hands this Prospectus comes are required by the Issuer and the Managers to comply with all applicable laws and regulations in each country or jurisdiction in or from which they purchase, offer, sell or deliver Notes or possess, distribute or publish this Prospectus or any related offering material, in all cases at their own expense.

The Managers and their respective affiliates currently provide, and may continue to provide, banking services, including senior lending facilities, to the Issuer on customary market terms, and for which they have been or will be paid customary fees.

## GENERAL INFORMATION

- (1) The Issuer has obtained all necessary consents, approvals and authorisations in Portugal in connection with the issue and performance of the Notes. The issue of the Notes was authorised pursuant to a resolution of the Executive Board of Directors of the Issuer on 3 December 2019.
- (2) It is expected that listing of the Notes on the Official List of Euronext Dublin and to trading on its regulated market will be granted on or about 20 January 2020. Before official listing, dealings will be permitted by the regulated market of Euronext Dublin in accordance with its rules. Transactions will normally be effected for delivery on the third working day in Dublin after the day of the transaction.
- (3) An estimate of total expenses related to admission to trading is €5,000.
- (4) Arthur Cox Listing Services Limited is acting solely in its capacity as listing agent for the Issuer in relation to the Notes and is not itself seeking admission of the Notes to the Official List of Euronext Dublin or to trading on its regulated market for the purposes of the Prospectus Regulation.
- (5) The Notes have been accepted for clearance through the clearing system operated by Interbolsa, the CVM. The CVM currently has links in place with Euroclear and Clearstream, Luxembourg through securities accounts held by Euroclear and Clearstream, Luxembourg with affiliate members of Interbolsa. The ISIN for the Notes is PTEDPLOM0017, the Common Code is 210504192 and the CVM Code is EDPL0M.  
  
The address of Euroclear Bank SA/NV is Euroclear Bank SA/NV, 1 Boulevard du Roi Albert II, B-1210 Brussels and the address of Clearstream Banking S.A. is Clearstream Banking S.A., 42 Avenue JF Kennedy, L-1855 Luxembourg. The address of Interbolsa is Avenida da Boavista, 3433, 4100-138 Porto, Portugal.
- (6) From (and including) the Issue Date to (but excluding) the First Reset Date, the yield on the Notes will be 1.750 per cent. per annum. The relevant yield is calculated at the Issue Date on the basis of the Issue Price and on the basis that no Change of Control Event occurs during such period. It is not an indication of future yield.
- (7) There has been no significant change in the financial performance or position of the EDP Group since 30 September 2019, and there has been no material adverse change in the prospects of the Issuer since 31 December 2018.
- (8) Save as described in (i) note 34 (Provisions) and note 4 (Critical accounting estimates and judgements in preparing financial statements) to the Issuer's consolidated condensed financial statements for the nine-month period ended 30 September 2019 (which are incorporated by reference in this Prospectus); and (ii) in note 35 (Provisions) and note 4 (Critical accounting estimates and judgements in preparing financial statements) to the Issuer's consolidated financial statements for the year ended 31 December 2018 (which are incorporated by reference in this Prospectus), neither the Issuer nor any other member of the EDP Group is or has been involved in any governmental, legal or arbitration proceedings (including any proceedings which are pending or threatened of which the Issuer is aware) in the 12 months preceding the date of this Prospectus which may have or have had a significant effect on the financial position and profitability of the Issuer or the EDP Group.
- (9) Since 1 January 2018, the auditors of the Issuer are PricewaterhouseCoopers & Associados - Sociedade de Revisores Oficiais de Contas, Lda., independent certified public accountants, who have audited the consolidated financial statements of the EDP Group as of and for the year ended on 31 December 2018 prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union. With respect to the unaudited condensed interim financial information of the Issuer for the nine month period ended 30 September 2019, incorporated by reference in this Prospectus, PricewaterhouseCoopers & Associados - Sociedade de Revisores Oficiais de Contas, Lda. have reported that they have applied limited procedures in accordance with professional standards for a review of such information. However, their report incorporated by reference in this Prospectus states that they did not audit and they do not express an opinion on that interim financial information. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied. PricewaterhouseCoopers & Associados - Sociedade de Revisores Oficiais de Contas, Lda. is a member of the Portuguese Institute of Statutory Auditors ("*Ordem dos Revisores Oficiais de Contas*").
- (10) Until the financial year ended 31 December 2017, KPMG & Associados, SROC, SA, independent certified public accountants, were the auditors of the Issuer and audited the consolidated financial statements of the EDP Group as of and for the year ended on 31 December 2017, without qualification, prepared in accordance with IFRS as adopted by the European Union. KPMG & Associados, SROC, S.A. is a member of the Portuguese Institute of Statutory Auditors ("*Ordem dos Revisores Oficiais de Contas*").
- (11) The auditors of the Issuer have no material interest in the Issuer.
- (12) Copies of this Prospectus, the Interbolsa Instrument and the Paying Agency Agreement will be available for inspection from <https://www.edp.com/en/green-funding>. Copies of the latest annual report and consolidated

accounts of the Issuer, the latest interim consolidated accounts of the Issuer and the documents referred to in “Documents Incorporated by Reference” will be available for inspection from <https://www.edp.com/en/results-reports#reports-and-accounts>. Copies of the Articles of Association (with an English translation thereof) of the Issuer will be available for inspection from <https://www.edp.com/en/principles-govern-us#by-laws---regulations>. In addition, this Prospectus will be available, in electronic format, on the website of Euronext Dublin ([www.ise.ie](http://www.ise.ie)).

- (13) Certain Managers and their respective affiliates have engaged, and may in the future engage, in investment banking and/or commercial banking transactions with, and may perform services to, the Issuer and its affiliates in the ordinary course of business. They have received, or may in the future receive, customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the Managers and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of the Issuer or its affiliates. Certain Managers or their affiliates that have a lending relationship with the Issuer or its affiliates routinely hedge their credit exposure to the Issuer or its affiliates in a way consistent with their customary risk management policies. Typically, such Managers and their respective affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in the Issuer’s or its affiliates’ securities, including potentially the Notes offered hereby. Any such short positions could adversely affect future trading prices of the Notes offered hereby. The Managers and their 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.

- (14) The language of this Prospectus is English. Certain legislative references and technical terms have been cited in their original language in order that the correct technical meaning may be ascribed to them under applicable law.
- (15) This Prospectus will be valid until 20 January 2020. The obligation to supplement this Prospectus in the event of significant new factors, material mistakes or material inaccuracies will not apply when the Prospectus is no longer valid.
- (16) The Issuer’s website is <https://www.edp.com>. Unless specifically incorporated by reference into this Prospectus, information contained on the website does not form part of this Prospectus. Any websites referred to in this Prospectus have not been scrutinised by the Central Bank.
- (17) The Legal Entity Identifier code of the Issuer is 529900CLC3WDMGI9VH80.
- (18) The ratings of the Notes are set out pages 9 to 10 of this Prospectus. The applicable ratings of each of the relevant credit rating agencies have the following meanings:

- (i) Moody’s – Ba2

Obligations rated Ba are judged to be speculative and are subject to substantial credit risk. The modifier 2 indicates a mid-range ranking.

- (ii) Standard & Poor’s – BB

An obligation rated 'BB' is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments on the obligation.

- (iii) Fitch – BB

‘BB’ ratings indicate an elevated vulnerability to credit risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial alternatives may be available to allow financial commitments to be met.

The information at paragraphs (i), (ii) and (iii) above has been extracted from the websites of Moody’s (in the case of paragraph (i)), Standard & Poor’s (in the case of paragraph (ii)) and Fitch (in the case of paragraph (iii)). The Issuer confirms that such information has been accurately reproduced and that, so far as they are aware and are able to ascertain from information published by Moody’s, Standard & Poor’s and Fitch respectively, no facts have been omitted which would render the reproduced information inaccurate or misleading.

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