

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

(incorporated with limited liability in the Portuguese Republic)

### €1,000,000,000 Fixed to Reset Rate Subordinated Notes due 2079

Issue Price: 100.00 per cent.

The €1,000,000,000 Fixed to Reset Rate Subordinated Notes due 2079 (the **Notes**) are issued by EDP - Energias de Portugal, S.A. (the **Issuer**). The Notes will bear interest, payable in arrear on 30 April in each year. The first interest payment (for the period from and including the Issue Date to but excluding 30 April 2019 and amounting to €1,108.60 per €100,000 in principal amount of Notes) shall be made on 30 April 2019. The Notes bear interest on their Principal Amount at (a) from and including the Issue Date to but excluding the First Reset Date, 4.496 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 30 April 2079 (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) 30 January 2024 (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 France SAS (Standard & Poor's) and BB by Fitch Ratings Limited (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. 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.

The Prospectus has been approved by the Central Bank of Ireland (the **Central Bank**), as competent authority under Directive 2003/71/EC, as amended or superseded (the **Prospectus Directive**). The Central Bank only approves this Prospectus as meeting the requirements imposed under Irish and EU law pursuant to the Prospectus Directive. 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 **Main Securities Market**). Euronext Dublin's Main Securities Market 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 depositary 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).

			Deutsch (Structuri	-			
Banco Santander Totta, S.A.	Barclays	Crédit Agricole CIB	Deutsche Bank	HSBC	MUFG	NatWest Markets	UniCredit Bank
,			(Joint Lead	Managers)			

This Prospectus comprises a prospectus for the purpose of the Prospectus Directive and for the purpose of giving information with regard to the Issuer and the Issuer and its subsidiaries taken as a whole (the **EDP Group**) which, according to the particular nature of the Issuer and the Notes, is necessary to enable investors to make an informed assessment of the assets and liabilities, financial position, profits and losses and prospects of the Issuer.

The Issuer accepts responsibility for the information contained in this Prospectus. To the best of the knowledge of the Issuer (having taken all reasonable care to ensure that such is the case) 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.

Application has been made to Euronext Dublin for the Notes to be admitted to the Official List and to trading on the Main Securities Market. References in this Prospectus to Notes being "listed" (and all related references) shall mean that Notes have been admitted to trading on the Main Securities Market 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 Joint Lead 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 Joint Lead 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 Joint Lead 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 Joint Lead 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 Joint Lead 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 Joint Lead 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 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 Joint Lead 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 Joint Lead 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 Joint Lead 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 2002/92/EC, as amended, 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") are 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, (i) ICE Benchmark Administration Limited appears 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) and (ii) the European Money Markets Institute does not appear on such register. As far as the Issuer is aware, the transitional provisions in Article 51 of the Benchmark Regulation apply, such that the European Money Markets Institute is not currently required to obtain authorisation or registration.

#### **STABILISATION**

IN CONNECTION WITH THE ISSUE OF THE NOTES, DEUTSCHE BANK AG, LONDON BRANCH (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.

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

 Issue size
 €1,000,000,000

 Issue Date
 30 January 2019

Maturity 30 April 2079 (unless redeemed earlier by the Issuer in accordance with the

Conditions)

**Subordination** The Notes will 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.

**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.

Subject to any interest deferral (as described below), interest payments in respect of the Notes will be payable in arrear on 30 April of each year. The first payment (for the period from and including the Issue Date to but excluding 30 April 2019 and amounting to €1,108.60 per €100,000 in Principal Amount of Notes) shall be made on 30 April 2019.

The Notes bear interest on their Principal Amount at:

- (a) from and including the Issue Date to but excluding 30 April 2024 (the **First Reset Date**), 4.496 per cent. per annum;
- (b) from and including the First Reset Date to but excluding 30 April 2029 (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.

**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, 30 April 2044; and (B) otherwise 30 April 2039.

Interest Payment Dates

Interest

#### 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 openmarket tender offer or exchange offer at a consideration per Note or Parity Security below its respective par value.

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.

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

## **Benchmark Event**

### Redemption

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.

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 if, among other circumstances as fully described in the section "*Replacement Intention*" in this Prospectus, on the date of such redemption or repurchase:

- i. the rating assigned by Standard & Poor's to the Issuer is at least "BBB-" (or such similar nomenclature then used by Standard & Poor's) and the Issuer is of the view that such rating would not fall below such level as a result of any such redemption or repurchase of the Notes; or
- ii. the Issuer no longer has a corporate issuer credit rating by Standard & Poor's; or
- iii. less than (x) 10 per cent. of the aggregate principal amount of the Notes originally issued have been repurchased in any period of 12 consecutive months or (y) 25 per cent. of the aggregate principal amount of the Notes originally issued have been repurchased in any period of 10 consecutive years; or
- iv. 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. 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.

**Purchases** 

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 the Main Securities 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 S.A./N.V. and Clearstream Banking SA through securities accounts held by Euroclear Bank S.A./N.V. and Clearstream Banking SA 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.

Use of Proceeds:

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 "Use of Proceeds".

**Selling Restrictions:** 

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

"Subscription and Sale".

**Risk Factors:** Prospective investors should carefully consider the information set out in the section

entitled "Risk Factors" in conjunction with the other information contained or

incorporated by reference in this Prospectus.

ISIN: PTEDPKOM0034

**Common Code:** 194361556

CVM Code: EDPKOM

#### **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.

Most of these factors are contingencies that may or may not occur, and the Issuer is not in a position to express a view on the likelihood of any such contingency occurring. The risk factors described below are not exhaustive, and are those that the Issuer believes are material, but these may not be the only risks and uncertainties that the Issuer faces. 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.

Prospective investors should read the detailed information set out elsewhere in this Prospectus (including the documents incorporated by reference herein) and reach their own views prior to making an investment decision.

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

The occurrence of any of these risks could have a material adverse effect on the Issuer's business, financial condition, prospects and/or results of operations.

#### **RISKS RELATED TO EDP'S BUSINESS**

## Strategic risks

## 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 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.

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 continuity of business activities.

# 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 for generating 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 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 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 faces competition in the transmission and distribution networks business segments. This might negatively affect activity and growth in this particular business segment and, in turn, the future 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 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 farms selling power into locally priced markets, such as certain U.S. markets.

#### 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 to focus in its core business or certain 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 as a result of any of the following circumstances or other factors:

- (i) EDP may incur substantial costs, delays or other operational or financial problems in integrating or splitting acquired businesses;
- (ii) EDP may not be able to identify, acquire or profitably manage additional businesses;
- (iii) acquisitions or divestments may adversely affect EDP's operating results;
- (iv) acquisitions or divestments may divert management's attention from the operation of EDP's existing businesses;
- (v) EDP may not be able to retain key personnel of acquired or divested businesses;
- (vi) EDP may encounter unanticipated events, circumstances or legal liabilities;
- (vii) EDP may have difficulties in obtaining the required financing or the required financing may only be available on unfavourable terms; and
- (viii) EDP may be subject to counterparty risk with respect to the payment of the price of the divested businesses.

## **Business risks**

# 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 an adverse imbalance between supply and demand in the electricity and natural gas in the countries and markets in which EDP operates or in other related energy markets, the performance of international and/or regional energy prices such as oil, natural gas, coal, CO2 allowances and green certificates, below average rainfall or wind speed levels, higher cost of power plant construction or 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. 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 of the lberian Peninsula, 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 CO2 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 of EDP's wind farms depend, at least in part, on market prices for electricity. In certain countries, such as the United States, EDP sells its wind 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, such as green certificates, and market pricing are used, 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, large fluctuations in electricity demand and modifications 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 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. The strategy adopted by EDP for fossil fuels procurement is essentially based on establishing long-term purchase agreements, with short-term consultation processes being launched to cover any additional needs that may arise. Although EDP has in place such long-term purchase agreements for fossil fuels 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 or water to operate the plant 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.

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. 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". 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 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 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.

### 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. 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.

## 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. For example, EDP is exposed to 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. In addition, decreases in hydro inflows and/or wind load factors would have a significant impact on EDP's hydro and wind generation revenues. EDP may not be able to predict, mitigate or plan for the long term physical changes associated with such climate change which may in turn impact EDP's assets, business 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 offers from suppliers and added additional volatility in terms of market shares and unit price margins. Moreover, there is 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.

# 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, Canada, Mexico, France, Belgium, Italy, Poland, Romania, Greece and the United Kingdom. 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 such change 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 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 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 jurisdiction in which it operates will be maintained.

Certain 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.

EDP's business is also affected by other general laws and regulations in the various jurisdictions in which it operates, including those regarding 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, there are certain laws and regulations which, as of the date of this Prospectus, do not apply to EDP's activities since the conditions that are essential for such application are not currently satisfied. However, said conditions may, in the future, become satisfied and thus trigger the application of such laws and regulations.

### 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 CO2 risk management practices and according to existing legislation and regulations regarding these emissions. There can be no assurance, however, that EDP will manage its CO2 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.

Apart from CO2, 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.

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 their operational performance or EDP's profitability.

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 assurances 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. EDP's operational performance and profitability may also be adversely affected by changes in health and safety regulations in the future.

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 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 and Spain, 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, while those remaining amounts are still to be received. 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.

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

Being the issuer of shares listed on a stock exchange, EDP'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 EDP.

On 11 May 2018, China Three Gorges (Europe) S.A. (**CTG**) released a preliminary announcement for the launch of a general and voluntary tender offer for the acquisition of shares representing the share capital of the Issuer (the **EDP Tender Offer** or **Offer**) and a preliminary announcement for the launch of a general and mandatory tender offer for the acquisition of shares representing the share capital of EDP Renováveis. These announcements were amended in accordance with the terms of the addenda published on 16 May 2018.

On 1 June 2018, the Issuer received a draft prospectus from CTG setting out the terms and conditions of the EDP Tender Offer (the **Draft Prospectus**). Following an analysis of the Draft Prospectus, on 9 June 2018, the Issuer published the report (the **EBD Report**) of the Executive Board of Directors of the Issuer. In the EBD Report, the Executive Board of Directors noted that its view was that the price offered does not adequately reflect the value of EDP and that the implied offer premium is low considering what is customary for European utility companies where the offerors have acquired control. Therefore, the Executive Board of Directors cannot recommend that the Issuer's shareholders tender their shares at the cash consideration of €3.26 per share.

In the event of a successful tender offer or other event resulting in one or more entities obtaining control over the voting rights of EDP, EDP may be subject to a change of control.

In addition, upon completion of a 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.

EDP cannot foresee at this stage if a change of control will indeed occur and, if it does occur, if any consequences of any such change of control will adversely impact the interests of holders of the Notes. For further information in respect of the EDP Tender Offer by CTG, see "EDP and the EDP Group — Overview — Shareholdings".

#### **Financial risks**

## EDP's involvement in international activities subjects it to particular risks, namely foreign currency risks.

Investments in Brazil, the United States and other countries outside the Eurozone present a different or greater 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. EDP can give no assurance that it will successfully manage its investments in Brazil, the United States and countries outside of the Eurozone.

EDP is subject to the risk associated with fluctuations in the cost of the purchase and sale of electricity and fuel 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 procedures 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 and money markets and long-term bank and capital markets as sources of finance. Global financial markets have experienced extreme volatility and disruption and ongoing adverse financial market conditions could increase EDP's cost of financing in the future, particularly as a result of its debt refinancing requirements. An increase in short- 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.

### 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 downgrading 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. In addition, 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 the EDP's risk policies. However, should the creditworthiness of the financial institutions on which EDP relies for its funding significantly change, 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 as well as a medical plan and death subsidy (the **Pension Plan**). The liabilities and corresponding annual costs of this defined benefit Pension Plan 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 Plan assets and the discount rate used to assess the present value of future payments. Pension liabilities can place significant pressure on cash flows, in particular, if any of EDP's pension funds become underfunded according to local regulations, EDP or its relevant subsidiary may be required to make additional contributions to the fund. The Pension Plan in Portugal is currently governed by the collective labour agreement entered into in July 2014 (**ACT 2014**).

### **Operational risks**

# 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 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.

# EDP's revenues are heavily dependent on the effective performance of the equipment it uses in the operation of its power plants and electricity 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 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 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 that such suppliers will be able or willing to fulfil such warranties and guaranties, which in some cases may result in costly and time-consuming litigation or other proceedings.

# 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, earthquakes, 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 and 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 Hidroelectrica 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 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.

### 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 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 "EDP and the EDP Group - Regulatory Framework—European Energy Policy—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 complaint received, 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.

Regarding the DPH, the EC formally ceased its investigation into this matter in May 2017 and concluded that the compensation paid by EDP in connection with such extension concessions was compatible with market conditions. The EC further concluded that the financial methodology used to assess the price of the extension concessions was appropriate and resulted in a fair market price. The decision has in the meantime become final. The public version of this decision is available on the EC's website.

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 this date, 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.

# FACTORS WHICH ARE MATERIAL FOR THE PURPOSE OF ASSESSING THE SUITABILITY OF THE NOTES AS AN INVESTMENT

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.

### 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 30 April 2079 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 30 April 2079 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 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 4.496 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.

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.

# 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 Joint Lead 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 Joint Lead 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 any such Notes are listed or admitted to trading on any dedicated "green", "environmental", "sustainable" or other equivalently-labelled segment of any stock exchange or securities market (whether or not regulated), no representation or assurance is given by the Issuer, the Joint Lead 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 Joint Lead Managers or any other person that any such listing or admission to trading will be obtained in respect of any such Notes or, if obtained, that any such listing or admission to trading will be maintained during the life of the Notes.

While it is the intention of the Issuer to apply the proceeds of 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.

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.

# 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 Joint Lead 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.

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

# The 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.

### 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.

#### 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.

### 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.

#### **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 2018 and the auditor's limited review report thereon which appear on pages 33-122 and pages 139-142 of, and in the Annexes to, the Issuer's third quarter 2018 report, available at https://www.edp.com/sites/default/files/infografia-cpi/rc\_9m18\_en\_20112018\_cmvm.pdf;
- (ii) the unaudited consolidated condensed financial statements of the Issuer for the six-month period ended 30 June 2018 and the auditor's limited review report thereon which appear on pages 65-152 and the Issuer's first half in the Annexes to 2018 report, available https://www.edp.com/sites/default/files/portal.com/documents/rc 1h18 en vcmvm.pdf;
- (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/portal.com/annual\_report\_edp\_2017\_with\_minutes\_.pdf; and
- (iv) the audited consolidated annual financial statements of the Issuer for the financial year ended 31 December 2016 and auditors' report thereon which appear on pages 265-423 and 439-455, respectively, of the Issuer's annual report for the year ended 31 December 2016, available at https://www.edp.com/sites/default/files/portal.com/documents/Annual%20Report%202016.pdf; and
- (v) Section 2.6 "Conditions to the launch of the Offer", Section 2.7 "Conditions to effectiveness of the Offer", Section 3.3.1 "Considerations on the intentions of the Offeror regarding EDP", Section 3.3.3 "Key Regulatory Considerations" and Section 3.3.4 "Repercussions on interests of employees, clients, creditors and other stakeholders of EDP", namely subsection, "Interests of the clients, suppliers, creditors and other stakeholders of EDP" of the EBD Report, available at https://www.edp.com/sites/default/files/08-jun-2018 bod report edp final en.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 €1,000,000,000 Fixed to Reset Rate Subordinated Notes due 2079 (the Notes) of EDP – Energias de Portugal, S.A. (the Issuer) was authorised by a resolution of the Executive Board of Directors on 8 January 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 30 January 2019 relating to the Notes and made by the Issuer in favour of the Holders and a paying agency agreement (the Paying Agency Agreement) dated 30 January 2019 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.

### 1.2 Title

Title to the Notes held through Interbolsa will be evidenced by book entries in accordance with the provisions of the Portuguese Securities Code and the applicable CMVM regulations. Each person shown in the book-entry records of a financial institution, which is licensed to act as a financial intermediary and which is entitled to hold control accounts (each such institution an **Interbolsa Participant**), as having an interest in the Notes shall be the holder of the relevant Principal Amount of the Notes.

Title to the Notes held through Interbolsa 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 Interbolsa Participant on behalf of the Holders. The control account of a given Interbolsa Participant will reflect at all times the aggregate Principal Amount of Notes held in the individual securities' accounts of the Holders with that Interbolsa Participant.

## 1.3 Holder absolute owner

The person or entity recorded in the book-entry registry of the Interbolsa Participants (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 Interbolsa Participant 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 Interbolsa Participants 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 30 April of each year (each of such dates, an **Interest Payment Date**). The first payment (for the period from and including the Issue Date to but excluding 30 April 2019 and amounting to €1,108.60 per €100,000 in Principal Amount of Notes) shall be made on 30 April 2019.

#### Rate of Interest means:

- (a) from and including the Issue Date to but excluding 30 April 2024 (the **First Reset Date**), 4.496 per cent. per annum;
- (b) from and including the First Reset Date to but excluding 30 April 2029 (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, 30 April 2044; and (B) otherwise 30 April 2039. 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 30 April 2039 or 30 April 2044, 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 30 April in each year (30 April 2018 being the relevant beginning date for the first interest period from and including the Issue Date to but excluding 30 April 2019) and ending on and excluding 30 April 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 1.875 per cent Notes due 13 October 2025 (ISIN XS1893621026), issued on 12 October 2018 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 30 October 2023, 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 30 October 2023) 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

- 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) 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 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 30 April 2079 (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) 30 January 2024 (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, the Notes will no longer be eligible 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 Interbolsa Participants whose control accounts with Interbolsa are credited with such Notes and (ii) thereafter, credited by such Interbolsa Participants 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

- 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, teritórios 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 corporation 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 The 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 The 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 Mobilíarios") 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.

Interbolsa Participant has the meaning specified in Condition 1.2.

**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 30 January 2019.

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 4.287 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 France SAS (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 if on the date of such redemption or repurchase:

- i. the rating assigned by Standard & Poor's to the Issuer is at least "BBB-" (or such similar nomenclature then used by Standard & Poor's) and the Issuer is of the view that such rating would not fall below such level as a result of any such redemption or repurchase of the Notes; or
- ii. the Issuer no longer has a corporate issuer credit rating by Standard & Poor's; or
- iii. less than (x) 10 per cent. of the aggregate principal amount of the Notes originally issued have been repurchased in any period of 12 consecutive months or (y) 25 per cent. of the aggregate principal amount of the Notes originally issued have been repurchased in any period of 10 consecutive years; or
- iv. 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. 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 will be used 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**

## **OVERVIEW**

History

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, 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, and Decree-Law no. 78-A/97, of 7 April.

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.

## Shareholdings

As a result of the privatisation of EDP's share capital, which has already involved eight phases – the first of which took place in 1997 and the most recent of which was 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 at 28 December 2018 are: CTG, owning 23.27 per cent.; Oppidum Capital S.L., owning 7.19 per cent.; BlackRock, Inc., owning 5.00 per cent.; China Ningbo International Cooperation Co., Ltd (CNIC), owning 4.98 per cent.; Mubadala Investment Company, owning 4.06 per cent.; Fundação Millennium BCP and BCP Group Pension Fund, owning 2.43 per cent.; Sonatrach, owning 2.38 per cent.; Paul Elliott Singer, owning 2.29 per cent.; Qatar Investment Authority, owning 2.27 per cent; Norges Bank, owning 2.14 per cent.; and State Street Corporation, owning 2.00 per cent. As of 28 December 2018, 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.

On 11 May 2018, CTG released a preliminary announcement for the launch of a general and voluntary tender offer for the acquisition of shares representing the share capital of EDP (the **EDP Tender Offer** or **Offer**) and a preliminary announcement for the launch of a general and mandatory tender offer for the acquisition of shares representing the share capital of EDP Renováveis, S.A. (subsequently amended on 16 May 2018).

On 1 June 2018, EDP received a draft prospectus from CTG setting out the terms and conditions of the EDP Tender Offer (the **Draft Prospectus**). CTG offered a cash consideration of €3.26 per share (to be reduced by any future gross amount that is attributed to each share, whether as dividend, advance for account of profit or distribution of reserves).

Following an analysis of the Draft Prospectus, on 9 June 2018 EDP published the EBD Report under the terms of number 1 of article 181 of the Portuguese Securities Code. In the EBD Report, the Executive Board of Directors noted that its view was that the price offered does not adequately reflect the value of EDP and that the implied offer premium is low considering what is customary for European utility companies where the offerors have acquired control. Therefore, the Executive Board of Directors has stated it cannot recommend that EDP's shareholders tender their shares in the EDP Tender Offer at the proposed cash consideration of €3.26 per share.

The Executive Board of Directors further noted that there are merits in the strategic intentions of CTG. Given the uncertainties regarding the implementation of the plan and the potential impact on EDP, the Executive Board of Directors stated that it would seek additional information from CTG in order to be in a position to form a more considered view regarding the value of the project.

In the EBD Report, the Executive Board of Directors noted that CTG had expressed an intention to increase its strategic commitment to EDP and to ensure that EDP remains a relevant player in the utilities sector. CTG's plan for EDP consists of five main pillars that include intentions regarding identity, efficiency and growth, financial profile, asset contributions and optionality in Chinese wind offshore. In the EBD Report, the Executive Board of Directors noted the merit of CTG's intention to:

 preserve EDP's Portuguese identity and autonomous decision-making based on the highest, international corporate governance standards, while maintaining the Group's presence in the geographies in which it is currently present and is a reference player, and retaining EDP's listed status with significant liquidity and free float;

- focus on assets with a stable cash flow profile, with a view to maintaining a low-risk and diversified business profile, and position EDP to lead the operations and growth of China Three Gorges Group in Europe, the Americas and the group of Portuguese-speaking African countries, as well as selected Asian markets;
- reinforce EDP's financial profile by committing to maintain the leverage reduction trend at EDP level and
  ensure at least an investment grade rating, while aiming to retain flexibility to pursue growth and
  maintain a stable dividend pay-out policy with dividend pay-out not below what has been disclosed by
  EDP;
- potentially contribute long-term contracted existing assets of China Three Gorges Group in geographies where there is market overlap with EDP, pursuant to a framework agreement with EDP. These include controlled hydro assets in Brazil (capacity of 8GW), jointly held stakes with EDP in three hydro assets in Brazil (gross capacity of 1.3GW), minority stakes of 49% in eleven wind farms in Brazil controlled by EDP (gross capacity of 0.3GW), a majority shareholding of 80% in a wind offshore project in Germany (gross capacity of 0.3GW) and a 49% shareholding in EDPR Portugal (gross capacity of 0.6GW); and
- create growth optionality by facilitating the entrance into China's offshore wind market, where CTG intends to play an active role. This asset class is consistent with the current strategic focus of EDP and could provide for a new additional development platform.

The Executive Board of Directors noted that the merits of the above described intentions depend on their implementation model, which is not clear at this stage. More specifically, at this stage, the visibility on the options, the actionability of the intentions and the potential impact in the risk-return profile of EDP are still limited. Hence, the Executive Board of Directors requires more information in order to form a considered view.

The EBD Report also noted that, in particular, regarding the asset contribution intentions, the limited level of detail of the CTG's proposal, namely their implementation mechanism, capital structure and timeframe, raises a number of questions which cannot be appropriately addressed by the Executive Board of Directors based on the information currently available. However, the Executive Board of Directors noted that it is positive that some general principles for these transactions were outlined, including complying with the investment criteria applicable to similar type of investments currently pursued by EDP, ensuring the transactions are assessed at arms-length and based on standard practices for this type of transactions and approved by the competent corporate bodies of EDP.

The Executive Board of Directors made a note that that the contribution of sizeable Brazilian assets contemplated by CTG would lead to a significant increase in the relative contribution from Latin America to EDP's overall portfolio and therefore would materially alter its business risk and return profile.

The Executive Board of Directors stated that it welcomes CTG's intentions to regulate the potential asset contribution through a framework agreement, and would expect CTG to provide similar safeguards in relation to its other intentions, namely identity, corporate governance, financial strategy and dividend policy, and entry into new markets such as the Chinese wind offshore market.

The Executive Board of Directors also stated that there are additional items related to the Offer that should be clarified ahead of shareholders' decision milestones, namely the Offer effectiveness condition to obtain 50% plus 1 of the voting rights of EDP, corporate governance, the assumption regarding the obligation to launch a mandatory tender offer for shares of EDP Brasil (as defined below) in case of control acquisition, and other of CTG's assumptions that relate to the Offer.

In terms of regulatory considerations, the Executive Board of Directors stated in its report that there are numerous regulatory conditions and authorisations which are required to be satisfied in order for the Offer to proceed. The time to obtain these authorisations, in addition to their uncertainty, could be significant and may affect the value realised as the Offer does not include any element to compensate for continuous incorporation of the expected dividend in EDP's share price.

The Executive Board of Directors noted that the regulatory authorisation process may result in the Offer being subject to remedies and/or mitigation measures in different markets and segments. This may be most relevant in the United States business, where remedies and/or mitigation measures may be imposed by CFIUS/FERC. Given the significance of the US renewables platform to EDP Renováveis, S.A. (EDP Renováveis) and to EDP in enabling the exposure to a leading global market and a source of long-term profitability, low-risk and sustainable growth, such an outcome could materially impact EDP's strategy and growth prospects. However, the Executive Board of Directors noted CTG's intention to seek EDP's management involvement and opinion regarding any specific conditions or arrangements that may be required.

In terms of creditors, the EBD Report noted that "CTG is committed to reducing leverage at EDP and ensuring that it maintains at least an investment grade rating in line with its present one" and that "the financial strategy to be

adopted after the Offer will be aligned with the policy followed by EDP in the past years, by seeking financial cost reduction, maintaining an adequate working capital level and ensuring the compliance with all legal requirements". Finally, the Executive Board of Directors noted, with respect to its future dividend policy, that CTG has stated in the Draft Prospectus that "such policy will be implemented taking into account and ensuring compliance with existing financial agreements".

Therefore, the Executive Board of Directors stated in its report that it does not anticipate that the Offer will have a material impact on creditors. This view is based on the CTG commitment to reduce leverage and maintain at least an investment grade rating in line with EDP's present one.

The EBD Report states that if CTG attains control following the Offer, there are a number of contracts related to financing, Power Purchase Agreements and equity partnerships with change of control clauses that should be taken into consideration. It has also stated that, moreover, there are other impacts that should be taken into consideration if mitigation measures or remedies are required.

For more information, see Section 2.6 Conditions to the launch of the Offer, Section 2.7 Conditions to effectiveness of the Offer, Section 3.3.1 Considerations on the intentions of the Offeror regarding EDP, Section 3.3.3 Key Regulatory Considerations and Section 3.3.4 Repercussions on interests of employees, clients, creditors and other stakeholders of EDP, namely subsection, Interests of the clients, suppliers, creditors and other stakeholders of EDP of the EBD Report, which is incorporated by reference in this Prospectus.

#### General activity

EDP is a vertically integrated utility company that has electricity, gas and renewable energy operations primarily in Portugal, Spain, Brazil, the United States, Canada, Mexico, Poland, Romania, Italy, the United Kingdom, Belgium, France and Greece. Based on its own assessment of information published by and relating to other companies in the relevant sectors, EDP believes it is the largest generator, distributor and supplier of electricity in Portugal in terms of gigawatt hours (**GWh**) of electricity generated, distributed and supplied, respectively, and the third largest electricity generation company in the Iberian Peninsula in terms of installed capacity. EDP believes it is one of the largest onshore wind power operators worldwide in terms of electricity generation (**GWh**). EDP maintains significant electricity and gas operations in Spain. In Brazil, EDP believes it is one of the largest private generators, distributors and suppliers of electricity in terms of GWh of electricity generated, distributed and supplied in the liberalised market, respectively, and recently entered the transmission segment as further discussed herein. EDP also generates solar photovoltaic energy in Portugal, Romania and the United States.

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, and EDP has made this market the primary focus of its 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 electrical 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-Hidroelétrica 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) and 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 has leveraged its strong Iberian renewable energy platform and, following the acquisition of EDP Renewables North America, LLC in 2007, EDP believes it has become one of the largest onshore wind power operators worldwide in terms of electricity generation, based on its own assessment of wind generation figures published by the top wind operators according to energy market data providers. EDP's renewable power assets are held through its subsidiary EDP Renováveis, of which it currently holds an 82.6 per cent. stake, with the remaining 17.4 per cent. traded on "Eurolist by NYSE Euronext Lisbon". In the third quarter of 2017, a general and voluntary public tender offer for the acquisition of shares of EDP Renováveis was concluded, through which EDP acquired an additional 5.1 per cent. stake in EDP Renováveis, which represented a total investment of €296.4 million and an increase of EDP's interest in the company from 77.5 per cent. to 82.6 per cent. EDP Renováveis has built significant growth platforms in the European, Brazilian and North American markets for the development and operation of power plants that generate electricity using renewable resources (mainly wind but also solar) and is continuously monitoring opportunities to expand its activities globally.

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 Eléctricas 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 Comercializadora de Energia, S.A. (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 was awarded the concession to operate a transmission grid in Brazil, and in 2017, it was further awarded four electricity transmission concessions. The transmission business is controlled by EDP Transmissão. Additionally, EDP Brasil holds a 19.6 per cent. stake in Centrais Elétricas de Santa Catarina S.A. – CELESC (CELESC), a publicly held electricity utility company in Brazil.

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

The Group's revenues from energy sales and services and other for the six months ended 30 June 2018 and 2017 amounted to €7,559.0 million and €7,875.4 million, respectively. The Group's revenues from energy sales and services and other for the years ended 31 December 2017 and 2016 amounted to €15,746.0 million and €14,595.2 million, respectively. As at 30 June 2018, the EDP Group employed 11,566 people and had total assets of €40,898.2 million and total equity of €12,840.3 million.

## STRATEGY OF EDP

EDP's business strategy is based on a balance between focused growth and financial deleverage and aims to address key challenges such as: (i) continuing growth; (ii) deleveraging; (iii) preserving a low risk business profile; (iv) improving efficiency; and (v) delivering attractive returns.

#### Growth

EDP intends to increase installed capacity by 20 per cent. between 2015 and 2020, mainly driven by the hydro projects in Portugal and Brazil, as well as wind and solar projects in the United States and Latin America. EDP intends to focus on organic growth in respect of carbon dioxide (CO2) free technologies, which is expected to result in clean energies (wind and hydro) representing 75 per cent. of the portfolio by 2020. As of 30 June 2018, the weight of clean energies in EDP's portfolio was 74 per cent.

In Portugal, EDP has completed its planned investments in hydro capacity, with the Venda Nova III plant (780 MW) and the Foz Tua plant (263 MW), both with pumping technology, commissioned in the first half of 2017. The increased share of wind power in the Iberian Peninsula's power generation mix and the uncertainty underlying annual hydroelectric output (depending on weather conditions) is expected to result in an increasingly volatile market where pumping is an extremely important value-added feature. As at 30 June 2018, nearly 40 per cent. of EDP's overall hydro capacity had pumping capacity. This new hydro capacity allowed an extension of the residual life on EDP's overall hydro portfolio to 30 years in 2020. As of 30 June 2018, the residual life on EDP's overall hydro portfolios was 33 years.

In Brazil, EDP started full commercial operation of the São Manoel hydro power plant in April 2018 with a total installed capacity of 700 MW. EDP Brasil holds a 33.33 per cent. share of São Manoel (the remainder is held by China Three Gorges Brasil Energia Ltda (CTG Brasil), which owns a 33.33 per cent. share, and by Companhia Furnas Centrais Elétricas S.A., which owns a 33.33 per cent. share). EDP is currently developing a further five transmission lines in Brazil, totalling nearly 1,300 km and representing an expected total investment of R\$3.1 billion. Transmission line "24", in Espírito Santo state started operations in December 2018 (20 months ahead of the regulatory schedule). Furthermore, the environmental license for transmission line "21", in Santa Catarina state, has already been obtained.

EDP plans to continue developing new wind and solar power capacity as part of its targeted growth plan. Based on its assessment of wind generation figures published by the top wind market operators according to energy market data providers, EDP believes it is one of the largest wind power operators worldwide with 10.9 GW of wind and solar power capacity installed as at 30 September 2018, and that this growth resulted not only from solid execution, but also from its competitive advantage in terms of the core competence of all the operational variables: availability, costs and load factor. EDP has increased its wind and solar capacity since 2016 by 3.9GW, exceeding its original business plan (the 2016-2020 Business Plan) to increase its wind and solar power capacity by approximately 3.5 GW between 2016 and 2020 (700MW/year). The North American market is expected to be the key market with 74 per cent. of this new wind power capacity, Europe is expected to represent 16 per cent. and Brazil is expected to represent 10 per cent. Of the abovementioned 3.9 GW of global capacity additions, 1.6 GW had been built by 30 September 2018, while 0.9 GW is under construction (67 per cent. in the United States, 18 per cent. in Europe and 15 per cent. in Brazil).

Furthermore, after 2020 EDP Renováveis has already secured approximately 1.1 GW of wind onshore and solar projects, mostly through long-term PPA contracts, of which 0.2 GW is in the United States and 0.85 GW is in Brazil.

Besides onshore wind and solar, EDP is also pursuing opportunities for offshore platforms to support further growth, namely in the United Kingdom and France, which are expected to start operations beyond the 2016-2020 Business Plan. In September 2017, Moray Offshore Windfarm (East) Limited (MOWEL) was awarded a 15—year Contract for Difference (an agreement made in relation to a futures contract whereby differences in settlement are made through cash payments rather than by the delivery of physical goods or securities) by the UK's Department of Business Energy & Industrial Strategy for the delivery of 950 MW of offshore wind generation at £57.5/MWh. The MOWEL project is expected to be completed by 2022.

EDP Renováveis holds a 33.3 per cent. stake in MOWEL, following the sale by EDP Renováveis:

- (i) on 23 March 2018, of a 20 per cent. stake in equity shareholding and outstanding shareholder loans to Diamond Generating Europe Limited (**DGE**), a wholly owned UK-based subsidiary of Mitsubishi Corporation, for a total consideration of £36 million;
- (ii) on 14 November 2018, of a 13.4 per cent. stake in equity shareholding and outstanding shareholder loans to DGE, for £54 million; and
- (Iii) on 28 December 2018, following the Investment Cooperation Agreement between EDP Renováveis and CTG for the Moray wind offshore project announced on 19 October 2015, of a 10 per cent. stake in equity shareholding and outstanding shareholder loans to CTG for £35 million.

With the conclusion of these transactions, with regards to the remaining shareholders of MOWEL, DGE holds a 33.4 per cent. stake, ENGIE a 23.3 per cent. stake and CTG a 10 per cent. stake.

In France, EDP Renováveis is developing two offshore winds projects, Yeu-Noirmoutier and Dieppe-Le Tréport, which have a total expected capacity of 1 GW and are expected to start operations by mid-2020s. EDP holds a 29.5 per cent. stake in these projects, following the sale in December 2018 of a 13.5 per cent. equity stake to SRPN SAS and SRPT SAS (both of which are owned by Sumitomo Corporation), for an upfront payment of €42.8 million. The sale price may increase over time if predefined conditions are met.

## **Maintaining Financial Deleveraging**

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 a strict control over the investment, ensuring timely execution of projects, and a controlled growth strategy through:

- (i) EDP Renováveis' asset rotation programme, consisting of the sale of minority stakes, combined more recently with a sell down strategy, by which the company sells majority stakes in projects in operation or indevelopment. This strategy allows EDP to recycle capital, with up-front cash flow crystallisation and create value by reinvesting the proceeds in accretive growth; and
- (ii) opportunist disposals, including the sale of subscale and non-core assests, depending on market opportunities.

In 2017, EDP completed the sale of its gas distribution business in the Iberian Peninsula, Naturgas Energía Distribución, S.A. (**NED**) in Spain for 0.9 billion Equity Value (equivalent to a sale price of 2.3 billion, which includes the fair value of the contingent prices, deducted from loans in the amount of 1.4 billion, generating a gain of 0.6 billion) and EDP Gás S.G.P.S., S.A. (**EDP Gás**) in Portugal for 0.3 billion Equity Value (equivalent to a sale price of 0.5 billion, which includes the fair value of the contingent prices, deducted from loans in the amount of 0.2 billion). These transactions also contributed to EDP's deleveraging process and are in line with EDP's strategy to further strengthen its financial profile and integration of its business model.

## **Preserving Low Risk Business Profile**

EDP seeks to maintain diversification in terms of markets and regulatory environments while also keeping a relatively low exposure to market volatility.

EDP aims to limit the risk exposure of its business by proactively managing the major risks that affect its operations, in particular, regulatory, commodity, market and financial risks. A significant part of EDP's business portfolio involves either long-term contracted activities or regulated activities, where revenues are dependent on the outcome of regulatory decisions by governments and other authorities. As a result, EDP is in regular contact with regulatory authorities in order to seek to ensure that it receives accurate and appropriate regulatory treatment, including regarding the level of returns EDP receives on capital employed.

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 between 12 and 18 months.

Sustainability continues to be a key component of EDP's strategy and EDP aims to maintain a leadership position in terms of sustainability best practices. EDP has one of the highest proportions of hydro and wind portfolios in Europe and plans to continue to invest in technologies with low exposure to CO2 and other environmental risks.

With respect to financial risk, EDP's funding strategy aims to maintain access to diversified sources and ensure that funding needs can be met 12 to 24 months in advance.

#### **Efficiency**

EDP recognises the importance of regularly implementing new initiatives to improve the efficiency of its operations and is committed to implementing its operational expenditures efficiency programme (**OPEX IV**), which targets annual cost savings of €200 million per year by 2020 and accumulated savings of €700 million for the period 2016-2020. The savings are expected to result primarily from headcount reduction in the Iberian Peninsula (mostly driven by retirements and corporate and support functions optimisation) and OPEX growth below inflation in Brazil. In 2017, savings achieved under OPEX IV reached €141 million and were 26 per cent. above the target.

# **Profitability and Shareholder Returns**

EDP is committed to delivering attractive returns through a predictable and sustainable dividend policy based on a target payout ratio of 65 to 75 per cent., with a dividend floor at €0.19 per share, thus allowing for future increases in the dividend per share in line with increases in the earnings per share. In 2017, the pay-out ratio was 62 per cent. and was affected by non-recurring items, namely a non-recurring gain of €574.5 million from the sale of gas assets in 2017. This amount comprises a gain of €590.9 million from the sale of gas assets in Spain less €16.4 million from the loss on the disposal of gas assets in Portugal.

In summary, EDP's strategy is designed to lead to growth, financial deleveraging, keeping a low risk profile, operational efficiency enhancements and delivering attractive returns, which allows it to have a distinctive profile amongst European utilities.

#### **EDP'S KEY BUSINESSES**

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. In addition, through its subsidiary EDP Renováveis, EDP has a strong presence worldwide in terms of renewable energy generation with facilities in 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.

## **Electricity Generation in the Iberian Peninsula**

As the largest generator, distributor and supplier of electricity in Portugal in terms of GWh of electricity generated, distributed and supplied, respectively, EDP currently holds the leading position in the Portuguese domestic electricity market, according to ERSE. As at 30 June 2018, the Group accounted for 58 per cent. of the installed capacity in the Portuguese National Electricity System (SEN) and 99 per cent. of the electricity distribution network in mainland Portugal.

Based on the REN Reports, total electricity consumption in mainland Portugal in the six-month period ended 30 June 2018 reached 25.7 TWh, representing a year-on-year increase of 3.7 per cent. (when adjusted for temperature and working days, it increased year-on-year by 2.9 per cent).

According to the REN Reports, Portugal's public electricity system is powered by a number of different sources of generation. In the six-month period ended 30 June 2018, the most significant sources of power generation in Portugal, excluding contribution from imports and exports, were coal (4,623 GWh), CCGT (4,018 GWh) and wind (6,991 GWh), representing 18.0 per cent., 15.6 per cent. and 27.2 per cent. of Portugal's total electricity demand, respectively, while electricity generation from hydroelectric power plants accounted for 32.8 per cent. (8,436 GWh). The contribution made by cogeneration and waste to energy totalled 3,722 GWh, representing 14.5 per cent. of total electricity demand.

According to the REN Reports, In the six-month period ended 30 June 2018, Portugal's energy trade balance with Spain favoured exportation, totalling 2,991 GWh exported, compared to 3,193 GWh of net electricity exported in the previous year.

Based on the REE Reports, total electricity consumption in mainland Spain reached 252.7 TWh in the six-month period ended 30 June 2018, representing a year-on-year increase of 1.1 per cent. (when adjusted for temperature and working days, it increased by 1.6 per cent.).

According to REE Reports, in mainland Spain the most significant sources of power generation, excluding contribution from imports and exports, were nuclear power generation, totalling 25,388 GWh in the six-month period ended 30 June 2018, representing 20.1 per cent. of Spain's total electricity demand in the period. Coal generation reached 13,810 GWh, contributing to 10.9 per cent. of Spain's total electricity consumption. Generation from CCGT plants totalled 10,938 GWh while hydroelectric power generation reached 22,199 GWh in the six-month period ended 30 June 2018, representing 8.7 per cent. and 17.6 per cent. of total electricity consumption in the country, respectively. Wind power generation totalled 27,779 GWh and cogeneration and waste to energy generation reached 15,663 GWh in the six-month period ended 30 June 2018, representing 22.0 per cent. and 12.4 per cent. of Spain's total electricity demand, respectively.

According to REE Reports, in the six-month period ended 30 June 2018, Spain's cross-border energy trade favoured importation, totalling 6,033 GWh (compared to 10,122 GWh of net imports in the first six months of 2017).

#### **Portugal**

Through its subsidiary EDP Produção, the Group has a strong presence in electricity generation (excluding wind power) in Portugal. EDP's wind power generation activities in Portugal are held via EDP Renováveis. See "—EDP Renováveis" below.

As at 30 June 2018, EDP Produção's generating facilities in Portugal, excluding wind, had a total maximum capacity of 10,098 MW, 66.3 per cent. of which was represented by hydroelectric facilities, 20.1 per cent. by CCGT power plant facilities, 11.7 per cent. by coal-fired facilities, 1.6 per cent. by mini hydroelectric power plants and 0.2 per cent. by Fisigen's cogeneration facility, plus 32 MW equity consolidated through its 50 per cent. interest in EDP Produção Bioeléctrica, S.A., which is responsible for biomass power plant development. EDP does not own or operate any nuclear-powered facilities in Portugal.

In the six-month period ended 30 June 2018, net electricity generation from EDP Produção reached 12,999 GWh, which represented a year-on-year increase of 12.6 per cent., due to the severe drought in Portugal. In the six-month period ended 30 June 2018, hydro resources were approximately 53 per cent. short of long-term average in Portugal.

On 19 December 2018, EDP Produção sold 100 per cent. of EDP Small Hydro, S.A., owner of seven small hydro plants and of Pebble Hydro – Consultoria, Invest. e Serv., Lda., owner, in turn, of 14 small hydro plants, for €164 million.

The purpose of this sale, together with the 50 per cent. disposal of EDP Produção Bioeléctrica S.A. to Altri, agreed on 31 July 2018 for €55 million, was to optimise EDP's renewable portfolio by exiting non-core and low-scale activities in Portugal and reallocating and investing the capital proceeds in more attractive projects and growth areas.

Performance in the Iberian Peninsula's electricity market is managed centrally by EDP's Energy Management Business Unit, which monitors the financial position of the region's electricity power plants, as well as short and medium-term risk profiles. Apart from plants in the deregulated segment, this oversight also involves management of power plants covered under the CMEC mechanism discussed below, both in terms of managing sales of energy generated in the market and supplying fuel to these power stations.

## **Hydrogeneration**

EDP's current hydroelectric portfolio in Portugal includes over 50 facilities and each facility is categorised into one of three generating centres, which generally correspond to the three regional locations in Portugal where these facilities are located. In addition, these facilities in Portugal consist of 116 operating groups, a separate categorisation based on the number and types of turbines operated at these facilities that provide EDP with flexibility to reduce the number of turbines needed to meet demand. These operations are controlled from a remote command centre, located in Porto, Portugal.

EDP Produção also operates a portfolio of mini hydro power plants (HPPs) with a feed-in tariff remuneration scheme comprising 52 generating groups, across 32 power plants.

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.

Decree-Law no. 240/2004, of 27 December established the creation of a CMEC mechanism as consideration for the early termination of PPAs related to the binding electricity production by HPPs of the Group. On 8 March 2008, the Government, REN and 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 extension of the period to operate the public hydro domain for an additional average period of 26 years. For further information, please see "Regulatory Framework—European Energy Policy—Portugal—The Electricity Value Chain—Ordinary Regime— Overview". On 18 September 2013, the European Commission (the EC) issued a press release stating that it had opened an in-depth state aid inquiry into water resources concessions granted by Portugal to EDP for electricity generation and would also inquire into the situation in other Member States. As with any state aid investigation, such proceedings are solely conducted between the EC and the Member State concerned (in this case, Portugal). The decision to initiate the procedure and the invitation to third parties to submit their observations on the case were published in the Official Journal of the European Union on 16 April 2014, following which EDP submitted its comments as an interested party. On 15 May 2017, the EC concluded that the water resource concessions granted by Portugal did not involve state aid. In the press release of 15 May 2017, the EC confirmed that the compensation paid by EDP for the hydro power concessions was in line with market conditions and that the financial methodology used to assess the price was appropriate and led to a fair market price. The decision is now final. Note that this decision does not address compliance of the measure with other provisions of EU law, such as EU public procurement rules and antitrust rules based on Articles 106/102 TFEU.

# Thermal generation

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 CO2 sequestration technologies.

## Spain

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 30 June 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.

In the six-month period ended 30 June 2018, net electricity generation from EDP España reached 4,233 GWh, which represented a year-on-year decrease of 20 per cent. The decrease was primarily explained by low year-on-year hydro resources in Spain in the six-month period ended 30 June 2018.

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 30 June 2018.

#### **Electricity distribution in the Iberian Peninsula**

The Group engages in electricity distribution activity through EDP Distribuição in Portugal and EDP España in Spain.

#### **Portugal**

EDP Distribuição is EDP's regulated Portuguese electricity distribution company acting under a public service concession.

In its distribution activities, EDP Distribuição carries out approximately 99 per cent. of Portugal's local electricity distribution. Currently, it has over 226,000 kilometres of grid and, in the six-month period ended 30 June 2018, EDP Distribuição distributed 23,092 GWh of electricity to over 6.2 million supply points.

#### 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 the six-month period ended 30 June 2018, TIEPI increased by 3 minutes year-on-year to 29 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 the six-month period ended 30 June 2018, 320,152 smart meters EDP Boxes (EBs) were installed in Portugal, resulting in a total installed base of 1,555,431 EBs as of 30 June 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 30 June 2018, there were a total of 16,319 distribution transformer controllers installed in Portugal, of which 1,434 units were installed between 1 January and 30 June 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 2,064 in the six-month period ended 30 June 2018. As at 30 June 2018, the energy distributed per employee was 7.7 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 has an electricity network infrastructure that covers the regions of Asturias (accounting for a large majority of its network), Madrid, Valencia, Cataluña and Aragon, totalling 20,649 kilometres as at 30 June 2018. Electricity distributed in the six-month period ended 30 June 2018 through EDP España's network amounted to 4,698 GWh, a 1.4 per cent. year-on-year increase.

Distribution in the high and medium-voltage sector amounted to 3,551 GWh in the six-month period ended 30 June 2018, a 1.0 per cent. year-on-year increase, while in the low-voltage sector the total amount distributed in the six-month period ended 30 June 2018 reached 1,148 GWh, representing a 2.7 per cent. year-on-year decrease.

As at 30 June 2018, EDP España's electricity distribution business had 665,186 supply points, a 0.4 per cent. year-on-year increase.

## 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 the six-month period ended 30 June 2018, TIEPI decreased by 4 minutes year-on-year to 10 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 the six-month period ended 30 June 2018 remained high, with 15.5 GWh distributed per employee and 2,188 supply points per employee. Furthermore, EDP España has maintained high network availability levels, as shown by the above mentioned TIEPI.

## Natural gas distribution in the Iberian Peninsula

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.

## Electricity and natural gas supply in the Iberian Peninsula

In the Iberian Peninsula electricity and natural gas supply market, the Group is present in the liberalised and regulated markets. In Portugal, 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. 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).

## **Portugal**

# Supply in the liberalised market

According to ERSE, EDP Comercial retained its liberalised market leadership in Portugal in the first six months of 2018 both by number of clients and volume of electricity supplied, despite a strong increase in competition. EDP Comercial had an 81.9 per cent. liberalised market share in terms of annualised clients and a 42.2 per cent. liberalised market share in terms of volumes supplied at 30 June 2018.

The 42.6 TWh of annualised electricity supplied between 1 January to 30 June 2018 in the liberalised market represented 93.6 per cent. of the total annualised electric energy supplied in Portugal, which compares to 92.6 per cent. for the previous year. The electricity sold to end customers by EDP Comercial in the six-month period ended 30 June 2018 amounted to 9,265 GWh, while in the comparable six-month period of 2017 this figure totalled 9,194 GWh.

By 30 June 2018, EDP Comercial supplied about 4,130,000 electricity customers. This represents a 0.6 per cent. year-on-year increase, mainly driven by residential clients switching from the last resort supplier. The growth pace of switching of electricity customers to the free market accelerated significantly in late 2012, gradually leading to

significant net additions in EDP's liberalised client portfolio. This pace is now decelerating, as most of the customers are already in the free market (approximately 82,000 net added customers in the first six months of 2017, compared to approximately 24,000 net reduction in customers in the six-month period ended 30 June 2018).

The strong pace of gas supply liberalisation, along with 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 gas customers from 629,096 as at 30 June 2017 to 654,261 as at 30 June 2018, sustaining EDP as a major player in the gas liberalised market with a market share by number of clients of 56.0 per cent. as at 30 June 2018 according to ERSE. Nevertheless, the natural gas marketed by EDP in Portugal in the liberalised market in the six-month period ended 30 June 2018 declined by 0.7 per cent. year-on-year to 1,999 GWh, primarily due to lower sales in the companies and institutions (B2B) market.

EDP Comercial focuses its marketing strategy on B2B and B2C.

#### Companies and institutions (B2B)

As at 30 June 2018, the B2B electricity business of EDP Comercial had a client portfolio amounting to 143,612 facilities, compared to 142,920 as at 30 June 2017, to which it had supplied 3,833 GWh during the first six months of 2018, which compares to 4,068 GWh during the comparable six-month period of 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 30 June 2018, the B2C electricity business of EDP Comercial had a client portfolio amounting to 4,016 thousand residential and small business customers, compared to 3,986 thousand as at 30 June 2017 (a 0.6 per cent. increase), to which it supplied 5,432 GWh in the six-month period ended 30 June 2018, which accounts for a 6.0 per cent. year-on-year increase.

## Energy services

Additionally, the management of 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.

## 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. Consumers can, nevertheless, opt for a regulated tariff even if they have moved to the liberalised market.

Currently, these transitory last resort supply tariffs will be applied until 31 December 2020 for electricity and gas consumption.

In Portugal, EDP supplies electricity in the regulated market through EDP SU. Total clients supplied by EDP SU declined by 10.0 per cent. year-on-year to 1,165,624 as at 30 June 2018. Volumes supplied by EDP SU fell from 1.6 TWh in the first six months of 2017 to 1.5 TWh.

EDP Gás Serviço Universal is the last resort natural gas supplier for the concession area, involving 29 municipalities in the districts of Porto, Braga and Viana do Castelo, being responsible for the supply of natural gas in the regulated market. As at 30 June 2018, EDP Gás Serviço Universal had 42,433 customers and supplied 154 GWh (a decrease of 10.4 per cent. and 3.4 per cent. year-on-year, respectively, mainly due to the switch of customers to liberalised suppliers).

# Spain

# Supply in the liberalised market

As at 30 June 2018, the total number of electricity customers in the Spanish liberalised market supplied by EDP España and EDP Comercializadora was 926,550 and these customers were invoiced for 6,043 GWh of electricity supplied during 2017, a 11.7 per cent. year-on-year decrease. The energy sold represents 7 per cent. of the total energy sold in the liberalised market in Spain in the six-month period ended 30 June 2018.

In the six-month period ended 30 June 2018, the B2B segment recorded sales of 4,891 GWh, a year-on-year decrease of 15.4 per cent. in line with EDP's strategy to focus on the most attractive customer segments.

Within the B2C operation, sales of 1,152 GWh were achieved in the six-month period ended 30 June 2018, representing a year-on-year increase of 8.5 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 program has resulted in 575,052 contracts as at 30 June 2018.

Natural gas marketed in the six-month period ended 30 June 2018 by EDP in Spain was 7,104 GWh, flat year-on-year with a total of 835,892 clients, 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 4,194 GWh, and the remaining 2,910 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 30 June 2018, EDP CUR had 216,370 electricity customers. These customers consumed 229 GWh of electricity in the six-month period ended 30 June 2018, representing a 0.5 per cent. year-on-year decrease. The figure is continuously decreasing as more customers migrate to the liberalised market.

As for 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 in the liberalised market) when gas retail tariffs ended in Spain in June 2008. As at 30 June 2018, EDP CUR had 50,877 customers (a 4.1 per cent. year-on-year decrease) and supplied 165 GWh (a 7.7 per cent. year-on-year increase).

## **EDP Renováveis**

EDP Renováveis is a global leader in renewable energy, with its revenue mostly derived from wind energy activities but also from solar. 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 30 June 2018, EDP Renováveis managed a global portfolio of 11,044 MW spread over 11 countries, of which 10,713 MW was fully consolidated and an additional 331 MW was accounted for in accordance with the equity method (related to EDP Renováveis' equity stakes in Spain and in the United States). The overall installed capacity of EDP Renováveis was spread between Europe (5,250 MW), North America (5,464 MW) and Brazil (331 MW), reflecting a total of 616 MW of new capacity added to its portfolio year-on-year. As at 30 June 2018, EDP Renováveis had 828 MW of wind onshore under construction across different geographies. As at 30 June 2018, the average age of the 10,713 MW fully consolidated global portfolio was 7.6 years. EDP Renováveis' portfolio had an average age of 8.9 years in Europe, 6.9 years in North America and 3.0 years in Brazil. 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.

On 23 March 2018, EDP Renováveis sold a 20 per cent. stake in equity shareholding and outstanding shareholder loans in MOWEL to DGE, a wholly owned UK-based subsidiary of Mitsubishi Corporation (MC), for a total consideration of £36 million. With the completion of this transaction, MC will participate in the investment, development and operation of the MOWEL project, located in the North Sea off the coast of Scotland (Zone 1 of the Crown Estate's Round 3 programme). In 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.

On 14 November 2018, EDP Renováveis sold an additional 13.4 per cent. stake in equity shareholding and outstanding shareholder loans in MOWEL to DGE, for a total consideration of £54 million.

On 28 December 2018, following the Investment Cooperation Agreement between EDP Renováveis and CTG for the Moray wind offshore project announced on 19 October 2015, EDP Renováveis sold a 10 per cent. stake in equity shareholding and outstanding shareholder loans in MOWEL to CTG, for a total sum of £35 million.

With the conclusion of these transactions, EDP Renováveis stake in MOWEL is 33.3 per cent., along with DGE (33.4 per cent), ENGIE (23.3 per cent.) and CTG (10 per cent.).

In the six-month period ended 30 June 2018, EDP Renováveis produced 15,451 GWh of clean electricity (a 6 per cent. year-on-year increase), avoiding 12.4 million tons of CO2 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 (which represented a 6 per cent. year-on-year increase on average capacity) with a higher expected load factor. The achieved load factor in the six-month period ended 30 June 2018 was 33.5 per cent., compared to 33.6 per cent. in the first six months of 2017.

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. Once constructed, the lease area can accommodate a total generation capacity of approximately 1.6 GW.

On 18 December 2018, EDP Renováveis announced the sale of a 13.5 per cent. equity stake in 2 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), for an upfront payment of €42.8 million. As part of this transaction, EDP Renováveis reduced its shareholding to 29.5 per cent. in both projects. 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 Axium Infrastructure to sell an 80 per cent. equity shareholding in a portfolio of fully-owned onshore wind assets in the United States and Canada. The total capacity of the portfolio is 499MW and comprises 3 winds farms, namely:

- Meadow Lake VI (200MW), located in the state of Indiana, United States, and which has been in operation since December 2018;
- Prairie Queen (199MW), located in the state of Kansas, United States, and which is expected to reach its commercial operation date (**CoD**) during the first half of 2019;
- Nation Rise (100MW), located in Ontario, Canada, and which is expected to reach its CoD during the fourth quarter of 2019 (for this project, EDP Renováveis closed the sale of a 75 per cent. shareholding, with the remaining 5 per cent. to be closed upon project CoD).

The divestment announced is part of EDP Renováveis' asset rotation programme, part of which involves EDP Renováveis selling majority stakes in projects in operation or in-development. This strategy allows EDP to recycle capital, with up-front cash flow crystallisation, and create value by reinvesting the proceeds in accretive growth.

# Europe

In the six-month period ended 30 June 2018, EDP Renewables Europe (**EDPR EU**) installed new net wind energy capacity of 37 MW in Europe which increased total installed capacity to 5,250 MW as at 30 June 2018 (of which 152 MW related to equity consolidated farms), spread over seven countries: Spain, Portugal, France, Belgium, Italy, Poland and Romania.

Electricity generation in Europe in the six-month period ended 30 June 2018 increased by 5 per cent. year-on-year to 6,341 GWh. In Europe, EDP Renováveis reached a 29 per cent. load factor in the six-month period ended 30 June 2018 (compared to 28 per cent. in the first six months of 2017), representing 101 per cent. of the long-term average P50 production level.

As at 30 June 2018, EDP Renováveis had 270 MW under construction in Europe: 68 MW in Spain; 74 MW in Italy; 26 MW in France; and 102 MW in Portugal.

# Spain

In Spain, EDP Renováveis' installed wind energy capacity as at 30 June 2018 amounted to 2,244 MW on a fully consolidated basis plus 152 MW equity consolidated. In the six-month period ended 30 June 2018, a net 25 MW of wind energy capacity was added in Spain relating to the acquisition of a 50 per cent. interest in a Spanish wind farm that was previously accounted for as equity.

EDP Renováveis in Spain accomplished a load factor of 30 per cent. in the six-month period ended 30 June 2018, delivering a premium over the Spanish market average (1 per cent.), representing an increase from 28 per cent. in the first six months of 2017. Electricity output in the six-month period ended 30 June 2018 increased by 7.5 per cent. year-on-year, amounting to 2,866 GWh.

As at 30 June 2018, EDP Renováveis had 68 MW of wind energy capacity under construction in Spain.

#### **Portugal**

In Portugal, EDP Renováveis' installed wind energy capacity as at 30 June 2018 totalled 1,249 MW plus 5 MW of solar PV.

EDP Renováveis' load factor in Portugal in the six-month period ended 30 June 2018 reached 31 per cent., which was higher year-on-year (28 per cent. in the first six months of 2017) reflecting above average wind resource. As a result, In the six-month period ended 30 June 2018 the electricity output in Portugal increased 9 per cent. year-on-year from 1,533 GWh in the first six months of 2017 to 1,672 GWh.

Within the scope of the EDP and CTG strategic partnership, in June 2017, EDP Renováveis completed the sale to ACE Portugal Sàrl (which is 100 per cent. owned by ACE Investment Fund II LP, a subsidiary of China Three Gorges Hong Kong Ltd, a fully-owned subsidiary of China Three Gorges Corporation) of 49 per cent. of its equity shareholding and shareholder loans in a portfolio of wind assets with a capacity of 422 MW located in Portugal for a total consideration of €248 million. These assets, which were part of the ENEOP project, have been fully consolidated with EDP Renováveis since 2015. Because this transaction represents a sale of minority interests without loss of control, EDP will continue to consolidate these assets going forward.

As at 30 June 2018, EDP Renováveis had 102 MW of wind energy capacity under construction in Portugal.

# Rest of Europe

As at 30 June 2018, EDP Renováveis had 1,601 MW of capacity installed in the rest of Europe and was as follows: Romania 521 MW (of which 50 MW are solar PV), Poland 418 MW, France 410 MW, Belgium 71 MW and Italy 181 MW. In the six-month period ended 30 June 2018, 37 MW of new wind energy capacity was installed in Italy.

In the six-month period ended 30 June 2018, the rest of EDP Renováveis' European operations delivered a 26 per cent. load factor, representing a decrease from 28 per cent. in the first six months of 2017. The electricity output decreased by 2 per cent. year-on-year to 1,799 GWh in the six-month period ended 30 June 2018, on the back of capacity additions along with higher realised load factor.

Within the scope of the EDP/CTG strategic partnership, in October 2016, EDP Renováveis concluded the sale of 49 per cent. equity shareholding and shareholder loans in a portfolio of wind assets with a capacity of 548 MW in Poland and Italy to ACE Poland S.A.R.L. and ACE Italy S.A.R.L. (both of which are 100 per cent. owned by ACE Investment Fund LP, a subsidiary of China Three Gorges Hong Kong Ltd (CTG HK), a fully-owned subsidiary of China Three Gorges Corporation) for a total consideration of €363 million. Because this transaction represents the sale of a minority interest without loss of control, EDP Renováveis continued to consolidate these assets after this transaction.

As at 30 June 2018, EDP Renováveis had 74 MW and 26 MW of wind energy capacity under construction in Italy and France, respectively.

Moreover, EDP Renováveis is pursuing opportunities for offshore platforms. Within this scope, a joint venture owned by EDP Renováveis (33.3 per cent.), ENGIE (23.3 per cent.), DGE (33.4 per cent.) and CTG (10 per cent.) was awarded with a 15-year CfD in the United Kingdom for the delivery of 950 MW of offshore wind generation, which is expected to be completed by 2022.

# **North America**

In North America, EDP Renováveis' total installed capacity as at 30 June 2018 totalled 5,464 MW (of which 179 MW was equity consolidated) and was as follows: 5,234 MW spread across 14 different states in the United States, including 90 MW related to solar; 30 MW in Canada; and 200 MW in Mexico (installed in the first six months of 2017 following an agreement with Industrias Peñoles, a leading Mexican mining company, for an Electricity Supply Agreement under a self-supply regime in which the mining company acquires energy for its own consumption for the energy produced by EDP Renováveis' wind farm).

In the six-month period ended 30 June 2018, the electricity output in North America increased by 6 per cent. year-on-year to 8,690 GWh, reflecting new capacity additions and benefitting from the higher wind resource of such projects. The average load factor decreased from 39 per cent. in the first six months of 2017 to 38 per cent. in the six-month period ended 30 June 2018.

As at 30 June 2018, EDP Renováveis had 679 MW of wind onshore under construction in the United States, namely Turtle Creek (202 MW; Iowa), Meadow Lake VI (200 MW; Indiana), Prairie Queen (199 MW; Kansas) and Arkwright Summit (78 MW; New York). On 31 December 2018, EDP Renováveis agreed to sell an 80 per cent. equity shareholding in its North American onshore wind portfolio, which includes Meadow Lake VI and Prairie Queen, to Axium Infrastructure.

## Brazil

EDP Renováveis' installed wind energy capacity in Brazil totalled 331 MW as at 30 June 2018, all of which operated under long-term contracts, providing visibility over cash flow generation. 127 MW of wind energy capacity was installed in the six-month period ended 30 June 2018 relating to the JAU & Aventura wind project awarded at the energy generation auction with PPA for a period of 20 years.

The average load factor in Brazil decreased from 36 per cent. in the first six months of 2017 to 30 per cent. in the six-month period ended 30 June 2018. Electricity output in the six-month period ended 30 June 2018 increased by 34 per cent. year-on-year, amounting to 420 GWh.

As at 30 June 2018, EDP Renováveis had 137 MW under construction in Brazil relating to the Babilonia wind project awarded at the energy generation auction with a PPA for a period of 20 years. EDP intends to strengthen EDP Renováveis' presence in this market which has attractive wind resources and strong growth potential.

# EDP's energy business in Brazil

# Generation (excluding wind power)

As at 30 June 2018, EDP Brasil's generating facilities had a total installed capacity of 2,467 MW fully consolidated, 70.8 per cent. of which was represented by hydroelectric facilities (1,747 MW located in the states of Tocantins, Espírito Santo, Amapá, Pará and Mato Grosso do Sul) and 29.2 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 relating to its first generation unit, online since December 2017) in partnership with CTG and Furnas.

In the six-month period ended 30 June 2018, the total volume of energy sold by EDP's fully consolidated plants in Brazil reached 7,185 GWh, a 25 per cent. increase compared to the previous year, which includes 2,914 GWh from the Pecém coal thermal plant.

During the first six months of 2018 EDP Brasil concluded São Manoel HPP. 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 Espírito Santo state, 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 3.4 million customers as of 30 June 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 the six-month period ended 30 June 2018, the volume of electricity distributed totalled 12.5 TWh, representing a 0.7 per cent. year-on-year increase. A slight decline in the captive customer market partially offset an increase in the free market.

The volume of electricity sold to captive customers decreased by 0.2 per cent. year-on-year in the six-month period ended 30 June 2018, primarily due to the switch of consumers to liberalised suppliers. In the residential, commercial and other segments, the volume sold in the six-month period ended 30 June 2018 increased by 0.7 per cent. year-on-year while in the industrial segment, the volume of electricity sold fell by 5.6 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 the six-month period ended 30 June 2018 was 8,482 GWh, representing a 22.1 per cent. increase compared to the first six months of 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 fourth largest private trading company in terms of volumes supplied in Brazil in the six-month period ended 30 June 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 over the next five years 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 auction on 28 October 2016.

#### 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. As at the date of this Prospectus, EDP Brasil holds 19.6 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. The utility company has acted as the exclusive concessionaire for transmission, distribution and commercialisation of electricity in the Macau Special Administrative Region since 1985.

#### **REGULATORY FRAMEWORK**

## **EUROPEAN ENERGY POLICY**

#### **Managing Emissions**

The EU emissions trading system (**EU ETS**), the first large greenhouse gas 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>1</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 (rectified on 17 November 2011), 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 greenhouse gas 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 UNFCCC as requested under the Paris Agreement (Communication (2018) 773: A Clean Planet for all).

#### **Reducing Emissions**

Apart from CO2, the major waste products of electricity generation using fossil fuels are sulphur dioxide (SO2), nitrogen oxide (NOx) 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 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 IPPC Directive (Integrated Pollution Prevention and Control), the LCP Directive (Large Combustion Plant), 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 greenhouse gas emissions permit are coordinated with those for the issue of a permit provided for in that Directive.

Amended by Regulation (EU) no. 219/2009 of the European Parliament and of the Council, of 11 March, 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.

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 SO2, NOx and dust in the air from the combustion of fuels in plants with a rated thermal input equal to or greater than 1 megawatt (MWth) and less than 50 MWth. 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.

## Renewable Energy

The promotion of electricity from renewable sources is a priority in the European Union 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, an ambitious new global climate change agreement adopted by 195 countries in December 2015, in the Paris climate conference (COP21).

The 2020 Climate and Energy Package, approved in 2007, enacted the 20-20-20 targets for 2020, with a 20 per cent. reduction in greenhouse gas (**GHG**) emissions, a 20 per cent. increase in the share of energy consumption generated by Renewable Energy Sources (**RES**) and a 20 per cent. increase in energy efficiency.

The Renewable Energy Directive (**RED**) – Directive 2009/28/EC of the European Parliament and the Council, of 23 April, later amended by Council Directive 2013/18/EU, of 13 May, and Directive (EU) 2015/1513 of the European Parliament and of the Council, of 9 September – was designed to promote the use of renewable energy.

The RED established a common framework for the promotion of energy from renewable sources and set mandatory national targets for the overall share of energy and for the share of transport energy from renewable sources. It also established rules regarding statistical transfers between Member States, joint projects with third countries, guarantees of origin, administrative procedures, information and training, and access to the electricity network for energy from renewable sources.

In October 2014, EU leaders agreed on new targets for the post-2020 horizon with the new 2030 framework for climate and energy.

On 30 November 2016, the EC presented a package of measures, known as the Clean Energy Package (CEP), to keep the European Union competitive as the clean energy transition is changing the global energy markets, 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 global leadership in renewable energies and (iii) providing a fair deal for consumers.

Currently, all 8 legislative proposals in the CEP reached a political agreement in the trilogue negotiations among the EC, European Council and European Parliament. Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018, which recasts the RED, was published in the Official Journal of the European Union (OJ) on 21 December 2018.

The recast Directive now includes a binding (and more ambitious) renewable energy target for the EU for 2030 of 32 per cent. with an upwards revision clause by 2023.

## **Backup Capacity**

One of the key aims for the European Union is to be leader in electricity generation from renewable sources. This is an important goal to achieve secure, clean and affordable energy supplies 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 mechanisms to assure backup capacity, by remunerating electricity generators and other capacity providers, such as demand response operators, for being available in case of need.

In April 2015, the EC launched a State Aid sector inquiry to assess the need, design and market impacts of capacity mechanisms. The final report was adopted in November 2016. This final report included a set of legislative proposals to improve the design and operation of the EU electricity market, namely proposals to improve national

generation adequacy policies, which should gradually reduce the need for capacity remuneration mechanisms (**CRM**) to guarantee security of supply.

These proposals do not exclude the need for CRM, as CRM address the need for sufficient investment. Instead the proposals discourage 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, that Member State must notify the Commission for approval under State Aid rules. Harmonised rules for CRM in line with State Aid rules will help to give certainty to capacity providers and other economic actors, as well as help provide the right signals to investors and assure security of supply. The EC has approved several new capacity mechanisms under EU State Aid rules.

The CEP, presented by the EC on 30 November 2016, also sets ground rules regarding adequacy assessments and security of supply, more specifically, on CRM. These rules are currently under discussion in the trilogue meetings between the EC, European Council and European Parliament. The discussion will primarily focus on the regulatory framework for market-based capacity mechanisms, either purely national or allowing for cross-border participation, and on the proposal for a Regulation on Risk Preparedness (towards the prevention and management of crisis situations with EU wide coordination). All legislative proposals in the CEP reached a political agreement in the trilogue negotiations and both the Regulation on Risk Preparedness and the Electricity Regulation are on hold to be published in the OJ.

There is also the Electricity Coordination Group that serves as a forum for information exchange and coordination on electricity policy measures with cross-border impact. It also shares best-practices and expertise on security of supply. Additionally, the Network Code on emergency and restoration (NC ER), Commission Regulation (EU) no. 2017/2196, entered into force on 18 December 2017, with rules to manage the electricity transmission system in emergency, blackout and restoration states.

# Energy efficiency

Energy efficiency is one of the priorities of the European Union, and one of the corner stones of the Energy Union Strategy. The Energy Efficiency Directive (EED) – Directive 2012/27/EU of the European Parliament and the Council, of 25 October – 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 of 11 December 2018, which amends the EED, was published in the OJ on 21 December 2018.

The amended Directive 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.

#### **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**

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, as amended, further 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, the latter having been amended by Commission Regulation (EU) no. 543/2013, of 14 June.

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 five major activities: generation, 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.

# 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 legislative proposal, presented by the EC on 30 November 2016, includes a Regulation on the Governance of the Energy Union, which was published in the OJ 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).

The Regulation on Governance calls for each Member State to prepare a National Energy and Climate Plan (**PNEC**) 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 a preliminary PNEC in December 2018. According to recent media announcements made by the government, it is anticipated that the PNEC will include ambitious targets, such as setting energy consumption from renewable resources at more than 45 per cent. by 2030, which implies duplicating installed capacity. The PNEC is likely to be subject to a public hearing early in 2019 and should be finalised later in the year.

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.

#### 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.

# **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.

Concurrently, 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, contingent on the results of European negotiations.

In what concerns the emissions of air pollutants other than CO2, Decree-Law no. 39/2018, of 11 June, which transposes the MCP Directive into Portuguese national law, establishes rules to control the emissions of SO2, NOx 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 SO2, NOx, non-methane volatile organic compounds (NMVOC), ammonia (NH3) and fine particulate matter (PM2,5), 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.

## The Electricity Value Chain

## **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, as well as (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 Global Use of the System Tariff (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 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 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 totaled €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. EDP can, concurrently, file a suit with the administrative courts until 6 February 2019.

In addition, Resolution of the Portuguese Parliament no. 126/2018, of 11 May, created a parliamentary committee of inquiry 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 the committee's works between 21 December 2018 and 8 January 2019 (suspending the abovementioned deadline) and has extended the inquiry for an additional 60 days from 17 January 2019.

Furthermore, EDP has formalised the status of water concessions for its hydro power plants in accordance with Decree-Law no. 226-A/2007, of 31 May, as amended by Laws no. 17/2014, of 10 April, and no. 12/2018, of 2 March. In September 2013, the EC opened a formal investigation into the extension of the hydro power concessions granted by the Portuguese Government to EDP. 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.

Dispatch no. 5443/2017, of 6 June, published on 22 June, created a working group to determine the rights over the Hidraulicity 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 has six months to submit its findings to the Portuguese Government.

After the termination of the CCH, Dispatch no. 2258/2017, of 6 February, published on 15 March, created a working group to study the hidraulicity mechanism aiming at reviewing and implementing a harmonised mechanism within the Iberian Peninsula, taking into account, in particular, the need to implement mechanisms that limit the remuneration of hydroelectric energy. This study and proposed measures should have been presented to the Government by 31 March 2017, but no information has been made public.

### 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

Decree-Law no. 74/2013, of 4 June, 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 Decree-Law 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 establishes 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 establishes 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. 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 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.

Royal Decree-Law 15/2018, of 5 October, suspended the existing taxes 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, of 23 January, 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.

#### 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 and Law no. 114/2017, of 29 December. 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.

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. Furthermore, the referred Decree-Law 215-B/2012 announced the development of a Guarantee of Origin scheme, to allow an additional payment on 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. Currently, there are approximately a dozen small hydro plants (with nominal power between 0.2 MW and 10 MW), as well as one wind farm of 18 MW and six PV power plants running under general market rules. The six PV power plants total 48 MW, of which three are of a very small size, two are medium-sized - 2.5 MW and 4.4 MW - and one is much larger, having a 40.50 MW connection licence. In the absence of a Market Facilitator/Aggregator, these generators had to enter into an agreement with a Commercial Trader to be able to sell their energy in the wholesale market, being responsible for the payment of deviations from day-ahead trades, as well as grid access and other taxes and levies.

Article 239 of Law 71/2018, of 31 December, which approves the State Budget for 2019, foresees the approval by the 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.

# 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. The need for a power plant under the special regime to obtain a generation licence is determined in accordance with article 33-E of Decree-Law no. 172/2006, of 23 August, as amended.

The granting of the right to construct and operate a power plant in the special regime generation depends in particular on the applicable remuneration scheme:

- i. If a power plant is meant to be operated under a specific remuneration scheme (feed-in tariff), its promoters must be selected upon the conclusion of a public tender procedure or of a proceeding open to any interested parties which comply with the requirements established by the Ministry responsible for the energy sector, and then obtain a generation license and an operation license.
- ii. Entities who wish to operate under the general remuneration scheme (trading energy in organised markets, through bilateral agreements or to an aggregator) must obtain a generation licence from the

Directorate General for Energy and Geology ("Direcção-Geral de Energia e Geologia", the **DGEG**) or the Secretary of State (depending on the power plant's installed capacity) and an operation license from the DGEG, under the terms of article 33-E of Decree-Law no. 172/2006, of 23 August (in some cases, the generator must, alternatively, submit a prior communication to the DGEG and obtain an operation certificate). As set forth in Decree-Law no. 172/2006, of 23 August, the procedures for requesting a generation licence are open three times per year, in the first two weeks of January, May and September.

Entities wanting to access the general remuneration scheme are limited to the grid capacity, or lack thereof, declared by the National Grid Operators (Transmission and Distribution). To overcome the lack of grid capacity and the excess requests for the connection of new power plants to the grid where such lack of grid capacity is verified, mainly Solar PV in the Centre/South of Portugal, the Secretary of State of Energy issued Ministerial Order no. 62/2018, of 2 March, determining that the requests must be selected by random draw.

In November 2018, the Ministry of Environmental and Energy Transition declared through the media that from the beginning of 2019, all new utility scale producer licensing should only be allocated through competitive tenders, although no legislation or regulation has been approved in this regard.

### **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, which, according to Decree-Law no. 215-B/2012, of 8 October, and Ministerial Order no. 243/2013, of 2 August, must be defined by a Ministerial Order that has yet to be published. Thus, there is currently no guaranteed remuneration regime applicable to new renewable energy projects licensed under Decree-Law no. 172/2006, of 23 August.<sup>2</sup>

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 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

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;

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, 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.

<sup>&</sup>lt;sup>2</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.

- (ii) wind farms, for which the licensing procedures begun 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 begun 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.

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 SEN.

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 SEN. Furthermore, the Dispatch determines that such authorisation can only be granted if it has no negative effects for the SEN. In any case, EDP filed a legal procedure regarding this matter on 4 January 2018 and a decision is still pending.

### 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. 32/2018, of 23 January, the Secretary of State for Energy decided to extend these tariffs to 2018, as in the two previous years.

# 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, and Rectification no. 30-A/2015, of 26 June, 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).

# **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.

### **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 distribution network is operated under an exclusive concession granted by the Portuguese State for a 35-year period. The concession for electricity distribution in high and medium voltage levels 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.

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 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., respectively.

### **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, CO2 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.

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 also 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 further required to buy energy through market mechanisms, namely auctions, with conditions defined by the 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 Serviço Universal (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.

# **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 begun 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; (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; (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, further regulated by Decree-Law no. 84/2013, of 25 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 Directive no. 5/2019, of 17 December 2018, published in the Portuguese official gazette on 18 January

## 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, as well as to (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, 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 2018 were set by Dispatch no. 11043/2017, of 27 November, and considered by ERSE in the tariffs for 2018.

# 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 (2/3 of CESE revenue) and to contribute to the reduction of the tariff debt of the National Electricity System (1/3 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; (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 (2/3) 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.

# 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 Government responsible for energy issues. Accordingly, for 2019, Dispatch no. 9 9217/2018, of 23 September, keeps the discount unchanged at a rate equivalent to 33.8 per cent. of the electricity bill before taxes.

#### Natural gas regulatory framework

# 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 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.

### **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 appointment in January 2017 of a market creator (Gunvor International BV).

# Natural Gas Value Chain

# 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**).

## **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.

# **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.

### 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.

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 are 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. 9/2018, of 1 June, published in the Portuguese official gazette on 22 June, approved the regulated tariffs to be applicable between July 2018 and June 2019.

### 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 begun 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 m3) 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 m3 as follows: (i) 1 July 2012 for clients with an annual gas consumption greater than 500 m3; 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 costumer 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 m3 and 500 m3; (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 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 months 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 2019 were approved by ERSE Directive no. 5/2019, of 17 December 2018, published in the Portuguese official gazette on 18 January. The tariffs and prices for natural gas in the gas year 2018-2019 were approved by ERSE Directive no. 9/2018, of 1 June, published in the Portuguese official gazette on 22 June.

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. 225/2018, of 2 April, published in the Portuguese official gazette on 16 April, amended by Regulation no. 385/2018, of 1 June, published in the Portuguese official gazette on 21 June) 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, and Regulation no. 387/2018, of 1 June, published in the Portuguese official gazette on 22 June) 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.
- (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) 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

The main characteristics of the Spanish electricity sector are the existence of the wholesale Spanish generation market (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 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.

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, Directive 2009/72/EC has been partially 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.

# **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 Directive, 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 Directive 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 new 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.

## 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 4Q2018 and 1Q2019.

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 and Royal Decree no. 900/2015 established the administrative, technical and economic conditions of the self-consumption regime. Since October 2018, self-consumers do not have to pay access tariffs or charges for self-generated energy and they only have to pay access tariffs if they use the distribution network.

### 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 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).

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 now the specific remuneration scheme created by Royal Decree-Law no. 9/2013.

# 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 establishes the cost of supply during 2017 and 2018. Due to several Supreme Court decisions, and according to the referred Ministerial Order, the cost of supply 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 of Energy, Tourism and Digital Agenda so it is foreseen 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 new regulatory framework 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.

The main change introduced in July 2013 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 Eléctrica. 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 to customers. The impact of this decision is expected to occur during 2019.

In April 2018, the Government declared that the remuneration established in the Ministerial Order IET 980/2016 was prejudicial for customers. The Ministry of Energy considers now 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 Eléctrica) and harming the interest of electricity customers. This declaration only produces 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 also expected to occur during 2019.

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.

Access tariffs and other regulated prices and charges are set by the Minister of Energy, Tourism and Digital Agenda. The portion of access tariffs that is designated to cover transmission and distribution costs will have to be fixed in the near future in order to fulfil Royal Decree Law 1/2019 by the national regulatory authority *Comisión Nacional de los Mercados y la Competencia* (CNMC) according to a methodology which has not yet been approved by the Spanish government. Access tariffs and regulated prices are uniform throughout Spain, although regional extra costs, if approved, may be added to tariffs set by the Ministry of Energy. Access tariffs for 2019 were established in Ministerial Order TEC/1366/2018.

On the other hand, on 1 July 2009, the regulated system of electricity tariffs was extinguished. Since then, distributors have ceased to supply electricity, and now 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 (a) the dates for beginning and ending their supply activity, (b) proof of their capacity for the development of the supply, and (c) 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 mantains a price comparision 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.

# 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 CO2 allowances auctions had been produced.

However, the past debts of tariff deficit amounted to €21,000 million as of 31 December 2017 (nearly €2,000 million less than in 2016), 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 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.

## 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.

#### **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 renewable energy sources 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. 900/2015 and Royal Decree-Law 15/2018 specify the administrative procedures that apply to self-consumption facilities.

#### **Gas Regulation 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 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 checkups 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.

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.

## Natural Gas Transportation

The construction, expansion, operation and closure of gas pipelines, storage facilities and regasification plants requires 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.

## **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.

#### **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 (Supplier switching office), 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.
- (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 every year a small new tariff deficit is being produced, which is financed by companies with regulated revenues from the tariff system, mainly distribution 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

The Ministry of Mines and Energy (MME) is the Brazilian government's office responsible for conducting the country's energy policies. Its 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 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 may 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 the below average 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 the 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. Only 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 level of cover. The option to insure the risk, 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 guaranteed energy from EDP Brasil.

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 from 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).

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 Government to establish legal framework for the transaction. Up to BRL 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.

# **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 noncompliance 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 applicated a new methodology, which will be the object of a public consultation in the meantime.

#### 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 IGP-M (General Price Index-Market) 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.

# **UNITED STATES**

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.

### 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 preauthorisations), and supervision of interlocking directorates under FPA section 305. FERC has authority to assess substantial civil penalties (i.e. up to approximately \$1.2 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, including the accounting and reporting requirements. 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 contracts and modify the tenor of 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.

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 a centralised clearing market for spot energy purchases and sales and 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. 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 eight 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 \$1.2 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.

#### 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.

### 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), a cash grant programme in lieu of tax credits (now expired), 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 two U.S. territories 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 will be 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) 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 October 2018, 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 a 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.

#### **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 2016, the definition of "adverse modification" under ESA, section 7 was changed to apply a stricter standard that inquires as to whether the federal agency action, if approved, will preclude or significantly delay recovery of a listed species. However, on 25 July 2018, the U.S. Fish and Wildlife Service (USFWS) published a proposed rule revising this definition and dispensing with this higher standard. A final rule will likely include similar language and is expected to be published before mid-2019.

The USFWS is charged with enforcement of federal environmental laws protecting endangered and threatened species, migratory birds, and bald and golden eagles as well as the habitat supporting such species. The ESA, 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, extends to habitat modification.

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 program 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 program under the MBTA, or preparing a corresponding programmatic Environmental Impact Statement. Thus, it appears that the agency may not prosecute incidential bird deaths.

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 31 December 2017, 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 7,017 MW in 2017, which brought the U.S. total installed wind power capacity to 88,973 MW. According to the U.S. Energy Information Administration, in 2017 wind energy provided approximately 6.3 per cent. of the United States' electricity. According to AWEA's 2017 Annual Report, EDP Renováveis was the fourth largest owner of wind projects in the United States, based on installed capacity, at the end of 2017. EDP Renováveis' main competitors, based on installed wind capacity, include Berkshire Hathaway Energy, Avangrid Renewables, E.ON Climate & Renewables, and NextEra Energy Resources. EDP Renováveis and these four companies represent 37 per cent. of total installed wind capacity in the U.S. according to AWEA's 2017 Annual Report.

#### MANAGEMENT

#### Corporate governance model

EDP's shareholders approved its current corporate governance model at the Annual General Shareholders Meeting 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 Annual General Shareholders Meeting 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 2017-2018, the Executive Board of Directors is composed of nine directors who were elected at the Annual General Shareholders Meeting 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. At the Annual General Shareholders' Meeting, held on 5 April 2018, 21 members of the General and Supervisory Board for the current mandate of 2017-2018 were elected. EDP complies with the corporate governance provisions included in the Portuguese Securities Code. Furthermore, EDP adopted in full the corporate governance recommendations contained in the Corporate Governance Code approved by the Portuguese Securities Market Commission (the CMVM), with the exception of the following recommendation:

The articles of association of companies that limit the number of votes that can be held or cast by a single shareholder, individually or with other shareholders, must also set out that the amendment or maintenance of this provision must be submitted to the vote of the general meeting at least every five years — with no increased quorum requirement above that laid down by law and that all the votes cast must be counted without the aforementioned limitation on this decision.

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, as set out in Article 14 of EDP's articles of association, has been discussed by the General Meeting of EDP on two occasions. Such statutory limitation reflects the will of EDP's shareholders, expressed through resolutions of the General Meeting of EDP, to defend the Company's specific interests: (i) a change of the limit from 5 per cent. to 20 per cent. was approved by the shareholders at the General Meeting of 25 August 2011, involving participation of 72.25 per cent. of the capital and approval by a majority of 94.16 per cent. of the votes cast; and (ii) a further change to 25 per cent. (the current limit) was approved at the General Meeting of 20 February 2012, involving 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 periodically 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 attitudes of shareholders of EDP have thus proven to be in line with those advocated by the recommendation and enable EDP to pursue its goals, whilst avoiding the rigid procedures for this review set down in EDP's articles of association, which has also attracted particularly intense scrutiny from 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:

Name	Year of Birth	Position	Year Originally Elected	Last Election
António Luís Guerra Nunes Mexia	1957	Chief Executive Officer	2006	2018
Miguel Stilwell de Andrade	1976	Chief Financial Officer	2012	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 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	

António Luis Guerra Nunes Mexia, Chairman He has been Chairman of the Executive Board of Directors of EDP-Energias de Portugal, S.A. since March 2006. He is also Chairman of EDP Renováveis, S.A. and EDP-Energias de Brasil, S.A. Since April 2016, he has chaired the Business Council for Sustainable Development in Portugal (part of the WBCSD regional network) and the Board of Sustainable Energy for All, within the United Nations organisation. He was born on 12 July 1957 in Lisbon. He received a degree in Economics from the University of Geneva (Switzerland) in 1980, where he was an assistant lecturer in the Department of Economics. He was also a lecturer at Universidade Nova de Lisboa and at Universidade Católica from 1982 to 1995. He served as Assistant to the Secretary of State for Foreign Trade from 1986 until 1988. From 1988 to 1990 he was Vice-Chairman of the Board of Directors of ICEP (Portuguese Institute for Foreign Trade). From 1990 to 1998 he became member of the Board of Directors of Banco Espírito Santo de Investimentos and, in 1998, he entered the gas sector as Chairman of the Board of Directors of Gás de Portugal and Transgás. In 2000, he joined Galp Energia as Vice-Chairman of the Board of Directors and became Executive Chairman in 2001. He was President of Eurelectric between June 2015 until June 2017. In 2004, he was appointed Minister of Public Works, Transport and Communication of the Portuguese Government. In 2013, he received the Honoris Causa Graduation from Instituto Superior de Economia e Gestão (ISEG) and in 2014 he was honored by the President of the Portuguese Republic with the "Grã-Cruz da Ordem do Mérito Empresarial".

Miguel Stilwell de Andrade He was born on 6 August 1976. He graduated with an M.Eng with Distinction in Mechanical Engineering from the University of Strathclyde (Glasgow, Scotland) and an MBA from MIT Sloan (Boston, USA). He started his career at UBS Investment Bank in London, England, where he worked primarily in mergers and acquisitions in various projects in European countries, including Portugal, as well as in Japan, Thailand and Brazil. Between 1994 and 2003 he lived in Scotland, Italy, England, Portugal and the USA. In 2000, he joined EDP in the area of strategy and corporate development / mergers and acquisitions and was the Director of this area between 2005 and 2009. During this period, he coordinated and managed various mergers and acquisitions and capital market transactions for EDP, including the acquisition of several companies that gave rise to EDP Renováveis, the acquisition of Hidrocantabrico, the different phases of EDP's privatisation, EDP's share capital increase in 2004, EDP Energias do Brazil's initial public offering in 2005 and EDP Renováveis' initial public offering in 2008. He was a Member of the Board of EDP Distribuição Energia from January 2009 to February 2012. He was also Member of the Board of Directors of EDP Inovação, EDP Ventures, EDP Gas Distribuição and Chairman of InovGrid ACE. In 2012, he was appointed CEO of EDP Comercial, as well as CEO and Vice-Chairman of Hidroeléctrica del Cantabrico and Naturgas Energia, Between 2013 and 2015, he was a Member of FAE-Fórum de Administradores de Empresas's Board of Directors. In 2014, he was appointed CEO of EDP Soluções Comerciais. In 2015, he was appointed Board Member of the Câmara de Comércio Hispano Portuguesa in Spain. He was elected member of the Executive Board of EDP on 20 February of 2012 and was re-elected on 21 April 2015 and on 5 April 2018.

João Manuel Manso Neto He was born on 2 April 1958. He graduated in Economics from Instituto Superior de Economia (1981) and received a post-graduate degree in European Economics from Universidade Católica Portuguesa (1982). He also completed both a professional education course through the American Bankers Association (1982), the academic component of the master's degree programme in Economics at Faculdade de Economia, Universidade Nova de Lisboa and, in 1985, the Advanced Management Program for Overseas Bankers at the Wharton School in Philadelphia. From 1981 to 1995 he worked at Banco Português do Atlântico, holding several positions, mainly as Head of the International Credit Division and General Manager responsible for Financial and South Retail areas. From 1995 to 2002, he worked at the Banco Comercial Português, where he held the posts of General Manager of Financial Management, General Manager of Large Corporates and Institutional Businesses, General Manager of the Treasury, Member of the Board of Directors of BCP Banco de Investimento and Vice-Chairman of BIG Bank Gdansk in Poland. From 2002 to 2003, he was a member of the Board of Banco Português de Negócios. From 2003 to 2005 he worked at

EDP as General Manager and Member of the Board of EDP Produção. In 2005, he was elected CEO at HC Energía, Chairman of Genesa and Member of the Board of Naturgas Energia and OMEL. Currently he is CEO of EDP Renováveis and responsible for Regulation and Energy Management (gas and electricity) at Iberian level, being also a member of the Board of OMIE, OMIP and MIBgás. He was appointed on 30 March 2006 as member of the Executive Board of Directors and was reappointed on 15 April 2009, 20 February 2012, 21 April 2015, and 5 April 2018.

António Fernando Melo Martins da Costa Born in Oporto, Portugal in December 1954, he holds a degree in Civil Engineering from Faculdade de Engenharia do Porto (1976) and an MBA from Porto Business School (1989). He also has complementary executive degrees from INSEAD (Fontainbleau, France - 1995), PADE from AESE (Lisbon, 2000) and the Advanced Management Program from Wharton School (Philadelphia, USA – 2003). He was a teacher's assistant at the Instituto Superior de Engenharia do Porto between 1976 and 1989. In 1981, he joined the Hydro Generation department at EDP where he stayed until 1989. Between 1989 and 2003 he was General Director at the Millennium BCP Bank, and Board Member of Insurance, Pensions and Assets Management of several companies of BCP Group. Between 1999 and 2002 he was Executive Director of Eureko BV (The Netherlands), President of Eureko Polska and Vice-President of PZU (Poland). He was the CEO and Vice-Chairman of the Board of Directors of EDP - Energias do Brasil between 2003 and 2007. During this period, he also held positions as Vice-President of the Portuguese Chamber of Commerce in Brazil and President of the Brazilian Association of Electricity Distribution companies. In 2007, he assumed functions as Chairman and CEO of Horizon Wind Energy in the USA. He was also a Member of the Executive Board of EDP Renováveis from its incorporation in 2008 until 2012 and, from 2013, has been Chairman of the Board of Directors of EDP Valor. He maintains responsibilities for EDP Distribuição at EDP's Executive Board level. He is a founding member of the Portuguese Institute for Corporate Governance, Vice-Chairman of American Chamber of Commerce, Director of Hungarian Chamber of Commerce, Vice-Chairman of Proforum, Vice-Chairman of APGEI (Portuguese Association of Management and Industrial Engineering) and Member of the Superior and General Board of Porto Business School. He was appointed on 30 March 2006 as member of the Executive Board of Directors and was reappointed on 15 April 2009, 20 February 2012, 21 April 2015 and 5 April 2018.

João Manuel Veríssimo Marques da Cruz He was born on 23 May 1961. He holds a degree in Management (1984) from Lisbon's ISE at Instituto Superior de Economia da Universidade Técnica de Lisboa, an MBA (1989) from Universidade Técnica de Lisboa and a postgraduate qualification in Marketing and Management of Airlines (1992) from the International Air Travel Association (IATA)/Bath University (England). He began his career at the TAP Group (Transportes Aéreos de Portugal) in 1984 holding several positions until becoming General Director. Between 1997 and 1999 he was a Board Member of TAPGER. Between 2000 and 2002, he was a Member of the Board of several companies within the CP - Comboios de Portugal Group, namely Empresa de Manutenção de Equipamento Ferroviário, S.A. (EMEF). From 2002 to 2005, he was CEO of Air Luxor, an airline company and from 2005 to 2007 he was chairman and CEO of ICEP - Instituto do Comércio Externo de Portugal. From March 2007 to 2012, he was a Member of the Board of EDP Internacional S.A. and in 2009 he was nominated Chairman of the Board of Directors of CEM - Macao Electrical Company. He was appointed as a member of the Executive Board of Directors of EDP Renováveis on May 2012, as Chairman of the Câmara Comércio Luso-Chinesa on April 2012 and Chairman of EDP Internacional on September 2014. He was appointed as member of the Executive Board of Directors on 20 February 2012 and was reappointed on 21 April 2015 and 5 April 2018. He was appointed as a member of the Executive Board of Directors of EDP - Energias do Brazil SA on 10 April 2015. He is Chairman of Hydro Global, a joint venture between EDP International Investments and Services SL and China Three Gorges (Hong Kong) Company Limited for hydro projects of small and medium size, from 9 April 2015.

Miguel Nuno Simões Nunes Ferreira Setas He was born on 12 November 1970. He has served various roles in EDP Energias do Brasil since 2008 and became the CEO of EDP Energias do Brasil in January 2014. Between 2010 and 2013, he was the Vice-President responsible for the distribution business (CEO of EDP Bandeirante and EDP Escelsa, two electricity distribution companies) and previously, between 2008 and 2009, he was the VP responsible for New Business Development, Commercialisation and Renewables. He joined EDP in 2006 as Chief of Staff to the CEO. In 2007, he was a Board Member of EDP Comercial (responsible for the commercialisation in the liberalised energy market). He was also Board Member of EDP Inovação, Portgás and Fundação EDP. He holds a BSc. in Physics, and a MSc. in Electrical and Computing Engineering, both granted by IST (Instituto Superior Técnico, Lisbon). He has an MBA from Universidade Nova de Lisboa (Lisbon MBA). He has been working in the energy sector since 1998, when he was Corporate Director in GDP - Gás de Portugal. Since then, he has been connected to the energy sector. Between 1999 and 2001, he was Board Member of Setgás (natural gas distribution company in Setúbal, part of Galp Energia). Between 2000 and 2001, he was Executive Board Member of Lisboagás (natural gas distribution company in Lisbon, which also formed part of Galp Energia). He was Strategic Marketing Director of Galp Energia (oil and gas) until 2004. In the transportation sector, he was Executive Board Member of CP-Comboios de Portugal and CEO of CP Lisboa (largest business unit of CP), between 2004 and 2006. He started his career in 1995 as consultant in McKinsey & Co, developing strategic projects for energy, banking, insurance, retail and industry clients. He was appointed on 21 April 2015 as a member of the Executive Board of Directors and was reelected on 5 April 2018.

Rui Manuel Rodrigues Lopes Teixeira He was born on 10 October 1972. He serves as Chief Executive Officer of EDP – Gestão da Produção de Energia, S.A. He is also a Member of the Board of Directors of several subsidiaries of EDP. From 1996 to 1997, he was assistant director of the commercial naval department of Gellweiler — Sociedade Equipamentos Maritimos e Industriais, Lda. From 1997 to 2001, he worked as project manager and ship surveyor for Det Norske Veritas, with responsibilities for offshore structures, shipbuilding and ship repair. Between 2001 and 2004, he was a consultant at McKinsey & Company, focusing on energy, shipping and retail banking. From 2004 to 2007, he headed the corporate planning and control division of EDP. In 2007, he also served as Chief Financial Officer of EDP Renewables Europe SL. From 2008 until 2015, he was member of the Board of Directors of EDP Renováveis, S.A., member of the Executive Committee, and the Chief Financial Officer of the company. He holds a MSc degree in Naval Architecture and Marine Engineering from Instituto Superior Técnico de Lisboa, a Master's in Business and Administration from Universidade Nova de Lisboa and is a graduate of Harvard Business School's Advanced Management Program. He was appointed on 21 April 2015 as member of the Executive Board of Directors of EDP and was reelected on 5 April 2018.

Maria Teresa Isabel Pereira She was born on 17 February 1965. She holds a Law degree from Lisbon Law School, where she lectured on Contract Law. She was admitted to the Portuguese Bar Association as a Lawyer in 1997. Her professional career as a lawyer started in the Group, at Proet – Projectos, Engenharia e Tecnologia, S.A., a company incorporated later as EDP – Gestão da Produção de Energia, S.A. In 1998, when the Portuguese telecommunications market was liberalised, she joined the telecommunications area, and, in 2000, became General Counsel at ONI SGPS. In 2005, she returned to EDP, and, from 2006 until 2018, she was EDP's Company Secretary, General Secretary and General Counsel in EDP's Corporate Centre in General Secretariat and Legal advice (SGAJ). This department provided administrative and logistical support to the Executive Board of Directors and acted as legal counsel to the Group, with the aim of assuring an efficient functioning of the Corporate Centre, compliance with all applicable laws, as well as assuring the harmonisation of corporate governance policies within the Group. She was elected member of the Executive Board of EDP on 5 April 2018.

Vera de Morais Pinto Pereira Carneiro She was born on 23 April 1974. She graduated with a post-graduate degree in Economics from Universidade Nova de Lisboa-Nova School of Business and Economics and has a Master's in Business Administration, which she received in 2000, in INSEAD, Fontainebleau, France. She began her professional career in 1996 as associate in Mercer Management Consulting (today Oliver Wyman). Afterwards, between 2001 and 2003, she became a founding partner of Innovagency Consulting. In 2003, she worked in TV Cabo Portugal – PT Multimédia (today NOS) as TV Service Director. In September 2007, she became TV Service Director in MEO – Portugal Telecom, where the most relevant projects included MEO Pay TV service launch across three platforms (IPTV over ADSL, IPTV over fiber and Satellite and MEO Go!) on all devices and the creation of a leading interactivity experience on TV. Between January 2014 and April 2018, she was Senior Vice President and Managing Director for Spain and Portugal at Fox Networks Group and member of the Executive Leadership Team Europe and Africa. Currently she is also a non-Executive Board Member in Pulsa Media, in Barcelona, which is a TV Advertising Sales House, representing DTT and PayTV channels from several media groups operating in the Spanish Market. She was elected member of the Executive Board of EDP on 5 April 2018.

# **General and Supervisory Board**

The General and Supervisory Board is primarily responsible for permanently monitoring the management of EDP and its subsidiaries and providing advice and support to the Executive Board of Directors, primarily with respect to strategy, reaching objectives and complying with applicable laws. The General and Supervisory Board also carries out other supervisory and control functions relating to the Group's activities, and it maintains a mandatory financial matters committee and audit committee composed of five of its members, which is responsible for overseeing the financial data and auditing of EDP.

The names of the members of the General and Supervisory Board, along with their principal affiliations and certain other biographical information, are set forth below:

Name	Year of Birth	Position	Year Originally Elected	Last Election
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 Yinsheng Li)	1973	Member	2018	-
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	1958	Member	2018	-

Year of

Name Birth Position Year Originally Elected Last Election

Silva Barroso

On 26 July 2018, António Manuel de Carvalho Ferreira Vitorino, appointed as member of the General and Supervisory Board at the General Shareholders' Meeting held on 5 April 2018, presented his resignation as Chairman of the General Shareholders' meeting and, in accordance with EDP's by-laws, 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, former representative of China Three Gorges International Corp., was appointed as representative of China Three Gorges Corporation and as Vice-Chairman of the General and Supervisory Board; (iii) Shengliang Wu, former representative of CTG, was appointed as representative of China Three Gorges International Corp.; and (iv) Ignacio Herrero Ruiz was appointed as representative of CTG.

Luís Filipe Marques Amado, Chairman He was born on 17 September 1953. He is a native of Porto de Mós, with a degree in Economics and an auditor of Tribunal de Contas. He was a deputy of Assembleia Regional da Madeira and of Assembleia da República, Secretary of State of Internal Administration and Foreign Affairs, Minister of National Defense and Minister of State and of the Foreign Affairs and Cooperation. He was a visiting professor at Georgetown University. Currently, he is an advisor. He was non-Executive Chairman of Banif and is non-executive director of SOM. He is an invitee professor of Instituto Superior de Ciências Sociais e Políticas, and of Paris School of International Affairs (PSIA). He is a curator of Fundação Oriente and member of the Board of Directors of Fundação Francisco Manuel dos Santos. He is a member of the European Council of Foreign Relations and of Centre for International Relations and Sustainable Development (CIRSD). He received the "Grã-Cruz da Ordem de Cristo" and several distinctions from foreign governments. He was elected Vice-Chairman of EDP General and Supervisory Board at the General Shareholders Meeting held on 21 April 2015 and Chairman of EDP General and Supervisory Board on the General Shareholders' Meeting held on 5 April 2018.

Dingming Zhang He was born on 1 December 1963. He has a bachelor's degree in Power System and Automation from Huazhong University of Science and Technology in 1984 and a master's degree in Management from Huazhong University of Science and Technology in 2001. He served as an associate and then Deputy Division Chief in the Key Project Construction Department of the State Planning Commission of China (1984-1994), working in Germany between 1992 and 1993. He then worked as Deputy Division Chief, Division Chief and Deputy Director of Capital Planning Department of the China Three Gorges Construction Committee under the State Council (1994-2002), before he became Deputy Director of Power Production Department of China Three Gorges Corporation (2002). He then worked as Executive Vice President of China Yangtze Power Company Limited (2002-2011) and President of Beijing Yangtze Power Capital Co. Ltd. (2008-2011). His past experience also includes Director of the Board of Guangzhou Development Industry (Holding) Co. Ltd. and Director of the Board of Yangtze Three Gorges Technology and Economy Development. From 2011 to 2015, he served as Board Secretary, Director of Strategic Development Department and Director of Marketing Department in China Three Gorges Corporation. Since 2015, he has been President of China Yangtze Power Company Limited. He was appointed Vice-Chairman of the General and Supervisory Board of EDP, representing the China Three Gorges Corporation, on 20 February 2012 and initiated his term of office on 11 May 2012 until 21 April 2015. He was then appointed as representative of CWEI (Europe), S.A. as Member of EDP's General and Supervisory Board on 21 April 2015. On 5 April 2018 at the General Shareholders' Meeting, he was appointed member of EDP's General and Supervisory Board in representation of China Three Gorges International Corporation. He resigned as representative of China Three Gorges International Corporation with effect from 4 December 2018 and on the same date he was appointed Vice Chairman as representative of China Three Gorges Corporation.

Shengliang Wu He was born on 11 March 1971. He received a bachelor's degree in Engineering from Wuhuan University of Hydraulic and Electrical Engineering in 1992 and a master's degree in Technical Economics and Management from Chongqing University in 2000. He served as a technician and later as an engineer in Gezhouba Hydropower Plant (1992-1998), Secretary of the Corporate Affairs Department in Gezhouba Hydropower Plant (1998-2002), Financial Manager of the Capital Operating Department of China Yangtze Power Company (2002-2003), Information Manager and then Deputy Director of Office of the Board of China Yangtze Power Company (2004-2006), and Deputy Director and then Director of the Capital Operating Department of China Yangtze Power Company (2006-2011). His past experience includes Director of the Board of Daye Non-ferrous Metals Co., Ltd (2008-2011) and Executive Vice President of Beijing Yangtze Power Capital Co. Ltd (2008-2011). In 2011, he was appointed as Deputy Director of Strategic Planning Department in China Three Gorges Corporation. Since 2015, he has been Vice President of China Three Gorges International Corp. and President of China Three Gorges (Europe), S.A. He was appointed member of the General and Supervisory Board of EDP, representing China Three Gorges International (Europe), S.A., on 20 February 2012 and initiated his term of office on 11 May 2012 until 21 April 2015. He was then appointed as

representative of China Three Gorges (Portugal), Sociedade Unipessoal, Lda., and was elected as Member of EDP'S General and Supervisory Board on 21 April 2015 at the General Shareholders' Meeting. He was appointed as representative of China Three Gorges (Europe), S.A., and re-elected as Member of EDP's General and Supervisory Board on 5 April 2018 at the General Shareholders' Meeting. He resigned as representative of China Three Gorges (Europe), S.A. with effect from 4 December 2018 and on the same date he was appointed as representative of China Three Gorges International Corporation.

Ignacio Herrero Ruiz He was born on 22 May 1974 in Guecho, Spain. He received a degree in Economics from Universidad Carlos III (Madrid) in 1997. He started his career at Citigroup Investment Bank in Madrid from where he moved in 1998 to Deutsche Bank Investment Banking Division in London where he joined the mergers and acquisitions department and focused his job with financial sponsors, being involved in transactions in Europe, United States and Latin America. In 2003, he moved to Deutsche Bank Investment Banking Division in Madrid, where he continued focused on merger and acquisitions and assumed coverage responsibilities for financial sponsors and the industrial sector. In 2007, he moved to Credit Suisse in London, where he joined the European Energy Group. Between 2007 and 2016, he had industry and coverage responsibilities for Southern Europe Power sector having led numerous landmark capital markets, merger and acquisitions and financing transactions in the sector across Europe, United States, Latin America and Asia. After 18 years in investment banking, he joined China Three Gorges Corporation in 2016 as Executive Vice President and the China Three Gorges Corporation international platform for power business development in Europe and North America. He was appointed member of the General and Supervisory Board of EDP as a representative of China Three Gorges (Europe), S.A., on 4 December 2018.

**Yinsheng Li** He was born in 1973 in Heilongjiang, China. He received both bachelor's degree in Science (1996) and master's degree in Engineering (2004) from Tsinghua University in China. He attended a global EMBA program (OneMBA) at FGV Brazil in 2018. He started his career at China International Water & Electric Corp. (CWE) in 1996 as a Civil Engineer and Quantity Surveyor, and took several managerial positions thereafter as Project Manager, Country Manager and a business unit Deputy General Manager. In 2009, he was transferred to China Three Gorges Corporation after CWE merged into China Three Gorges Group. He was appointed as Divisional Chief on International Department (2009) and Deputy Director of CTG/EDP Collaboration Department (2012). In 2013, he led the effort to establish CTG Brasil and was appointed as the first CEO (2013). CTG Brasil has grown to become one of the largest energy companies in the country. He also serves as Executive Vice President of China Three Gorges International Corp. (2016). He was appointed as representative of CTG Brasil and was elected as Member of EDP's General and Supervisory Board on 5 April 2018 General Shareholders' Meeting.

Eduardo de Almeida Catroga He was born on 14 November 1942. He has a degree in Finance from ISEG of Universidade Técnica de Lisboa and a post-graduate degree from Harvard Business School. He served as Minister of Finance of the Portuguese government from 1994 to 1995. He is a guest senior lecturer in business strategy for the ISEG MBA program. He has focused his career on corporate management and administration, specifically within CUF and in SAPEC, where he was CFO (1974) and General Director, respectively. Currently, he is a non-executive Chairman of the Board of Directors of the SAPEC Group, member of the Board of Nutrinveste, member of the Board of Banco Finantia and member of the Investments Committee of Portugal Venture Capital Initiative, an equity fund promoted by the European Investment Bank. He was designated for the first time member of the EDP General and Supervisory Board on 30 June 2006 and he was reappointed on 15 April 2009. He was appointed Chairman of the General and Supervisory Board of EDP on 20 February 2012 and on 21 April 2015, in representation of China Three Gorges Corporation. He was appointed as a representative of China Three Gorges (Portugal), Sociedade Unipessoal, Lda. and was re-elected as Member of EDP's General and Supervisory Board on 5 April 2018 General Shareholders' Meeting.

Felipe Fernández Fernández He was born on 21 December 1952. He has a degree in Economics and Management Sciences (1970 - 1975) from the University of Bilbao. His professional career includes the following positions: Professor at the Faculty of Economics and Business, University of Oviedo (1979 - 1984), Director of Regional Economy and Planning of the Principality of Asturias (1984 - 1990), Member of the Board and Executive Committee of the Caja de Ahorros de Asturias (1986 - 1990), Member of the Board of Directors and Vice-President of "Sociedade Asturiana de Estudios Económicos e Industriales" (1986 - 1990), Member of the Board of Directors and Vice-President of the company SEDES, SA (1988 - 1990), President of the Committee for Planning and Urbanism of Asturias (1990 - 1991); Counsel for Planning, Urbanism and Housing in the Principality of Asturias (1990 - 1991); Counsel for Rural and Fishing Affairs in the Principality of Asturias (1991 - 1993), Director of the Department of Management Control of Hidrocantábrico (1993 - 1998); Director of the Department of Management Control, Purchasing and Quality of Hidrocantábrico (1998 - 2001), President of the company Gas Asturias (2001 - 2003), Director of Support Areas and Control of Hidrocantábrico (2001 - 2002); Hidrocantábrico CFO, Chairman of Gas Capital, CEO of Hidrocantábrico Servicios, Board Member of Naturcorp, Gas de Asturias, SINAE, Canal Energía, Telecable and Sociedad Regional de Promoción de Asturias (2002 - 2004). He is currently a Board Member of Liberbank, General Manager of Caja de Ahorros de Asturias, President of Infocaja and Lico Corporación, Board Member of HC Energía, Ahorro Corporation and Tudela Veguín. He is also a Board Member of da Sociedad Promotora de las Comunicaciones en Asturias (SPTA). He was appointed member of the General and Supervisory Board of EDP, representing Cajastur Inversiones SA, on 20 February 2012 and in 21 April 2015 and 5 April 2018, representing DRAURSA, S.A.

Fernando María Masaveu Herrero He was born on 21 May 1966 in Oviedo (Asturias). He received a law degree from the University of Navarra. He started to work at Masaveu Group in 1993 where he held various roles. He currently holds the following positions, among others: Chairman of Masaveu Corporation; Cementos Tutela Veguín; Agrocortex Florestais do Brasil; Masaveu LLC; Masaveu Real Estate US Delaware LLC; Board Member of Hidroelectrica del Cantábrico, S.A.U.; Board Member of Naturgas Energía Grupo; Board Member of Bankinter; Member of the Bankinter Executive Committee; Board Member of ENEO SGPS; Board Member of Olmea International; Chairman of Fundação Maria Cristina Masaveu Peterson; Chairman of the Fundação San Ignacio de Loyola; Protector of Fundação Princesa das Astúrias; Member of the Executive Committee of Fundação Princesa das Astúrias; Member of the Executive Committee of Fundação Princesa das Astúrias; Member of the Patrimonial Committee of Fundação Princesa das Astúrias; International Protector of Associação Amigos do Museu do Prado; Honor medal of Escuela Superior de Música Reina Sofia; Patroness of scholarships and Chairman of the Board of Oppidum Capital, S.L. Beyond this. he is a Member of the Board of several companies in Masaveu Group. He is a Member of the EDP General and Supervisory Board; Member of EDP Strategy and Performance Committee and Member of the EDP Remuneration Committee. He was elected as a Member of EDP's General and Supervisory Board on 20 February 2012 and was re-elected on 21 April 2015 and 5 April 2018. In the past, he occupied relevant positions in several areas: learning and development; Board Member and Vice-Chairman of Agrupación de Fabricantes de Cemento (OFICEMEN) and joint Board Member of Masaveu Medicina; Furthermore: Chairman of Bodegas Murúa, Bodegas Fillaboa and Bodegas Pagos de Aráiz, Board Member at Rioja Alta; Foundations: Protector and Chairman of Fundação Masaveu, Protector and Secretary at Fundação Virgen de los Dolores, Protector of Fundação Oso; Energia: Chairman of Audit Committee of Hidroeléctrica del Cantábrico; Financial: Board Member of Financiera Interprovincial SINCAV, Board Member of Banco Herrero, Member of the International Advisory Board of Santander Group; Transportation: Joint Board Member of Transportes Covadonga, Comercial Iberoamericana de Servicios e Fletamentos y Consgnaciones Marítimas; Environment: Board Member of Teconma; Medical: Board Member of Molypharma and of Medicina Asturiana; Editorials: Vice-Chairman of the Board of Directors and of the Executive Committee of Ediciones Nobel; Real State and Concessions: Joint Board Member of COCANSA, Chairman of the Board of Directors of DRAURSA, Chairman of the Board of Directors of Estacionamentos Iruña, Joint Director of Aparcamientos Asturias y Estacionamientos Noroeste, Vice-Chairman and Board Member of Propriedades Urbanas, Chairman of the Board of Directors of Agüeira e Hoteles y Turismo de la Meseta, Managing Director of Danyson Kft.

Karim Djebbour He was born on 13 August 1957 in Paris. He has a degree in Experimental Sciences (1978), a degree in Agronomic Engineering (expertise in Rural Economy - 1983) and a degree in Assessment Economic and Financial Project (C.E.F.E.B. Paris – 1988/89). Between 1984 and 1991, he held several positions at Banque de l'Agriculture et du Développement Rural, namely as sub director of Evaluation de Projects. From 1991 to 1993, he was sub director at the Ministry of Economy, responsible for productive investments. He joined the SONATRACH Group in 1993 as General Manager Assistant in Project Financing. From 1999 to 2001, he was Finance Director of SONATRACH's branch (Filiales et Participations); General Manager of the Holding SONATRACH Services Parapétroliers SPP (2001-2007); CEO of BRC (Brown and Root Condor) in January 2007 and CEO of ENGCB (Génie civil et bâtiment) in June 2007. In 2008, he was General Manager of SONATRACH Investissements et Participations SIP; General Manager of SONATRACH International Holding Corporation SIHC BVI (June 2010); and Consultant of Filiales et Participations Executive Board (November 2013). From January 2014 to June 2015, he was Chief of Staff of SONATRACH's CEO. Between June 2015 and March 2017, he was Consultant of the Executive Board of SONATRACH Group. He is currently the Chief of Staff of SONATRACH's CEO.

Mohammed Al Huraimel Al Shamsi He was born on 27 October 1978. He is a C-Level professional experienced in strategic planning, business operations leadership, negotiation, and talent management. He has a proven track record in successfully obtaining returns on investment through successful management of investments and has experience in the private and government sectors. He is currently the Director of Utilities Investments in Mubadala Investments Company, where he is responsible for the utilities investments portfolio, which includes thermal power generation and district cooling assets. During his tenure at Mubadala, he has spearheaded the development of Suyadi, a \$150 million green field joint venture in China, turned around Tabreed, an United Arab Emirates provider of distributed cooling services, and was placed as interim Chief Executive of MINESA, a \$200 million gold mine in North East Colombia. He has held board seats in Tabreed District Cooling (United Arab Emirates), Jiangsu Suyadi (China), Shariket Kahraba Hadjret-En-Nous (SKH) S.A.R.L. (Algeria), and SMN Power Company (Oman). Prior to Mubadala, he was the director of Strategy & Policy at the United Arab Emirates Prime Minister's Office, where he was responsible for developing the United Arab Emirates Vision 2021 and the Federal Government Strategy 2011-2013 across 48 government agencies. He has also held roles at McKinsey & Company, Dubai International Capital, and General Motors. He holds an MBA from the HEC School of Management-Paris and a bachelor's degree in Business Administration from the American University of Sharjah. He was appointed as representative of Senfora BV on 21 April 2015. He was re-elected as Member of EDP's General and Supervisory Board on 5 April 2018 General Shareholders' Meeting.

Nuno Manuel da Silva Amado He was born on 14 August 1957. He has a degree in Companies Organization and Management from ISCTE - Instituto Superior das Ciências do Trabalho e da Empresa. He also holds a complementary executive degree from INSEAD, Fontainebleau (Advanced Management Programme). From 1980 to 1985 he was employee of KPMG Peat Marwick, in the audit and consulting department. From 1985 onwards he worked at Citibank and Banco Fonsecas & Burnay. Afterwards, he was Member of the Board of Directors of Deutsche Bank Portugal, Member of the Executive Commission of BCI (Banco de Comércio e Indústria) / Banco Santander, Vice-President of the Executive Commission of Banco Totta & Açores, Member of the Executive Commission of Banco Santander Negócios de Portugal, of Banco Santander Totta, S.A. and of Banco Santander Totta, S.A. and of Banco Santander Totta, SGPS. From August 2006 until January 2012 he became CEO and Vice-Chairman of the Board of Directors of Banco Santander Totta, S.A. and of Banco Santander Totta, SGPS. Since February 2012 he is Vice-Chairman of the Board of Directors and CEO of Banco Comercial Português. He was appointed as a Member of the General and Supervisory Board of EDP on 6 May 2013. At the General Shareholders' Meeting on 21 April 2015, he was elected Member EDP – Energias de Portugal, S.A., representing Banco Comercial Português, S.A., and was re-elected on 5 April 2018.

Maria Celeste Ferreira Lopes Cardona She was born on 30 June 1951. She holds a degree, a master and a Phd (legal-administrative sciences, specialisation in Administrative Law) in law from Faculdade de Direito da Universidade de Lisboa. She was a Member of Centro de Estudos Fiscais of the Minister of Finance. She represented Portugal, on behalf of the Minister of Finance, on the Tax Affair Committee of OECD (Organisation for Economic Cooperation and Development). She has been an Assistant Professor at Faculdade de Direito da Universidade de Lisboa and at Universidade Lusíada. She was Deputy at the European Parliament and at the National Parliament. She was Minister of Justice of the XV Constitutional Government. She received the degree of Grande Oficial da Ordem do Infante D. Henrique, attributed in 1998, by his Excellency the President of the Portuguese Republic. She was also a non-executive Board Member of Caixa Geral de Depósitos. She has published articles and opinions in specialty magazines, namely in "Ciência e Técnica Fiscal". She is also author of several monographs and varied studies, such as "As agências de regulação no Direito Comunitário", "O problema da retroactividade na lei fiscal e na Constituição", "A prescrição da obrigação tributária e a caducidade da liquidação de impostos", and "A natureza e o regime das empresas de serviço público". She is currently a lawyer and a consultant in M. Cardona Consulting, Lda. and also a non-executive member of BCI, headquartered in Maputo, Mozambique, a member of the Fiscal Council of SIBS and a legal and fiscal consultant for several financial and non-financial institutions. She was appointed Member of the General and Supervisory Board of EDP on 20 February 2012, and was reappointed on 21 April 2015 and 5 April 2018.

Ilídio da Costa Leite de Pinho He was born on 19 December 1938. He has a degree in Electronics and Machinery Engineering. He received a Grã-Cruz Order of Merit and is an Honorary member of the Industrial Order of Merit and was a Member of the "Ordens Honorificas Portuguesas" from 1986 to 1999. He received a Gold Medal and "Honorary citizen" award granted by the city of Vale de Cambra in 1999. He received a Gold Medal and "University Benefactor" award granted by Universidade Católica Portuguesa and a Golden Badge by the Portuguese Association of Voluntary Firemen in 2002. Between 1986 and 1991, he was a non-executive Board of Directors Member of ICEP (Instituto do Comércio Externo de Portugal), representing the National Industry. He was President of the City Hall Council of Vale de Cambra between 1979 and 1983 and President of the City Hall Assembly of Vale de Cambra between 1993 and 1997. He was a member of the Administrative Committee of Universidade Católica - Oporto and of the Senate of Universidade do Porto, Member of the University Counsel of Universidade de Aveiro, Member of the board of several business association and Member of the Trilateral Commission between 1988 and 1996. He was founder and Chairman of the Board of Directors of COLEP and founder of NacionalGás, S.A. and its subsidiaries, LusitâniaGás, EGA, EGL, EMPORGÁS, EDISOFT, S.A. and MEGASIS. He was the main shareholder of Transinsular, a non-executive Member of the Board of Directors of Banco Espirito Santo, S.A. between 2000 and 2005, a shareholder of CEM - Companhia de Electricidade de Macau, SARL, Chairman of the Strategy Committee of Fomentinvest, S.A. and founder and Chairman of the Board of Directors and the Board of Trustees of Fundação Ilídio Pinho. He has been Chairman of various companies of Group Ilídio Pinho. He was appointed as a member of the General and Supervisory Board of EDP on 20 February 2012 and was reappointed on 21 April 2015 and 5 April 2018.

Jorge Avelino Braga de Macedo He was born on 1 December 1946. He has a law degree from Universidade de Lisboa in 1971. At Yale University, he completed his master's degree in International Relations (1973) and also has a PhD in Economics (1979). He graduated from the Faculty of Economics of Universidade de Lisboa in 1982. From 1999 to 2003, he belonged to the OECD (Organisation for Economic Cooperation and Development) and the European Commission in Brussels between 1988 and 1991. At a national level, he was Minister of Finance (1991 – 1993, having chaired ECOFIN) and President of the Parliamentary Commission for European Affairs (1994 – 1995) and of the Instituto de Investigação Científica e Tropical (2004 – 2015). He has taught in several universities in the USA, Europe and Africa. He was a trainee at the International Monetary Fund and has been a consultant at the European Bank for Reconstruction and Development, the United Nations and the World Bank. Currently, he is a Professor and Director of the Center for Globalization and Governance (CG & G) at the Nova School of Business and Economics of the Universidade Nova and a researcher at NBER (Cambridge, Mass), CEPR (London) and CIGI (Waterloo, Ont.). He was

appointed member of the General and Supervisory Board of EDP on 20 February 2012 and was reappointed on 21 April 2015 and 5 April 2018.

Vasco Joaquim Rocha Vieira He was born on 16 August 1939. He has a degree in Civil Engineering. He took several courses and specialities, including General Course of Staff (1969 - 1970), Complementary Course of General Staff (1970 - 1972), Course of Command and Direction for Official General (1982 - 1983) and the Course of National Defense (1984). In 1984, he was promoted to Brigadier and in 1987, he was promoted General. In 1956, he joined the Military College having received the Alcazar of Toledo Award given to the highest rated finalist of all students from the Military Academy. From 1969 to 1973, he collaborated with Lisbon's City Hall. He taught at the Military Academy and at the Institute for Advanced Military Studies. He was Deputy Secretary for Communications and Public Works of the Macau Government (1974 – 1975). He was Director of Weapons and Engineering (1975/1976) and Chief of Staff of the Army (1976/1978) during the normalisation period of the Army's role in the democratic regime following the 1974 Revolution, of the military reconversion, of the operative and missions of the Army at the end of the Ultramar war and the demobilisation and reorientation of the Army for Portugal responsibilities before NATO. During this period, he was, inherently, member of the Revolution Council. He was national military representative (1978/1984) at Europe Supreme Allied Command – SHAPE/NATO, Minister of Republic for Azores Autonomous Region with chair at Council of Ministers (1986/1991). He was appointed as Macao Governor in 1991, where he was responsible for the management of this territory during the transition period until the power transference from Portugal to the People's Republic of China in 1999. Currently, he is Member of the Board of Engineers, Member of the Academy of Engineering, Member of the Supreme Council of Associations of the Former Students of the Military College, member of the Supreme Council of SHIP (Sociedade Histórica da Independência de Portugal), member of the Honorary Council of the ISCSP (Instituto Superior de Ciências Sociais e Políticas) and Member of the School Board of the same Institute. He is an honorary associate of Lisbon Geography Society, of Sociedade Histórica da Independência de Portugal and of the Combatants League. He was appointed member of the General and Supervisory Board of EDP on 20 February 2012 and reappointed on 21 April 2015 and 5 April 2018.

Augusto Carlos Serra Ventura Mateus He was born on 27 August 1950. He has a degree in Economics from Instituto Superior de Economia e Finanças (ISCEF), da Universidade Técnica de Lisboa. He is a guest professor at ISEG with diversified responsibilities in the areas of European and Portuguese Economy, Economic Policy and Industrial and Competitiveness Policy at the level of degrees and masters' degrees. He is a researcher and consultant in the areas of macroeconomics, economic policy, industrial competitiveness, business strategy, territorial development, program evaluation, policy and economic development of culture and creativity. He is responsible for the coordination of several studies of evaluating programs and policies and for the coordination of several research projects and studies in applied economics. He has held the positions of Secretary of State for Industry (October 1995 until March 1996) and Ministry of Economy (March 1996 until December 1997). He is currently Chairman of the consulting company Augusto Mateus & Associados, founded in 1998, and General Chairman of Instituto Politécnico de Tomar since 2011. He was appointed member of the General and Supervisory Board of EDP on 6 May 2013 and was reappointed on 21 April 2015 and 5 April 2018.

João Carvalho das Neves He is a professor in finance and planning and management control at ISEG, Universidade de Lisboa. He is a director with a masters degree in Real Estate Management and Assessment. He is an advisor at A2ES – Agência de Avaliação e Acreditação do Ensino Superior para as áreas da Gestão, Gestão de Saúde, Banca e Finanças. He is manager advisor (pro bono) of Raríssimas-Associação Nacional de Doenças Mentais e Raras . He is an independent management consultant and has a PhD from Manchester Business School, centre for Creative Leadership, Kennedy Harvard Government School, a PhD in management control (HEC Paris and Wisconsin Graduate Business School in Madison), in company finances (IMD and Management Centre of Europe), in international finances (INSEAD), in analysis and risk management (Stern New York University) and in banks (International Banking Centre from Manchester Business School and the International Centre for Monetary and Banking Studies in Geneva). He has been a fellow of the Royal Institution Chartered Surveyors (RICS) (management and assessment of real estate) since January 2008. He has been a Statutory Auditor since 1998 and a Technical Accountant admitted since 1981. He was approved as a Business Coach by the ECA European Coaching Association He was approved as Multi-Health Systems in Emotional Intelligence Bar-On model. He was Chairman of ACSS Administração do Sistema Central de Saúde, I.P (2011-2014), a Board Member of BPN (2008) and SLN (2008 - 2009) where he was included as member of Miguel Cadilhe team and a Judicial administrator (1993 – 1998) of Torralta, TVI and Casino Hotel de Troia, taking part in the recovery process of these companies. He was an Associated Partner of Coopers & Lybrand, now PricewaterhouseCoopers (1992 – 1993), director of CIFAG/IPE (1985 - 1992) and assistant controller of Cometna (1981 - 1984). He was a Member of the Scholar Council ISEG (2014); Chairman of the Audit Board ADVANCE Centro de Investigação em Gestão do ISEG (2009 - 2014), Chairman of the Audit Board of Federação Portuguesa de Judo (1997 – 2013), Member of the Audit Board of SIBS, S.A. (2007 – 2008), Member of the Audit Board of FCCN – Fundação para a Computação Científica Nacional (2009 – 2011), Member of the Scientific Council of INE for the housing prices index (2010 – 2011), Member of ISEG Scientific Council (2005 – 2008), Chairman of Management Department at ISEG (2007 – 2008) and MBA Director at ISEG (1998 – 2020 and 2014 - 2016). He has a post-graduate and master's degree in management and real estate assessment (2001). He

has relevant experience as consultant, invitee professor abroad and author and co-author of management books. To point out the activity developed in the risk area, namely the attendance of courses, the coordination of projects, the co-authorship on several articles on the matter, the communication in national and international conferences and the guidance in PhD dissertations. He was elected member of the General and Supervisory Board of EDP on 21 April 2015 and was reappointed on 5 April 2018.

María del Carmen Fernández Rozado She has a Degree in Economics, Business Administration and Political Science and Sociology from the Complutense University of Madrid. She also has a PhD from the aforementioned University and an MBA from IESE Business School (University of Navarra). She became a member of the State Tax Inspectors Body, by public competition. She is an Account Auditor (registered in the Auditing and Accounting Institute). During her professional career, she has participated in more than 50 workshops, international and national workshops and seminars regarding finance, auditing, tax, global management, business strategy, renewable energies and international cooperation. She has more than 35 years of experience in the field of finance, accounting, taxation and the energy sector. From 1983 to 1999, she occupied relevant positions in the Ministry of Economy and Finance (General Tax Inspector Chief in Madrid). In 1999, she was appointed member of the Board of the National Energy Commission (Regulatory Body of Spanish Energy System). During this period (1999-2011), she participated in the Planning of the Sector including authorisations, mergers and acquisitions as well as in the implementation of the retribution model for electricity distribution in the Spanish market and other subjects. She was President of the Renewable Energy Task Force, Sustainability Energy Efficiency and Carbon Market in ARIAE (Latin American Energy Regulators Association) for several years. A large part of her professional career has been carried out in Latin America providing technical assistance to the regulatory bodies in Peru, Colombia, Dominican Republic, Guatemala, Argentina and Uruguay regarding aspects of the implementation of technical norms in the tender of renewable energies. She was involved in the development of projects in wind, solar and mini hydraulic, energy efficiency, carbon markets (elaboration of PDDs, baseline, follow-up and monitoring of GEI emissions). She has been Vice-President of renewable energies in MEDREG, the Association of Mediterranean Energy Regulators. Since September 2011, she has been the international advisor for the development and implementation of business plans in Energy and Infrastructure in Latin America and Asia. From 2012 to 2013, she was a member of the Advisory Board of Ernst & Young in Madrid. In April 2015, she was appointed member of the General and Supervisory Board and of the Audit Committee of EDP and was reappointed on 5 April 2018. She has also held the following positions: professor at several universities and business schools across Europe, developing programs in relation to fiscal, account auditing, financing of renewable energy projects and carbon markets. She is author of numerous articles and publications regarding the previously mentioned activities. She is a member of Several Professional Associations in Spain and Latin America. She is a patron of the Comillas University Foundation ICAI-ICADE in Madrid and Vice-president of the Club Financiero Genova, Madrid.

Laurie Fitch She was born on 26 January 1970. She has a bachelor's degree in Arabic and Middle East Studies from the American University and a master's degree in Arab Studies from Georgetown University, School of Foreign Service. She was Assistant Vice President (Middle East and Africa Division) of the Bank of New York, between 1994 and 1999. She worked as Equity Research Associate Analyst at Schroder & Co/UBS in New York, with institutional Investor-ranked US consumer product analysts. Between 2002 and 2006, she was Managing Director (Active Equities) of the pension funds TIAA-CREF, in New York. Between 2006 and 2011, she became senior analyst and later partner in Artisan Partners in New York, specialist investor in utilities (International Growth Strategies), industrials and infrastructure stocks for long-only asset manager. Between 2012 and 2016, she worked as Managing Director and Co-Head of Global Industrials Group, in Investment Banking Division, in Morgan Stanley & Co., in London. Since September 2016, she has been a partner of PJT Partners, as a corporate finance advisor with a multi-sector focus on utilities and global industrial manufacturers. She was elected member of the General and Supervisory Board of EDP on 5 April 2018.

Clementina Maria Dâmaso de Jesus Silva Barroso She was born in Angola on 10 May 1958. She has a PhD in Applied Business Management (ISCTE - IUL), a Master's in Business Management (ISEG-UL) and a degree in Management (ISCTE-IUL). Currently, she is an invited Associate Professor in the Department of Finance of ISCTE-IUL (since 1982), Official Accountant /Statuary Auditor (since 1999), Non-executive Director and Member of the Audit Committee of Banco CTT, S.A. (since 2015), Non-Executive Director and Member of the Audit Committee of Sociedade Gestora de Fundos de Investimento FundBox, SFIM, S.A. (since 2011) and Member of the Board of Directors of the Portuguese Institute of Corporate Governance (since 2016). In the past, within the scope of Executive Education at INDEG / ISCTE, she was Member of the Board and General Director (1999-2013) and Administrative and Finance Director (1990-1999). In Banco Espírito Santo e Comercial de Lisboa (BESCL), she worked at the Department of Special Credit Operations (1988-90) and in Telefones de Lisboa e Porto (TLP), she worked at Central Organization Department (1982-1987). She was elected member of the General and Supervisory Board of EDP — Energias de Portugal, S.A. on 5 April 2018.

#### **EXECUTIVE OFFICERS**

EDP has 22 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:

	Year of	Year of	
Name	Birth	Appointment	Position
SUPPORT TO GOVERNANCE AREA			
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 and Compliance
			Department
STRATEGIC AREA			
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
Ricardo Ferreira	1971	2018	Head of Studies and Competition Department
FINANCIAL AREA			
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
SYSTEMS AND ORGANISATIONAL AREA			
José Filipe Santos	1967	2012	Head of Organisational Development
			Department
José Manuel Ferrari Bigares Careto	1962	2018	Head of Digital Global Unit Department
HUMAN RESOURCES AREA			
Paula Carneiro	1967	2013	Head of Human Resources Department
Jorge Cruz Morais	1957	2017	EDP University
MARKETING AND COMMUNICATION AREA			
Paulo Campos Costa	1965	2015	Head of Global Coordination of the Trademark,
			Marketing and Communication Department
Paulo Miguel Lopes	1957	2015	Head of Institutional Relations and Stakeholders
			Department
SUSTAINABILITY, ENVIRONMENT AND ETHI		T = = = =	T.,
António Castro	1959	2016	Head of Sustainability Department
Maria Manuela Silva	1955	2018	Ethics Ombudsman
BUSINESS UNITS	1	T	
Carlos Mata	1963	2012	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 Av. 24 de Julho, 12, 1249 - 300 Lisbon, Portugal. The business address of each member of the General and Supervisory Board is Av. 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, teritórios 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.

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, teritórios 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, teritórios 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 <a href="http://www.portaldasfinancas.gov.pt">http://www.portaldasfinancas.gov.pt</a> (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-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

Banco Santander Totta, S.A., Barclays Bank PLC, Crédit Agricole Corporate and Investment Bank, Deutsche Bank AG, London Branch, HSBC Bank plc, MUFG Securities EMEA plc, NatWest Markets Plc and UniCredit Bank AG (the Joint Lead Managers) have, pursuant to a Subscription Agreement dated 28 January 2019 (the Subscription Agreement), agreed with the Issuer, subject to the satisfaction of certain conditions, to subscribe and pay for the Notes at 100.00 per cent. of the principal amount of the Notes less a combined management, underwriting and selling commission. The Issuer has agreed to reimburse the Joint Lead Managers for certain of their expenses in connection with the issue of the Notes.

The Joint Lead 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 Joint Lead 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 Joint Lead 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 2002/92/EC (as amended or superseded), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II.

# **Portugal**

Each Joint Lead 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) 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 Joint Lead 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, 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 implementing the Prospectus Directive (as amended) 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 Joint Lead 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 Joint Lead 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 Joint Lead 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 Joint Lead Managers.

Other persons into whose hands this Prospectus comes are required by the Issuer and the Joint Lead 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 Joint Lead 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 8 January 2019.
- (2) It is expected that listing of the Notes on the Official List of Euronext Dublin and to trading on the Main Securities Market will be granted on or about 30 January 2019. Before official listing, dealings will be permitted by the Main Securities Market in accordance with its rules. Transactions will normally be effected for delivery on the third working day in London after the day of the transaction.
- (3) An estimate of total expenses related to admission to trading is €1,540.
- (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 the Main Securities Market for the purposes of the Prospectus Directive.
- (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 PTEDPKOM0034, the Common Code is 194361556 and the CVM code is EDPKOM.
  - The address of Euroclear is Euroclear Bank S.A./N.V., 1 Boulevard du Roi Albert II, B-1210 Brussels and the address of Clearstream, Luxembourg is Clearstream Banking, 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 4.500 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 or trading position of the Issuer nor the EDP Group since 30 September 2018. There has been no material adverse change in the prospects of the Issuer nor the EDP Group since 31 December 2017.
- 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 2018 (which are incorporated by reference in this Prospectus), (ii) 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 six months ended 30 June 2018 (which are incorporated by reference in this Prospectus); and (iii) in note 36 (Provisions) and note 3 (Critical accounting estimates and judgements in preparing financial statements) to the Issuer's consolidated financial statements for the year ended 31 December 2017 (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) On 5 April 2018, PricewaterhouseCoopers & Associados Sociedade de Revisores Oficiais de Contas, Lda., independent certified public accountants, was appointed as the auditors of the Issuer. For the periods beginning on 1 January 2018, the auditors of the Issuer are PricewaterhouseCoopers & Associados Sociedade de Revisores Oficiais de Contas, Lda. independent certified public accountants. With respect to the unaudited condensed interim financial information of the Issuer for the nine month and six month period ended 30 September 2018 and 30 June 2018, 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: (i) 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 International Financial Reporting Standards (IFRS) as adopted by the European Union; and (ii) the consolidated financial statements of the EDP Group as of and for the year ended on 31 December 2016, 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) Copies of this Prospectus, 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" may be obtained free of charge, and copies of the Articles of Association (with an English translation thereof) of the Issuer, the Subscription Agreement, the Interbolsa Instrument and the Paying Agency Agreement will be available for inspection at the specified offices of the Principal Paying Agent and the Portuguese Paying Agent during normal business hours, so long as any of the Notes are outstanding. In addition, this Prospectus will be available, in electronic format, on the website of Euronext Dublin (www.ise.ie).
- (12) Certain Joint Lead 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 Joint Lead 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 Joint Lead 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 Joint Lead 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 Joint Lead 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.

- (13) 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.
- (14) The Legal Entity Identifier code of the Issuer is 529900CLC3WDMGI9VH80.

# EDP - Energias de Portugal, S.A.

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#### PRINCIPAL PAYING AGENT AND CALCULATION AGENT

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London EC2N 2DB
United Kingdom

# **PORTUGUESE PAYING AGENT**

# Deutsche Bank Aktiengesellschaft – Sucursal em Portugal

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# **JOINT LEAD MANAGERS**

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#### **Barclays Bank PLC**

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# Crédit Agricole Corporate and Investment Bank

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# **MUFG Securities EMEA plc**

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To the Joint Lead Managers as to English law

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To the Issuer as to Portuguese law

To the Joint Lead Managers as to Portuguese law

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Vieira de Almeida & Associados Sociedade de Advogados, SP R.L.

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#### **AUDITORS OF THE ISSUER**

(until the financial year ended 31 December 2017)

KPMG & Associados – Sociedade de Revisores
Oficiais de Contas. S.A.

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(for the periods beginning on 1 January 2018)

PricewaterhouseCoopers & Associados - Sociedade de

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