Electricity regulation in Portugal: overview

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A Q&A guide to electricity regulation in Portugal.

The Q&A gives a high-level overview of the domestic electricity market, including domestic electricity companies, electricity generation and renewable energy, transmission, distribution, supply and tax issues. It covers the regulatory structure; foreign ownership; import of electricity; authorisation and operating requirements; trading between generators and suppliers; rates and conditions of sale and proposals for reform.

Overview

Electricity market

1. What is the role of the electricity market in your jurisdiction?

Overview

The Portuguese electricity sector is almost fully liberalised, due to:

- Implementation of EU directives (such as Directive 2009/72/EC on the common rules for the internal market in electricity (Electricity Directive)).
- Privatisations following the financial assistance plan of 2011 to 2014 and conditions imposed by the International Monetary Fund (IMF), European Central Bank (ECB) and European Commission.

Generation, distribution and supply are unbundled (in terms of legal and accountability separation). Transmission has unbundled ownership (*see Question 3*).

Generation and supply are liberalised and can be carried out by any market player through licensing, registration or prior notification (as applicable).

Generation is divided into the:

- Ordinary regime, including thermoelectric plants.
- Special regime. This covers renewable sources, co-generation, small production and other special regimes, such as generation for self-consumption.

Transmission in continental Portugal is carried out by Rede Eléctrica Nacional SA (REN), under an exclusive public service concession contract with the state. REN is the transmission system operator (TSO). The TSO must connect all entities (including generators) to its network on a non-discriminatory basis if technically and economically feasible and subject to connection requirements (*see Question 14*). The TSO receives compensation for use of its facilities, as set out in the Tariffs Regulation approved by the Regulatory Entity for Energy Services (ERSE).

Distribution is subject to a public concession regime, where operators obtain the right to carry out distribution. EDP Distribuição SA is the main distribution system operator (DSO). An agreement to use the distribution grids and pay the tariffs in the Tariffs Regulation is concluded before access is given, which must be approved by ERSE (*see Question 20*).

Supply consists of:

- Free market supply to consumers who have moved to the free market regime. Supply is carried out by providers on freely negotiated terms, subject to mandatory obligations under ERSE regulations (*see Question 23*).
- Supplier of last resort, where the supplier must guarantee universal supply to specific consumers under regulated tariffs (set annually by ERSE). It also buys special regime electricity at regulated prices under feed-in-tariffs, a subsidised scheme (*see Question 23*).

There is a wholesale market, where generators can sell their electricity to buyers to meet demand by end customers or for their own consumption. In the retail market, trading agents compete to secure supply to end customers (*see Question 24*).

Portugal and Spain have an integrated single Iberian Electricity Market (MIBEL). They share a common spot market operator and a forward market operator. The MIBEL wholesale market is based on harmonised contracting methods (*see Question 24*).

Government policy objectives

Government policy has focused on increasing the use of renewable energy (*see Question 8*).

Recent trends

Generation from renewable sources is increasing rapidly in Portugal.

In July 2020 the government promoted an auction of solar photovoltaic (PV) plants, to ensure price and facilitate financing. It involved a total of 670MW. Applicants were able to offer a discounted tariff or compensation to the network. The tender achieved a world record low tariff of EUR11.14/MWh, which may benefit electricity prices for the next decade. All lots in the auction were assigned. About 75% of the capacity included battery storage, reinforcing the security of the national electrical system (see *https://leiloes-renovaveis.gov.pt/*).

Decree-Law No. 62/2020 was published on 28 August 2020, amending Article 16 of Decree-Law 172/2006 of 23 August. Holders of a tradeable renewable certificate (TRC) under an auction can now create easements and request expropriation by public utilities of real estate necessary to construct infrastructure, on the same terms and conditions as concessionary entities (*see Question 27*).

Terms of reference published on 17 February 2020 define the main criteria to select generators applying for a grid capacity title from the TSO (over 400 applications have been received). They set out:

- The support documents and/or information which must be submitted with the application.
- Criteria to rank applications, to assure the safety and reliable technical criteria of the national electricity system, and environmental and territorial sustainability.

Regulatory structure

2. What is the regulatory framework for the electricity sector?

Regulatory framework

The electrical system is regulated by:

- Decree-Law No. 29/2006 of 15 February (as amended by Decree-Law No. 215-A/2012 of 8 October).
- Decree-Law No. 172/2006 of 23 August (as amended by Decree-Law No. 215-B/2012 of 8 October and Decree-Law No. 62/2020 of 28 August).

Decree-Laws No. 215-A/2012 and No. 215-B/2012 transposed the Electricity Directive.

A number of key ERSE regulations apply:

- **Commercial Relations Regulation.** This was approved by Regulation No. 561/2014 (as amended by Regulation No. 632/2017). This sets out the rules for commercial relationships between participants in the national electric system (SEN). A new Commercial Relations Regulation was approved on 9 December 2020 and enters into force on 1 January 2021.
- **Tariffs Regulation.** This was approved by Regulation No. 619/2017 (as amended by Regulation No. 76/2019 of 18 January and by Regulation 496/2020 of 28 May). This sets out rules to determine allowed revenue from regulated activities and regulated tariffs and prices. It applies to regulated activities (that is, to network operators and suppliers of last resort) and to liberalised market suppliers to all customers. Tariffs and prices for global use of the system, use of networks and end-user prices charged by the supplier of last resort are set under the Tariffs Regulation.

- **Quality of Service Regulation**. This was approved by Regulation No. 629/2017. This imposes technical and commercial quality service obligations on national electric system operators.
- **Access to Networks and Interconnections Regulation.** This was approved by Regulation No. 560/2014, as amended by Regulation No. 620/2017. This imposes conditions on access to electricity networks.
- **Networks Operation Regulation**. This was approved by Regulation No. 557/2014, as amended by Regulation No. 621/2017. This sets out conditions allowing management of the electricity flow in the national transmission network.

There is also the following, both approved by Ordinance No. 596/2010 of 30 July:

- Regulation of the Transmission Network, setting out technical conditions for exploitation of the national transmission network (RNT).
- Regulation of the Distribution Network, setting out technical conditions for exploitation of the national distribution network.

Regulatory authorities

The General Directorate for Energy and Geology (DGEG) (*www.dgeg.gov.pt/*) reports to the Ministry of Economy. Its responsibilities include:

- Issuing, amending and withdrawing generation licences.
- Maintaining registers for supply.
- Supervising the security of supply.

DGEG decisions can be challenged by appeal to the Minister of Economy.

The ERSE is an independent regulatory entity that regulates access to electricity networks, supply quality, and prices and tariffs. ERSE can fine energy companies for non-compliance with laws and regulations. Its activity is regulated by Decree-Law No. 97/2002 of 12 April, as amended.

Other regulators include the Securities Markets Commission (*www.cmvm.pt/en/Pages/homepage.aspx*) and the Competition Authority (*Autoridade da Concorrência*) (AdC).

Electricity companies

Main companies

3. What are the main companies involved in electricity generation, transmission, distribution and supply?

Generation

Under the ordinary regime, the largest generating company in Portugal is EDP Gestão da Produção de Energia SA, followed by:

- Elecgas and Tejo Energia (owned by Endesa and Trustenergy, a joint-venture between Engie and Marubeni).
- Turbogás (owned by Trustenergy).

Under the special regime, the main companies are:

- EDP Renováveis.
- Acciona Energia Portugal.
- EDF EN.
- Finerge.
- GENERG.
- Iberwind.
- Truswind.

Transmission

REN is the TSO and owns and exclusively maintains the electricity transmission system, as confirmed under the ownership unbundling model in 2014.

Distribution

EDP - Distribuição SA is the distribution system operator (DSO) of the high and medium voltage distribution grid, and the concessionaire of most low voltage municipal distribution systems.

In the autonomous regions of the Azores and Madeira, the distribution operators are Electricidade dos Açores and Empresa de Electricidade da Madeira.

Supply

DSOs do not sell electricity to the end user. This is done by several registered supply companies, such as:

- EDP.

- Galp.
- Endesa.
- Iberdrola.
- Gas Natural Fenosa.
- Goldenergy.
- Energia Simples.

The main supplier of last resort is EDP Serviço Universal, now known as SU Electricidade, which supplies continental Portugal.

In the Azores and Madeira, the suppliers of last resort are Electricidade dos Açores and Empresa de Electricidade da Madeira.

Unbundling requirements

Generation and supply are subject to legal and ownership unbundling.

Transmission is unbundled at the legal and ownership level, and from other activities in the sector.

Distribution is unbundled from other activities in the sector in terms of legal, organisational and decision-making unbundling. A DSO is autonomous.

Foreign ownership

4. Are there any restrictions concerning the foreign ownership of electricity companies or assets?

Under Decree-Law No. 215-A/2012 of 8 October, no entity (national or foreign) can directly or indirectly hold more than 25% of the share capital of the TSO, or of companies that control it.

If the concession-holder of the transmission network is controlled by one or more persons from third countries (that is, outside the EU), it can only act as a TSO if this is not a risk to the security of the national energy supply.

Decree-Law No. 138/2014 of 15 September sets out the legal framework to:

- Safeguard strategic assets essential to guarantee national defence and security.
- Ensure the supply of services fundamental to the national interest relating to energy, transport and communications.

A change in the direct or indirect control of strategic assets by a person(s) from a country outside the EU/EEA can be denied by the government if there are real and sufficiently serious reasons to believe that national defence and security or the safety of the energy supply are at risk.

Insolvency

5. Are there any special insolvency regimes that apply to companies operating in this sector?

There are no specific insolvency rules that apply to companies operating in the electricity sector.

Import of electricity

6. To what extent is electricity imported and/or exported?

Import of electricity

The electricity produced in Portugal is enough to meet the needs of the population. Portugal imports electricity from Spain for commercial reasons.

In the first three months of 2020, Portugal imported 1,354GWh of electricity.

Export of electricity

Portugal exports surplus production of electricity to Spain.

The generation of electricity from renewable sources has significantly contributed to an improved exporter balance in recent years. In the first three months of 2020, Portugal exported 1,475GWh.

The next step is to improve electrical interconnections between Portugal and other EU member states, which ultimately depends on the interconnections between Spain and France. An interconnection with Morocco is also being considered.

Electricity generation and renewable energy

Sources of electricity generation

7. What are the main sources of electricity generation?

Fossil fuels

Natural gas and coal are the main fossil fuel sources of energy generation.

According to the Portuguese Association of Renewable Energies (APREN) (*Associação Portuguesa de Energias Renováveis*) (*www.apren.pt*), at the end of the first quarter of 2020, 30.1% of electricity production in continental Portugal was met by non-renewable sources. Of this, natural gas accounted for 21% and coal for 0.9%.

Nuclear fission

Not applicable. This does not exist in Portugal.

Renewable energy

According to APREN, at the end of the first quarter of 2020, 69.9% (a 10% increase compared to the same quarter in 2019) of electricity production in continental Portugal was met by renewable sources as follows:

- 25% from wind power.
- 37% from hydroelectric power.
- 5.9% from biomass.
- 1.8% from photovoltaic energy.

8. Are there any government policies, targets or incentives in place to encourage the use of renewable or low carbon energy?

Renewable energy targets

Directive 2009/28/EC (recast by Directive (EU)2018/2001) on the promotion of the use of energy from renewable sources (Renewable Energy Directive) sets a binding target that at least 32% of final energy consumption must be from renewable sources by 2030.

To achieve this, EU countries have committed to their own national renewables targets. At least 14% of their transport fuels must also come from renewable sources by 2030.

Portugal's national renewable energy action plan shows what action it will take to meet its renewables targets. Government policy is set out in the National Energy and Climate Plan 2030 (PNEC 2030), approved by Council of Ministers Resolution No. 53/2020 of 10 July. PNEC 2030 includes targets for:

- Electricity.
- Transport.
- Use of renewable resources goals by 2030.
- Heating and cooling.

PNEC 2030 establishes new national targets to reduce greenhouse gas emissions, including:

- Sector targets.
- Targets for including energy from renewable sources and energy efficiency.
- Lines of action and measures for the decarbonisation of society and energy transition, in line with the Roadmap for Carbon Neutrality 2050 (RNC 2050).

With 58 lines of action and 206 measures to achieve the targets, PNEC 2030 also includes measures for the internal energy market and energy security.

The priority for energy efficiency implies reducing primary energy consumption in several sectors, investing in efficient use of resources and the rehabilitation and renovation of buildings, leading to zero-emission buildings.

Security of supply will be ensured by modernising infrastructure, diversifying energy sources and origins, and integrating, reconfiguring and digitalising the energy market.

To promote sustainable agriculture and forestry and enhance carbon sequestration, the carbon intensity of agricultural practices will be reduced. Agroforestry management to increase the capacity of natural sinks will be promoted.

The following objectives apply:

- Decarbonisation of the economy, towards carbon neutrality by 2050.
- A national target to reduce greenhouses gas emissions by between 45% and 55% by 2030, compared to 2005 levels.
- 80% of electricity consumption to be from renewable energy sources.
- National energy consumption to continue to decline, down by 35% in primary energy by 2030.

Portugal aims to have 47% of its total energy consumption from renewable sources by 2030.

Government policies/incentives

In the past there were support mechanisms for renewable energy based on feed-in-tariffs, tax benefits and investment subsidies. As part of the financial assistance plan (*see Question 1*), support mechanisms for electricity generation were reviewed. Currently there are no such support mechanisms, except for new or experimental technology (such as offshore wind and wave energy) and small cogeneration.

Decree-Law No. 76/2019 (published on 3 June 2019) allows feed-in tariffs for:

- Allocating power reception capacity, following a competitive procedure.
- Power plants with installed capacity up to 1MW (this limit is reviewed annually by the government).
- Overcapacity situations, or for production units using a different primary energy source to be installed in an existing energy project with new production units.

This does not affect feed-in tariffs already provided or to be defined in specific schemes.

In July 2020, the government promoted an auction of solar photovoltaic (PV) plants, to ensure price and facilitate financing (*see Question 1, Recent trends*).

9. What are the main obstacles to the development of renewable energy?

The main obstacles are the:

- Limited area available in Portugal to implement renewable projects (there are restricted areas such as agricultural and ecological areas, and the total land area is smaller compared to other European countries).
- Lack of interconnections between the Iberian Peninsula (Portugal and Spain) and other European countries and north Africa.

10. Are there any plans to build new nuclear power stations?

There are no plans to build nuclear power stations in Portugal.

Authorisation and operating requirements

11. What are the authorisation requirements to construct electricity generation plants?

The construction of generation plants requires a production licence from the DGEG. A production licence can be granted to an applicant if the general criteria for its issuance and specific conditions are met. The general criteria include factors such as the:

- Impact of the project on the national electric system.
- Contribution to energy policies.
- Existence of a reserve title of grid capacity.
- Production technologies.
- Characteristics of the promoter, particularly its technical, economic and financial capability.

The specific conditions include:

- Opinions from relevant authorities (environmental and municipal).
- Execution projects.
- Evidence of rights to use land plots to implement the project.

To obtain a production licence a fee of EUR1,000 must be paid and a bond placed in favour of DGEG (to be returned with the entry into operation of the plant).

There are specific deadlines for certain stages in the procedure and the average length is six months.

There is some general information about the procedure on the DGEG website but there is no standard application form or guidance.

Construction of a generation plant may also require:

- An environmental licence (for example, combustion power plants with an installed capacity of over 50MW).
- An environmental impact declaration under the environmental impact assessment (EIA) regime or environmental incident declaration.
- An authorisation for emitting greenhouse gases.
- A water resources use permit or approval under the dam safety regime (if applicable).

If the power plant is not subject to an EIA, a favourable opinion from the regional co-ordination and development commission is required.

Power plants in the special regime, such as decentralised production (for self-consumption or small production) and cogeneration plants, may benefit from simplified licensing.

A construction licence is also required from the relevant municipality, except if the power plant is constructed and operated under a concession (for example, for some power plants located in coastal or river areas).

12. Are there any requirements to ensure new power stations are ready for carbon capture and storage (CCS) technology, or requiring a plant to retrofit CCS technology once this is ready?

Operators of combustion power plants with installed power of at least 300MW must have:

- Suitable sites for storage of carbon dioxide.
- Technical and economically viable means to transport carbon dioxide.
- Technical and economically viable means to adapt to the capture of carbon dioxide.

These requirements apply to power plants with a construction licence or an operation licence granted on or after 25 June 2009. Requirements for a suitable area for the installation of carbon capture, compression and storage equipment near the power plant are imposed during the licensing procedure.

13. What are the authorisation and main ongoing requirements to operate electricity generation plants?

Operating an electricity generation plant requires an operation licence from the DGEG issued after a power plant is commissioned, or an operation certificate if the power plant is already built and registered.

To obtain an operation licence the following conditions must be met:

- Declaration endorsed by the technicians responsible for the design and supervision of the construction.
- Proof of subscription for an insurance policy.
- When required, a declaration of acceptance of the safety report and authorisation or licence for waste management, in accordance with applicable legislation.

- Formal opinion from the network operator.
- When required, a greenhouse gas emission permit or temporary exclusion decision from the emissions trading scheme.
- Positive formal opinion from the SEN.

A fee of EUR1,000 must also be paid.

Operators of power plants must comply with the law and ERSE regulations, particularly in relation to technical operation of the plant.

Also, and if applicable, power plants must comply with applicable environmental or safety legislation, depending on the extent of the area. If the project is subject to an EIA or environmental incidence assessment, the conditions and measures imposed must be complied with, as well as other environmental aspects (for example, requirement for a water use resources title, and authorisation to cut certain species).

Operators must also pay regulated tariffs to the TSO to access the grid (*see Question 18*).

Generators must maintain and operate the power plant following best industrial practices, to optimise installed capacity.

14. What requirements are there concerning connection of generation to the transmission network or a distribution network?

Transmission is a public service carried out through a concession awarded by the state. REN is the current TSO.

The TSO must grant interested parties (including generators) access to the transmission network in a non-discriminatory and transparent way if the connection is technically and economically feasible, and the applicant satisfies the requirements for connection (*Access to Networks and Interconnections and Tariff Regulation*). Right of access to the transmission network is granted by written agreement. The TSO receives compensation for the use of its facilities, as set by the Tariff Regulation approved by the ERSE.

Due to the limited availability of energy capacity in the network (that is, capacity to inject energy into the public network) and to ensure generation projects are effective and delivered on time, a reservation of power reception capacity into the network is required before a production licence is granted. This ensures that the project promoter can connect the project to the network and that electricity generated by the project is received. The reservation is not transferable until the operation licence is issued. It can be made in any of the following ways:

- The TSO reserves reception capacity into the network for the project promoter.
- An agreement between the project promoter and the TSO.
- The TSO reserves the reception capacity into the network after a competitive procedure.

15. What requirements are there concerning the decommissioning of a generation plant at the end of its period of operation?

The decommissioning of a power plant requires a demolition licence granted by the relevant municipality.

The deactivation of power plants that required an environmental licence to be constructed (for example, combustion power plants with an installed capacity of over 50MW) or an EIA may also require a deactivation plan. This is prepared by the operator and approved by the Environment Agency (*https://apambiente.pt/index.php?ref=x178*). It must contain appropriate conditions for deactivation and measures to prevent environmental contamination.

Electricity transmission

Authorisation and operating requirements

16. What are the authorisation requirements to construct electricity transmission networks?

Electricity transmission networks can only be constructed by the concessionaire of the transmission network. This is a public service concession granted by the state. REN is the current TSO.

The Development and Investment Plan for the Transmission Network (PDIRT) sets out the main development to be carried out in the transmission network in the following ten years. It is proposed by the TSO and approved by the state (after considering opinions by DGEG and ERSE) every two years.

A project to construct or expand transmission network lines requires an establishment licence from DGEG.

To obtain an establishment licence, some requirements must be met, such as providing evidence of the execution project and of the right to use the project area. There are deadlines for certain stages of the procedure and its average length is six months.

An environmental impact declaration (issued under the EIA regime) is required to construct:

- Power lines with a voltage of at least 220kV and longer than 15 metres.

- A substation with power lines with a voltage of at least 110kV and an area of more than one hectare (or located in environmentally sensitive areas).

17. What are the authorisation and main ongoing requirements to operate electricity transmission networks?

Electricity transmission is a public service awarded under a concession contract with the state. REN is the current TSO and is subject to public service obligations under the concession agreement and by law. Its main obligations are to:

- Ensure a regular, continuous and efficient operation of the service.
- Adopt the best means and technologies generally used in the electrical sector.
- Ensure the development of the transmission grid, and promote and implement necessary development and investment plans.
- Ensure access to the network for generators, suppliers and consumers, receiving and delivering electricity through the network without discriminating between its users.

The TSO must comply with the unbundling requirements under the Electricity Directive. Transmission is unbundled at the legal and ownership level, and from other activities in the sector. The TSO is regulated by ERSE, the regulator of unbundling requirements.

The TSO is also responsible for global management of the electricity system (including systemic co-ordination of ITS infrastructure). It must ensure continuity of supply and real-time adjustment of supply and demand.

In terms of safety of the transmission grid, the TSO must ensure that there is a protection area of a specified length below aerial electrical lines. The TSO assumes fuel management and tree cutting where necessary to guarantee the minimum safe distance from electrical lines.

The TSO must comply with regulations such as the:

- Commercial Relations Regulation.
- Quality of Service Regulation.
- Networks Operation Regulation.
- Regulation of the Transmission Grid.
- Manual of Procedures for Global Management of the Electrical System.

Transmission charges

18. How are the charges and conditions for the transmission of electricity regulated?

The TSO is remunerated through regulated tariffs, that is, network use tariffs and tariffs for global use of the system. These are set annually by ERSE.

The main tariff principles are set by law and the concession contract between the state and the TSO. The governing principle is that tariffs must ensure an economic and financial balance for transmission and effective system management. The rules and methods to determine the TSO's revenue and tariffs are set out in the Tariffs Regulation (approved by ERSE).

TSO's tariffs are paid by generators and suppliers (and ultimately final electricity consumers, who pay them in addition to electricity prices). Under the principle of tariff uniformity, the tariff system applies equally to all customers in continental Portugal.

Transmission is subject to rate-of-return and incentive-based regulation. The TSO is allowed a reasonable rate-of-return over capital costs. There are incentives for the TSO to improve efficiency which are considered as capital and operational costs.

System balancing

19.How is electricity supply and demand balanced?

Balancing supply and demand is the TSO's responsibility as the overall manager of the system, including through:

- Programming and monitoring the balance between supply and demand.
- Co-ordinating transmission grid operation.
- Managing interconnections between networks.

Market agents supply their delivery and reception forecasts to the TSO. The TSO has communication protocols with DSOs.

Supply and demand are balanced through system services provided by generators to the TSO. System services include frequency control services, such as the primary, secondary and tertiary control reserve, and voltage control. They are a separate organised market, managed by the TSO, the sole buyer of these services. Access to this market is through a contract between a market agent and the TSO.

Supply and demand are also balanced through other mechanisms, such as interruptible contracts with large customers. Under interruptible contracts, power supplies can be reduced by the TSO (in exchange for remuneration) if needed to balance the electricity network or avoid blackouts.

Electricity distribution

Authorisation and operating requirements

20. What are the authorisation requirements to construct electricity distribution systems?

Electricity distribution networks can only be constructed by the concessionaire of the distribution network. The operation of high and medium voltage distribution networks is a public service concession granted by the state. EDP Distribuição SA is currently the DSO for these networks.

The municipalities are responsible for low-voltage distribution of electricity, which they can contract out to private entities. EDP Distribuição SA is the concessionaire of low-voltage distribution networks in most municipalities, although these concessions are nearing the end of their term.

An agreement where the DSO agrees to use the distribution grids and pay the tariffs in the Tariffs Regulation is concluded before access is given. The agreement's terms and conditions must also be approved by ERSE.

The Development and Investment Plan for the Distribution Network (PDIRD) sets out the main distribution network development to be carried out in the following five years. It is proposed every two years by the DSO and approved by the state after opinions from the DGEG and the ERSE.

A project to construct or expand distribution network lines may also require an establishment licence granted by DGEG.

21. What are the authorisation and the main ongoing requirements to operate electricity distribution systems?

The distribution of electricity is a public service awarded under a concession contract with the state or relevant municipality. The DSO is subject to public service obligations set out in the concession agreement and in law, including:

- Ensuring a regular, continuous and efficient operation of the service.
- Adopting the best means and technologies generally used in the electricity sector.
- Ensuring the development of the distribution grid, promoting and implementing the necessary development and investment plans.
- Ensuring access to the network for producers, suppliers and consumers, receiving and delivering electricity through the network without discriminating between users.

The DSO must also comply with the unbundling requirements in the Electricity Directive. In particular, ensuring legal and decision-making unbundling from other activities in the electricity sector.

In terms of safety of the distribution grid, the DSO must ensure a protection area of a specified length below aerial electrical lines. The DSO carries out fuel management and tree cutting where necessary to guarantee the minimum safe distance from electrical lines.

The DSO must also comply with regulations such as the:

- Commercial Relations Regulation.
- Quality of Service Regulation.
- Networks Operation Regulation.
- Regulation of the Distribution Grid.

Distribution charges

22. How are the charges and conditions for the distribution of electricity regulated?

The DSO is remunerated through regulated network use tariffs set annually by ERSE.

The main tariff regulation principles are set by law and in the concession contract between the state or the municipalities and the DSO. The governing principle is that regulated tariffs must ensure an economic and financial balance for distribution and its efficient management. The Tariffs Regulation (approved by ERSE) sets out the rules to determine the DSO's revenue and tariffs.

The DSO's tariffs are paid by suppliers and ultimately by electricity consumers (who pay them in addition to the electricity price). Under the principle of tariff uniformity, the tariff system must apply equally to all customers in continental Portugal.

Distribution is subject to rate-of-return and incentive-based regulation. The DSO can charge a reasonable rate-of-return over its capital costs. There are also incentives for the DSO to improve efficiency in terms of operational costs, and incentives to improve service quality and investment in smart grids.

Electricity supply

Authorisation and operating requirements

23. What are the authorisation and the main ongoing requirements to supply electricity to end consumers?

There is a free market regime for supplying electricity to end consumers. Retail supply only requires registration with the DGEG. Registration must be confirmed by the DGEG but is considered tacitly approved if there is no decision within 30 days.

There are special suppliers, that is, the last resort supplier and the market facilitator.

The last resort supplier buys electricity from generators who benefit from a feed-in-tariff. It sells electricity to:

- Certain end consumers, such as consumers who have not yet moved to the liberalised market. Full liberalisation is due on 31 December 2020.
- Customers in places with no offers from other suppliers.

The market facilitator buys electricity produced by renewable energy power plants without feed-in-tariffs. These plants require a special licence.

Suppliers must:

- Ensure legal unbundling from entities performing other activities in the electricity sector.
- Meet certain suitability requirements, such as having their tax situation regularised with the authorities.
- Not be subject to insolvency or a similar procedure (which they must confirm every two years).
- Maintain the technical and financial capability to perform their obligations at all times.

Suppliers have obligations to end consumers and must, among other things:

- Ensure their proposals to supply electricity are within their area of activity.
- Not discriminate against customers.
- Not issue discriminated invoicing.
- Provide several means of payment.

Contracts with end consumers must also comply with the:

- Commercial Relations Regulation.
- Quality of Service Regulation.
- General law, including standard terms provided under consumer protection laws.

Suppliers also:

- Have reporting obligations to DGEG and ERSE (notably in relation to reference prices).
- Must maintain contracts for the use of transmission and distribution networks, so that they can supply electricity to their customers.

Trading between generators and suppliers

24. How is electricity traded between generators and suppliers?

Electricity is traded between generators and suppliers in the common Iberian electricity market, MIBEL (*www.mibel.com/en/home_en*).

MIBEL has:

- Organised markets or power exchanges.
- Non-organised markets, with bilateral over-the-counter trading, with or without brokers.

MIBEL has two organised markets (apart from the system services' market (*see Question 19*) in each country):

- The spot (day ahead and intraday) market, operated by the Spanish branch of MIBEL (OMIE) (*www.omie.es/en*), regulated by Spanish law.

- The forwards and derivatives market, operated by the Portuguese branch of MIBEL (OMIP) (*www.omip.pt/en*), regulated by Portuguese law.

OMIE acts as a sole market for Portugal and Spain if the commercially available interconnection capacity between both countries is sufficient to meet supply and demand orders. When capacity is insufficient, both markets are separated and specific prices for both markets are produced under a market splitting mechanism.

Generators in the special regime with feed-in-tariffs can sell their electricity to the supplier of last resort (*see Question 23*), which then sells it in the market through public auctions.

25. How is electricity trading (between generators and suppliers) regulated?

MIBEL has free market trading, subject to:

- Market rules.
- Applicable legislation.
- Competition rules.
- Regulation (EU) 1227/2011 on wholesale energy market integrity and transparency (REMIT).

Market rules are established by OMIP and OMIE but may have to be validated by the authorities. The market rules are accepted by market agents through adhesion contracts. They impose obligations on market agents and may set a maximum (cap) price (as occurs in the OMIE spot market).

OMIE is regulated by Spanish law and OMIP by Portuguese law (*MIBEL International Agreement*). Each market operator is acknowledged by the legislation of the other country.

The OMIP forwards and derivatives market is subject to:

- Regulation by ERSE. OMIP manages an organised market, a regulated activity under Portuguese law.
- Supervision by the Securities Markets Commission.

Traders are also subject to REMIT provisions on the integrity and transparency of wholesale markets. Market participants must:

- Register with the national regulator of the member state where they are established (for Portugal, this is ERSE).
- Provide the Agency for Co-operation of Energy Regulators (ACER) (*http://acer.europa.eu/*) with records of their wholesale energy market transactions.

Electricity price and conditions of sale

26. How is the price for electricity and conditions of sale regulated at the consumer and wholesale level?

Consumer

At consumer level, prices are generally offered by suppliers in a free market regime.

Certain consumers benefit from a social tariff with lower electricity costs (particularly vulnerable end consumers).

Consumers that have not yet moved to the liberalised market benefit from a regulated supply tariff set by ERSE (currently, the deadline to move to the liberalised market is 31 December 2020).

Part of the electricity price consists of passing on the costs of regulated tariffs, such as network use tariffs. Network use tariffs include general interest costs, such as:

- Subsidised renewable energy generation costs.
- Costs paid to utilities to cover their stranded costs, or to maintain their contractual position after the transition to the liberalised market.
- Applicable taxes and charges.

Wholesale

Prices at wholesale level are generally set on a free market basis. However, market participants must comply with:

- Market rules (which may set a maximum sale price, as is the case with OMIE).
- Competition rules.
- REMIT provisions (which prohibit market abuse and require reporting of transactions to ACER).

The OMIE spot market follows a single marginal price model. A generator offers electricity which is matched with demand. The generator receives the price offered by the previous generator to meet daily demand (the marginal generator), regardless of the price offered by any subsequent marginal generator.

Statutory powers

27. Do companies involved in the generation, transmission, distribution or supply of electricity have any statutory powers to undertake work (for example, compulsory purchase powers or street works powers)?

Electricity transmission and distribution is carried out in a public service concession regime. Concessionaires are granted certain statutory powers, such as to:

- Use public or private assets of the state and municipalities (subject to the conditions agreed between the parties).
- Compulsorily purchase and create administrative easements over land necessary for network installations.

Tax issues

28. What are the main tax issues arising on electricity generation, distribution, transmission and supply?

Corporate income tax

Companies operating in the electricity sector are subject to general corporate tax. Profits of resident entities and of a permanent establishment in Portugal are subject to corporate income tax at a rate of 21%.

VAT

Electricity supply is generally subject to VAT at a rate of 23%. However, on 3 September 2020 the Council of Ministers approved a VAT decrease, in force from 1 December 2020. Specifically, for low voltage contracts up to a contracted power of 6.9kVA (the limit of the social tariff), a 13% rate applies to consumption up to 100kWh, and 23% applies to the remainder. The consumption threshold for the 13% rate is 150kWh for large families (households with five or more persons).

Other levies

Decree-Law No. 74/2013 of 4 June introduced a clawback of windfall profits made by Portuguese producers. The windfall profits are due to non-market charges (for example, taxes or parafiscal contributions) imposed in Spain that raise electricity prices, with no equivalent charges paid by Portuguese producers.

Solar photovoltaic plants are subject to the clawback, except for plants:

- With a feed-in-tariff.
- Which must contribute to the national electric system in the context of competitive procedures (auctions).
- With a capacity of less than 5MW.

(*Decree-Law 74/2013, as amended by Decree-Law No. 104/2019.*)

The main aspects concerning this in 2019/2020 are as follows.

Order No. 8521/2019 of 26 September 2019. This sets the clawback contribution as EUR2.71 per MWh for coal electricity production and EUR4.18 per MWh for promoters of projects using other technologies.

Order No. 12424-A/2019 of the Energy Secretary of 27 December 2019. This specifies measures and events in the national electric system to ensure undistorted market competition in the Iberian Peninsula, as established by Decree-Law No. 74/2013. The following are internal non-market charges in 2020 subject to clawback:

- Taxation of oil and energy and energy products used in electricity production.
- Extraordinary contribution in the energy sector (CESE).
- Social tariff charges.

Clarification from the Energy Secretary of 6 January 2020 (published on DGEG's website). Generators operating thermal power plants (natural gas and coal) and large hydroelectric plants (with an installed capacity of at least 10MVA) that sell their output on the market are subject to the clawback regime, as well as producers who have migrated to the free market regime, due to termination of the guaranteed remuneration regime (mini-hydro and wind).

Generators who sell their electricity through fixed-price power purchase agreements (PPA) are not subject to clawback, as their prices do not vary according to the MIBEL daily market price (they are not indexed to it).

Clarification from the Energy Secretary dated 27 July 2020 (published on DGEG's website). This clarifies clawback if a plant's electricity is sold partly for a fixed predetermined price and partly for a price indexed to the MIBEL daily market price. If the PPA provides a hybrid remuneration structure (based on a fixed contractual price and a contractual price indexed to the MIBEL daily market price) the electricity paid for under the MIBEL daily market price is subject to clawback.

Insurance

29. Are there any insurance requirements from the regulatory authority?

There are statutory insurance requirements, depending on the activity carried out.

Generators, TSOs and DSOs must have third-party liability insurance to cover damage caused during their activities.

Reform

30. What reform proposals are there for the regulation of the electricity sector?

The Winter Package published by the European Commission on 30 November 2016 includes proposals to reform the energy sector, to promote:

- The role of prosumers and the energy community.
- Long-term stability for investors.
- Reform of capacity markets.
- Energy efficiency.
- Network innovation.

It may help EU countries face the challenges of electrification and digitalisation of electricity systems.

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Recent transactions

- Assisting several investors in the photovoltaic solar plant auction held by the Portuguese Government in 2019 and 2020. Assisting investors with other procedures.
- Assisting a major Portuguese supplier in a revision of its standard energy supply agreements.
- Advising a Portuguese company in designing and implementing solar photovoltaic self-consumption units, including drafting and negotiating lease and service agreements. Designing a scheme of direct transmission and sale of electricity generated in production units to self-consumption units.

Languages. Spanish, English, Portuguese

Publications

- *Chapter 36 - Portugal, Financing Renewable Energy Projects - A Global Analysis and Review of Related Power Purchase Agreements, Volume 2, American Bar Association., 2019, pages 1325-1354.*
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