ENERGY REGULATION AND MARKETS REVIEW

SIXTH EDITION

Editor David L Schwartz

ELAWREVIEWS

ENERGY REGULATION AND MARKETS

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Sixth Edition

Editor David L Schwartz

ELAWREVIEWS

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PREFACE

In our sixth year of writing and publishing *The Energy Regulation and Markets Review*, we have seen dramatic changes in global energy policies. Notwithstanding President Trump's announcement that the United States will withdraw from the Paris Agreement, and the referendum in the United Kingdom to leave the European Union, there have been continued efforts to reduce greenhouse gases (GHGs) by the signatories to the Paris Agreement. There is still a significant need to invest in infrastructure, and we have seen significant investment throughout the supply chains in the oil, gas and power sectors globally. The Fukushima nuclear incident continues to impact energy policy, and we continue to see extensive liberalisation of the energy sector.

I CLIMATE CHANGE DEVELOPMENTS

With respect to climate change efforts, the Paris Agreement went into effect on 4 November 2016, and thus far, 148 countries have ratified the Agreement. President Trump has recently announced that the United States would be withdrawing from the Paris Agreement, but we continue to see significant carbon reduction efforts, such as increased development of renewable resources, as well as energy efficiency and demand reduction measures, globally, including in the United States.

In Europe, the European Union adopted 'A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy', and it is expected that there will be a large amount of European secondary legislation to increase the amount of renewable resources. While the United Kingdom voted to exit the European Union, the United Kingdom continues to invest heavily in offshore and onshore renewable projects, and has been particularly active in the battery storage sector to round out intermittent renewable production, offset demand and arbitrage energy prices. President Macron has stated his intent to have France fulfil its goals of closing all coal fired power plants within five years and doubling the capacity of wind and solar renewable generation. Denmark continues to seek to have renewable energy meet all of its electricity demands by 2050. The Netherlands has a goal of reducing GHGs by at least 25 per cent by 2020, and is closing at least two coal-fired power plants. Germany undertook significant steps to increase reliance on renewable energy resources.

China released a plan to have 15 per cent of its energy supplied by non-fossil fuels, 20 per cent from natural gas and no more than 58 per cent from coal by 2020. Korea's goal is to cut GHGs by 37 per cent by 2030. India announced a goal to have at least 40 per cent of its installed electric capacity powered by non-fossil fuels. Japan and Australia are working to improve energy efficiency and conservation and to increase reliance on renewable

energy supply. The United Arab Emirates continues its efforts to reduce its carbon footprint, announcing a goal of having 25 per cent of its capacity from renewables by 2030, and 75 per cent by 2050. Australia is adding significant new renewable resources. Even the United States is seeing significant investment in renewable energy development. While the Trump Administration is seeking to reverse the Obama Administration's Clean Power Plan, individual states are moving forward to achieve reduced reliance on fossil fuels and greater reliance on renewable energy, including California and New York, which are seeking a 50 per cent renewable portfolio standard goal by 2030, and Hawaii, which is seeking 100 per cent reliance on renewables by 2045.

II INFRASTRUCTURE DEVELOPMENT

For many countries, reliable energy supply is the primary concern, regardless of fuel source. Rural electrification and system reliability remain priorities in Indonesia, Mozambique, Angola, parts of Nigeria and Central and West Africa and we are seeing significant efforts to pursue electric generation projects in those regions. Iran is seeking approximately US\$200 billion in investments for its oil and gas industries over a five-year period, and Iraq is seeking approximately US\$18 billion in foreign investments over a three-year period. Turkey is aggressively diversifying its energy industry and building infrastructure, including the TANAP pipeline from the Caspian Sea to Europe, and is pursuing shale gas opportunities. Malaysia is constructing a 2,000MW coal plant to meet its growing energy demands. South Africa has taken steps to add 863MW of coal generation, and is seeking to add over 3,000MW of natural gas-fired generation. Denmark has a new North Sea Agreement to secure future exploration and production of hydrocarbons from the North Sea, and Cyprus, Mozambique, Lebanon and Mexico are establishing mechanisms to license offshore oil and gas exploration and production.

III NUCLEAR POWER GENERATION

Six years after the Fukushima disaster, Japan has shut down 45 out of its 48 nuclear power stations pending new detailed safety reviews. Germany continues its phase out all nuclear generation, and has agreed to assume the responsibility for nuclear waste management following shut-down, decommissioning and dismantlement by existing owners. France is seeking a reduction of nuclear power generation to 50 per cent of total electricity production within five years. Switzerland and Korea are planning to limit the life of their nuclear generation units. On the other hand, Turkey is continuing with development of the Akkuyu nuclear power plant, and the United Arab Emirates is still proceeding with construction of the Barakah nuclear power plant, both of which are expected to be operational in 2020. The United Kingdom continues to push forward with the Hinckley Point C new nuclear facility. South Africa is facing substantial resistance to its efforts to develop 9,600MW of new nuclear generation capacity. In the United States, the early retirement of certain nuclear plants has been driven by cost and power market considerations, rather than safety concerns. Some nuclear owners in the United States have sought state subsidies in New York, Illinois, Ohio and Pennsylvania, among others, in order to avert premature retirements. Illinois and New York have implemented legislative and regulatory payment programmes for nuclear facilities in those states, but they are currently being challenged in federal district court on constitutional grounds.

IV LIBERALISATION OF THE ENERGY SECTOR

We have seen significant energy sector regulatory reforms in many countries. Australia is continuing to move toward retail choice, and is seeking to implement a new energy market operator and market rule change committee. Italy is seeking to develop more competitive retail markets. Spain has been engaged in regulatory reforms to reduce its 'tariff deficit' and re-establish the correlation between costs and rates. Portugal continues to work on liberalising its electricity and gas markets. Japan is actively working on developing competitive retail electric and gas markets and is seeking to unbundle electric transmission and gas transportation sectors to improve competition. And we are seeing continued efforts to partially privatise state-owned energy companies in the United Arab Emirates, Turkey, Brazil and Colombia.

I would like to thank all the authors for their thoughtful consideration of the myriad of interesting, yet challenging, issues that they have identified in their chapters in this sixth edition of *The Energy Regulation and Markets Review*.

David L Schwartz

Latham & Watkins LLP Washington, DC June 2017

PORTUGAL

Nuno Galvão Teles and Ricardo Andrade Amaro¹

I OVERVIEW

In recent years, following the publication of European Union directives for the implementation of the electricity² and natural gas³ internal markets, the legislation and regulation of the energy sector in Portugal have undergone significant changes.

From production to supply, both in the electricity and the natural gas industries, all activities must be developed by legally separate entities, except for some specific cases. The liberalisation of these sectors in mainland Portugal has almost been concluded, and with the abolition of end-user energy supply tariffs due to happen on 31 December 2020, all consumers will shift to the liberalised markets.

Generation and supply of electricity and natural gas are free and mostly deregulated activities, while the operation, maintenance and exploration of infrastructures such as transmission and distribution networks, liquefied natural gas (LNG) terminals and storage facilities are regulated activities, with access rates set administratively by the national regulatory authority, the Energy Services Regulatory Authority (ERSE).⁴

Currently, the Portuguese government's policy for the energy sector is set out in the National Plan of Action for Energy Efficiency 2013–2016 (PNAEE 2016) and in the National Plan of Action for Renewable Energies 2013–2020 (PNAER 2020), both approved by Ministers' Council Resolution No. 20/2013 of 10 April. The PNAEE 2016 and PNAER 2020 are intended to be tools for a better energy strategy by establishing the means of achieving international goals and commitments⁵ assumed by Portugal in matters of energy efficiency and the use of renewable resources, without losing sight of economic rationale and the need to ensure adequate levels of energy prices, which do not prejudice the competitiveness of Portuguese companies or the minimum living standards of the general population.

¹ Nuno Galvão Teles and Ricardo Andrade Amaro are partners at Morais Leitão, Galvão Teles, Soares da Silva & Associados, Sociedade de Advogados, SP, RL.

² Directives No. 96/92/EC, 2003/54/EC and 2009/72/EC of the European Parliament and of the Council.

³ Directives No. 98/30/EC, 2003/55/EC and 2009/73/EC of the European Parliament and of the Council.

⁴ Taking into account their geographical limitations, electricity and natural gas activities on the archipelagoes of Azores and Madeira continue to be developed by vertically integrated companies, and therefore the considerations that follow refer mainly to mainland Portugal.

⁵ In the context of the European '20-20-20' measures, Portugal committed to achieve an overall reduction of primary energy consumption of 25 per cent and to have 31 per cent of its gross final energy consumption fuelled by renewable sources.

Given the scarceness of fossil fuel resources in the country and the current economic and financial situation of the country, these Plans of Action focus primarily on the reduction of the country's energy dependence, the increase of energy generation using renewable resources and the promotion of energy efficiency and sustainable development, namely by:

- *a* ensuring the continuance of measures that guarantee the development of an energetic model with economic rationale, which provides sustainable energy costs;
- *b* ensuring a substantial improvement of the country's energy efficiency; and
- *c* maintaining the reinforcement to diversify primary energy sources, revaluating the investments made in renewable technologies and presenting a new remuneration model for more efficient and prominent technologies.

The PNAEE 2016 and PNAER 2020 have the following five major objectives:

- *a* to comply with Portugal's commitments to establish a greater economic rationale;
- *b* to significantly reduce greenhouse gas emissions;
- *c* to reinforce primary energy sources diversification, thus contributing to enhancing Portugal's security of supply;
- *d* to improve the energy efficiency of Portugal's economy, particularly in the state sector, thus reducing public spending and promoting an efficient use of available resources; and
- *e* to improve economic competitiveness by reducing consumption and costs related to companies' functioning and household economy management, freeing resources to boost internal demand and new investments.

II REGULATION

i The regulators

The national regulatory authority of both the electricity and natural gas industries is ERSE, a public entity with administrative and financial independence. ERSE's by-laws were enacted by Decree-Law No. 97/2002, of April 12, and recently amended by Decree-Law No. 212/2012 of September 2012.

ERSE is in charge of regulation, supervision and sanctioning in the aforementioned sectors, from generation to supply. Recently, Law No. 9/2013, which came into force on 28 January 2013, established the Energy Sector Sanctioning Regime, which substantially reinforced ERSE's sanctioning competence and powers. Later, Decree-Law No. 84/2013 of 25 June revised ERSE's by-laws, completing the implementation of Directives 2009/72/EC and 2009/73/EC.

Alongside ERSE, the General Directorate of Energy and Geology (DGEG), a state-administered entity with financial independence, has the task of implementing and developing the state's policies regarding energy matters and the exploitation of geological resources.

As such, and in most cases, the DGEG is the competent entity for granting licences and other administrative authorisations concerning energy-related activities, such as generation or exploration licences.

In summary, while ERSE is the independent national regulatory authority for electricity and natural gas, the DGEG is the body that represents the state on energy matters, also being competent to grant licences and receive the corresponding applications or requests. Regarding the upstream oil sector, the DGEG, via its oil exploration and production division is the competent authority to, among other things:

- *a* manage, organise and integrate all data and technical information resulting from oil exploration and production activities and other relevant data;
- *b* promote and carry out specialised studies aimed at establishing the value of oil resources;
- *c* promote the oil potential of Portuguese basins throughout the industry;
- *d* negotiate and ensure the proper procedures to grant (by direct negotiation or public bidding), transfer and annul exploration and production rights;
- *e* prepare and supervise licences for preliminary evaluation and concession contracts;
- *f* evaluate work programmes and specific technical projects during the execution of the contracts; and
- g regulate and supervise the activities during the execution of contracts, ensuring that legal provisions and regulations are followed, including those related to health, safety and environmental protection.

In relation to the downstream oil sector, following Decree-Law No. 244/2015 of 19 October, Entidade Nacional para o Mercado de Combustíveis, EPE (ENMC), acting through the members of government responsible for finance and energy matters, is the competent authority to, among other things:

- *a* monitor, jointly with DGEG, security of supply of the national petroleum system and follow up on the supply conditions concerning raw petroleum and petroleum products, as a function of future consumption necessities;
- *b* monitor the functioning of the raw petroleum and petroleum products market;
- *c* give opinions on licensing procedures of large petroleum facilities, notably refining, transportation and storage;
- d approve registration of suppliers of petroleum products; and
- *e* receive complaints concerning activities in the liquefied petroleum gas value chain.

ENMC also has powers concerning the regulation of biofuels and the constitution and maintenance of oil reserves.

However, the Portuguese state budget for 2017 anticipates the extinction of ENMC and foresees that ERSE shall become the competent entity to regulate the liquefied petroleum gas and fuel sectors.

The core legal framework for the electricity sector is composed of Decree-Laws No. 29/2006 of 15 February and No. 172/2006, of 23 August, and in the natural gas sector, by Decree-Laws No. 30/2006 of 15 February, and No. 140/2006 of 26 July (which have all undergone significant changes in recent years). The main legal framework for the oil and gas upstream sector is Decree-Law No. 109/94, of April 28 and, for the downstream sector, Decree-Law No. 31/2006, of February 15, recently amended by Decree-Law No. 244/2015, of October 19.

Regulations put into force by ERSE, such as the Commercial Relations Regulation, the Tariffs Regulation, the Quality Standards of Service Regulation and the Infrastructures Operation Regulation,⁶ and those put into force by the DGEG, such as the Transmission Network Regulation and the Distribution Network Regulation constitute other significant sources of law governing these industries.

⁶ All available at www.erse.pt/pt.

ii Regulated activities

In the electricity industry, transmission and distribution are activities that are subject to administrative authorisations.

The operation and exploration of the national transmission and distribution networks are awarded by means of concession agreements entered into with the Portuguese state, granting the concessionaires the exclusive right to explore the networks within a determined geographical area, for periods of 50 or 35 years.

Besides the national distribution network,⁷ there are also municipal distribution networks, mainly composed of low-voltage grids. The right to explore these networks is also granted through concession agreements, but these are awarded by the respective municipalities and are valid for a period of 20 years.

In the natural gas industry, the exploration and production, transmission, distribution and operation of LNG terminals and of LNG storage facilities are also regulated, subject to administrative authorisations.

The operation of the national transmission and distribution networks, of LNG terminals and LNG storage facilities is also granted by means of concession agreements, offering the exclusive right to develop these activities for 40 years within a certain geographical area.

Additionally, there are some local natural gas distribution networks with no physical connection to the national distribution network, which may be operated by obtaining a licence, valid for a period of 20 years. The request for its attribution should be directed to the Minister of the Economy and Employment and delivered to the DGEG's office.

The right for prospection, exploration, development and production of oil is granted by the Minister of the Economy and Employment through a concession agreement.

Regarding remuneration, aside from production, income and real estate taxes, and some sporadic fees, there is no legal obligation for production sharing, the concessionaire is exempted from paying royalties, and it is free to sell the oil, except in the event of war or public emergency. The concessionaire is also entitled to freely dispose of all findings of natural gas, being exempt from any production taxation.

The concession agreements for the aforementioned activities are granted by means of a public procurement process.

Lastly, licensing for oil downstream activities is not required (other than licensing for the facilities where the activities are being carried out).

iii Ownership and market access restrictions

Electricity generation is a free activity, being subject only to obtaining a generation licence. The licensing entity may vary upon the generation technology or geographical location where the generation plant is to be installed. Prior to entry into industrial exploration, the generation groups of the facility must also obtain an exploration licence, granted after an inspection that ensures they meet all technical and safety conditions to start operating.

Generation licences do not have a term, unless the power is generated using public domain water resources, or the generation plant is installed in maritime space that is under sovereign or national jurisdiction, in which cases the term of the generation licence will be that of the licence or concession agreement that confers the right to use public domain resources.

7 Which, in general terms, refers to high and medium-voltage grids.

The transmission network operators (TNOs) of the electricity and natural gas sectors are subject to a full ownership unbundling regime.

Under this regime, no entity may hold an equity participation greater than 25 per cent of the share capital of the TNO. Also, the TNO or the companies that control it⁸ may not, directly or indirectly, exercise control or any rights over companies dedicated to generation or supply of electricity or natural gas. Equally, companies dedicated to generation or supply of electricity or natural gas or companies that control such, directly or indirectly, cannot exercise control or any rights over the TNO.

Subject to certain exceptions that relate to the historical role of the electricity TNO, the TNO is also strictly forbidden from acquiring electricity or natural gas for selling purposes.

In the downstream oil sector, entities that carry out storage and pipeline transport of petroleum or petroleum products must be legally independent from entities that conduct refining, distribution by pipeline or supply of petroleum or petroleum products.

iv Transfers of control and assignments

The transfer or encumbrance of any assets related to activities granted through concession agreements must obtain prior authorisation from the competent Ministry.

Concentration operations that meet some predetermined conditions must be notified to the Portuguese Competition Authority and are subject to its prior approval.

After being notified, the decision should be issued within 30 or 90 days, depending on whether or not a detailed investigation of the concentration operation is required.

III TRANSMISSION/TRANSPORTATION AND DISTRIBUTION SERVICES

i Vertical integration and unbundling

Currently, the operation and exploration of the national transmission network of electricity and natural gas is carried out in accordance with the full ownership unbundling regime. This means that the company that operates the national transmission network may not integrate any group of companies dedicated to the generation, distribution or supply of electricity or distribution or supply of natural gas.

Under this context, EDP Energias de Portugal SA, formerly the company that held the monopoly in the electricity industry, was required to spin off any assets related to the transmission network into a separate company, thus forming REN Rede Eléctrica Nacional SA. Similarly, GALP Energia SA was also forced to dispose of its natural gas transmission assets, which are now owned and operated by REN Gasodutos SA.⁹

In 2012, in line with the latest European directives, the Portuguese legal framework for the electricity and natural gas sectors allows transmission activity to be developed by a vertically integrated company. In this case, however, the transmission system operator must be a legal entity separate from the rest of the companies, forming an independent transmission operator (ITO). The ITO must observe strict independence obligations and comply with several independence criteria to avoid falling foul of discriminatory behaviours,

⁸ The definition of 'control' refers to the definition provided for in Council Regulation (EC) No. 139/2004 of 20 January 2004, regarding the control of concentrations between undertakings (the EC Merger Regulation).

⁹ Both companies are wholly-owned by REN Redes Energéticas Nacionais SGPS, SA, a listed company.

namely those set out in Article 9 of Directives 2009/72/EC and 2009/73/EC. Compliance with such obligations and independence criteria is assured by means of a certification process, monitored by ERSE and the European Commission, and that the ITO must fulfil to develop transmission activity.

The distribution of electricity and natural gas is subject to a legal unbundling regime. This means that operators of distribution networks must be independent from a legal, organisational and decision-making process standpoint from other activities unrelated to distribution. Distribution companies that serve fewer than 100,000 clients are not subject to the legal unbundling regime, but they must still implement accounting and functioning unbundling measures.

Supply activities are also subject to the unbundling regime, implying that they must be legally separate from other activities. The last-resort supplier is also bound by this unbundling regime, even in relation to common suppliers.

The operation of LNG terminals and storage facilities is also subject to the legal unbundling regime. To a lesser extent unbundling requirements also exist in the downstream oil sector (see Section II.iii, *supra*).

ii Transmission/transportation and distribution access

To ensure equal market conditions for all market participants, the concessionaires of transmission and distribution activities in electricity and natural gas must comply with specific public service obligations: to guarantee equal access conditions to all markets participants and to abstain from adopting any discriminatory behaviour or practices.

Where facilities for transport by pipeline and storage of petroleum or petroleum products are declared as being in the public interest, holders of such facilities are also obliged to act in a non-discriminatory manner.

The ensuring of equal conditions to all market players for the access and use of infrastructure is intended to create effective market conditions, promoting competition and thus enhancing consumers' experience in these markets.

iii Terminalling, processing and treatment

The access and use of LNG terminals and storage facilities is also regulated, under the same terms as for distribution networks. Rates are determined by ERSE according to the Tariffs Regulation, and all users must benefit from equal commercial conditions.

The only exception is for storage facilities. Part of the storage capacity is operated under regulated conditions by REN Armazenagem SA, with rates determined by ERSE. The other part of the storage capacity is operated by Galp Energia SA and access to these facilities can be made under a negotiated access regime, with leeway to negotiate access and use terms.

The rates of services rendered by the LNG terminal (reception and unloading of natural gas, liquefaction, storage and loading) are regulated, being established by ERSE according to the terms of the Tariffs Regulation.

iv Rates

Rates for the transmission and distribution of electricity and natural gas are determined by ERSE according to the Tariffs Regulation.

ERSE also determines the matters that must necessarily be included in the network use agreement, such as duration, interruption of service conditions, payment methods and

terms of resolution, which vary depending on the contracting parties (generators, suppliers, network operators or consumers). The general terms of the network use agreement are submitted to ERSE for prior approval.

The Portuguese tariff system is constructed in such a way that for each regulated activity there is an associated regulated tariff, and the tariff applicable to each client is made up of the total of the various activity tariffs.

Tariffs for the use of regulated infrastructures are based upon the provider's cost plus a reasonable rate of return, which will determine the operator's allowed revenue. The reasonable rate of return is also established by ERSE for a certain period.

The allowed revenue and the provider's cost for the activity of transmission and distribution of electricity is determined in accordance with the Electricity Tariffs Regulation.

The formula used to calculate the allowed revenue of the transmission network operator includes the application of efficiency factors to the provider's costs, to reward efficient spending and investments, along with incentives for the maintenance and operation of equipment that is at the end of its life.

In the transmission and distribution of natural gas, the formulae used to determine the allowed revenue of the service provider are set out in the Natural Gas Tariffs Regulation.

Although these are not specifically determined in this regulation, it is established therein that the cost of the TNO's activity will be subject to efficiency incentives to be determined by ERSE.

v Security and technology restrictions

The concessionaires of electricity and natural gas transmission activities are also in charge of managing and monitoring the National Electric System (NES) and the National Natural Gas System (NNGS).

The concessionaires of electricity and natural gas transmission activities have the following responsibilities:

- *a* assuring the long-term capacity of the NES and the NNGS;
- *b* providing information to other network operators to:
 - maintain safe operation;
 - estimate the level of reserves needed for medium-term safety of supply (especially the level of water reserves); and
 - in general, form a central part in the NES and NNGS;
- *c* operating the transmission network; and
- *d* coordinating with all other networks and infrastructure operators, generations units and suppliers.

In cooperation with the DGEG, the concessionaire of electricity transmission activity published a Report for Monitoring the Safety of Supply of the NES for 2013–2020. This report describes, *inter alia*, the NES, provides future grid scenarios, planned and installed capacity, and levels of power generation by source.¹⁰

¹⁰ Available at www.dgeg.pt.

IV ENERGY MARKETS

i Development of energy markets

The Iberian Electricity Market (MIBEL), a regional, organised electricity market was put in place by Portugal and Spain in July 2007.

One important aspect of MIBEL's functioning is the principle of reciprocal recognition of agents. Under this principle, if an agent is granted the status of producer or supplier by one country, this implies automatic recognition by the other country, granting equal rights and obligations to that agent.

The management of the Iberian spot electricity market is the responsibility of OMEL, the Spanish division of the Iberian Energy Market Operator.

In the spot electricity market, transactions are executed by the participation of agents on the daily and intraday market that aggregate the Spanish and Portuguese zones of MIBEL. Trading on the daily market is based on a daily auction, with settlement of energy at every hour of the following day.

There are various intraday sessions subsequent to the daily market auction in which agents can trade electric power for the various hours of the day covered by that market. Trading is also done by auction.

The financial settlement of the transactions occurs weekly, and guarantees must be deposited.

Producers, self-producers, external agents (non-resident entities), suppliers, representatives and qualified consumers can be spot market agents.

OMIP is the operator of the Portuguese division of MIBEL and is responsible for the management of the derivatives trading market. OMIP holds a 100 per cent stake in OMIClear, which has the role of clearing house and central counterparty in all operations executed on the market managed by OMIP, also being able to clear trades on the over-thecounter market or even other markets that have, as underlying assets, energy-based products.

On the OMIP trading platform, all elements of the futures contracts are standardised (e.g., volume, underlying asset and minimum price variation). Therefore, when an agent opens a position, it need only choose the contract it will trade, the relevant quantity and the price (except if it is a market offer). A key characteristic of these contracts is that they are marked to market on a daily basis.

The operations carried out on OMIP are registered in trading accounts and simultaneously registered in clearing accounts through which the financial settlement of the contracts is assured.

The recently implemented Iberian natural gas market, MIBGAS, held its first trading session on December 2015. MIBGAS is managed by MIBGAS, SA and offers its users the possibility of trading within-day, day-ahead, balance of month and month-ahead products at an Iberian level.

ii Energy market rules and regulation

The legal framework for the organisation of MIBEL is based on the MIBEL Agreement,¹¹ signed on 1 October 2004. It establishes the general principles for the organisation and management of MIBEL and, in particular, the framework for the organisation of the spot market and the derivatives market.

The MIBEL derivatives market, because of its financial nature, is directly subject to Portuguese law and jurisdiction and, therefore, to the legislation applicable to this type of market, which is primarily:

- *a* the Securities Code;
- b the Securities Market Commission (CMVM) Regulations; and
- *c* the CMVM Instructions.

The derivatives market is under the direct supervision and regulation of the CMVM, in coordination with ERSE.

Notwithstanding the powers granted to the Portuguese authorities, the regulation and supervision of the derivatives market is carried out in conjunction with the equivalent Spanish authorities, the National Energy Commission and the National Securities Market Commission.

In addition, regulation of MIBEL takes place through market rules developed by the market operators, OMIE and OMIP, which have the duty of developing and jointly applying all the market rules.

MIBGAS and trading conducting therein, on the other hand, are governed solely by Spanish law.

iii Contracts for sale of energy

Any entity (producers, suppliers, consumers or other agents from the organised market) registered as a market agent may enter into a bilateral agreement, either for electricity or natural gas.

With respect to the legal and regulatory applicable provisions, the terms of such contracts are dependent upon each market agent's agreement. The market agents must notify the transmission network operator (as global system manager) of the completion of such an agreement and indicate the term for which it is executed.

iv Market developments

The process of phasing out of end-user regulated electricity and natural gas tariffs is currently under way. Decree-Law No. 75/2012 of 26 March approved the timetable for the gradual phasing out of such tariffs for normal low-voltage electricity consumers, and Decree-Law No. 74/2012 of 26 March also established that for natural gas for either 31 December 2014 or December 2015 (depending on the contracted power or annual gas consumption). After several extensions, Decree-Law No. 15/2015 of 30 January, and Order No. 97/2015 of March 30, further pushed back the expiration date for the end of all regulated tariffs to 31 December 2017.

¹¹ The Agreement between the Portuguese Republic and the Kingdom of Spain relative to the constitution of an Iberian Electrical Energy Market.

Pursuant to the enactment of recent legislative instruments, the predicted date for the end of all regulated tariffs was once again delayed, this time to 31 December 2020.

During this period, transitory tariffs with a gradually increasing premium component will apply and also be updated quarterly by ERSE.

In the energy supply sector, it is worth noting the set-up of the Logistics Operator for Supplier Switching, created to facilitate electricity and natural gas 'switching' procedures for consumers and businesses.

V RENEWABLE ENERGY AND CONSERVATION

In February 2013, the Council of Ministers approved the National Action Plan for Energy Efficiency for the period 2013–2016 (PNAEE) and the National Action Plan for Renewable Energy for the period 2013–2020 (PNAER). The main objective of the PNAEE is to envisage new actions and targets for 2016, integrating the concerns regarding the reduction of primary energy for 2020 contained in the EU policy on energy efficiency.

The PNAER was also defined in light of the current situation (oversupply of electricity generation due to lower demand) with a view to adapting and mitigating costs. The plan continues to focus on renewable energy sources – very relevant in the promotion of a balanced energy mix – to enhance security of supply and reduce the risk of the price variability of certain commodities and its corresponding implications for the national energy bill.

i Development of renewable energy

With the purpose of reducing energy imports and dependence, and following the enactment of several European directives, Portugal has introduced guaranteed remuneration schemes for renewable electricity generators (i.e., a 'feed-in tariff' system), prompting the development of wind and solar generation, as well as cogeneration, in the country.

Nevertheless, in the wake of the financial assistance programme (a memorandum of understanding underwritten by the Portuguese government, the European Union, the International Monetary Fund and the European Central Bank), which ended in 2014, legislative measures seeking to curb guaranteed remuneration were procured, although precautions were taken to avoid impacting significantly on existing feed-in tariffs and undermining the legitimate expectations of the private parties in the market (and including changes that have been negotiated with participants in the renewables sector).

While Decree-Law No. 35/2013 of 28 February reduced the term during which special-regime generators have the right to receive the corresponding feed-in-tariff, the Decree also established the possibility of special-regime generators (except for small hydropower plants) adhering to certain alternative remuneration mechanisms; in general, these allow for an extension of the period during which the special-regime generators receive a special tariff or guaranteed remuneration.

Successive amendments to Decree-Law No. 23/2010, of March 25, (the most recent of which was executed by Decree-Law No. 68/2015, of 30 April) and related regulation thereof, have reduced feed-in-tariffs and the cap on installed capacity (reduced from 100MW to 20MW of installed capacity) for eligibility to benefit from cogeneration feed-in tariffs.

In relation to micro generation of electricity, Decree-law No. 153/2014 has also reduced the guaranteed remuneration for small generation power plants while allowing for self-consumption electricity generation and facilitating the licensing or registration of both.

Pursuant to a recent Ministerial Order (268-B/2016 of the Secretary of State for Energy affairs, enacted on 13 October 2016), it was determined that public funds granted to existing renewable energy projects with guaranteed remuneration (such as EU funds) shall be offset against future feed-in tariff payments. This measure has yet to be implemented by the government.

ii Energy efficiency and conservation

In 2008, the government introduced the PNAEE, a plan of action that establishes the main policies and energy-efficiency measures to be developed to achieve a target of a 10 per cent reduction in the country's energy consumption. Recently, the PNAEE was revised and the government set new goals to be achieved in matters of energy efficiency until 2016.¹²

After the establishment of the PNAEE, the Energy Efficiency Fund was created,¹³ which finances the programmes and measures provided for in the plan.

In 2011, the government, by Decree-Law No. 29/2011 of 28 February, created a specific public tender procedure to expedite and facilitate the formation and execution of energy efficiency contracts, to be entered into by the public administration and private companies to implement measures improving energy efficiency in public buildings.

ERSE has tried to ensure that regulation of the sector galvanises actions that contribute to the promotion of energy efficiency. In the Tariffs Regulation for the electricity sector, a competitive mechanism called the Consumption Efficiency Promotion Plan (PPEC) has been established to promote measures for managing demand. In the electricity PPEC, incentives are awarded for the promotion of measures aimed at improving efficiency in electricity consumption through measures taken by suppliers, network operators and organisations that promote and protect the interests of electricity consumers in mainland Portugal and in the autonomous regions, and that are aimed at consumers in different market segments. The actions result from specific measures proposed, subject to a selection process, whose criteria are defined in the Rules for the Consumption Efficiency Promotion Plan. This process allows the selection of the most promising measures for energy efficiency to be implemented by the aforementioned promoters, taking into account the amount available in the PPEC annual budget, which is approved at the start of each regulation period for each one of its years.

Decree-Law No. 38/2013 of 15 March transposed into national law a set of provisions relating to the greenhouse gas emission allowance trading scheme, namely Directive 2009/29/ EC of the European Parliament and of Council of 23 April 2009. In particular, this Decree states that from 2013 onwards the emission allowances that are not allocated free of charge shall be auctioned and the revenues from the auctions shall be applied in measures that contribute to the development of a competitive low-carbon economy (this mechanism is currently regulated by Order No. 3-A/2014). It is also established that the amounts to be transferred to the SEN should be used to offset the extra costs incurred with respect to the purchase of electricity from special-regime generators.

¹² Council of Ministers Resolution No. 20/2013 of 10 April.

¹³ More information about energy efficiency in Portugal can be found at: www.portal-eficienciaenergetica.com.pt/nacional.html; www.adene.pt/eficiencia-energetica; and www.erse.pt/ pt/planodepromocaodaeficiencianoconsumoppec/Paginas/default.aspx.

iii Technological developments

Driven by the growing dependence on oil for energy and by the environmental impact of the use of fossil fuels, Portugal is investing in new energy models for mobility that aim to improve quality of life and reduce pollution.

This has led to the creation of the Electric Mobility Network, an integrated network linking 1,300 charging stations in Portugal, managed by MOBI.E, which will enable electric vehicles to recharge, using a charge card.

Its main goal is to contribute to a more sustainable mobility model, promoting the integration of electric power coming from renewable sources into the functioning and development of cities, and maximising its advantages.¹⁴

In March 2011, Portugal initiated the large-scale implementation of the Electric Smart Grid, in charge of a consortium headed by EDP Distribuição SA.

The first phase of the project consists in the implementation, in the city of Évora, of 30,000 electric power meters, or 'energy boxes'. This project seeks to promote energy efficiency, microgeneration and electric mobility. Consumers will have new services, new billing methods and innovative price plans at their disposal, which will allow greater flexibility of choice, so consumers can adjust their needs to match their consumption requirements. Speed, transparency and convenience are the concepts underpinning the new services on offer.¹⁵ It is expected that by 2020 smart grids will represent 80 per cent of European power distribution networks.

The licensing procedure for WindFloat, the offshore floating-platform wind-generation project to be installed off the northern coast of Portugal, is also nearing completion.

VI THE YEAR IN REVIEW

2016 was a year of a slight growth for the Portuguese economy, which has been slowly recovering from the Eurozone recession.

Where transactional activity is concerned, the sector remains strong. In this regard, the acquisition by an international solar energy promoter of a project for one of the largest investments in solar energy in Europe (around 200MW and occupying an extension of land of around 400 hectares), which is envisaged to sell electricity at market prices, was one of the landmark transactions for the sector in 2016.

In 2013 the Portuguese government implemented the 'extraordinary energy-sector contribution' (*contribuição extraordinária sobre o sector energético*), the revenues from which were intended, primarily, to reduce the tariff deficits being generated in the electricity sector. Following this extraordinary contribution, which continued into 2015 and 2016, the government set up the Fund for the Systemic Sustainability of the Energy Sector, with the goal of creating of policies of a social and environmental nature related to energy-efficiency measures and the reduction of the tariff deficit in the energy sector, and funded in part from the revenues obtained through the special contribution. The Portuguese state budget for 2017 establishes the extension of this extraordinary contribution into 2017.

The successive extensions of this extraordinary contribution have resulted in litigation cases, currently pending in the Portuguese courts.

¹⁴ More details at www.mobie.pt/en/mobilidade-electrica.

¹⁵ More information on this project can be found at www.inovgrid.pt/en.

Also worth noting is the restructuring of social tariffs in Portugal. Social tariffs have been deeply reformed in 2016 in order to be more accessible and usable for the interested parties (i.e., people undergoing economic difficulties).

VII CONCLUSIONS AND OUTLOOK

The Portuguese power market is currently a mature market with a generation mix in which green energies have a significant weight, both in terms of installed capacity and power output. The natural gas market has room for expansion considering that there are still interior regions that do not have distribution networks. However, tepid economic growth and the need to keep grid tariffs low means that 'connections' growth in this sector will remain slow in Portugal.

The main challenges in the energy market in Portugal relate to the completion of the liberalisation of the electricity and natural gas industries. Although market efficiency is expected to increase and competition within the market should benefit end users, the full effects of liberalisation are not yet certain.

In the foreseeable future, it is expected that there will be a place for 'community power', through the increase in self-generation capacity by households and consumers. The implementation of smart grids and affordable rooftop photovoltaic enables consumers to become self-sufficient, and even net sellers of electricity.

In relation to this, we see electric vehicles slowly moving to conquer a relevant market share, in part due to technological advances mentioned above (and also advances in battery energy storage).

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He has advised and assisted several companies and banks with a focus on M&A and capital markets operations. During recent years he has played an active role in key M&A transactions in Portugal or carried out overseas by Portuguese companies.

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He has also acted as legal adviser in the setting up of several initial public offers, including the largest initial public offer ever made in Portugal and the largest in Europe during 2008, and also in the structuring of several public share takeover bids.

In the area of energy law, he was involved in the reorganisation of the national energy sector in 2003 and 2004. Recently, he acted as a legal adviser in the setting up of securitisations made in Portugal regarding the right to receive amounts arising from tariff adjustments. He regularly acts as legal adviser in regulatory matters related to the energy sector.

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