

Renewable Energy 2022

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Renewable Energy

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Consulting editor**John Dewar****Milbank LLP**

Lexology Getting The Deal Through is delighted to publish the fifth edition of *Renewable Energy*, which is available in print and online at www.lexology.com/gtdt.

Lexology Getting The Deal Through provides international expert analysis in key areas of law, practice and regulation for corporate counsel, cross-border legal practitioners, and company directors and officers.

Throughout this edition, and following the unique Lexology Getting The Deal Through format, the same key questions are answered by leading practitioners in each of the jurisdictions featured. Our coverage this year includes new chapters on Bulgaria, Denmark, Indonesia, Pakistan and Turkey.

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Every effort has been made to cover all matters of concern to readers. However, specific legal advice should always be sought from experienced local advisers.

Lexology Getting The Deal Through gratefully acknowledges the efforts of all the contributors to this volume, who were chosen for their recognised expertise. We also extend special thanks to the consulting editor, John Dewar of Milbank LLP, for his continued assistance with this volume.



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MARKET FRAMEWORK

Government electricity participants

1 | Who are the principal government participants in the electricity sector? What roles do they perform in relation to renewable energy?

At state level, the Ministry for Ecology Transition and Demographic Challenge (MITECO) is in charge of proposing and executing government policies in relation to energy.

Among other functions, the MITECO is responsible for adopting the necessary measures to secure the supply of electricity and the economic and financial sustainability of the electric system. The establishment of the National Energy Plan and of an economic regime for those facilities entitled to regulated remuneration are also part of the MITECO's duties. Furthermore, the MITECO's role also includes granting the relevant authorisations for facilities:

- with an installed capacity of more than 50MW;
- when they affect the territorial scope of more than one autonomous community; and
- when they are offshore in the territorial sea.

Broadly speaking, autonomous communities are in charge of developing basic state-level legislation. They also grant the necessary authorisations when the electric infrastructure solely affects their territory unless such authorisations are expressly reserved for the MITECO as explained in the paragraph above.

At the municipal level, town councils are in charge of granting the necessary works and activity licences for the installation of the facilities.

The National Commission for Markets and Competition (CNMC) is the independent regulator in charge of supervising and controlling the proper functioning of the electricity sector. The CNMC also oversees the degree and effectiveness of market openness and competition in both the wholesale and retail markets. The CNMC has been vested with several functions for these purposes, the main ones being:

- consultancy functions (it has to issue obligatory reports in relation to regulations, authorisation, amendment or dismantling procedures for electric installations, energy planning, economic regime, quality of supply, etc);
- conflict resolution (access to the network);
- imposing disciplinary measures;
- establishing the methodology and requirements of access and connection to the grid;
- establishing the structure and methodology for the calculation of tolls for access to the electricity networks designed to cover transmission and distribution remuneration;
- establishing the methodology, parameters and asset base for the remuneration of facilities for the transport and distribution of electrical energy in accordance with the energy policy guidelines;

- fixing, where appropriate, the unit values of investment, operation and maintenance and regulatory service life of facilities entitled to compensation in charge of the electricity system of the transmission and distribution companies for each regulatory period;
- fixing the rate of financial remuneration for transmission and distribution facilities for each regulatory period;
- establishing the methodology for calculating the remuneration of the electricity system operator on the basis of the services they effectively provide; and
- approving, by means of resolution, the values of the tolls of access to the electricity network, as well as the amounts of remuneration for electricity transmission and distribution activities.

Red Eléctrica de España (REE) is the sole transmission agent and system operator (TSO) for the Spanish electricity system. Among other duties, it is responsible for guaranteeing the continuity and security of the electricity supply; for ensuring proper coordination between generators and the transport and distribution networks; and for operating and managing the transmission grid. REE is partially owned by the state (20 per cent).

OMI-Polo Español (OMIE) is the electricity market operator. It manages the wholesale electricity market for the Iberian Peninsula (Spain and Portugal), where market agents trade the amounts they need (MWh) at transparent prices. OMIE also carries out the invoicing and settlement of the energy traded on these markets and oversees the corresponding financial settlements. In addition, the Iberian Energy Market Operator (OMIP) (Portuguese division) manages the futures market (forward and derivatives) on the Iberian peninsula.

Private electricity participants

2 | Who are the principal private participants in the electricity sector? What roles do they serve in relation to renewable energy?

In the liberalised market context of the electricity sector, though subject to a high degree of regulation, all operators are private (except for the 20 per cent stake held by the state in the TSO (REE)).

The CNMC publishes an annual list of the principal operators in the electricity market; that is, those operators with the five highest market shares. According to its Resolution of 10 December 2020, the principal operators are currently Endesa, Iberdrola, Naturgy Energy Group, EDP and Acciona. These are all vertically integrated groups and thus have interests throughout the whole electricity supply chain (generation, distribution, trading, etc).

Other players in the renewable electricity sector are independent generators (not vertically integrated) such as X-Elio. Eolia, Renovalia, Fotowatio and T-Solar. The pioneering development of renewable energies in Spain has also contributed to the rise of many other Spanish companies that have become world leaders in project development or

equipment manufacturing, such as Cobra, Acciona and Gamesa. Finally, traditional oil & gas companies such as Repsol or Galp are also developing renewable energies businesses and playing as well very active roles as developers of renewable electricity generation projects.

Investment funds and investors of a different nature (eg, pension funds, etc) also play a key role by investing in the share capital of generation or distribution companies and traders. These funds and investors include KKR, Brookfield, First State, Macquarie, Oaktree and Cerberus, among others.

Definition of 'renewable energy'

3 | Is there any legal definition of what constitutes 'renewable energy' or 'clean power' (or their equivalents) in your jurisdiction?

Article 2 of Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 (Directive 2009/28/EC) defines 'electric energy from renewable sources' as electric energy coming from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases. This definition is further developed in article 2 of Royal Decree 413/2014, which mainly includes the technologies set forth in the Directive.

Framework

4 | What is the legal and regulatory framework applicable to developing, financing, operating and selling power and 'environmental attributes' from renewable energy projects?

Spain's renewable electricity regulations are governed by the common framework for the generation and promotion of renewable energy established by the European Union, mainly Directive 2009/28/EC, which establishes national targets for each member state on renewable energy generation, reduction of greenhouse effect gas emissions and energy efficiency. It also requires member states to introduce support schemes and measures of cooperation between different member states and with non-member states in order to achieve their national targets.

At state level, such policies and legal regimes are mainly implemented in Spain through:

- Law 24/2013, of 26 December, on the Electricity Sector (LSE);
- Royal Decree 413/2014, of 6 June, on electricity generation by means of renewable, cogeneration and waste facilities (Royal Decree 413/2014);
- Royal Decree 1955/2000, of 1 December, on the regulation of transport, distribution, commercialisation, supply and authorisation procedure for electricity facilities (Royal Decree 1955/2000);
- Royal Decree 244/2019, of 5 April, regulating administrative, technical and economic types of electricity supply and generation with self-consumption;
- Royal Decree 2019/1997, of 26 December, organising and regulating the electricity production market; and
- Order ITC/1522/2007 of the MITECO, regulating guarantee of origin certificates (Order ITC/1522/2007).

Most autonomous communities have also passed legislation developing several issues of state legislation in relation to the authorisation process in their territories.

Town councils also have their own regulations regarding the issuance of works and activity licences.

Environmental and town planning regulations (which are mainly developed at autonomous community and town council levels) also have to be taken into consideration when developing a renewable energy project.

Stripping attributes

5 | Can environmental attributes be stripped and sold separately?

Regarding environmental attributes, Order ITC/1522/2007 regulates the guarantee of origin certificate, which can be sold to traders to justify the use of renewable energy. Guarantee of origin certificates are issued for each 1MWh and can be transferred by generators to traders or direct final consumers.

According to Order ITC/1522/2007, generators are the only ones that can export these certificates to other countries, but this entails them waiving the economic incentives for the energy produced associated with that certificate.

Government incentives

6 | Does the government offer incentives to promote the development of renewable energy projects? In addition, has the government established policies that also promote renewable energy?

Under the Spanish incentive scheme, renewable power generators sell the electricity they generate into the Spanish wholesale market, and receive market price for such sales, or to specific customers by means of bilateral agreements (power purchase agreements (PPAs). Note, however, that physical PPAs are, in any case, very unusual in Spain, being, in most cases, financial PPAs structured as a hedging agreement through a contract for difference, with no physical delivery of electricity.

In addition, renewable power generators may also receive from the CNMC regulated payments during their regulatory lives through: (1) the specific remuneration regime; or (2) the economic regime for renewable facilities.

The specific remuneration regime

The specific remuneration regime is regulated by article 14.7 of Law 24/2013, of 26 December, and Royal Decree 413/2014, of 6 June. Through this regime, renewable energy generators may be entitled to receive the following regulated payments: (1) remuneration for the investment, which is intended to compensate for investment costs in renewable installed capacity that cannot be recovered through the market price. This remuneration is based on the investment costs that an efficient and well-managed company cannot recover from the market (based on technology-dependent standards). The set of standard parameters includes a standard value of the initial investment; and (2) remuneration for the operation, which is intended to compensate for the difference between operating costs and operating income. This is also determined by reference to technology-dependent standards, including a standard value of operating costs.

Depending on the specific technology they may not be entitled to both components (eg, wind farms which may be entitled only to remuneration for the investment). Royal Decree 413/2014 provides for the review of the remuneration scheme by establishing statutory periods of six years. Each statutory period is divided into two three-year regulatory sub-periods. At the end of each regulatory sub-period, the MITECO may amend the remuneration for investment to reflect:

- changes in expected future wholesale electricity prices, with a corresponding adjustment to remuneration for investment; and
- deviations in actual wholesale electricity market prices (as determined and published by the CNMC) as against expected future wholesale electricity market prices as established during the previous regulatory sub-period.

The above-described remuneration scheme is intended to allow each standard renewable facility to achieve a pre-determined pre-tax rate of

return over that facility's regulatory life (reasonable return). The specific determination of the reasonable return is fixed in the corresponding regulation approved at the beginning of each regulatory period based on the average yield on Spanish 10-year bonds on the secondary market in the 24 months preceding the month of May before the commencement of the new regulatory period.

By means of RDL 17/2019, of 22 November 2019, the Spanish government has approved the rate of return for the next regulatory period (2020–2025). With the rate of return approved by RDL 17/2019, the Spanish Government, it is important to distinguish between:

- facilities in operation after 14 July 2013, for which the rate of return for the next regulatory period (2020–2025) has been set at 7.09 per cent; and
- facilities in operation before 14 July 2013, which may either:
 - keep the current rate of return of 7.398 per cent for the next two regulatory periods (2020–2025 and 2026–2031) provided that they drop any arbitration or litigation proceeding against Spain concerning the regulatory changes of the economic regime of renewables approved since 2007; or
 - opt for the application of the 7.09 per cent rate of return for 2020–2025 and of the subsequent rates of returns to be approved afterward for the following regulatory periods.

Also, Royal Decree 413/2014 established that the support for new renewable facilities (to be in operation after 14 July 2013) is granted through competitive public tender processes. The remuneration scheme and parameters are the same as those described above. However, through these auction processes, bidders propose the initial value for the investment that they will be willing to accept, and the MW auctioned are allocated to the most competitive offers (the lower ones). So far, the Spanish government has carried out three auctions that have ended with a result that no incentive (or a very low incentive) will be granted to the projects, and most of their remuneration comes from the market price.

The last auctions under the specific remuneration regime took place in 2017, in relation to wind and photovoltaic projects. Currently, it is unlikely that the Spanish government will call new auction processes under this scheme, but rather through the new economic regime for renewable facilities.

Economic regime for renewable facilities

Article 14.7 bis of LSE (as amended by Royal Decree-Law 23/2020) and Royal Decree 960/2020, regulate the economic regime for renewable facilities, which is a new remuneration framework based on the long-term recognition of a fixed price for the energy generated. The remuneration is granted through auctions where the product to be auctioned may be electrical energy, installed capacity or a combination of both.

The aim of this regime is that, in a context where prices of some renewable technologies may be lower than market prices (as foreseen for the next decade) and given that the specific remuneration regime implies an additional remuneration to the market price, it is necessary to develop a framework with efficient economic signals to transfer to the final consumers the savings that renewable energy implies.

The first auction under the economic regime for renewable facilities took place in January 2021 and resulted in the awarding of around 3,000MW of installed capacity. The outcome of the auction resulted in prices ranged between €14.89 and €28.9 MW/hour.

Other policies promoting the development of renewable energies

In addition to economic incentives, other policies that promote the development of renewable energies in Spain are the following rights granted to renewable generators:

- the priority of access to the grid. Renewable energy generators have priority over other operators to access and connect to transmission and distribution networks; and
- the priority of dispatch of electricity generated in the wholesale market. Under equal market conditions, renewable energy generators have priority over other conventional generators to deliver their electricity in the wholesale market.

7 | Are renewable energy policies and incentives generally established at the national level, or are they established by states or other political subdivisions?

Renewable energy incentives are established at state level (including economic incentives, priority of access, priority of dispatch). In Spain, the MITECO is the body with exclusive competence to determine the economic regime for those renewable facilities entitled to regulated remuneration.

Purchasing mechanisms

8 | What mechanisms are available to facilitate the purchase of renewable power by private companies?

To facilitate and promote the purchase of renewable power by private companies, the European Union enacted Directives 2001/77/CE and 2004/8/EC, which were subsequently transposed into national law by Order ITC/ 1522/2007 of the MITECO.

These regulations promote the use of a guarantee of origin certificate, which assures that a certain number of kilowatt-hours of electricity produced in a plant within a given period of time have been generated from renewable energy sources or high-efficiency cogeneration.

The guarantee of origin certificate can be transferred to traders who can justify the 'green' nature of the electricity they sell.

Legislative proposals

9 | Describe any notable pending or anticipated legislative proposals regarding renewable energy in your jurisdiction.

The LSE and Royal Decree 413/2014, which develops the LSE, represent the most notable legislation enacted in reference to renewable energies. The approval of the LSE was part of the structural reform of the electricity sector included in the Council Recommendation on the 2013 National Reform Programme of Spain, approved by the Council of the European Union on 9 July 2013.

The LSE and its developing regulation profoundly reformed the previous framework in relation to renewable energy and the electricity sector. The depth of this reform means that there has been no notable pending legislation or proposals since 2014.

However, during 2020, several important additional regulations, mainly developing the general framework set forth in the LSE, were approved.

In December 2020, Royal Decree 1183/2020 on access and connection to the grid was finally approved to regulate the conditions to obtain the access and connection permit in accordance with the general basis set forth by the LSE.

The general criteria for granting access and connection permits is the chronological priority, although Royal Decree 1183/2020 foresees exceptions for cases of: (1) hybridization of existing operating facilities; and (2) capacity tenders in cases in new transmission nodes or nodes where capacity is freed.

In relation to the access and connection permits, June 2020 was also particularly important owing to the approval of Royal-Decree Law 23/2020, establishing:

- the potential expiration of the access and connection permits for projects that had already obtained access permits, in case certain milestones and deadlines for obtaining the permits that make up the permitting process were not fulfilled; and
- a moratorium on the application for the request of new access permits until the Government and the CNMC approved the Royal Decree and the Circular regulating access and connection rights and developing article 33 of the LSE, and other several developing regulations. This moratorium is foreseen to be lifted by the beginning of July 2021.

In addition, on 20 May 2021, it was finally approved the Law on Climate Change and Energy Transition, which will also have a considerable impact on renewable energy, setting forth the minimum renewable energy goals for Spain for 2030:

- a 23 per cent reduction on greenhouse gas emissions with respect to 1990;
- 42 per cent of final use of renewable energies, which duplicates the 20 per cent foreseen in 2020;
- 39.5 per cent improvement of energy efficiency; and
- 74 per cent presence of renewable energy in the electricity sector, consistent with the objective of a 100 per cent renewable electricity sector by 2050;

Law on Climate Change and Energy Transition also intends to foster the installation of recharge stations for electric vehicles.

Drivers of change

10 | What are the biggest drivers of change in the renewable energy markets in your jurisdiction?

The main driver of change is the progressive decrease of CO₂ and greenhouse gas emissions pursuant to the necessary compliance by Spain with its international commitments. Spain must also reach its national targets on installed renewable capacity as established by EU directives and the Law on Climate Change and Energy Transition, and this could act as an important incentive to the further development of renewable energies in order to achieve EU objectives and a proper transition from coal-based energy to renewable-based energy.

Among other consequences, the commitments assumed by Spain pursuant to the EU directives and the Law on Climate Change and Energy Transition will also very likely entail a development not only of renewable energies as a whole but also of the self-consumption regime in accordance with RD 244/2019, approved to foster self-consumption facilities.

Renewable energies have achieved a level of maturity that allows projects to be profitable at market price and without the need for regulated incentives. This, together with the new renewable energies objectives of the European Union (32 per cent by 2030) that the Spanish government is supporting, should result in the fostering of the development of many new renewable energy projects in Spain in the coming years.

In addition, to improve efficiency in the sector, Spain also advocated an accounting change that Eurostat adopted in September 2017. From that point on, under the stated conditions, initial public sector investments into renewable energy are not considered a deficit, which will also improve the economic climate and foster government policies for development in the sector.

The MITECO has also turned to the development of the electric vehicles market and has also announced further incentives to the sector; moreover, given the drop in sales of vehicles as a consequence of the covid-19 pandemic. A draft regulation on the requirements for the installation of recharge stations is also currently undergoing and

foreseen to be approved in the following months, willing to foster the development of the electric vehicles market.

The Spanish TSO (REE) is also carrying out significant sustainable energy initiatives that may become an important incentive for the development of renewable energies. In its infrastructure planning for 2015–2020, REE foresaw:

- the strengthening of interconnections to improve the guarantee and security of supply and achieve greater integration of renewables (both internationally and between islands);
- the increase of a safer integration of renewable energies to contribute to the reduction of air pollutant emissions and to reduce dependence on foreign sources of energy;
- the construction of new facilities in order to increase transmission capacity, improve grid meshing and facilitate connections between electricity systems; and
- several other initiatives in relation to energy storage, smart grids and self-consumption.

The new infrastructure planning for 2021–2026 is currently being drafted and its approval is foreseen as well in the following months.

Disputes framework

11 | Describe the legal framework applicable to disputes between renewable power market participants, related to pricing or otherwise.

Pursuant to the Operation Rules of the wholesale electricity market for the Iberian Peninsula (Spain and Portugal) managed by OMIE, any disputes arising in relation to the application of these rules must be settled through an arbitration proceeding under UNCITRAL rules.

However, the CNMC will resolve any disputes that may arise in connection with access to the transport or distribution network or conflicts related to the technical or economic management of the system.

Market participants may also challenge authorisations, permits and concessions, and any administrative resolutions in an administrative proceeding before either the administrative authority that issued them or the relevant superior administrative body. They can subsequently be challenged before the competent courts, which may be the Superior Court of Justice of an autonomous community, the Supreme Court, or lower courts, depending on the specific administrative resolution being challenged.

Foreign investors may also try to resolve any dispute through arbitration pursuant to the Energy Charter Treaty (ECT), to which Spain is a signatory country. The ECT seeks to protect foreign energy investors against key non-commercial risks (eg, discriminatory treatment, direct or indirect expropriation, or breach of individual investment contracts). The ECT includes a 'fork in the road' provision by which an investor has to choose whether to submit the dispute to a domestic legal proceeding or to an international arbitration proceeding under the ECT.

UTILITY-SCALE RENEWABLE PROJECTS

Project types and sizes

12 | Describe the primary types and sizes of existing and planned utility-scale renewable energy projects in your jurisdiction.

The primary types of renewable energy projects in Spain are wind power and hydropower facilities. Notwithstanding this, hydropower facilities of more than 10MW are not considered renewable for the purposes of Royal Decree 413/2014 and do not have access to the economic incentives established therein.

According to the Red Eléctrica de España (REE) Annual Report of 2020, 25.5 per cent of the total installed capacity in Spain is wind power

electricity and 16.2 per cent comes from hydropower facilities (including both mini-hydros (up to 10MW) and larger facilities). Furthermore, solar PV energy amounts to 10.7 per cent of total installed capacity, with solar thermal accounting for 2.2 per cent.

Project sizes vary depending on the renewable technology but it can generally be stated that wind farms, solar thermal and solar PV facilities are usually of a maximum of 50MW (so that the administrative authorisation process is carried out by the autonomous community instead of at the state level), while hydropower facilities are of less than 10MW (to access economic incentives for renewables).

In terms of the amount of energy that these renewable projects have been able to contribute to the country's energy needs, the percentage of their overall share in demand coverage has gone up from 39 per cent in 2019 to 44.6 in 2020. In 2020 wind power remained the second force in electricity production after nuclear power and was responsible for 22.2 per cent of the total electricity consumed in 2020. According to REE, renewables as a whole contributed 44.6 per cent of electricity production in Spain in 2020.

Development issues

13 | What types of issues restrain the development of utility-scale renewable energy projects?

The main issues that may restrain the development and profitability of renewable energies are:

- lack of legal certainty. From 2008 to 2013, different government measures led to a profound reform that affected the remuneration of existing and future renewable facilities, cutting their incentives. This resulted in great regulatory uncertainty and instability and affected investor trust. Some of them have not yet recovered from this situation;
- low regulated incentives. Access to the current regulatory scheme is obtained through competitive public tender processes. The government launches these processes and there is no certainty as to when this will happen (although a new tender for 2020 has been announced by the government). Tender processes to date have ended with a result that no incentive (or very low) will be granted to the projects and most of their remuneration comes from market price, preventing non-mature technologies from being awarded capacity and thus preventing them from being developed;
- installed capacity versus electricity demand. There is currently an excess of installed capacity in Spain, much of which is underused. This can also slow down the installation of new renewable power; and
- economic context. The development of renewable energy projects may also be affected by general economic conditions that positively or negatively influence electricity demand.

HYDROPOWER

Primary types of project

14 | Describe the primary types of hydropower projects that are prevalent.

Large hydropower projects in Spain mainly fall within three categories, as given below.

- impoundment plants use a dam to store river water in a reservoir. Water released from the reservoir flows through a turbine that activates a generator to produce electricity. Water may be released either to meet changing electricity needs or to maintain a constant reservoir level;
- Pumped storage plants are similar to impoundment plants but with the capacity to store energy by pumping water uphill to a reservoir at a higher elevation from a second reservoir at a lower elevation.

During periods of high electricity demand, the water is released back into the lower reservoir and activates a turbine, generating electricity; and

- run-of-river plants are those with little or no reservoir capacity, and usually do not require the use of a dam. Only upstream water is available for electricity generation at any particular moment and any oversupply cannot be stored.

The main types of mini-hydropower plant (not more than 10MW) are run-of-river plants and impoundment plants, together with hydropower plants on irrigation channels.

15 | What legal considerations are relevant for hydroelectric generation in your jurisdiction?

All necessary authorisations from an electricity regulation point of view must be obtained for the construction of a hydroelectric plant, including its evacuation infrastructures.

In addition, according to article 52.1 of the Spanish Water Act, the right to private use of the public water domain, whether or not consumptive, is acquired by a legal provision or by administrative concession for a maximum term of 75 years.

The specific fees that hydropower plants are obliged to pay represent another relevant issue to take into consideration:

- an annual fee for the use of hydraulic public domain goods (watercourse and riverbed). The amount of this fee depends on whether there is an occupation of the hydraulic public domain soil, or whether there is a use of the hydraulic public domain (non-consumptive use) or use of public domain goods; and
- an annual fee for the use of continental waters to generate electricity (hydroelectric plants), the entity holding the relevant concession at any time being liable to pay such fee. The taxable base of the fee is determined by the River Basin Authority and represents the economic value of the hydroelectric energy produced by the concessionaire through the use of said waters in a given annual taxable period. The annual tax rate is 25.5 per cent, reduced by 92 per cent for those hydroelectric plants with an installed power equal to or less than 50MW and by 90 per cent for pumped-storage hydroelectric plants of more than 50MW.

DISTRIBUTED GENERATION

Prevalence

16 | Describe the prevalence of on-site, distributed generation projects.

The distributed generation system is a set of electrical generation systems that are connected to the distribution networks and characterised by their low power and an energy production plant close to the consumption point. Spain has a highly centralised electrical scheme and distributed generation has so far been developed mainly through small self-consumption facilities.

Royal Decree 244/2019 of 5 April regulates the administrative, technical and economic conditions of the supply of electric energy in relation to the production of energy and self-consumption.

Law 24/2013, of 26 December, on the Electricity Sector (LSE) and Royal Decree 244/2019 establishes two types of self-consumption model:

- Type 1: Modalities of supply with self-consumption without surpluses. When the physical devices installed prevent the injection of any excess energy into the transport or distribution network; and
- Type 2: Modalities of supply with self-consumption with surpluses. When generation installations can, in addition to supplying energy

for self-consumption, inject surplus energy into the transport and distribution networks. In turn, this is divided into:

- modality with surpluses receiving compensation: consumer and producer voluntarily opt for a surplus compensation mechanism; and
- modality with surpluses not subject to compensation: consumer and producer opt not to benefit voluntarily from a surplus compensation mechanism or that do not meet the requirements to belong to the modality with surpluses receiving compensations.

Last year, 596MW of self-consumption facilities were installed in Spain (increasing by 30 per cent with respect to 2019) and 19 per cent of them are domestic facilities and it is expected to continue an exponential increase in the next few years.

Types

17 | Describe the primary types of distributed generation projects that are common in your jurisdiction.

The main technologies of self-consumption in Spain are PV and cogeneration, with a presence not only in the domestic market but also in agriculture (irrigation systems), livestock, industry and so on. There are also other technologies used for self-consumption purposes such as wind power or mini-hydro, but their presence is minor in comparison with PV and cogeneration.

Royal Decree 244/2019 allows collective self-consumption (eg, condominiums, buildings) understood as that in which the consumer participates when he or she belongs to a group of several consumers that supply themselves, in an agreed manner, with electrical energy coming from production facilities close to those of consumption and associated with them.

Regulation

18 | Have any legislative or regulatory efforts been undertaken to promote the development of microgrids? What are the most significant legal obstacles to the development of microgrids?

In this sense, it is important to note that the LSE and Royal Decree 244/2019 are currently aimed at fostering self-consumption.

Royal Decree 244/2019 established a range of measures that facilitate self-consumption and promote renewable energies. The tax on the generation of electricity through the use of solar radiation from PV facilities (the sun tax) is definitively repealed. In addition, self-consumed energy of renewable origin, cogeneration or waste will be exempt from all types of charges and tolls. Furthermore, the EU has agreed to put on hold eventual taxes to self-consumption facilities of certain developers, at least until 2026, allowing thereafter each member state to decide whether or not to introduce such a tax again.

Other considerations

19 | What additional legal considerations are relevant for distributed generation?

Significant regulatory development in this area can be expected in the short term. Many operators are already investing efforts and resources in distributed generation issues and regulations should be implemented in short order to provide appropriate incentives for the development of distributed generation. These developments are expected to start being introduced in order to develop the Plan Nacional de Energía y Clima.

ENERGY STORAGE

Framework

20 | What storage technologies are used and what legal framework is generally applicable to them?

Depending on the amount that is intended to be stored, the main ways of storing energy are as follows.

Large-scale storage: reversible hydroelectric (pumping) and thermal storage

According to the Energy Foundation of the autonomous community of Madrid, the total installed capacity of pumping hydroelectric facilities in Spain amounts to more than 8,100MW.

Spain also has thermal storage in concentrated solar power cylinder parabolic trough power plants. These plants have a full thermal reservoir that can continue to run turbines at full load for several hours.

Storage in networks and end user storage: batteries, domestic batteries, capacitors and superconductors

REE has implemented the Almacena project as regards batteries, which consists of an electrochemical energy storage solution connected to the general network as well as the installation of a prototype flywheel in the Canary Islands. REE also intends to construct a reversible hydroelectric plant on the island of Gran Canaria between the reservoirs of Soria and Chira.

The regulations applicable to energy storage projects do not differ from the general framework. Storage facilities (both large-scale and end user (eg, batteries)) depend on the power plant of which they are part. Therefore, the relevant authorisations and legal framework are included within the authorisation process for power plants.

Development

21 | Are there any significant hurdles to the development of energy storage projects?

In principle, the only hurdle to the development of energy storage projects aside from their cost and financing would be Royal Decree 244/2019, which regulates certain aspects in relation to the self-consumption of energy through solar PV energy and its storage through batteries.

Royal Decree 244/2019 allows for the use of storage batteries. However, batteries cannot be used to decrease the contracted power capacity of domestic consumers and, therefore, payment for their connection to the grid continues to be obligatory. However, according to Royal Decree 244/2019, self-consumed energy of renewable origin, cogeneration or waste will be exempt from all types of charges and tolls and the tax on the generation of electricity through the use of solar radiation from PV facilities (the sun tax) is definitively repealed.

FOREIGN INVESTMENT

Ownership restrictions

22 | May foreign investors invest in renewable energy projects? Are there restrictions on foreign ownership relevant to renewable energy projects?

Until now, foreign investments in renewable energies in Spain were not subject to any restrictions and there has been a great amount of foreign investment in Spain in this area. Only under very exceptional circumstances (investments in renewables located in the Spanish islands or non-mainland electricity systems) could the MITECO impose certain obligations on foreign investors to guarantee the supply of electricity.

However, as part of the legislative measures adopted by the Spanish government as a consequence of the covid-19 pandemic, new foreign investments screening rules have been implemented in Spain. On 17 and 31 March 2020, the Spanish government approved:

- Royal Decree-Law 8/2020 (RDL 8/2020); and
- Royal Decree-Law 11/2020 (RDL 11/2020) (New Foreign Investment Screening Rules).

The New Foreign Investment Screening Rules amended Law 19/2003, 4 July, on the legal regime of movement of capitals and cross border economic transactions (Law 19/2003). Certain foreign investments have now become subject to prior authorisation by the Spanish authorities, mainly those through which the foreign investor (either directly or indirectly) controls more than 25 per cent of the investor's capital or voting rights as long as such investments are made in critical energy infrastructures or supply of essential energy inputs. Thus, renewable energy investments by foreign investors may be subject to obtaining prior administrative authorisation. This needs to be analysed on a case-by-case basis. Moreover, and irrespective of the sector in which the target operates, those foreign investments (either directly or indirectly and through which the foreign investor controls more than 25 per cent of the investor's capital or voting rights) that come from public or publicly controlled companies or sovereign funds of third countries are subject to the prior authorisation from the Spanish administrative authorities. In principle, the New Foreign Investment Screening Rules should apply temporarily during the pandemic to protect companies operating in specific sectors from speculators that may try to take advantage of the fall in market values of those companies. However, it cannot be discarded that these regulations are kept even once the pandemic situation is completely controlled.

Equipment restrictions

23 | What restrictions are in place with respect to the import of foreign manufactured equipment?

It is important to distinguish between imported goods within the European Economic Area and goods from third countries. In relation to imported goods from the European Economic Area, there are no trade barriers or tariffs whatsoever limiting the trade of goods in relation to manufactured equipment.

However, if goods are imported from third countries, they will be subject to a customs duty once they enter any of the countries that are part of the European Economic Area. This customs duty may differ depending on the commercial agreements (eg, free trade agreements) in force between the European Union and the third country. There might also be specific barriers to equipment manufactured in certain countries (eg, North Korea).

PROJECTS

General government authorisation

24 | What government authorisations must investors or owners obtain prior to constructing or directly or indirectly transferring or acquiring a renewable energy project?

As per the provisions of article 111 in conjunction with article 115 of Royal Decree 1955/2000, the construction, expansion, modification and operation of all electricity installations requires the following administrative authorisations:

- administrative authorisation concerning the preliminary draft of the installation as a technical document to be processed, if appropriate, in conjunction with the environmental impact study;
- approval of the execution plan; and

- start-up certificate, which permits the commencement of commercial exploitation once the plan has been executed. The request of the start-up certificate must be accompanied by a final works certificate signed by a competent technical expert, stating that the installation has been implemented following the specifications contained in the approved execution plan as well as with the requirements of applicable technical regulations. The relevant authorities issue the start-up certificate within a period of one month from receipt of the request, having completed the necessary technical inspections and verifications of the project.

It is also necessary to obtain a facility transmission authorisation for the direct transfer of any renewable project. The party intending to acquire ownership of the facility must submit the request for such authorisation to the Ministry for Ecology Transition and Demographic Challenge (MITECO).

The application must be accompanied by documentation to prove the legal, technical and economic capacity of the applicant, as well as a statement from the owner of the facility expressing its will to transfer ownership.

Upon approval, the applicant will have a term of six months to transmit ownership of the facility. The authorisation will expire after this period. The applicant must notify the MITECO of the effectiveness of the transfer within one month of it becoming effective.

For projects authorised by a given autonomous community, their corresponding administrative bodies must issue the authorisation for the transfer of the facility. If a given autonomous community has not enacted any specific legislation in this regard, Royal Decree 1955/2000 will also apply in that autonomous community.

Royal Decree 1955/2000 does not establish the need for authorisation for an indirect transfer (eg, by selling shares of the project company) of a renewable facility. However, several autonomous communities (eg, Castilla-León) have also enacted legislation that establishes a requirement to obtain authorisation for both direct and indirect transfers of facilities.

Offtake arrangements

25 | What type of offtake arrangements are available and typically used for utility-scale renewables projects?

Operators can resort to offtake arrangements to mitigate the risks of price volatility of the wholesale market. The main arrangements in the Spanish market are forward market organised contracts, bilateral physical contracts and over-the-counter agreements such as contracts for difference.

In Spain, the forward market is managed by Iberian Energy Market Operator (OMIP) (the clearing house). OMIP has standardised energy values for the contracts according to delivery period (days, weeks, months, quarters, years (up to four years)).

This is a generally available resource for offtakers in relation to the energy acquired on the wholesale market and there is no specificity in relation to renewable energy.

Procurement of offtaker agreements

26 | How are long-term power purchase agreements procured by the offtakers in your jurisdiction? Are they the subject of feed-in tariffs, the subject of multi-project competitive tenders, or are they typically developed through the submission of unsolicited tenders?

Long-term power purchase agreements (PPAs) are usually in the form of bilateral physical contracts or negotiated in the financial forward market.

Since forward market agreements have a maximum term of four years, these schemes do not address risks after the fourth year and are

also subject to regulatory uncertainties. In Spain, an offtake arrangement usually has a term of one or two years and it has not been common for offtakers to execute long-term PPAs.

These schemes have not been so common in Spain as in other countries, particularly considering that renewable energy projects have been subject to the economic incentives scheme already explained, and the electricity they generate has to be sold on the wholesale market. However, given the maturity of renewable technologies and the profitability of many new projects without the need for regulated incentives, long-term PPA schemes have been executed in the Spanish market during the past few years aimed at providing more certainty to investors, on the one hand, because they eliminate eventual fluctuation of electricity prices at the pool and, on the other hand, since it could allow for the bankability of certain renewable projects. The current trend is to shorten the term of PPAs, given the lack of certainty over future prices of the wholesale market.

Note also that the new economic regime for renewable facilities, explained before, is also based on the long-term recognition of a fixed price for the energy generated. The remuneration is granted through auctions where the product to be auctioned will be electrical energy, installed capacity or a combination of both.

The aim of this regime is that, in a context where prices of some renewable technologies may be lower than market prices (as foreseen for the next decade) and, given that the specific remuneration regime implies an additional remuneration to the market price, it is necessary to develop a framework with efficient economic signals to transfer to the final consumers the savings that renewable energy implies.

Operational authorisation

27 | What government authorisations are required to operate a renewable energy project and sell electricity from renewable energy projects?

As per the provisions of article 111 in conjunction with article 115 of Royal Decree 1955/2000, the construction, expansion, modification and operation of all electricity installations requires the following administrative authorisations:

- administrative authorisation in relation to the preliminary draft of the installation as a technical document to be processed; if appropriate, in conjunction with the environmental impact study;
- approval of the execution plan; and
- start-up certificate, which permits the commencement of commercial exploitation once the plan has been executed. The request of the start-up certificate must be accompanied by a final works certificate signed by a competent technical expert, stating that the installation has been implemented in accordance with the specifications contained in the approved execution plan as well as with the requirements of applicable technical regulations. The relevant authorities issue the start-up certificate within a period of one month from receipt of the request, having completed the necessary technical inspections and verifications of the project.

Decommissioning

28 | Are there legal requirements for the decommissioning of renewable energy projects? Must these requirements be funded by a sinking fund or through other credit enhancements during the operational phase of a renewable energy project?

The owner of the generation facility has the obligation of dismantling the facility after its definitive closure. A breach of this obligation may lead to the authorities dismantling the plant at the owner's expense.

According to the provisions of article 135 et seq of Royal Decree 1955/2000, the owner of the facility must request administrative

authorisation of closure before the MITECO or the competent body of the autonomous community. The request must enclose a closure plan, which shall contain at least one report detailing the technical, economic and environmental circumstances of the facilities for which closure is sought. Likewise, the plan must include up-to-date blueprints of the facility.

In general, there will be no credit enhancements or sinking fund guarantees to be made during the operational phase of the renewable project, given that Royal Decree 1955/2000 does not establish any financial requirements or guarantees for the decommissioning. However, there might be provisions in the relevant administrative authorisation, and regulations from autonomous communities (eg, solar PV installation in Andalusia) that may specify guarantees for dismantling if deemed appropriate.

TRANSACTION STRUCTURES

Construction financing

29 | What are the primary structures for financing the construction of renewable energy projects in your jurisdiction?

Financing is typically provided on a limited recourse basis, with sponsors taking on construction risk through a completion guarantee. The security package also includes pledges over receivables under the engineering, procurement and construction (EPC) agreement and, in some (few) cases, direct agreements with EPC contractors. Banks also sought some form of performance or revenue guarantee in some older deals structured at a time of greater regulatory uncertainty, although sponsors naturally resisted this. Additional security includes pledges over project accounts, receivables from the sale of power and operations and maintenance (O&M) agreements, if any, and shares in the project company. Security over land is uncommon because of its exorbitant tax costs.

Recently, within transactions involving the execution of power purchase agreements, the creation of securities over the credit rights arising under the same has also been standardised; in some cases, substituting the credit right completion guarantee.

In terms of financial covenants, debt service coverage ratio (DSCR) is typically tested on the basis of the previous year's audited financial statements (with perhaps an additional semi-annual test); forward-looking testing is rare. Leverage ratios, which were as high as 90 per cent at one point, would now be more conservative.

Facilities are normally syndicated except in the case of smaller deals, which are completed as a club deal or even on a purely bilateral basis. In all but the largest transactions, Spanish law and Spanish courts have been chosen to govern the financing documents.

Operational financing

30 | What are the primary structures for financing operating renewable energy projects in your jurisdiction?

Operating projects have easier access to financing, particularly those with a strong operating record. Some facilities are more project finance-based in these cases, while others rely more on acquisition finance-type documentation. The security package will typically involve pledges over project accounts, sale revenues, O&M agreements and shares and no real estate mortgages.

As in the case of greenfield projects, leverage ratios would now be in the 60 to 70 per cent range and DSCR would be tested backwards, annually or semi-annually.

Spanish law and jurisdiction would also be the norm here.

In many cases, projects would be on a portfolio basis rather than a stand-alone basis, allowing stronger projects to support weaker ones (to a certain extent), with cross-guarantees and security overall portfolio assets and receivables.

UPDATE AND TRENDS**Recent developments**

31 | Describe any market trends with respect to development, financing or operation in the renewables sector or other pertinent matters.

Market trends

The security package of under-construction projects usually includes pledges over receivables under the engineering, procurement and construction (EPC) agreement and, in some (few) cases, direct agreements with EPC contractors. Additional security includes pledges over project accounts, receivables from the sale of power and operations and maintenance (O&M) agreements, if any, and shares in the project company. Security over land is uncommon because of its exorbitant tax costs.

Operating projects have easier access to financing, particularly those with a strong operating record. Some facilities are more project finance-based in these cases, while others rely more on acquisition finance-type documentation. The security package will typically involve pledges over project accounts, sale revenues, O&M agreements and shares and on real estate mortgages.

Legislative proposals

Law 24/2013, of 26 December, on the Electricity Sector and its developing regulation profoundly reformed the previous framework concerning renewable energy and the electricity sector. The depth of this reform means that there has been no notable pending legislation or proposals since 2014. Still, the possibility of further changes cannot be completely discarded.

However, during 2020, Royal Decree-Law 23/2020, of 23 June, approved new measures in the energy sector fostering the promotion of renewable energy generation in line with the European objectives. Royal Decree-Law 23/2020 amends regulation on access and connection permits to the transmission and distribution grids, limiting the validity of the permits over time by establishing specific milestones to be achieved by developers during the approval and construction phases of a facility. This Royal Decree-Law aims to contain speculation over access and connection permits by fostering mature projects and freeing capacity by deeming void those access and connection permits not achieving the milestones on time.

Also, Royal Decree-Law 23/2020 included the new economic regime for renewable facilities a new remuneration framework based on the long-term recognition of a fixed price for the sale of electricity produced by renewable facilities. The regulated remuneration will be awarded through competitive auction processes where the product to be auctioned will be the electricity, the installed power capacity, or a combination of both.

Finally, Royal Decree-Law 23/2020 also introduces several other amendments, the main ones being:

- the simplification of administrative procedures concerning amendments to the execution projects of renewable generation facilities, and exempting repowering from obtaining new administrative authorisations if certain requirements are met;
- the fostering of hybridisation by establishing mechanisms to keep the existing access and connection permits and provided that there is not an increase of capacity of more than 5 per cent and that the location is not modified by more than 10 kilometres;
- favouring storage, which is considered as hybridisation, etc; and
- the above, together with the approval of Royal Decree 1183/2020, developing article 33 of Law 24/2013, of 26 December, on the Electricity Sector and setting forth the access and connection to the grid procedures.

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32 | Describe any notable pending or anticipated legislative proposals.

Given the very recent approval of the Law on Climate Change and Energy Transition, there are not any major legislative proposals pending to be approved in relation to renewable energies.

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