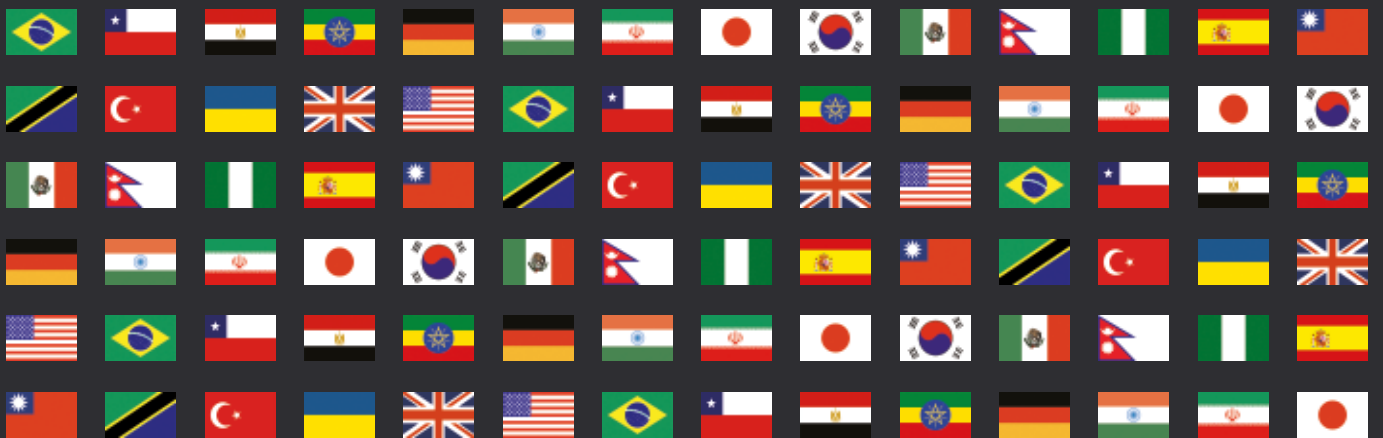


Renewable Energy 2020

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Renewable Energy

2020

Contributing editor**Eric Pogue**

Hunton Andrews Kurth LLP

Lexology Getting The Deal Through is delighted to publish the third 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.

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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 contributing editor, Eric Pogue of Hunton Andrews Kurth 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?

The public institutions that have a significant role in Chilean electricity industry are:

- the Ministry of Energy, the government institution responsible for developing and coordinating the programmes, policies and regulations for the operation and development of the energy sector, ensuring their compliance;
- the National Energy Commission (CNE), the entity in charge of analysing the prices, tariffs and technical provisions that companies involved in the production, generation, transportation and distribution of energy must follow;
- the Fuels and Electricity Superintendence (SEC), the supervisory body in charge of monitoring and supervising compliance with legal and regulatory provisions and technical standards on the production, generation, transportation and distribution of electricity;
- the National Electric Coordinator is an independent and technical entity responsible for ensuring the continuous operation of the Chilean power supply, ensuring the most economical operation of the electrical system, guaranteeing open access to all electrical transmission systems and preserving the security of the service in the electrical system;
- the Electricity Law Experts Panel is the entity, integrated by expert professionals, whose function is to resolve, through binding judgments, the disagreements and conflicts arising from the application of electric and energy legislation to institutions whose compliance is obligated by law in addition to other issues involving two or more companies in the electricity sector that by mutual agreement abide by its decisions;
- the Environmental Evaluation Service, the public body responsible for managing the environmental impact assessment system, which evaluates a project's compliance with existing environmental legislation, serving as an umbrella evaluation that assesses all environmental impacts;
- the Tribunal for the Defence of Competition, a special court formed by a panel of judges dedicated exclusively to antitrust matters, whose main function is the prevention, correction and sanction of antitrust infringements; and
- local municipalities and the Public Property Ministry, which play less important roles in the regulation of renewable energy; however, municipalities issue relevant permits during the development of projects, and the Public Property Ministry grants concessions to develop non-conventional renewable energy (NCRE) projects on taxable land.

Private electricity participants

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

The Chilean electricity sector is a concentrated market in all segments (ie, generation, transmission and distribution). In the generation sector, ENEL Generación (21 per cent), AES Gener (21 per cent), Colbún (16 per cent), EC-L (5 per cent) and Angamos (5 per cent) contribute 68 per cent of the monthly gross generation of the electricity system as of May 2019. The transmission sector is also concentrated mainly in Transelec SA, Compañía General de Electricidad SA, Inversiones Eléctricas SA (Saesa SA), Transmisora Eléctrica del Norte SA, Chilquinta SA, Celeo Redes Operación Chile SA and Interchile SA. Regarding distribution, owing to its monopolistic nature and also to the existence of large-scale economies, this activity is organised around concessionary companies such as Compañía General de Electricidad Distribución SA, Enel Distribución Chile SA, Chilquinta Energía SA, Saesa SA and Sociedad Austral de Electricidad SA. Some of the players in the generation segment are also renewable energy producers by themselves or with new entrants (local and international) that are making the energy sector less oligopolistic than it was in the past.

Definition of 'renewable energy'

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

Chilean legislation on electricity refers to 'renewable energy' or 'clean power' with the term 'non-conventional renewable energy' (NCRE). Chilean legal framework define this concept as the electrical energy generated by non-conventional renewable means of generation, which are those whose primary source is biomass energy, hydraulic energy below 20MW, geothermal energy, solar energy, wind energy, ocean energy and other means of generation determined by the CNE that use renewable energies for the generation of electricity, contribute to diversify the sources of energy supply in the electrical system and cause low environmental impact.

Framework

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

The legal framework governing the Chilean electricity market consists of the following:

- general regulation of the electric sector: the main regulation is the General Law of Electric Services (Electricity Law), which comprises the incentives for the development of NCRE projects. The Electricity

Law, in its article 150-bis regulates the NCRE attributes. There is a Regulation of the Electricity Law that details the norms contained in the Electricity Law in order to facilitate its application;

- geothermal norms: a separate law that regulates geothermal energy concessions, owing to the fact that a different legal status applies. This is the case because, unlike other renewable energy sources, the legislature considers geothermal energy to be a public asset, and it may only be explored and exploited after a specific concession is granted;
- technical regulations governing the installation, operation and maintenance of electrical facilities: these are mainly the decrees of the Ministry of Energy, as well as the Ministry of Economy, which regulate the implementation of the Electricity Law and similar regulations; but also the technical provisions issued by the CNE, such as the Technical Standard with Safety Requirements and Quality of Service dictated by the National Electric Coordinator, which ensures the coordination of the electrical system;
- regulation of the institutional framework in the electricity sector: this comprises the laws, decree laws and regulations that deal with the existence and functions of the main institutions and authorities involved in the development and operation of the electricity sector, such as the Ministry of Energy, the CNE, the SEC, the Electricity Law Experts Panel and the National Electric Coordinator; and
- other relevant regulations: include the law that regulates the payments for residential generators, the regulation that created a subsidy for transmission lines in order to facilitate access to NCRE projects, the tax exemption for solar collectors; the relevant environmental statutes that must be applied to certain projects, applicable antitrust norms, among others.

Stripping attributes

- 5 | Can environmental attributes be stripped and sold separately?

The Electricity Law regulates that those who exploit NCRE sources interconnected may benefit from the 20 per cent quota requirement, with the possibility of transferring the surplus to those who cannot comply with their own NCRE quota (which in the market has been referred to as NCRE attributes), even if they belong to different electricity systems. Although the sale value of NCRE attributes is agreed upon on a case-by-case basis between the parties that transfer them according to market criteria, the generators that cannot meet their NCRE quota see the costs associated with the acquisition of such surpluses as an alternative to payment of the fine for such default, which corresponds to 0.4 monthly tax units (approximately US\$29) for each MW/hour of deficit in respect to its obligation, which increases to 0.6 monthly tax units (approximately US\$43) in cases involving recidivism.

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?

In Chile, a quota system requires electrical companies that have an installed capacity of more than 200MW and that withdraw energy from the electrical systems for trading with distribution companies and final consumers to certify that a certain percentage of their energy withdrawal comes from NCRE sources. This percentage will increase every year until it reaches 20 per cent in 2025. However, this goal has almost been reached since, up to December 2018, NCRE were the 18 per cent of the national energy system. Further, the government has recently launched its decarbonisation programme that aims to replace

coal with other sources of energy by 2040, so the 100 per cent of the energy comes from NCRE. This may imply a greater development of hydroelectric plants and energy storage solutions.

Among other relevant issues, the current regulation provides several advantages for NCRE projects over conventional sources. One of those advantages provided to NCRE projects is the exemption from paying tolls for using the main electrical transmission system. NCRE plants that generate less than 9MW are completely exempt, and NCRE plants that generate more than 9MW but less than 20MW are partially exempt.

Additionally, measures were established to facilitate the connection of the electrical system to NCRE plants with a capacity of less than 9MW, guaranteeing their access to the distribution facilities.

An annual tax on the polluting emissions of MP, NO_x, SO₂ and CO₂, produced by facilities that reach a thermal capacity equal or greater than 50 MWt was approved in 2014.

Furthermore, in May 2017, the Public Property Ministry published several general instructions regarding concessions for onerous use of fiscal property in order to incentivise the development of NCRE projects on such public land. The Public Property Ministry may take the necessary measures so that NCRE projects make up 60 per cent of generated electricity by the year 2035 and at least 70 per cent of generated electricity by the year 2050.

Also, the development of NCRE projects has been promoted through the allocation of the Corporation for the Promotion of Production (CORFO) subsidies for conducting investment feasibility studies and following stages of the NCRE projects. In addition, CORFO has approved a long-term credit line for financing NCRE projects with an installed capacity of up to 20MW.

Establishing policies and incentives

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

The laws that create policies for the development of NCRE projects are established at the national level.

Purchasing mechanisms

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

Private companies may enter into power purchase agreements (PPAs) with NCRE generators, without the intervention of the authority. Notwithstanding the foregoing, the Ministry of Energy has enabled public biddings organised by private companies, qualified as free clients, to satisfy their energy demand.

In addition, since 2013, the bidding processes called by distribution concessionaires, enables the possibility of bidding in hourly blocks in order to promote the purchase of energy coming from wind and solar power plants.

Legislative proposals

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

Currently, there are bills of law that aim to encourage the development of NCRE projects are being processed in Congress:

There are several bills under processing that promote the development of NCRE projects by including:

- promotion by the state of the small companies whose productive processes include the use of NCRE; and

- promotion by Ministry of Energy of the use of NCRE in the economic activities of small and medium-sized companies by granting subsidies to them.

Drivers of change

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

Promoting policies approved by the state has contributed to the development NCRE; these policies include a reduction in the payment of electricity transmission tolls, the obligation for electricity companies to have a percentage of withdrawals from NCRE sources, the establishment of investment support funds and the establishment of measures to facilitate the interconnection of generating plants, among others.

Nevertheless, it seems that the increase in investments associated with NCRE projects can be mostly attributed to better industry knowledge of the technology used in these projects and more competitive implementation costs. Therefore, in a market driven by competition such as the Chilean energy market, lower costs are the main driver of success.

In addition, Chile has begun to develop NCRE storage projects, which will solve the intermittency problems of this type of energy, and hopefully allow for an even greater consolidation of this type of project in the country.

The entry of these types of projects has had a very positive impact on the electricity market because it has become more competitive, as new players have entered into it, which has greatly decreased the price of electricity for both regulated and non-regulated customers.

Disputes framework

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

There is a specialised body that solves conflicts related to electrical and gas matters in Chile, the Electricity Law Experts Panel (Panel), whose responsibilities and functions are regulated by the Electricity Law.

When companies require the intervention of the Panel, the latter must issue binding opinions resolving discrepancies and conflicts arising from the application of the electric legislation. This Panel is highly technical, non-jurisdictional, collegiate and independent. It is formed by five engineers and two lawyers.

Some of the most important aspects of the Panel are the short time-frame in which its expert opinions are issued and the very technical approach of these opinions. In addition, the parties may choose to submit their dispute to a common arbitration procedure or to appeal to ordinary courts.

Additionally, the SEC has the faculty of ruling the disputes that arise in relation to the open access principle.

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.

As of April 2019, the National Electric System had an installed generation capacity of 24,856.4MW, which corresponds to more than 99 per cent of the national installed capacity (medium systems such as Aysén and Magallanes and isolated systems are less than 1 per cent). Of the total installed capacity, 47 per cent corresponds to generation technology based on renewable resources, particularly hydroelectric (27.2 per cent), solar PV (10 per cent), wind (7.8 per cent), biomass (1.8 per

cent) and geothermal (0.2 per cent), and 53 per cent corresponds to natural gas (19.6 per cent), coal (22.3 per cent) or petroleum derivatives (11.1 per cent) power plants. The size of NCRE projects varies, from small projects of nearly 1MW now being constructed or already operating, up to large plants over 100MW (mainly wind and solar PV).

Development issues

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

Current restraints to develop utility-scale renewable energy projects are related to the fact that most photovoltaic projects do not have storage capacity and therefore must inject all the energy generated immediately into the electrical system, producing an oversupply of energy during defined time blocks of low demand. This impacts the price of energy produced by solar plants and generates a dependency on conventional sources of energy that are able to provide energy in higher-demand time blocks.

Another difficulty involves financing, where electricity bids have been awarded for low prices. The lower margins and flows associated with the energy prices offered will affect the debt component, particularly in project finance. Renewable merchant projects are currently difficult to finance.

Primary types of project

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

Currently, hydroelectric projects consist mainly of hydroelectric power plants using dams and run-of-the-river hydroelectric and mini hydroelectric power plants.

In 2018, 28 per cent of the hydroelectric projects presented were run-of-the-river, while mini hydroelectric plants has doubled since 2014 and has 495MW of installed capacity along with 749 additional MW which are environmentally approved.

Notwithstanding the above, the contribution of hydroelectric energy to the system has decreased in recent years, reaching 30.2 per cent in 2018. Despite the fact that the installed capacity has reached 6,753MW in 2018, the annual generation did not increase its contribution to the system, which is mainly because of the drought.

Legal considerations

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

A hydroelectric generation plant with a capacity above 3MW must obtain an environmental qualification resolution (RCA), which qualifies the project as being favourable to the environment. Additionally, the RCA establishes the relevant environmental permits necessary for developing the project, depending on its specific characteristics.

The developer of a hydroelectric generation plant may request an electrical concession from the Ministry of Energy, which would allow him or her to impose the necessary electric legal easements on a third party's land for constructing and developing the project. Such concessions can be provisional (for study) or definitive (for constructing the project), and are granted directly to the interested party.

DISTRIBUTED GENERATION

Prevalence

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

Usually distribution generation projects have one of two modalities:

- projects developed according to the Law of Net Billing (No. 20,571 of 2012), which allows residential electrical customers to generate energy for their own consumption, to inject the surplus energy into the electrical system, and to receive payments for these injections. The Net Billing Law applies to consumers with regulated tariffs whose installed capacity does not exceed 300kW; or
- small Means of Distributed Generation projects (PMGD, its initials in Spanish) for self-consumption or for commercialising their energy. The PMGDs are a means of generation whose surplus capacity is lower than or equal to 9MW, and which are connected to the facilities of a distribution company or to the facilities of a company that owns electrical distribution lines that use domestic public goods.

Both kinds of projects have almost doubled in their total install capacity in Chile since last year. For example, as of January 2018 to June 2019 installed capacity of PMGD went from 395MW to 653 MW. Regarding Net Billing, install capacity was 24.26MW by the end of 2018, however during 2018 increased 12.4 MW.

Types

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

The majority of the distributed generation projects in Chile are photovoltaic projects, because usually the development costs of these kinds of projects are lower than for other technologies.

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?

There is no specific legislation or regulation on microgrids so far in Chile. However, there are companies that own and operate portfolios of behind-the-meter distributed energy resources, such as peak-demand storage systems, rooftop photovoltaic systems, smart meters and data loggers, which allow such companies to manage and optimise their consumers' demand and create more favourable economic conditions for electricity supply.

Other considerations

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

According to the Net Billing Law, payments, compensation or income received by residential customers by virtue of the injection into the electricity system of their energy surpluses do not constitute income, and the relevant transactions are not subject to VAT. Other than in specific cases, this does not apply to first category taxpayers who are obliged to declare their effective income according to the 'complete accounting' system.

ENERGY STORAGE

Framework

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

The energy storage systems are mainly based on the use of Li-ion batteries. Such storage technology was used for the first time in 2009 by the company AES Gener SA. In February 2019, ENGIE Energía Chile (EECL) started a pilot plan of a storage energy system based on Li-ion batteries, which has a storage capacity of 2MW.

Other storage projects have been and will be developed, such as the Cerro Dominador project owned by EIG Global Energy Partners, which is a solar thermal energy plant with an installed capacity of 110MW. It uses a thermal storage system with a central tower and molten salt receiver technology, allowing it to operate for 17 hours per day.

Additionally, the Planta de Concentración Solar de Potencia Copiapó Solar project, developed by the Solar Reserve Company, has been operating since 2019. The system was built in the north of Chile and involved the construction of two solar power units with a central tower using molten salt receiver technology, each with an installed capacity of 120MW.

The Espejo de Tarapacá project is also currently being developed and involves a storage system based on hydro-pumped hydroelectricity. The project includes a high-pressure pipeline to transport water, which is connected to a water reserve and a group of pump turbines.

Law No. 20.936 of 2016 regulates energy storage projects generally. In addition, Decree No. 128 of 2016 regulates water-pumping storage projects.

Finally, the Ministry of Energy has announced a bill of law to be presented on the second semester of 2019 regarding storage technologies.

Development

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

There are no significant obstacles for the development of energy storage projects. However, it is important to emphasise that anyone who operates, by means of ownership, a lease agreement or any other title, energy storage systems that are interconnected to the national electricity system and subject to the coordination of the National Electric Coordinator, must incorporate a company that is domiciled in Chile and whose line of business is the storage of energy. Likewise, the owner, lessee, usufructuary or anyone that operates, under any other title, facilities for supplying services related to the storage of energy interconnected to the national electrical system must incorporate a company domiciled in Chile. Additionally, it is important to note that energy storage systems are subject to the coordination of the National Electric Coordinator.

Likewise, storage facilities shall pay compensation for the unavailability of the supply to end users, which cannot exceed, per event, 5 per cent of the total revenue obtained in Chile the previous year or 20,000 annual tax units (approximately US\$17 million).

FOREIGN INVESTMENT

Ownership restrictions

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

Foreign investors may freely invest in renewable energy projects in Chile. It is important to note that according to New Energy Finance Climascope, Chile is one of the countries that has attracted the most foreign investment from overseas financiers since 2010. The publication also highlights that Chile has a stable government and a healthy economy, making clean energy investment attractive. Additionally, it is important to mention that currently Chile has many taxation treaties (32).

In order to protect foreign investment, Law No. 20,848 of 2015 states that foreign investors who make investments in Chile as of January 2016 can request a Foreign Investor Certificate from Invest Chile, which allows them to access the benefits established in that law. Additionally, this Law allows foreign investors to request the signing of a tax invariability contract until 2020.

Besides the aforementioned legal protections, in order to promote foreign and national investment in NCRE projects, resolution No. 367 was enacted in the year 2010, which approved the creation of a hedging instrument or contingent subsidy, through which CORFO grants a complementary coverage of risk for the operation of credit and finance leases destined for the financing of investment projects. Banks with a risk classification of BBB- or higher may grant this coverage to private companies (legal persons or natural persons dedicated to these operations) that manufacture goods and services, for the financing of investment projects in NCRE. The object of this instrument is to partially offset the losses suffered by banks as a consequence of the non-compliance of the obligations from debtors.

However, it is important to note that any owner, lessee, usufructuary or whoever exploits, in any capacity, power plants interconnected to the electricity system and subject to the coordination of the National Electric Coordinator, shall establish its generation companies with domicile in Chile. Likewise, any owner, lessee, usufructuary or any person who exploits, in any capacity, facilities for the provision of complementary services or energy storage systems that are interconnected to the national electric system must incorporate a company domiciled in the country.

Equipment restrictions

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

As a general rule, the average custom duty (ad valorem) is 6 per cent over its CIF value and the tax to be paid is the VAT (19 per cent). However, Chile has signed a number of trade agreements that abolish ad valorem duties for most items traded between these countries. In addition, there are benefits for investors importing capital goods for energy projects over US\$5 million, which will be exempt from VAT, with the prior approval of the Ministry of Finance.

To perform an import, the importer must present an entry statement to the National Customs Service, which is a document that must go through the commercial bank. The commercial forms used by importers are commercial invoices and applicable information on the transaction, such as certificates of origin, bills of lading, freight insurance and packing lists, among others.

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?

Depending on the NCRE project's characteristics and the environmental impacts that it may generate, it may be necessary to obtain an RCA that certifies the project as environmentally favourable. This resolution will also identify the required permits for the project, depending on its particular characteristics. If the project is transferred after an RCA is obtained, this must be reported to the Environmental Assessment Service.

In addition, the project must obtain other relevant permits such as construction permits for permanent buildings, issued by the Department of Works of the relevant municipality, and the corresponding health and electric permits, issued by the Regional Authority of Health and the SEC, respectively.

If the construction of the project is to be in public areas, it will also be necessary to obtain a concession from the Public Property Ministry, which will enable by way of concessions the use of public lands for these purposes.

In practice, although it is not a requirement for the construction of a project, it is customary to protect the land from third parties by requesting mining concessions where the energy project will be developed, as the mining concessionaire has the ability to impose easements on the area of the concession.

In the case of hydroelectric projects, it is also necessary to obtain water rights for use in the energy generation project and an authorisation from the General Water Direction if it is necessary to build, modify, change or unify a water intake to develop the NCRE project.

Offtake arrangements

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

The energy offtaker concessionaires' distribution companies are those that contract for provisions to supply energy to regulated customers. As a general rule, such contracts are preceded by a public tender procedure called by the energy distributor and supervised by CNE.

The preliminary report of electricity supply tenders for the period 2018-2038 projected an electrical demand for regulated customers of 37,393 GWh for 2025. With this information, the Bidding Bases for Power Supply and Electric Power have been prepared, whose process is in force and will be awarded by the end of 2019.

To participate in the public bidding processes called by the energy distributors, the bidder is generally required to have a risk rating of at least BB+. In practice, that rating is given taking into consideration the sponsor's credit rating.

Clients whose connected power is between 500kW and 5,000kW have the right to choose between being regulated clients or free customers. This right to choose can be exercised once every four years. These clients can freely negotiate electricity prices with energy generators and set supply conditions through PPAs.

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?

The PPAs for supplying energy to regulated customers are usually preceded by public tender procedures.

On the other hand, as a general rule, non-regulated customers call for public or private bidding processes, whether they have a high demand for supply or they add demand, and subsequently enter into PPAs with the successful bidders from such processes.

Operational authorisation

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

There are no specific government authorisations required to operate renewable projects and sell electricity. Nevertheless, as mentioned above, according to the General Law on Electrical Services, the owner, lessee, usufructuary or anyone that operates power plants connected to the electrical system under any title and subject to the coordination of the National Electric Coordinator must incorporate a company that is domiciled in Chile and whose line of business is the generation of energy.

The energy broker or energy trader is not regulated in Chile; this is the reason generators are the only entities that can commercialise energy to be sold in the spot market to other generators, or in the contract market (either to distribution companies, other generators or non-regulated customers).

Finally it is important to note that, for NCRE projects to be commissioned, they must have been previously declared to be under construction by the CNE, and they must have the authorisation of the National Electric Coordinator to energise the corresponding facilities.

After the energisation and interconnection of the facilities, and after a test period to prove that the power plant does not cause distortions in the electrical system, the National Electric Coordinator will approve the commissioning of the respective NCRE 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?

Once the useful life of NCRE plants has been surpassed, they are dismantled. The process will be carried out in compliance with the measures and procedures set forth in the project's RCA, required by all power plants above 3MW. The cost of implementing such measures shall be considered as one of the costs of the project.

TRANSACTION STRUCTURES

Construction financing

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

Although the structure for financing depends on the size and features of the NCRE project, most developers prefer project financing and

long-term agreements. The debt-to-equity ratio depends on the specific project; traditionally, it has been 60/40. In order to guard against any construction risk, the financing entity usually requires from the developer a guarantee from the sponsor (ie, a parent guarantee and a fraction in a more liquid instrument) and a regular security package (ie, pledges over the shares of the special purpose vehicle, the assets of the project and the major project documents). In current market conditions, one of the challenges NCRE projects face is to secure a long-term PPA with creditworthy companies that will enable a project finance structure. Normally financing includes a principal facility and another one for VAT. Regarding VAT, it is important to consider that Chilean VAT Law establishes a benefit for companies that invest in fixed assets (eg, energy plants). In this regard, the company is entitled to a reimbursement in cash of VAT paid in the acquisition of goods and services that compose fixed assets.

Operational financing

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

To run NCRE projects, the financing structure takes several forms, depending on the commercial needs of the parties and the features of the operating project being financed. As the construction risk is finalised, the financing entity will normally assess the type and age of the plant to evaluate the structure. Common financing structures used in Chile are the term loan and the revolving loan, which can be repaid on demand on an amortisation basis, scheduled, or even by means of a bullet loan, where the entire loan is due at the end of the loan term.

UPDATE & TRENDS

Market trends

- 31 Describe any market trends with respect to development, financing or operation in the renewables sector or other pertinent matters.
- With the new transmission line Polpaico-Cardones, developed by Interchile SA, the restrictions imposed by the transmission system were eliminated, making it possible to transport renewable energy produced by wind and photovoltaic sources to large consumption centres in the central zone of Chile. A direct benefit that will be delivered by the double circuit 500kV transmission line is the reduction in discharge (loss) of energy from renewable generators located in the northern zone of Chile that will now be able to inject all the energy they produce, owing to the increased transmission capacity. This new transmission scenario will accelerate the process of decarbonising the country's energy matrix until the eventual closure of all coal-fired power plants, which is expected in 2040, according to the latest announcement by the Energy Ministry.
 - Regarding distributed generation market, one of the major current discussions in the energy sector concerns PMGD and PMG generators. In April 2019, the government proposed to change the tariff mechanism called Stabilized Price, which in its original conception sought to grant greater certainty to the developers of these generation units in order to access financing. In our opinion, if the government follow such path, it will certainly affect the development of these projects, which have been very active in the last two years.
 - Amendments to the General Law on Electrical Services allows some final consumers to negotiate energy supply contracts directly with energy generators. Several public organisms and municipalities have decided to opt for this system, which is a trend that we anticipate will continue because the price offered by the generators

is generally lower than the price offered by distribution companies. This is in addition to the trend in the private sector where actors, in many cases, have chosen the same contractual regime.

- Recently, the government announced its Decarbonization Plan that implies the progressive closure of coal-fired power plants with the objective to permanently close all facilities by 2040. This plan implies the closure of the 28 power plants currently operating in Chile and aligns with the government policy in recent years to promote the development of NCRE projects.

Legislative proposals

32 | Describe any notable pending or anticipated legislative proposals.

The government has announced proposed legislation for the second Congressional term of 2019 that will focus on energy storage. There is currently no specific regulation in place on this subject.

Another piece of proposed legislation aims to modify the Constitution in order to make it a duty of the state to promote the development of smaller companies whose processes favour the use of NCRE and to promote a pollution-free environment.

The Energy Efficiency Law project seeks to increase energy security, reduce global emissions and local pollutants, increase productivity, and contribute to sustainable development. This claims to generate a 7 per cent energy savings with in total consumption by 2035.

Finally, a bill on climate change seeks to set principles, a governance system, management instruments and adequate financing mechanisms to allow the transition to development that produces low greenhouse gas emissions, reduces vulnerability, increases resilience and guarantees the fulfilment of the international commitments assumed by Chile.



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