

Renewable Energy

Contributing editor
Eric Pogue



2018

GETTING THE
DEAL THROUGH

GETTING THE
DEAL THROUGH 

Renewable Energy 2018

Contributing editor

Eric Pogue

Hunton & Williams

Publisher
Gideon Robertson
gideon.roberton@lbresearch.com

Subscriptions
Sophie Pallier
subscriptions@gettingthedealthrough.com

Senior business development managers
Alan Lee
alan.lee@gettingthedealthrough.com

Adam Sargent
adam.sargent@gettingthedealthrough.com

Dan White
dan.white@gettingthedealthrough.com



Published by
Law Business Research Ltd
87 Lancaster Road
London, W11 1QQ, UK
Tel: +44 20 3708 4199
Fax: +44 20 7229 6910

© Law Business Research Ltd 2017
No photocopying without a CLA licence.
First published 2017
First edition
ISSN 2515-3773

The information provided in this publication is general and may not apply in a specific situation. Legal advice should always be sought before taking any legal action based on the information provided. This information is not intended to create, nor does receipt of it constitute, a lawyer-client relationship. The publishers and authors accept no responsibility for any acts or omissions contained herein. The information provided was verified between July and August 2017. Be advised that this is a developing area.

Printed and distributed by
Encompass Print Solutions
Tel: 0844 2480 112



CONTENTS

Global overview	5	Korea	43
Eric Pogue Hunton & Williams		Hoon Lee, Hera Kim and Pan-Soo Kim Jipyong	
Brazil	7	Mexico	49
Fabiano Ricardo Luz de Brito, Bruno Werneck, Pablo Sorj, Giovani Loss and Ana Carolina Calil Mattos Filho, Veiga Filho, Marrey Jr e Quiroga Advogados		Rogelio López-Velarde, Amanda Valdez and Daniela Monroy Dentons López Velarde, SC	
Chile	12	Nepal	54
Felipe Bahamondez Prieto, Paulina Fariás Castro and Diego Peña Diez BAZ DLA Piper		Mahesh Kumar Thapa Sinha Verma Law Concern Ryan T Ketchum Hunton & Williams	
Denmark	17	Nigeria	57
Jens Blomgren-Hansen and Emilie Vingtoft Rye-Andersen Kromann Reumert		Ike C Ibeku, Ifeyinwa Ufonde and Felix Obetta Benchmac & Ince	
Egypt	22	Spain	63
Donia El-Mazghouny Shahid Law Firm		Gonzalo Olivera and Alberto Artés King & Wood Mallesons	
Ethiopia	26	Turkey	69
Mahlet Kassa Woldesenbet Lidet Abebe Tizazu Law Office Ryan T Ketchum Hunton & Williams		Mehmet Feridun İzgi Firat İzgi Avukatlık Ortaklığı / Firat İzgi Attorney Partnership	
Germany	29	United Kingdom	77
Stephan Gerstner Redeker Sellner Dahs		John Dewar and Seyda Duman Milbank, Tweed, Hadley & McCloy LLP	
India	33	United States	83
Dibyanshu, Prateek Bhandari and Shikha Rastogi Khaitan & Co		Mike Klaus, Jeff Schroeder, Eric Pogue and Laura Jones Hunton & Williams LLP	
Japan	38		
Norio Maeda, Amane Kawamoto, Yasuo Asami, Daiki Akashika and Kentaro Moriya Nishimura & Asahi			

Chile

Felipe Bahamondez Prieto, Paulina Farías Castro and Diego Peña Diez

BAZ|DLA Piper

Market framework

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, whose main objective is to elaborate and coordinate the plans, politics and norms for the functioning 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 the production, generation, transportation and distribution of energy companies must follow;
- the Fuels and Electricity Superintendency (SEC), the supervisory body that is in charge of monitoring and supervising the compliance with legal and regulatory dispositions and technical norms on production, generation, transportation and distribution of electricity;
- the National Electric Coordinator is the entity responsible for preserving the safety of the Chilean electrical system, and for ensuring the most economical operation for all the electrical system installations, and the open access to all transmission systems;
- the Electricity Law Experts Panel is the entity created for the electric sector, including gas, whose functions are to resolve, through binding judgments, the disagreements and conflicts arising from the application of electric and energy legislation to which the said institution is subjected by law and also over other issues involving two or more companies in the electrical sector that by mutual agreement abide by its decision;
- the Environmental Evaluation Service, the public body responsible for managing the environmental impact assessment system, which evaluates a project's compliance with the existing environmental legislation, serving as an umbrella evaluation that assesses all environmental impacts;
- 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
- the Public Property Ministry and local municipalities play less important roles in the regulation of renewable energy; however, municipalities issue most of the 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.

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

The Chilean electrical system is a concentrated market in all segments (ie, generation, transmission and distribution). In the generation sector three companies (Enel Generación Chile SA, Colbún SA and AES Gener SA) generate over 80 per cent of the energy that is injected into the electrical system. The transmission sector is also concentrated mainly in Transelec SA, Transmisora Eléctrica del Norte SA and Interchile SA. Regarding distribution, due to its monopolist nature and also to the

existence of large-scale economies, this activity is organised around concessionary companies such as Compañía General de Electricidad SA, Enel Distribución Chile SA, Chilquinta Energía SA and Sociedad Austral de Electricidad SA. Some of the players in the generation segment are also renewable energy producers by themselves or along with new entrants (local and international) that are making the energy sector less oligopolistic than it was in the past.

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

The Chilean electricity legislation refers to 'renewable energy' or 'clean power' with the term 'non-conventional renewable energy' (NCRE). Although the Chilean legal framework does not define this concept, it is described 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.

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 Electricity 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 and their regulation, 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 related 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 ensure 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;
- 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, and the applicable antitrust norms.

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 will 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 (US\$28 approximately) for each MW/hour of deficit in respect to its obligation, which increases to 0.6 monthly tax units (US\$42 approximately) in cases involving recidivism.

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. In order to comply with this obligation, electrical companies may transfer their surplus of NCRE attributes, even though it belongs to a different electrical system. As mentioned before, failure to comply with this obligation is sanctioned with the penalties detailed in question 5.

Among other relevant issues in 2004 and 2005, the legislature approved two laws that provide 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, NOx, 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 in such public land.

Finally, the development of NCRE projects has been promoted through the allocation of 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.

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 established policies for promoting the development of NCRE projects have national application.

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 procurement called by private companies, qualified as free clients, to satisfy their energy demand.

In addition, in the last public bidding process called by distribution concessionaires, the bid rules enabled the possibility of bidding in hourly blocks in order to promote the purchase of energy coming from

NCRE power plants. As a result of the NCRE's participation the prices were much lower than in prior public bidding.

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

Currently, two bills of law related to NCRE, which aim to encourage the development of these types of projects, are being processed in Congress. One of them establishes as one of the faculties of the Ministry of Energy to promote the use of NCRE in the economic activities of small and medium-sized companies by granting subsidies to them. The other bill of law proposes a legal modification which would allow indigenous communities to lease their lands and water rights for the installation of NCRE projects.

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 NCRE's development; 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 is mainly owing 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.

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 competencies 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-judicial, collegiate and independent. It is formed by five engineers and two lawyers.

Some of the most important aspects of the Panel are the short timescale 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.

Utility-scale renewable projects

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

As of April 2017, NCRE-installed capacity in Chile amounted to 17 per cent (3,795MW), with almost 83.6 per cent (3,171MW) interconnected to the central interconnected system (SIC), 15.6 per cent (594MW) interconnected to the Northern Interconnected System (SING), 0.7 per cent (26MW) to the Aysén Electricity System and 0.1 per cent (3MW) in Magallanes. Of the installed capacity, 1,524MW are generated by solar energy, 1,342MW by wind energy, 459MW by biomass energy, 446MW by mini hydropower plants and 24MW by geothermal energy. The size of the projects varies and small projects of nearly 1MW are now seen being constructed or operating, up to large plants over 100MW.

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

During the early stages of development, most of the issues that restrain projects are related to the land where the NCRE project will be located,

whether there are any restriction in the use of it or if there are any easements or mining concessions in favour of third parties.

However, nowadays the main difficulty in the development of NCRE projects is that once they are operational, they face problems injecting all their energy into the system, given the restrictions in the transmission system of the SIC's northern zone. This means at various times of day energy from NCRE projects is not taken advantage of, since the transmission system does not have the capacity to move all the energy into Chile's central zone, which is the main source of energy consumption. This problem should be resolved once the Polpaico Cardones transmission line (2x500kV) enters into service and once the interconnection of the SIC with the SING has been realised by the end of 2017 or early 2018.

Additionally, most photovoltaic projects do not have storage capacity and therefore must inject all the energy they generate 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 tenders 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.

Hydropower

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

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

In the system involving dams, a certain volume of water accumulates and is circulated by narrower pipes and with high pressure towards the turbines, transforming the mechanical energy into electrical energy. Then the water is returned to the river or source from which it was extracted. On the other hand, in the run-of-the-river power plants, a section of a river is diverted in order to start a system of turbines and generate electricity. Afterwards, the water is returned to a low flow sector of the river.

Furthermore, it is important to note that our country is progressing in the development of innovative hydroelectric projects, such as the Espejo de Tarapacá project developed by the company Valhalla. This project consists of a 300MW hydraulic pumping station that operates with sea water, using the tidal energy and the natural inclination of the land, and also employs the natural dips in the land for water storage.

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) that 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 easements on a third party's land for constructing and developing to 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

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

In 2004, Law No. 19,940 was enacted, granting the right to connect projects under 9MW within the electrical distribution systems. Later, Decree No. 244, approved in 2006 and later modified in 2015, regulated non-conventional and small generation means projects (PMGD), which are means of generation whose surplus capacity is lower than or equal to 9,000kW, and which are connected to the facilities of a distribution company or to the facilities of a company that owns electricity

energy distribution lines that use domestic public goods. The number of PMGDs has doubled in the past four years, a development that is probably linked to the potential these projects have to opt for a stabilised price regime, reducing the exposure to the spot price variability. Also in 2012, a law was enacted that regulates the payment of electric tariffs by residential consumers (Net Billing Law). This law 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 100kW. As at September 2016, the installed capacity of systems supported by the Net Billing Law had reached 4.3MW, and during the past few years this has tended to steadily increase.

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 mini hydroelectric plants, but there are also significant solar and wind energy projects. Biomass and biogas have a smaller share in the market. The ownership structure of the projects is almost entirely controlled by private actors; the administration only carries out regulation, control and planning functions. In the net billing sector, most of the generation comes from solar energy and over a half of the registries received by SEC up to 2016 were residential consumers (56 per cent), followed by commercial and industrial entities (19 per cent).

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, 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.

19 What additional legal considerations are relevant for distributed generation?

As regards the Net Billing Law, payments, compensation or income received by residential customers by virtue of the injection into the electricity system from 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

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

There are currently some storage systems in operation associated with large projects such as the Norgener and Angamos energy plants, which are owned by AES Gener SA. In both projects the storage system, referred to as BESS, is composed of modular Li-Ion batteries.

The Cerro Dominador photovoltaic plant, owned by EIG Global Energy Partners, is currently under construction; it plans to use a thermal storage system with a central tower with molten salt receiver technology and will have an installed capacity of 110MW. As of June 2017, the project was 60 per cent complete.

Additionally, Planta de Concentración Solar de Potencia Copiapó Solar, currently being developed by the Solar Reserve company, is expected to begin operating by 2019. The system will be built in the north of Chile and has already obtained environmental authorisation. It involves the construction of two solar power units with a central tower using molten salt receiver technology, each with an installed capacity of 120MW.

In addition, the Espejo de Tarapacá project, mentioned in question 14, 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.

The generally applicable laws for this kind of projects are the General Principles of the Environmental Law, its regulation, and the Electricity Law, and its regulations and technical rules.

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

There are not 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, must have a company domiciled in Chile.

Likewise, storage facilities shall pay compensations for 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 and not exceeding 20,000 annual tax units (US\$17 million approximately).

Finally, storage facilities shall be subject to independent coordination of the National Electricity System.

Foreign investment

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. However, any owner, lessee, usufructuary or whoever exploits, in any capacity, power plants interconnected to the electricity system and subject to 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 under 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.

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

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 constructions permits for permanent buildings (not the power plant or the transmission line), 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 faculties 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.

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 provision to supply energy to regulated customers. The PPA in generators and distributors lasts approximately 20 years.

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 sponsors' credit rating.

Additionally, free clients, whose connected power is equal to or greater than 5,000KW, can freely negotiate electricity prices with energy generators and set supply conditions through PPAs.

Finally, in a recent trend, there are customers who, having the right of option, have migrated from being regulated clients to being free customers. These are customers whose connected power exceeds 500KW.

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?

Periodically, the CNE on behalf of distribution concessionaires calls for public bidding processes in order to ensure the supply of energy to regulated customers.

In 2016, two public bidding processes awarded a total electricity supply of 12,430GWh/per year, which will supply the electricity needs of regulated customers for 20 years, starting in 2021, at record low energy prices.

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

The last bidding process, based on the aggregation of demand, was conducted in December 2016 in which 13 companies participated, and the bidding involved a total of 56,196GWh.

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

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.

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, to other generators or to non-regulated customers).

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 procedure 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.

Update and trends

In our opinion, during 2017 and 2018 the trend will be to strengthen NCRE projects in Chile and this growth will be driven mainly by the solar distributed generation market.

In addition, the commissioning of the Polpaico Cardones transmission line will allow the sale of NCRE projects energy located in the north of the country to consumers located in the central zone.

The interconnections and international exchange of electricity services, through the export and import of energy, is being highly promoted by the government, therefore it is probable that energy interconnection points with Argentina and Peru will be determined this year, and the legislation that regulates the essential matters for the energy intended for exchange, the basis of which was established by the Electricity Law, will be handed down. NCRE projects may benefit from international markets selling its generation abroad.

The current trend is to complement NCRE projects with energy-storage systems as these systems solve the problem of NCRE intermittency and increase NCRE's autonomy and competitiveness with conventional energy sources.

As a result of the amendments introduced by Law No. 20.805 of 2015, which gives clients with connected power between 500kW and 5,000kW the possibility of moving from a regulated price to a free price

system, there has been a significant migration to the latter, which to June 2017 amounts to 250 clients, which implies around 1,200GWh. We estimate that this number of clients is likely to increase as their current supply contracts expire, which is a requirement of moving from one system to another.

As a result, we estimate that there will be a growth in the purchase of energy through PPAs that will be subscribed to by the new free customers and the generation companies. This may involve a great impulse of a new type of public or private bidding process through aggregation of demand.

The energy market in Chile will experience greater dynamism led by the greater role of NCRE in the matrix, which will result in major investment in technology, a more competitive market with new players in the generation sector and access to lower energy prices. Both solar and wind projects will play a large role in this energy market transition.

In relation to the pending legislative proposals, it is expected this year that the Short Law of Energy Efficiency will be submitted to Congress, and the objective is to reduce electric energy or thermic consumption, especially of large consumers, which will be controlled by a supervisory agency.

Transaction structures

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 the 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.

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.



Felipe Bahamondez Prieto
Paulina Farías Castro
Diego Peña Diez

fbahamondez@bazdlapiper.cl
pfarias@bazdlapiper.cl
dpena@bazdlapiper.cl

Isidora Goyenechea 3120, 17th floor
7550083 Las Condes
Santiago
Chile

Tel: +56 2 27982600
Fax: +56 2 27982650
www.bazdlapiper.cl

Getting the Deal Through

Acquisition Finance
Advertising & Marketing
Agribusiness
Air Transport
Anti-Corruption Regulation
Anti-Money Laundering
Arbitration
Asset Recovery
Automotive
Aviation Finance & Leasing
Banking Regulation
Cartel Regulation
Class Actions
Commercial Contracts
Construction
Copyright
Corporate Governance
Corporate Immigration
Cybersecurity
Data Protection & Privacy
Debt Capital Markets
Dispute Resolution
Distribution & Agency
Domains & Domain Names
Dominance
e-Commerce
Electricity Regulation
Energy Disputes
Enforcement of Foreign Judgments
Environment & Climate Regulation

Equity Derivatives
Executive Compensation & Employee Benefits
Financial Services Litigation
Fintech
Foreign Investment Review
Franchise
Fund Management
Gas Regulation
Government Investigations
Healthcare Enforcement & Litigation
High-Yield Debt
Initial Public Offerings
Insurance & Reinsurance
Insurance Litigation
Intellectual Property & Antitrust
Investment Treaty Arbitration
Islamic Finance & Markets
Labour & Employment
Legal Privilege & Professional Secrecy
Licensing
Life Sciences
Loans & Secured Financing
Mediation
Merger Control
Mergers & Acquisitions
Mining
Oil Regulation
Outsourcing
Patents
Pensions & Retirement Plans

Pharmaceutical Antitrust
Ports & Terminals
Private Antitrust Litigation
Private Banking & Wealth Management
Private Client
Private Equity
Product Liability
Product Recall
Project Finance
Public-Private Partnerships
Public Procurement
Real Estate
Renewable Energy
Restructuring & Insolvency
Right of Publicity
Securities Finance
Securities Litigation
Shareholder Activism & Engagement
Ship Finance
Shipbuilding
Shipping
State Aid
Structured Finance & Securitisation
Tax Controversy
Tax on Inbound Investment
Telecoms & Media
Trade & Customs
Trademarks
Transfer Pricing
Vertical Agreements

Also available digitally



Online

www.gettingthedealthrough.com



Renewable Energy
ISSN 2515-3773



THE QUEEN'S AWARDS
FOR ENTERPRISE
2012



Official Partner of the Latin American
Corporate Counsel Association



Strategic Research Sponsor of the
ABA Section of International Law