

Chile

Juan Francisco Mackenna & Sebastián Santamaría
Carey

Introduction

Currently, after three years of drought, hydropower generation, the only real Chilean source of energy, accounts for just 28.5% of the total energy injected into the matrix. The rest of the energy supplied to the grid is mainly based on GNL (liquefied natural gas) (23.1%), coal (33%) and diesel (12%), with a small contribution from non-conventional renewable energy sources (3.4%).

Chile does not have major oil fields or coal mines and therefore over 95% of the primary energy needed has to be imported.

The development of activities related to energy in Chile is regulated separately and in relation to three sectors: generation; transmission; and/or distribution.

Generation

There are no legal provisions to prevent third parties (national or foreign) from participating in energy generation. Prices in this sector reflect the short-term marginal costs of production, a component which determines, among others, the scope of the operational business. A technical entity named Economic Load Dispatch Centre ("CDEC") operates the pool of each electricity system by determining which generator's energy will be injected hourly to the pool, in consideration of the short-term marginal cost and the generators' physical attributes, to give peak hour capacity to the grid.

All installed generators, regardless of the volume of their energy injected to the grid, obtain payment from the system for their firm capacity, pursuant to a procedure which regulates and manages these payments.

Transmission

The transmission sector comprises all installed power transmission lines and substations. These form three different transmission systems: (a) the trunk (or main) system, which runs from north to south and belongs to private companies and constitutes a natural monopoly through which most of the country's energy is transported due to the high capacity of the lines which comprise it; (b) the sub-transmission systems, which transport energy from the trunk system to groups of final regulated customers within a certain area or distribution concession space; and (c) the additional systems, which are formed by privately owned lines and substations destined to supply electricity to non-regulated customers or to inject energy to the main system and/or certain sub-transmission systems.

Even though trunk and sub-transmission systems are operated by private companies, they are considered public services and regulated as such. Additional systems do not enter this category.

Distribution

The distribution sector depends solely on the granting of concessions. Consequently, distribution tariffs are always set by the authority. These concessions cover areas defined by the concessionaires, allowing the use of public property and the constitution of easements over the surface lands involved, and being subject to an obligation set forth by the authority regarding the supply of large final customers within the concession's area. This obligation is to allow third parties to access the distribution capacity, which means that any new party who requires supply may request it from the relevant concessionaire.

Companies involved in these three sectors are scattered among four existing electricity systems in the country: (i) the Northern Interconnected System ("SING") where most of the consumption is driven by mining activities; (ii) the Central Interconnected System ("SIC") which accounts for the largest installed capacity and demand due to the concentration of population in this area; (iii) the Aysen Interconnected System; and (iv) the Magallanes Interconnected System.

Changes in the energy situation in the last 12 months, which are likely to have an impact on future direction or policy

Since 2007, statistics have shown that almost 16% of the energy consumption in Chile corresponds to residential and small companies. Policies towards efficient co-generation mechanisms in this sector could even enable residential customers to avoid paying monthly electricity bills.

Law No. 20.571, enacted on March 22nd, 2012 (hereinafter, the "Net Metering (Billing) Law"), allows residential generators which produce energy by non-conventional renewable systems to inject the energy generated by them to the relevant distribution net through electric hook-ups. Before its enactment, residents were allowed to implement their own generation systems and hook them up to the relevant distribution line, but the energy generation had to be calculated by them in order to satisfy their own consumption needs and avoid generating a surplus, since this surplus was simply given away to the distribution line without any advantage for the relevant generator.

With the enactment of the Net Metering (Billing) Law, injections and surpluses generated by residential customers will be recognised by the relevant distribution company. Thus, a certificate which establishes the customer's injections and surpluses will be directly given to customers, enabling them to sell and commercialise these certificates to generation companies of the Central and Northern Interconnected Systems.

Generation companies participating in these systems may acquire these certificates in order to fulfill the obligation established by a modification to the General Electric Services Law incorporated in 2008, of adding to their own generation pool a percentage of non-conventional renewable energy – a percentage which, according to the transitory provisions of this Law, will gradually be increased each year until 2024, when it needs to be 10% of the total. Thus, the need for non-conventional energy will be greater each year for generation companies.

Evidently, through a specific Regulation, the Law will establish requirements which must be fulfilled in order for customers to be validated as residential generators and inject energy into the relevant distribution net and, thus, obtain certificates for injections and surpluses. These requirements are established in order to maintain the security policies in energy supply activities fostered by the authority.

Even though the Law's spirit seems to be strictly aimed at self-sufficiency, the creation of this mechanism for valorising energy surpluses sets the founding basis for a new market in the country and, additionally, adds a certain level of competitiveness to the relationship between conventional and non-conventional generation sources, that will surely develop in the years to come.

Developments in government policy/strategy/approach

Due to the international treaties signed in order to control greenhouse gas emissions to the atmosphere, the Global Environmental Fund ("GEF") has co-financed the programme "Removal of Barriers for Rural Electrification with Renewable Energies", together with the Ministries of Energy and Foreign Affairs of Chile.

The objective of this project is for the energy sector to contribute to the development of an equitable social, economic and sustainable environment, through the use of renewable energy sources in vulnerable and isolated areas.

During 2011 several activities and policies regarding this programme were implemented, such as the publication of a book containing 92 renewable non-conventional electrification projects, along with the elaboration of various certification procedures, and the incorporation of non-conventional renewable energy into productive processes, among others.

Concrete projects executed include the installation of solar and productive systems through clean energy in several foundations across the country, the installation of systems to allow sanitary hot water in social housing and water pumping systems through a photovoltaic system in the extreme north of Chile.

Furthermore, the intention underlying this programme by the authority is none other than to educate society regarding the benefits and possibilities of non-conventional renewable energies, and the execution of projects that demonstrate the added value of clean energy generation.

Notwithstanding that this policy appears to benefit only isolated cases, it has been stated by the authority that it is framed within the obligation of implementing clean technologies contained in several modifications that have followed the enactment of the Decree with Force of Law No. 1 of 1982, also known as the Electric Service General Law.

Developments in legislation or regulation

The Net Metering (Billing) Law, enacted in 2012, established a regulation for the payment of electricity tariffs related to two groups of generators: (a) residential generators which produce energy from renewable non-conventional sources; and (b) any generators whose power comes from efficient co-generation facilities with a maximum installed power of 100 kW.

The Law will be applicable to all electrical systems existing in Chile. This provision must be taken into account, since in its title the Law only draws attention to residential generators. This circumstance does not prevent the Law's applicability to every final customer, subject to the fixing of regulated tariffs.

The Law's principal aim is to set the basis for self-generation, through the establishment of benefits for residential generators which inject energy into the relevant distribution system, allowing them to reduce their energy consumption and bills, through the issuing of injection and surplus certificates by the relevant distribution company. Additionally, this latter measure not only allows self-generators to inject their energy production to the relevant distribution system – and as a counterpart, receive the payment of a tariff in the same conditions and amounts as regulated customers – but also allows them to trade the surpluses produced. These generators are in need of energy from renewable non-conventional sources in order to comply with the minimum percentage of energy hailing from these sources required by the authority.

This creates a fantastic incentive for the development of non-renewable projects and, additionally, creates a unique market in which trade may be developed among generators looking for surpluses in order to accredit the minimum presence of non-renewable energy within their generation pool required by law.

Furthermore, the Law not only provides residential or small generators with an opportunity to directly negotiate surpluses with generators, and in consequence perceive economic rewards for their generation efforts; it also allows generators to facilitate their compliance with requirements towards a percentage of their generation matrix being necessarily comprised of a certain amount of non-conventional energy.

On the other hand, the Law hands out to distribution concessionaires the responsibility of assessing the compliance of security and safety requirements fostered by the authority, regarding those facilities destined to inject the foregoing surpluses to the relevant distribution nets. Although these security requirements have not yet been established by the authority, they will indeed be set through a specific ruling, which will be published during 2012.

Judicial decisions, court judgments, results of public enquiries

The Castilla Thermoelectric Generation Project (the "Project") is the largest thermoelectric project proposed to be executed in Chile. It comprises six thermoelectric fuel-based plants and one diesel backup plant, set to be located in the area of *Punta Cachos*, approximately 80 kilometres south of the region's capital, Copiapó, in the Coastal Border of the III Region of Chile, with a total generation capacity of approximately 2,300 MW and an estimated investment of US\$4,500 million. The operator

for Project Castilla is CGX Generación, a Brazilian generation company owned by entrepreneur Eike Batista. This project aims to cover between 10% and 15% of the country's main electric system's new energy requirements.

Although environmental approval for the project was given during 2010, opposition by local communities and NGOs has affected the proposed start of construction works and turned the project almost into a national issue of public concern, considering its size, impacts and specific location, which is regarded as a place with rich marine and land fauna, and several archaeological sites of national interest.

The aforementioned circumstances led to the proposal of several remedies by the affected parties – as said, mainly associations of local fishermen, local communities and NGOs.

During March 2012, the Court of Appeals of Antofagasta, acting as a substitute for the Court of Appeals of Copiapó, ruled a remedy in favour of neighbours of *Totoral* – a local community where the Project is set to be implemented – and ordered the revoking of the resolution through which the Health Authority, during the Environmental Assessment procedure, approved the implementation of the Project within an area qualified by the relevant territorial planning instrument as authorised to support only “non-harmful” and/or “bothering” industries, and not “pollutant” industries as the latter would be.

The aforementioned categories are objectively established by the Health Authority within the structure of a permit called “Industrial Qualification”, in which this authority assigns each particular industry to one of the categories, according to its pollutant effects. Once an industry is qualified in a determined category, its implementation is subject to the authorised land uses determined by the relevant territorial planning instruments. In this case, the Health Authority changed, during the environmental assessment procedure, the qualification of the Project from “pollutant” to “bothering”, circumstances which constituted the main argument for remedies submitted against the project.

As a consequence of the aforementioned revoking by the judicial authority, the Environmental Approval Resolution (“EAR”) which had environmentally authorised the project, will necessarily have to undergo equivalent revocation, since the EAR was precisely issued taking into account the addressed authorisation granted by the Health Authority during the environmental assessment procedure.

However, the Project Holder submitted an appeal, before the Supreme Court, against the ruling of the Court of Appeals of Antofagasta, through which it intends to revoke such ruling, stating that the EAR which authorised the Project was adjusted to law. The latter implies that the Project's construction shall not be undertaken until the Supreme Court has ruled the aforementioned appeal.

Lately, during May 2012, the Supreme Court called the Project Holder and the contesting parties in the remedy to a conciliation hearing to be held in June. In case no agreement is reached, the Supreme Court will either determine the definitive suspension of the Project – through the definitive revocation of the EAR, in which case a new Environmental Impact Study should have to be submitted – or solve the revocation of the Court of Appeal's ruling and grant a green-light for the Project's execution.

The aforementioned circumstance has not only led to uncertainty among projects actually under environmental assessment, in relation to the juridical certainty or uncertainty of administrative rulings (which is established by law but, as shown by this particular case, is apparently contestable), it has also placed a question mark under Chile's future electricity supply needs, in consideration of several other circumstances overlapping this judicial decision, such as water shortage and transmission line restrictions.

Major events or developments

Between January and May of 2012, Chile's main electricity system, the Central Interconnected System (“CIS”) – which delivers electricity to approximately 90% of the country's population – has registered almost 90 partial blackouts, according to facts from the relevant Economic Load Dispatch Centre, the agency which coordinates the system's electric operation. The latest and most important event was the blackout that occurred on April 23rd, which affected the population from the II Region

up to the VIII Region of the country; this is a distance of almost 3,000 kilometres.

The main issue behind this unusual series of blackouts has been attributed to low water levels in dams which supply hydropower generators. Today, hydropower is only supplying 25.3% of the total energy offer, whereas five years ago this supply reached a peak of approximately 35%. These factors have compounded an evident delay in generation investments, with CIS immersed in a delicate situation in relation to energy supply security and continuity.

Although the current supply situation is as delicate as it has ever been, the difference today is higher consumption. This situation has been gradually worsening this year, due to the drought experienced in the central part of the country.

Government sources insist that the supply situation is not endangered in any way and, on the contrary, that it is subject to an improvement from midyear onwards, especially in the Metropolitan Region of Santiago, where almost one third of the total population lives, since a new transmission line which will transport energy from the V Region has recently been implemented. Additionally, a potential amount of 700 MW, mainly hydropower-sourced, and an additional 500 MW of backup turbines, are currently close to commissioning and represent an important backup generation in case of failure by the system's main feeder plants in operation presently.

Even though there is a public and private consensus regarding sufficient backup capacity for generation, no such agreement may be found regarding costs: backup systems are mainly diesel-based. Hence, higher costs in comparison with traditional generation sources would more likely provoke uncertainty than ensure the system's secure supply along with competitive prices.

Proposals for changes in laws or regulations

Electric concessions are essential instruments for the development of activities related to generation, transmission and distribution of energy, since through them the relevant easements for the installation of electric facilities may be secured over third parties' or fiscal (state-owned) surface lands, in favour of electric operators.

Among the types of concessions existing in Chile, it is possible to find provisional and definitive concessions. The provisional concessions' objective is to allow, through the granting of permits to practise, within fiscal, municipal or private lands, the measurement works and studies which are considered essential for the establishment of a definitive concession. On the other hand, a definitive concession objective is to allow the establishment, operation and exploitation of hydropower generators, electric substations, transmission lines and public service distribution facilities, as the case may be. While provisional concessions are granted by the Superintendence of Electricity and Fuels, for a maximum period of two years, definitive concessions are granted by the Ministry of Energy, for an indefinite period.

Therefore, provisional concessions are meant to be a sort of preparation for definitive concessions, which should be considered as a useful tool for a responsible and studied decision of applying for a definitive concession. In practice, however, they constitute an under-used instrument, mainly because requirements for the granting of both types of concessions are almost equivalent. This circumstance means that, due to the timings and budgets involved, electricity companies generally prefer to apply direct for a definitive electricity concession rather than take advantage of the possibility of preparing works through a provisional concession.

This not only transfers the associated uncertainty to the final customer in the form of an overcharge to the investment-offered value, it also adds a certain degree of difficulty for the proper and fully informed submission of the studies that are required for environmental authorisations, which could be perfected during a provisional concession.

On April 2012, a bill of law for the modification of the provisional concession-granting process was submitted for discussion to the House of Representatives in order to simplify the procedure for granting concessions, shorten timings for their granting and reduce formal and paperwork requirements for such purpose, through the modification of the Electric Law.

Conclusion

The policy aim behind this bill of law is not only to avoid the transfer of the aforementioned overcharge generated by uncertainty on the relevant project's impact, but also to enhance security and continuity of the energy supply, the main principles of the Chilean energy framework.

Additionally, the proposed modification to the Electric Law contemplates the possibility of dividing or parcelling the concession's application, a measure especially proposed in consideration of projects in important geographic locations. In fact, many times these kinds of projects tend to present specific contingencies at certain points of the layout which do not affect other points of such layout.

The proposed modification establishes the possibility of dividing applications for concessions, with the sole purpose of obtaining a concessionaire title and, thus, beginning construction works within that specific area without having to be limited by contingencies which may occur in distant points of the layout.

It is hoped this latter proposition will promote the granting of concessions, due to the anticipated rise in energy consumption in the country, which is of increasing concern to the authority.

Finally, since the proposed modifications have just been recently submitted to the House of Representatives, there is no way of predicting if the modification will reverberate positively or turn into a definitive modification of the Electric Law, nor the period that it will be held up in political discussions. But at least it indicates the importance that energy matters have acquired in Chile.



Juan Francisco Mackenna

Tel: +56 2 928 2200 / Email: jfmackenna@carey.cl

Partner and co-head of Carey & Cia.'s Natural Resources, Energy and Environment Group. His practice focus areas are energy, mining, water, industrial and natural resources projects and environmental matters. He is an expert in power projects development and sales and acquisitions of natural resources assets. He is vice-president of the Small and Mid-sized Hydro Projects Association and President of the Australian Chamber of Commerce. Mr Mackenna is also the current chairman of the Power Law Committee of the International Bar Association. He is an Assistant Professor of Mining Law at the Universidad de Chile School of Law and has been invited scholar to lecture in foreign universities such as Universidad Externado of Bogotá, Colombia. Mr Mackenna studied law at Universidad Catolica de Chile and was admitted to the Bar in 1997. He obtained a Master of Laws (LL.M.) from Duke University Law School in 2000.



Sebastián Santamaría

Tel: +56 2 928 2200 / Email: ssantamaria@carey.cl

Associate in Carey & Cia.'s Natural Resources, Energy and Environment Group. His practice focus areas are energy, mining, industrial and natural resources projects, environmental and forest matters. Before joining Carey & Cia. he worked at Celulosa Arauco, Chile's largest forestry and wood pulp production company and in Transelec, Chile's leading electricity transmission company. He is an Assistant Professor of Procesal Law at the Universidad de Chile School of Law. Mr Santamaria studied law at Universidad de Chile and was admitted to the Bar in 2008.

Carey

Isidora Goyenechea No. 2800, 43rd Floor, Santiago, Chile
 Tel: +56 2 928 2200 / Fax: +56 2 928 2228 / URL: <http://www.carey.cl>