



INVESTOR'S GUIDE TO THE LEGAL ASPECTS OF ENERGY PROJECTS IN THE COUNTRIES OF THE PACIFIC ALLIANCE

December 2020

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MARKET MECHANISM



1 What are the mechanisms for the sale of energy? Are there energy auctions? Is it possible to enter into bilateral agreements? Is there a spot market?



Chile

There are two mechanisms for the sale of energy in Chile:

- i. Through power purchase agreements ("PPA") that could be executed by generation companies with either distribution companies for supplying residential customers and mid-size industries (called "regulated customers") or large consumers of energy (which are called "clientes libres" or "free customers"). PPAs between generation and distribution companies are the result of public bids organized by the National Commission of Energy and are regulated in the Chilean Electricity Law. PPAs are awarded to the bidder that offers the most competitive price.
- ii. Through a spot market, that is the result of the economic dispatch of generation units and allow generators with deficits for supplying their PPAs to automatically acquire in this market the energy they need, which is priced at an hourly marginal cost of producing it.



Colombia

There are mainly four mechanisms for the sale of energy in Colombia:

- i. Energy spot market (short-term): hourly transactions that are performed in the spot market through a central agent (Administrador del Sistema de Intercambios Comerciales – "ASIC"). The price of the energy is determined through the interaction of supply and demand.
- ii. Financial bilateral agreements (medium-term): freely agreed short and medium-term agreements for the sale of energy between energy generators and trading/commercialization agents.
- iii. Auctions for the awarding of firm energy obligations of the reliability charge (long-term): awarding mechanism of firm energy obligations, in the terms of Resolution CREG 071 of 2006, as modified from time to time. The awarding results in the payment of the reliability charge, which is constant monthly payment (\$/GWh) during the term of the obligation.
- iv. Auctions for the awarding of long-term financial bilateral agreements: complementary mechanisms which requirements and guidelines were defined in Decree 570 of 2018. As of November 2020, the government has announced that another auction will be held in order to attend the demand of non-regulated energy users and initially only projects with a COD in 2022, at the most, could participate. However, there are no official auction documents that regulate the terms and conditions of the process. In the event this new auction is ruled by the same regulation of past auctions, we consider that it is probable that this new auction will consist of a double-ended sealed envelope process in which buyers (trading/commercializing agents) and sellers (power generators) participate, and the result will be the awarding of long-term PPAs. In case the auction is ruled by a new mechanism, we would expect that before the end of 2020, the Ministry of Mines and Energy will publish the regulation defining the specific rules of this new auction. The Bolsa Mercantil de Colombia submitted to CREG a mechanism to constantly organize renewable energy auctions, its approval is pending.



1 What are the mechanisms for the sale of energy? Are there energy auctions? Is it possible to enter into bilateral agreements? Is there a spot market?

Mexico

Following Mexico's Energy Reform of 2013, three main mechanisms were made available for the sale of electric energy: (i) power purchase agreements resulting from mid- and long-term auctions held by the government, (ii) purchase and supply agreements negotiated privately, and (iii) purchase and sale transactions in the spot market of the Wholesale Electricity Market. All transactions for the sale of energy, including those under power purchase and power supply agreements, are of a financial nature (i.e. they do not imply the physical delivery of energy) and must be carried out through the Wholesale Electricity Market – which implies that certain regulatory requirements must be satisfied to participate in such market.

The Wholesale Electricity Market and the energy auctions are managed by Mexico's independent grid operator, the National Energy Control Center ("CENACE", per its acronym in Spanish), a government agency. Only clean energy generators are allowed into long-term, auctions, while mid-term auctions are open for conventional sources. From 2015 to 2017, CENACE held one long-term auction annually, while a mid-term auction was also held in 2017. In both the mid and the long-term auctions, the largest purchaser of energy was a subsidiary of the Federal Commission of Electricity (CFE, per its acronym in Spanish), Mexico's state-owned utility (and the largest utility in the country) since, under the law, basic suppliers may only acquire energy in auctions or in the spot market.

In 2019, however, CENACE suspended the mid and long-term auctions indefinitely.

Notwithstanding, generators, marketers, suppliers and end-users may still enter into PPAs and trade in the spot market. In addition, as an alternative to state-run electricity auctions, private firms have started to organize private auctions.

Peru

In Peru, electricity generators have complete freedom to decide to whom and/or in which market to supply the energy they produce. PPA are of a financial nature, since they do not determine the amounts of energy that said generators will inject into the system, which is in charge of the Committee for the Economic Operation of the National Interconnected System - "COES".

The generators can commercialize their power and energy in a diversified manner (spot market, regulated market and non-regulated market), placing the amounts of energy they can offer through the various contracting modalities (bilateral contracts, auctions and bidding) that exist and a percentage for commercialization in the spot market, in accordance with their respective commercial strategy and their projects' financing needs.

The energy sale markets are:

- i. Spot Market:
- ii. Contracts Market:
 - a. Non-Regulated (free) Market
 - Bilateral Contracts with Non-Regulated (free) Users
 - b. Regulated Market
 - Bilateral Contract with Distributors
 - Contracts with Distributors resulting from bids for electricity supply under Law 28832
- iii. Contract resulting from Renewable Energy Projects auctions organized by OSINERGMIN.

OSINERGMIN
Public tenders

OSINERGMIN
Renewables

2 What projects require environmental license? What is the time frame for obtaining an environmental license for renewable energy projects?



The projects that require an environmental license (generally known as “RCA”, being the acronym of Resolución de Calificación Ambiental) are established in Article 11 of Law 19,300 that sets forth the general basis for the environment.

Energy generation projects require an environmental license if they have over 3 MW of installed capacity.

In addition, transmission lines over 23 kV also require an environmental license.

The time frame for obtaining this license may vary depending on the environmental impact that the project may produce. In this regard: (i) If the project produces the impacts set forth in Article 11 of Law 19,300 (such as risk to the health of the population, resettlement of human communities, adverse effects on the quality and quantity of renewable natural resources, etc), it will require an Environmental Impact Study (“Estudio de Impacto Ambiental”) to obtain the environmental license, which takes 18 months on average; and (ii) if the project does not produce the impacts set forth in Article 11, it will need an Environmental Impact Declaration (“Declaración de Impacto Ambiental”) to obtain the license and the time frame for obtaining it is 9 months on average. These time frames could be longer if an indigenous consultation is required.



Pursuant to Article 2.2.2.3.2.2. of Decree 1076 of 2015, as amended from time to time, all the energy generating projects that are planned to have an installed capacity equal to, or greater than, 100 MW will require an environmental license issued by the National Authority of Environmental Licenses (ANLA, as per its acronym in Spanish).

Pursuant to Article 2.2.2.3.2.3. of Decree 1076 of 2015, as amended from time to time, all the energy generating projects that are planned to have an installed capacity greater than 10 MW, but less than 100 MW will require an environmental license issued by the Regional Autonomous Corporation with jurisdiction in the location where the project will be developed (CAR, as per its acronym in Spanish).

In our experience the environmental licensing process for a renewable energy project will take about six (6) months, as of the date in which the developer of the project submits the environmental impact study before the competent governmental authority. In such sense ANLA has designed the terms of reference the developer of the project has to follow in order to conduct such study:

Eolic projects

Solar projects



2 What projects require environmental license? What is the time frame for obtaining an environmental license for renewable energy projects?

Mexico

The Mexican environmental regulations provide that the following clean energy projects require an Environmental Impact Authorization ("EIA"): (i) the construction of >0.5MW nuclear, hydroelectric, and geothermal power plants; (ii) the construction in forestry lands of electricity or distribution stations or substations and of electrical transmission and sub-transmission works; and (iii) >3MW legacy (pre-reform) power plants of any kind.

Subject to the filing of an environmental impact assessment, the statutory term for the Ministry of Environment (SEMARNAT, per its acronym in Spanish) to grant the EIA is 60 business days, which can be extended to an additional 60 business day period if the project's complexity and dimensions require so. This time-period may also be extended if the project is subjected to a public environmental consultation, which may be requested by any stakeholder of the community that could be affected.

Additionally, it must be noted that any type of projects that, due to their location, require the removal of forestry vegetation for its construction must obtain a forestry land use change authorization (FLUC) from SEMARNAT.

To obtain the FLUC, a payment must be made to the Mexican Forestry Fund as environmental compensation.

The FLUC is only granted on an exceptional basis by SEMARNAT, provided the corresponding State Forestry Council grants its approval, and subject to proving that biodiversity will be maintained and environmental impacts specific to forestry services are mitigated.

It must be noted as well, that "forestry vegetation" is a broad concept that refers to plants and fungi that grow and develop naturally, forming forests, jungles, arid and semi-arid areas, and other ecosystems, and is not limited to pine forests.

Peru

The Peruvian legal framework establishes the obligation of having an Environmental Certificate (Environmental Impact Assessment or EIA) approved by the government, in order to enable project titleholders to perform their activities.

All kinds of energy projects (energy plants and/or transmission and distribution lines) shall obtain the approval of an EIA as a condition precedent to start the pre-operational activities and obtain a Definitive Concession by the Ministry of Energy and Mines.

The procedure for approving EIAs takes 120 (one hundred and twenty) business days according to regulation. However, in practice, this procedure takes approximately 6 months. The elaboration of the EIA takes approximately 4 to 6 months.





3 What are the economic benefits afforded by the law or the regulation for the development of renewable energy projects? What are the main constraints?



Colombia

The economic benefits afforded by Colombian law for the development of renewable energy projects are the ones included in Law 1715 of 2014 and the Colombian Tax Code, both as amended from time to time, which are in its majority tax related. Such benefits are listed below:

- i. Income tax reduction for a period equal to, or less than 15 years, as of the following tax year in which the investment in non-conventional energy sources reaches its operation, of 50% of the investment made on the development of the project (article 11 of Law 1715 of 2014).
- ii. The equipment, elements, machinery and national or imported services which are destined to the pre-investment and investment of the generation or use of energy with renewable energy, as well as the measurement and evaluation of the potential sources are excluded from VAT (article 12 of Law 1715 of 2014). In connection with this benefit, article 424 of the Colombian Tax Code excludes the VAT from the sale or import of the following equipment: (i) Energy inverter for solar energy system with panels; (ii) Solar panels; and (iii) Charge controller for solar energy system with panels.
- iii. The import of machinery, equipment, materials and inputs destined exclusively for pre-investment and investment work in projects with renewable energy sources and which are not produced by national industry, will be exempt from the payment of customs duties. This applies to new projects (article 13 of Law 1715 of 2014).

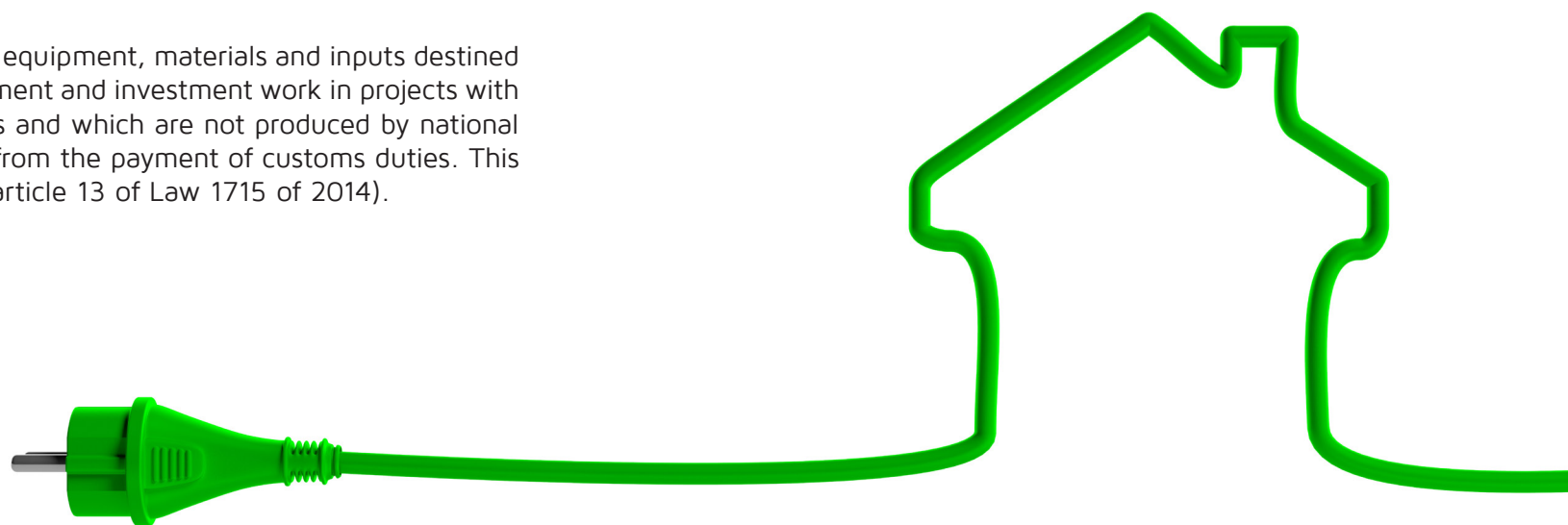
- iv. Taxpayers will be able to depreciate in an accelerated manner the machinery, equipment and civil works necessary for pre-investment, investment and operation of generation with renewable energy sources. The annual depreciation rate will be up to 20% (as a general rule, the depreciation of this type of assets for tax purposes varies between 10 and 20 years) (article 14 of Law 1715 of 2014).

Its main constraints are that the process to access such benefits may take a long time to complete and are difficult to comply with the requirements to access them. Additionally, article 296 of Law 1955 of 2019, through which the National Development Plan was enacted, obligates trading/commercializing agents to buy 10% of its energy purchases from non-conventional renewable energy sources. Such obligation was regulated by the Ministry of Mines and Energy through Resolution 4-0715 of 2019.

Resolution 196
of 2020

Resolution 203
of 2020

Resolution 4-0715
of 2019





3 What are the economic benefits afforded by the law or the regulation for the development of renewable energy projects? What are the main constraints?

Mexico

The following economic benefits were created to promote the development of renewable energies: (i) clean energy credits (CECs); (ii) Long-Term Auctions; (iii) accelerated depreciation of physical assets of renewable energy power plants; (iv) benefits in connection with permits and licenses; and (v) preferential dispatch.

However, renewables are currently facing several constraints by the present administration, as the current government seeks to give preference to CFE and to displace renewable energies.

Clean Energy Certificates

CECs are granted to clean energy generators – one per each MW/h produced through clean energy. This economic instrument was introduced with the 2013 Energy Reform and thus, is not available for legacy generation (i.e. generators with permits granted before the Energy Reform).

In turn, certain Market Participants (suppliers and final users) must comply with the clean energy requirement set by the Ministry of Energy, i.e. acquisition of CECs in a given proportion of the amount of energy acquired from conventional sources. Such requirement is set on an annual basis, each year being higher than the previous one. For 2020, the CECs requirement was of 7.4%, while for 2021, it will be of 10.9%.

CECs are granted and liquidated by the regulator, CRE, and may be traded in the spot market or through bilateral contracts. Compliance with CECs requirements may be deferred for up to two years with a 5% penalty per year. Failure to comply at all with the clean energy requirement in a given year results in a fine of up to ~USD\$150 per each MWh of default.

Long Term Auctions

Long Term Auctions are exclusive to clean energy and allow promoting competitiveness and price stability in the acquisition of electricity, capacity and CECs. Contracts awarded have a term of 15 years for electricity and capacity, and 20 years for CECs.

Basic Suppliers, such as CFE's subsidiary, may only purchase products in the spot market and through auctions, thus creating a transparent market with large demand for generators.

Long term auctions are should be carried out on a yearly basis by the grid operator.

Accelerated depreciation of physical assets

Owners of renewable assets are allowed to depreciate 100% of their investments in machinery and equipment for the generation of clean energy each year in connection with payment of income tax.

Benefits regarding obtainment of certain permits

While governmental duties must be paid for the obtainment of energy generation permits or their amendment with CRE, clean energies are exempt from this requirement.

Likewise, while as a general rule energy generation projects must obtain a license as stationary source of air emissions, renewables are exempt from this license.

Preferential dispatch

In terms of the electricity statute, CENACE must dispatch power plants based on economic efficiency and grid stability. Economic dispatch entails that cheaper and more sustainable generation, such as clean energy, must be dispatched first.

Constraints

The current administration is trying to roll back several measures put in place through the 2013 Energy Reform, mainly in order to strengthen the state utility CFE. These measures have included restrictions for private generators, including renewable assets.

In particular, on December 2018, the Ministry of Energy (SENER) instructed CENACE to suspend the long-term auctions indefinitely. Likewise, two public tenders for the construction of transmission lines were cancelled in early 2019. Further, in 2Q of 2019, SENER issued an amendment to the guidelines for the granting of CECs, in order to allow that CFE's legacy power plants be granted CECs – such power plants accounting for over 75% of the CECs offer.

During 2020, CENACE and SENER have issued administrative orders which, among other things, are aimed at restricting the operation and dispatch of operative power plants. In addition, CENACE's ordered the suspension of testing and entry into of operation of clean energy projects that were not yet in commercial operation. While the modifications in connection with grant of CECs and operative restrictions have been suspended through legal claims filed by generators in Mexican courts, as well as by State governments and Mexico's antitrust commission, further modifications to the regulatory framework are expected from CRE.



3 What are the economic benefits afforded by the law or the regulation for the development of renewable energy projects? What are the main constraints?



Chile

The economic benefits set forth by the law or regulation are the following:

- i. Stabilized price: a special regulation provides any project with injections to the grid up to 9 MW with the option to sell their energy in the spot market either at the spot price (marginal cost) or at an stabilized price, determined by the authority as –in simple terms– a projection of future spot prices (short term nodal price). The stabilized price is less volatile and more predictable than the spot market and the methodology used for its calculation is clear and robust.
- ii. Regarding the distributed generation for self-consumption, the regulation sets forth that residential consumers may inject energy to the grid using renewable sources of up to 300 KW. The energy injected is discounted from the consumer's bill of the property where the generation equipment is placed. In case the energy injected to the grid is greater than the energy withdrawn from it, the surplus may be discounted from the bill of another property of the same owner. In some cases, and under different conditions established by the regulation, this energy surplus may be paid to the owner by the distribution company.
- iii. Finally, the electrical law establishes that, by 2025, 20% of the energy withdrawn from the system has to come from renewable energy sources, while smaller percentages are required in the preceding years. The company that injects more than the percentage required for a given year may sell its surplus to other companies that cannot meet the quota. The price of this attribute can be considered an alternative cost to the payment of the fine for non-compliance (app. US \$ 25 / MWh), although the abundance of renewable generation has drastically reduced the price.

Regarding the main constraints, it is important to pay attention on the location of the project to avoid transmission curtailments in areas that are saturated with renewable energy and lack of transmission facilities.



Peru

The main benefits are the following:

- i. Electricity generation with Renewable Energy Resources ("RER") shall be considered to have a variable cost equal to zero and shall have priority to operate in the dispatch order to generate electricity to meet the demand.
- ii. Possibility that the RER Plants are awarded, through participation in auctions, with long-term PPA with the Peruvian State with which they shall obtain a guaranteed income that makes the execution of the projects viable and ensures a certain level of profitability.
- iii. RER plants shall have priority for the connection of their facilities to the electricity system in case of lack of sufficient capacity in the transmission and/or distribution systems, up to the maximum limit of the annual target percentage determined by the government.

Regarding point (ii), the Peruvian legal framework establishes as part of the RER promotion mechanisms the realization of auction procedures in which investors participate with new generation projects with RER to cover the participation quota determined in the country's energy matrix previously established by the Peruvian State.

Legal framework

The winners of the auctions subscribe, as concessionaires, with the Peruvian State, a PPA in favor of electricity system through RER, by virtue of which the payment of the Energy Awarded at the Tariff Awarded derived from its bid presented at the auction is guaranteed.

RER Projects



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