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# Alternative Energy & Power

Second Edition

Peru

Payet, Rey, Cauvi, Pérez Abogados

2019

### Law and Practice

Contributed by Payet, Rey, Cauvi, Pérez Abogados

#### **Contents**

1.		eral Structure and Ownership of the Power ustry	p.3
		•	p.5
	1.1	Principal Laws Governing the Structure and Ownership of the Power Industry	p.3
	1.2	Principal State-owned or Investor-owned	p.5
	1,2	Entities	p.4
	1.3	Foreign Investment Review Process	p.4
	1.4	Principal Laws Governing the Sale of Power	
		Industry Assets	p.4
	1.5	Central Planning Authority	p.5
	1.6	Recent Material Changes in Law or Regulation	p.5
	1.7	Announcements Regarding New Policies	p.5
	1.8	Unique Aspects of the Power Industry	p.6
2.	Mar	ket Structure, Supply and Pricing	p.6
	2.1	Structure of the Wholesale Electricity Market	p.6
	2.2	Imports and Exports of Electricity	p.6
	2.3	Supply Mix for the Entire Market	p.7
	2.4	Principal Laws Governing Market	
		Concentration Limits	p.7
	2.5	Agency Conducting Surveillance to Detect	
		Anti-competitive Behaviour	p.7
3.	Clim	nate Change Laws and Alternative Energy	<b>p.</b> 7
	3.1	Principal Climate Change Laws and/or Policies	p.7
	3.2	Principal Laws and/or Policies Relating to the Early Retirement of Carbon-based Generation	p.8
	3.3	Principal Law and/or Policies to Encourage the Development of Alternative Energy Sources	

4. Generation p.				
	4.1	Principal Laws Governing the Construction and Operation of Generation Facilities	p.8	
	4.2	Regulatory Process for Obtaining All Approvals to Construct and Operate		
		Generation Facilities	p.9	
	4.3	Terms and Conditions Imposed in Approvals to Construct and Operate Generation		
		Facilities	p.10	
	4.4	Proponent's Eminent Domain,		
		Condemnation or Expropriation Rights	p.10	
	4.5	Requirements for Decommissioning	p.10	
5.	Tran	smission	p.10	
	5.1	Regulation of Construction and Operation of Transmission Lines and Associated Facilities	p.10	
	5.2	Regulation of Transmission Service, Charges and Terms of Service	p.12	
6.	6. Distribution			
	6.1	Regulation of Construction and Operation of Electricity Distribution Facilities	p.13	
	6.2	Regulation of Distribution Service, Charges and Terms of Service	p.14	

Payet, Rey, Cauvi, Pérez Abogados is a highly-rated energy and natural resources practice group with unparalleled experience in the power market and regulatory and public law. The firm represents some of the most important companies in the industry and provides both (i) day-to-day counselling with regard to their operations and (ii) tailored specialised counsel in administrative proceedings with the Peruvian regulator agency OSINERGMIN and other entities, arbitrations and investment projects. Our attorneys are

experienced in the legal and operational sides of the market, having obtained national and international specialised certifications on the matter.

Payet Rey Cauvi Pérez Abogados have provided advice to investors in bidding processes related to concessions, privatisations, private initiatives, public-private partnerships, management and consulting contracts etc. This is a full-service practice group geared towards covering all the needs of our clients in this industry.

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## 1. General Structure and Ownership of the Power Industry

### 1.1 Principal Laws Governing the Structure and Ownership of the Power Industry

The electricity market in Peru is governed by Decree Law N° 25844, Electricity Concession Act ("LCE" by its Spanish acronym) and Supreme Decree N° 9-93-EM, Rules for the Electricity Concession Act ("RLCE", by its Spanish acronym). Both were enacted in December 1992, aiming to set forth a new and more dynamic structure within the electricity market and to set the grounds for promoting competition and private investment within the sector.

For almost thirty years, the Peruvian electricity market was organised as a vertically integrated monopoly, ran by the state-owned company, Electroperu. In the 1990s, the power industry became subject to a liberalisation overhaul that unbundled the generation, transmission and distribution segments of the industry, introducing competition to power generation and a mixed system of public biddings and open

access to established transmission lines. Private capital was directly injected into the industry as several power generation and transmission operating units and projects were privatised. Though distribution remained a state-owned sector, the power distribution company in the country's capital, Lima, was privatised and allocated to two different companies who controlled the northern and southern halves of the city. A regulatory agency was also introduced as a consequence of market liberalisation: OSINERGMIN, created in 1994 after the first wave of private capital injection in the industry.

Later, in 2006, Law 28832, Law Ensuring Efficient Power Generation was enacted in an attempt to make adjustments within the sector in order to correct some deficiencies and to reduce excessive administrative intervention in respect of price regulation. As a result, this led to an excess in energy production, which limited price fluctuations and energy rationing. Likewise, major changes were introduced in the transmission sector in order to facilitate the deployment of new infrastructure and to enlarge the national grid.

### 1.2 Principal State-owned or Investor-owned Entities

Following the privatisation programmes of the 1990s, the Peruvian government has only held majority stakes in distribution activities but it remains the owner of a generation company; power transmission activities had already been fully privatised. Electroperu is the main state-owned company and is in charge of the operation of the third largest power plant in the country.

The principal power generation companies, as of 2018, according to the records of the energy regulatory agency, OSINERGMIN, are as follows:

- Enel Generación Perú and Enel Generación Piura (19.9% joint market share)
- Engie Energía Perú (17.3%)
- Electroperú (17%),
- Kallpa Generación (7%)
- Fenix Power Perú (5.6%)

For power transmission activities, the ISA-REP conglomerate is the main player in the segment with a joint market share of 70% and is owned by the ISA Group and Grupo Energía Bogotá, both of which are Colombian, partially state-owned corporations. This conglomerate also owns Consorcio Transmantaro.

The distribution segment accounts for most of the state-owned companies in the industry – since regional distributors are state-owned – with the exception of the two power distributors in the Lima region: Enel Distribución (a related undertaking of Enel Generación and Enel Generación Piura) with a 29% of the national market share and Luz del Sur with 26%, along with and other distributors such as Electrodunas.

#### 1.3 Foreign Investment Review Process

Aiming to attract direct foreign investment in Peru, the Peruvian government has put into effect one of the most open regulatory regimes for foreign trade and investment. One of the most important measures relates to removing the need for foreign investors to seek prior authorisation before making an investment in the national market. In addition, the regulatory framework aims to provide economic stability and reduce governmental interference in the industry.

Furthermore, the Political Constitution of Peru, enacted in 1993, set forth that Peruvian development should be achieved through private investment with subsidiary governmental participation, but only if the latter is expressly approved by law. The constitution guarantees the same treatment for both national and foreign investors; foreign investors are allowed to invest in almost all economic sectors.

In addition, investors benefit from a stable legal regime which is applicable to both national and foreign investors,

together with a stable income tax regime and other applicable policies. To benefit from this regime, investors are required to prove that they have made an investment for a minimum amount of USD5 million within a period of no less of two years.

In order to enhance the liberalisation and privatisation programme, a public-private partnership ("PPP") regime was proposed which enabled private entrepreneurs to engage in and pursue the development of state projects. After Law 28832 was enacted, the government became aware of the urgent need to enlarge the national grid to meet energy demand, and also the need to develop a high-quality electricity service through the construction of new energy facilities. To achieve these goals, a number of projects were launched under the PPP regime.

It should be also noted that concession agreements within specific regimes included a dispute resolution provision, giving investors the opportunity to use arbitration as a dispute settlement mechanism. The dispute resolution clause included a provision which stated that certain disputes may be resolved by international arbitration.

### 1.4 Principal Laws Governing the Sale of Power Industry Assets

Law 26876, the Antitrust and Anti-oligopoly Law for the Electricity Sector ("AAL") imposes a mandatory pre-notification and authorisation procedure, enforced by the antitrust agency INDECOPI, to those transactions deemed to be vertical or horizontal concentrations within the power generation, transmission and distribution industries.

The AAL is supplemented by the Supreme Decree No. 017-98-ITINCI ("General Regulations"), which develops substantive and procedural rules applicable to clearance authorisations under the AAL.

In order to determine whether a transaction within the electricity market requires prior authorisation from INDECOPI, the following criteria must be met:

#### The transaction must constitute a concentration act

A concentration act is deemed to have occurred in the following circumstances: (i) mergers; (ii) incorporation of a company; (iii) direct or indirect acquisition of control over other companies by means of the purchase of equity or interests; (iv) direct or indirect acquisition of control over other companies by means of any other contract or legal mechanism that grants direct or indirect control of a company; (v) acquisition of productive assets of any company that carries out activities in the electricity sector; or (vi) any other act, contract or legal mechanism by means of which companies, associations, equity interests, trusts or assets are concentrated among competitors, suppliers, clients, shareholders or other economic agents.

#### Applicable thresholds

- Horizontal concentrations: Companies that carry out energy generation, transmission and/or distribution activities that have at the moment of notification or thereafter, jointly or severally, a market share equal to or greater than 15% of the relevant market.
- *Vertical concentrations*: Companies that carry out energy generation, transmission and/or distribution activities that have at the moment of notification or thereafter, jointly or severally, a market share equal to or greater than 5% in any of the markets involved.

If these two criteria are met, INDECOPI's Free Competition Commission must be notified of the transaction, which has exclusive competence to assess the impact posed by the transaction on competition in the electricity market, focusing on whether the operation may have the effect of diminishing, harming or preventing free competition. The typical timeline applicable with this procedure is six months. However, it should be noted that a proposed transaction cannot be executed until the authorities have issued a clearance decision.

#### 1.5 Central Planning Authority

The central authority which oversees and administers the electricity supply, including the reliability of the system, is the Committee for the Economic Operation of the National Interconnected Electrical System ("COES" by its Spanish acronym). This private entity has been endowed with public authority (except in the case of sanctions) to coordinate and operate in real-time and at minimum cost energy distribution within the national grid ("SEIN" by its Spanish acronym).

In order to carry out its functions, COES is comprised of an assembly, a board of directors and an executive directorate. The COES Assembly must be composed of generators, transmission companies, distributors and free users who comply with the requirements indicated in Article 3 of the COES Regulation, approved by Supreme Decree 27-2008-EM. The board of directors is composed of five members. The executive directorate is constituted by an executive director, the operations management and the transmission planning directorate.

To fulfil and complement this function, COES drafts and proposes (for final approval by the regulator OSINERGMIN) a certain number of technical procedures and rules which improve operational conditions, including aspects such as electricity quality (ie, frequency regulation) and the maintenance requirements for the electricity facilities.

#### 1.6 Recent Material Changes in Law or Regulation

As of 7 July 2019, MINEM issued the Supreme Decree 14-2019-EM, Regulation for Environmental Protection within Electricity Activities. This new regulation revoked

and replaced the Supreme Decree 29-94-EM which, until then, was the applicable regulation in the electricity sector with regard to environmental protection.

The most relevant measures set forth by Supreme Decree N° 14-2019-EM, include the following:

- An annex of the supreme decree has been included a classification list for electricity projects, establishing the type of environmental impact study that shall be required for their deployment.
- The environmental impact assessment shall be based on a feasible investment project, which includes engineering conditions and features.
- For the construction of a hydroelectric power system, the title owner it is not only required to obtain an environmental impact study but also other authorisations that are related to environmental matters. Thus, the new regulation has set forth that it is possible to integrate both, the procedure for approving an environmental impact study and other procedures for approving other authorisations.
- Project owners who have operated electricity facilities without first obtaining an environmental authorisation can file a Detailed Environmental Plan for approval.
- A list of those activities that do not require environmental authorisation.
- Specific dispositions set forth in an attempt to govern environmental conditions for different activities within the electricity market.
- An Abandonment Plan, in the event of a closure or termination of activities.

#### 1.7 Announcements Regarding New Policies

During 2018 there were two important announcements regarding new policies within the power industry:

### Recognition of firm power and solar and wind power generators

A regulatory constraint makes it impossible for solar and wind power generators to enter into a bilateral agreement or a power purchase agreement ("PPA"). Solar and wind power generators are considered to be unable to provide firm power, thus they are not able to execute a PPA. Consequently, the lack of recognition of firm power prevents them from selling their production to a free or large user.

However, by virtue of Resolution N° 455-2018-MEM, dated 14 November 2018, MINEM enacted a resolution proposing a modification to article 110 of RLCE that governs firm capacity calculations. This modification aimed to set forth a procedure for calculating firm power for solar and wind generators and establishing a payment for capacity. Pursuant to the proposed modifications, solar and wind generators shall be able to execute a PPA, as any other generator would do. There has been no further news regarding this project.

However, this is a major change for the development of the renewable energy industry in Peru.

#### Natural gas prices for thermal generators

Costs related to the provision of fuel for gas-fired power plants are deemed to be variable costs; these costs are important because they determine the dispatch order within the system. Hence, gas-fired generators are obliged to file an annual declaration of their production costs. However, some companies claim that the information filed within such an affidavit does not relate to the real production costs, and this can lead to a distortion in the calculation of marginal costs and energy prices.

Thus, during 2018 Congress filed a motion to promote a new law in order to ensure that energy prices are calculated based on the real costs incurred by generators. Some generators and distributors claimed that prices have been distorted by these inaccurate declarations, causing an increase in energy prices that mainly affected retail consumers.

#### 1.8 Unique Aspects of the Power Industry

The power industry in Peru has grown steadily since the unbundling, liberalisation and privatisation introduced by the enactment of the LCE and the RLCE. Since the regulatory risk is low – the applicable regulations for power generation that affect foreign investment have not adversely changed in the last 25 years – private investment has increased.

It should be noted that Peru was one of the first Latin America countries to develop a regulatory framework promoting new power generation by adding renewable energy sources to the national electricity matrix. In order to enhance the promotion goals, the regulatory framework established an auction mechanism.

Currently, power generation exceeds demand. This situation began a few years ago and is expected to continue up to 2022. However, the demand for energy will likely increase in the coming years, resulting in the construction of new power facilities.

#### 2. Market Structure, Supply and Pricing

#### 2.1 Structure of the Wholesale Electricity Market

The design of the Peruvian electricity market is similar to the Wholesale Competition Model, set forth in the LCE, the RLCE and Law 28832. Thereto, power generation has been designed to be a competitive segment within the market.

According to the structure chosen for the Peruvian electricity market, it is organised in two sections, as follows.

#### **Mandatory Pool**

Transactions in this market happen in real time. The mandatory pool is managed by COES who ensure that production meets demand. COES must also determine energy dispatch by selecting those power plants with the lowest variable costs. Thereto, those power plants that are not required to produce shall withdraw energy from the pool to meet their commercial commitments to their clients. The power generators may also buy energy from other generators.

On monthly basis, COES calculates the amount of energy that was delivered or withdrawn from the pool by each power generator and sets payments for the generators. Those transactions taking place in the mandatory pool are valued at marginal cost, which is also calculated and established by COES pursuant to the information provided by the power generators.

Applicable rules to this market have been set forth by Supreme Decree N° 26-2016-EM, Electricity Spot Market Regulation.

#### **Financial Transactions Market**

This market relates to transactions that are settled under a specific agreement. In these agreements, the generators establish the quantity of electricity that will be sold to their clients. Furthermore, it also establishes the responsibilities, payment schemes and obligations that each party will undertake.

Power generators sell energy to wholesale consumers and large users, as well as to distributors. According to Supreme Decree N° 022-2009-EM, large users can negotiate payment schemes and other obligations with the generators under a PPA for energy supply. Furthermore, Law 28832 sets forth who shall be deemed a large user: ie clients with a demand greater than 2.5 MW. Those clients with a demand ranging from 200 kV to 2.5 MW may elect to be considered as a large user. When selling energy to distributors, the PPA shall be subject to regulated tariffs if the energy is required to meet the demands of regulated clients.

Even though these markets are divided, they are connected. This means that when generators undertake a bilateral agreement to sell their output, it is important that they sell power and electricity according to what they produce or what they can buy into the system. This ensures that no generator will overload the system by having customers that require a certain quantity of energy or power above what the system can provide on a real-time basis.

#### 2.2 Imports and Exports of Electricity

Imports and exports of electricity are governed by the dispositions set forth by the Andean Community (an international organisation that includes Peru, Bolivia, Ecuador and Colombia as state members and Chile, Argentina, Uruguay, Paraguay and Brazil as associated states).

Decision N° 536, dated December 2002, made possible the deployment of transmission infrastructure to provide an international connection between Peru and Ecuador. These facilities will enable Peru and Ecuador to import and export electricity in order to meet emergency energy requirements. Later, Decision N° 757, dated August 2011, replaced Decision N° 536, establishing the governing regulations for the import and export of electricity between Peru and Ecuador.

Furthermore, in November 2012 both countries signed an agreement that set forth the conditions for the construction of a transmission line that will connect both countries. This transmission line has not yet been built, but there is a project for the construction of a 500 kV transmission line from Piura Nueva to Frontera. The transmission line will be governed by the scope of the applicable Peruvian regulatory framework. Only imports and exports of electricity are subject to the regulations issued by the Andean Community.

There are no other regulatory dispositions within the Peruvian regulatory framework, except for the Technical Procedure N° PR-43 issued by COES, which sets forth the conditions governing energy trade with Ecuador. However, this technical procedure does not establish the energy prices applicable to that trade.

In addition to Decision 757, the Andean Community issued Decision 816, dated April 2017. This latter decision sets forth the conditions for energy trade between Peru and Chile, but there has been no further development on this matter.

#### 2.3 Supply Mix for the Entire Market

Imports and exports of electricity are governed by the dispositions set forth by the Andean Community (an international organisation that includes Peru, Bolivia, Ecuador and Colombia as state members and Chile, Argentina, Uruguay, Paraguay and Brazil as associated states).

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In addition to Decision 757, the Andean Community issued Decision 816, dated April 2017. This latter decision sets forth the conditions for energy trade between Peru and Chile, but there has been no further development on this matter.

### 2.4 Principal Laws Governing Market Concentration Limits

The Peruvian antitrust regime does not impose quotas on a sole entity, nor does it set forth limits for any participant working in the various segments of the industry.

### 2.5 Agency Conducting Surveillance to Detect Anti-competitive Behaviour

According to the market structure, power generation is open to competition. However, all participants in all market segments are subject to a general antitrust regime, which is regulated by Legislative Decree N° 1034, the Repression of Anticompetitive Conducts Law ("Peruvian Competition Law"). This law prohibits and sanctions two types of anticompetitive conduct: (i) abuse of a dominant position and (ii) collusive practices. The competent authority for conducting surveillance of the market to detect anti-competitive behavior is the Free Competition Commission from INDECOPI.

In case of a severe infringement, the applicable fine can range from USD630,000 to USD4,200,000. When an infringement is deemed very severe, the applicable fine can be greater than USD4,200,000. However, fines cannot exceed 12% of the sales or gross income received by the offender or his economic group, related to all his economic activities immediately preceding the date of the sanction.

The competition law is applicable to all conduct that produces or may produce anticompetitive effects within Peruvian territory, including acts that originated abroad.

# 3. Climate Change Laws and Alternative Energy

#### 3.1 Principal Climate Change Laws and/or Policies

The regulatory framework for climate change was enacted in April 2018 by virtue of Law 30754 which approved the Climate Change Framework Law. Law 30754 establishes general provisions to implement public policies to mitigate the consequences of climate change, but it does not address the specific measures to be undertaken by the power generation industry, such as limiting carbon emissions.

However, there are other measures in the regulatory framework that govern environmental matters within the electricity industry. For example, Supreme Decree 14-2019-EM, Regulation of Environmental Protection in Electricity Activities, sets forth certain obligations, such as: (i) not causing erosion and the instability of slopes during the construction, operation or abandonment of electrical activities; (ii) the prohibition of actions that affect biodiversity in the project area; (iii) recovering or re-sowing deforested areas; and (iv) minimising the adverse impact on water sources when building and operating projects. In addition, Directorate Resolution 8-97-EM-DGAA establishes the maximum permissible levels for liquid effluents resulting from power generation, transmission and distribution activities.

Surveillance and control of these obligations are undertaken by the Environmental Surveillance and Enforcement Agency ("OEFA", by its Spanish acronym) in accordance to Article 117 of Law 28611, General Environmental Law, and Article 17 of Law 29325, Law of the National System of Environmental Oversight and Enforcement.

### 3.2 Principal Laws and/or Policies Relating to the Early Retirement of Carbon-based Generation

There are no plans to eliminate carbon-based generation such as coal. In fact, one coal-fired power plant still operates, ie Ilo 21 Power Plant, owned by Engie Energía Perú S.A., which has a capacity of 135 MW. However, the company plans to decommission this plant and submitted an abandonment programme to the Ministry of Energy and Mines in January 2019.

### 3.3 Principal Law and/or Policies to Encourage the Development of Alternative Energy Sources

Legislative Decree 1002 and its regulations, approved through Supreme Decree 12-2011-EM, are the governing legal instruments for renewable energy sources in Peru. These set forth measures to promote investments in electricity generation using renewable energy sources ("RER"): ie, wind, photovoltaic, geothermic, biomass and tidal wave energy, as well as hydro projects with an installed capacity no greater than 20 MW.

Pursuant to the applicable regulatory framework, MINEM has set a minimum RER share in the national electricity power generation matrix of 5%, which was intended to be updated every five years. However, thus far, power generation using RER only amounts to 3% of market share.

This regulatory framework also introduced the following set of benefits in an aim to make this field attractive to investors:

- Priority in the daily dispatch of energy.
- Tariff Benefits: assignment of a premium tariff.
- Accelerated depreciation.
- Priority connection to the network.

Among these benefits, the most important is the tariff benefit which guarantees a fixed payment for a fixed amount of energy being delivered by the generator to the spot market. In order to allocate this benefit, OSINERGMIN must issue a public tender every two years. The energy that it is being allocated will be delivered directly to the spot market and will be paid at marginal cost. Nonetheless, the awardees' companies that enter into an electricity supply agreement will be entitled to an additional payment if the marginal costs do not cover their costs.

The additional income to finalise the price for the energy being delivered is called a "premium". Such premiums are subsidies that are only granted to awardees who have entered into an electricity supply agreement.

#### 4. Generation

### 4.1 Principal Laws Governing the Construction and Operation of Generation Facilities

The most important regulatory laws and regulations governing electricity generation are: (i) the LCE; (ii) the RLCE; and (iii) Law 28832, Law Ensuring Efficient Power Generation. Altogether, they establish, inter alia, the main permits and licenses required to enter into the generation sector, as well as the main obligations and rights of the market participants, ie:

- Concessions issued by MINEM.
- Definitive Concession for Power Generation: Granted for the construction and operation of generation plants for an indefinite term. The installed capacity shall be greater than 500 KW and use hydraulic or renewable resources.
- Temporary Concession: Granted for the execution of feasibility studies related to generation activities, which will be valid for two years.
- Authorisations issued by MINEM: Authorisations are granted for fuel-based power generation projects with an installed capacity greater than 500 KW.
- An EIA approved by the General Office for Energy Environmental Affairs of the Ministry of Energy and Mines
  for the term of the Definitive Generation Concession, or
  by SENACE (an entity related to the Ministry of Environmental Affairs) when the project owner is required to
  obtain a detailed EIA study.
- A certificate of non-existence of archaeological remains, issued by the Ministry of Culture, which should comprise all areas affected by the project.

 Pre-operational and Operational Certification, both issued by COES, which verify the project's connection and design.

#### 4.2 Regulatory Process for Obtaining All Approvals to Construct and Operate Generation Facilities

The definitive concession or authorisation for power generation is the most important permit for the deployment of a power plant. These permits grant exclusivity to execute a project at a certain site for an indefinite term. For its obtention, the petitioner must comply with, among other things, the following documents/requirements:

- A work schedule specifying the beginning of works and the project's commencement operation date ("COD");
- The project's budget;
- The Approval Resolution of the Environmental Management Instrument for the development of the generation activity, which contains, among other matters, a review of the socio-economic and cultural impact on the area so influenced and the measures to be developed;
- A performance bond of 1% of the project's budget, with a maximum of 500 Tax Units (S/. 4200 for 2019);
- Documents regarding the commitment to invest; and
- A description of the easements required.

The main hurdle to obtaining a Definitive Generation Concession or authorisation is the procedure of prior consultation with the indigenous population pursuant to ILO Convention 169, which consists of identifying the affected communities, their internal evaluation of the project and the dialogue between the competent authority and individuals to arrive at administrative measures. Thereto, MINEM is obliged to undertake a prior consultation procedure before issuing the corresponding concession or authorisation. However, if the project holders prove that no indigenous population will be affected by the construction of the power plant, MINEM shall not be obliged to undertake any prior consultation procedure.

MINEM is obliged to provide its assessment within a maximum term of 60 working days as of the date on which the requirement was filed by the project owner. As to the requirements of definitive concessions for hydroelectric power plants, MINEM shall take 120 working days to provide its assessment. If MINEM does not provide an answer within the period specified, the definitive concession for power generation shall be deemed to have been granted to the project owner.

The procedure for obtaining a definitive concession or authorisation involves the following stages:

• Assessment of the application: Within a ten working day term, MINEM shall assess the application and docu-

- ments filed in order to determine whether the petitioner has filed all the requirements subject to the LCE and the RLCE.
- Observations to the application: In case the application contains any information that is not complete, MINEM shall require the petitioner to fulfill or amend the information filed within its application.
- Admission of the application and further publication of the application in the Official Gazette for two working days, as required by MINEM.
- Concurrence of applications: If within 15 working days of publishing the application in the Official Gazette another petitioner files an application for obtaining a definitive concession on the same location, MINEM shall start a Concurrence of Applications procedure in order to determine which application shall proceed for further evaluation.
- Opposition to the application: Within the same 15 working day term mentioned above, any third party can file an opposition to an application for a definitive concession.
- Technical and Regulatory Assessment: Once the opposition procedure is settled or if no opposition occurred, MINEM shall assess the application from a technical and regulatory point of view. MINEM can issue further observations in respect of the application.
- Approval of the application.
- Enactment of the resolution containing the approval of the concession or authorisation thereto.

Any additional term required for responding to any of the observations issued by MINEM during this procedure shall be disregarded from the term granted to MINEM to resolve an application for the granting of a definitive concession or authorisation.

Furthermore, it is important to emphasise that, before undertaking the procedure for obtaining the definitive concession for power generation or authorisation thereto, the project owner is required to have obtained the approval of their EIA. Depending on the location, the affected areas and the scope of the project, the applicant may be required to obtain: (i) an Environmental Impact Declaration which can be approved within 30 working days; (ii) a semi-detailed EIA, which can be approved within 90 working days; or (iii) a full-scope EIA within a term of 120 working days.

During the process for approval of an EIA study, the project owner shall also undertake public participation in order that the governmental authorities may better understand the issues that concern the citizens affected by the project. Consequently, the project owner should establish communication channels with those citizens so as to consider their opinions. Public participation mechanisms for electricity activities have been developed in Ministerial Resolution No. 223-2010-MEM/DM.

In addition, if the project is located in an urban area that is not considered rural or desertic, the project owner may have to pass an enabling urban process and shall be required to obtain a construction license before starting construction activities. The enabling urban process takes 5 working days following submission of all the required documents, and the construction license can take between 5 to 30 working days, depending on the specific characteristics of the project. When constructed, the concessionaire may have to obtain 'a conformity of the construction,' which may also take between 5 and 30 working days.

### 4.3 Terms and Conditions Imposed in Approvals to Construct and Operate Generation Facilities

The main requirements for the construction and operation of generation facilities are: (i) the definitive concession for power generation or authorisation for thermal power generation and (ii) the EIA study. No construction works may take place without first securing these authorisations. Depending on the energy source, other permits may also be required prior to starting construction.

Regarding the definitive concession or authorisation, the titleholder will be bound to fulfill the time-lapse set forth in the construction schedule until it reaches the project's COD. While the terms are set by the titleholder, they are mandatory and failure to conform to these terms may be penalised by way of revocation of the concession or authorisation thereto. However, if additional time is required to fulfill any of the tasks under the construction schedule, the titleholder may apply for an extension, but only if it is based on force majeure events that prevented the titleholder from complying with the construction schedule.

### 4.4 Proponent's Eminent Domain, Condemnation or Expropriation Rights

The Peruvian legal framework does not contemplate the possibility of land expropriation for the development of transmission facilities. However, it is possible to establish easement rights, either through private agreements or through imposition mandates issued by governmental authorities. However, a definitive concession allows its holder: (i) to use public areas and infrastructure without cost and (ii) to obtain temporary or permanent – for the term of the concession – easements on private and public lands for the construction and operation of the project.

For the easement obtention, companies may first negotiate for an easement with the owners and/or possessors of the land concerned, which may be recognised by MINEM later. A valuation will be required to determine the market price of the affected property.

Should no agreement be reached with the landowners and/ or possessors, the concessionaire may request MINEM to impose an easement. The ministry shall appoint an independent valuator to determine the amount of compensation to be paid to the landowner by the concessionaire.

A decision by MINEM recognising or imposing an easement may be subject to judicial review, but only as to the question of the compensation amount or damages payable to the owners or possessors.

#### 4.5 Requirements for Decommissioning

If a project owner chooses to close their power plant, they will be required to resign to the definitive concession or authorisation granted by MINEM and ownership of the electricity facility will revert to the Peruvian government. The government will then decide on whether to decommission the site or seek another operator.

Prior to closing power generation operations, the concessionaire must prepare an updated abandonment plan named Total Abandonment Plan, which must be approved by the General Office for Energy Environmental Affairs of MINEM. This plan may set forth the actions to be done to decommission the plant. In the main, these are measures taken to avoid adverse effects on the environment due to existent solid, liquid or gaseous residues that may arise in the short-, medium- or long-term. All the obligations regarding the closure of operation may be set forth in the Area Abandonment Plan. In addition, a side letter shall be required in order to provide a guarantee for the completion of the activities included in the abandonment plan.

#### 5. Transmission

#### 5.1 Regulation of Construction and Operation of Transmission Lines and Associated Facilities

### 5.1.1 Principal Laws Governing the Construction and Operation of Transmission Facilities

The main laws governing power transmission activities are:

- The LCE and the RLCE which establishes the general regime for the granting of concessions necessary to build, operate and maintain the transmission lines;
- Law 28832, Law Ensuring the Efficient Power Generation, which amended the LCE and introduced several secondgeneration reforms in the power sector in order to ensure the timely and efficient supply of electricity; and
- Supreme Decree 27-2007-EM, Power Transmission Regulations, which establishes the general and specific aspects of transmission activity, such as tenders, the transmission plan and the tariff regime, among others.

In Peru, the power transmission industry is divided into four systems: (i) the Main Transmission System, consisting of high-voltage and very high-voltage lines built before 2006;

(ii) the Secondary Transmission System for end users or distributors, which transports high- and medium-voltage lines built before 2006; (iii) a Guaranteed Transmission System consisting of lines built as a result of tenders issued since 2006; and, finally (iv) the privately-owned Complementary Transmission Systems that had been granted by concession since 2006.

The permits and authorisations required for building and operating transmission facilities are the same as the permits required for the deployment of a power plant. Hence, this list of permits includes the following:

- A Definitive Concession of Power Transmission granted by MINEM;
- Pre-Operativity and Operational Certification approved by COES;
- An Operational Assessment approved by COES;
- An EIA approved by the General Directorate of Energy Environmental Affairs of MINEM or SENACE; and
- A Certificate of Non-existence of Archaeological Remains granted by the Ministry of Culture.

### 5.1.2 Regulatory Process for Obtaining Approvals to Construct and Operate Transmission Facilities

The main laws governing power transmission activities are:

- The LCE and the RLCE which establishes the general regime for the granting of concessions necessary to build, operate and maintain the transmission lines;
- Law 28832, Law Ensuring the Efficient Power Generation, which amended the LCE and introduced several secondgeneration reforms in the power sector in order to ensure the timely and efficient supply of electricity; and
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- A Certificate of Non-existence of Archaeological Remains granted by the Ministry of Culture.

### 5.1.3 Terms and Conditions Imposed in Approvals to Construct and Operate Transmission Facilities

The approvals required for the construction and operation of transmission facilities are the same as the ones required for power generation. Please refer to 4.3 Terms and Conditions Imposed in Approvals to Construct and Operate Generation Facilities.

### 5.1.4 Proponent's Eminent Domain, Condemnation or Expropriation Rights

As already stated, the Peruvian legal framework does not contemplate the possibility of land expropriation for the development of transmission facilities. However, it is possible to establish easement rights, either through private agreements or through imposition mandates issued by governmental authorities. However, a definitive concession allows its holder: (i) to use public areas and infrastructure without cost and (ii) to obtain temporary or permanent easements on private and public lands for the construction and operation of the project for the entire term of the concession.

Conventional easements are agreed between the owner of the power project and the owners of the land it will cross. The government may also impose an easement on properties affected by the project, subject to compensation to the landowner in the form of a cash payment. The easements shall have a term of validity identical to other concessions and shall remain in force for the duration of the concession.

In order to request the imposition of an easement, there must be a definitive concession. The procedure begins with the presentation of the application, which will include a valuation of the affectation, proof of exhaustion of negotiations with the owners and the descriptive memory, among other documents. For the granting of easements, a procedure will be followed that includes the opinion of OSINERGMIN, the possible opposition of the owners and payment to the owner, among others.

#### 5.1.5 Transmission Service Monopoly Rights

Though power transmission can be deemed to be a natural monopoly, there is no legal provision that grants monopoly rights to a specific concession holder within a specific geographical area. The concession is granted is in respect to a specific transmission line: there may be other transmission line owners in the same location.

### 5.2 Regulation of Transmission Service, Charges and Terms of Service

# 5.2.1 Principal Laws Governing the Provision of Transmission Service, Regulation of Transmission Charges and Terms of Service

The main laws governing the transmission service, charges and terms of service include the following:

- The LCE and the RLCE, which set forth the applicable rules for calculating payments owed to transmission companies;
- Law 28832, Law Ensuring Efficient Power Generation, which: (i) reformed the transmission system by integrating the national grid with guaranteed and complementary transmission systems to the pre-existent secondary and principal transmission systems; (ii) raised the expansion of the grid by the creation of the Transmission Plan and the Investment Plan; and, (iii) brought a concession system under a "BOOT" (build, operate, own and transfer) contract, which guaranteed certain rights to the concessionaires who guaranteed specific performance;
- Supreme Decree 27-2007-EM Power Transmission Regulations which set forth the requirements for the operation of the Guaranteed Transmission System and the Complementary Transmission System, as well as tariff compensations;
- Resolution N° 217-2013-OS/CD, Regulation for Tariffs and Compensations for Secondary Transmission Systems and Complementary Transmission Systems; and
- The Technical Regulation of Quality of the Electricity Services (Supreme Decree No. 020-97-EM), which regulates the main aspects of quality in the electricity industry.

Payments are calculated for transmission companies pursuant to the above regulations. The ratemaking procedure is undertaken by OSINERGMIN who shall define the transmission tolls.

### 5.2.2 Establishment of Transmission Charges and Terms of Service

Transmission tariffs aim to cover the following basic costs, (i) investment costs related to construction of transmission lines, sub-stations and the control centre and (ii) the operational and maintenance costs, which includes the maintenance and operation costs of the transmission facilities, staff costs and security costs, among others.

Transmission charges are established based upon on the features of each transmission system, as follows:

#### **Principal Transmission System:**

This system is composed of those transmission lines whose COD was before July 2006, which enabled the grid connection and the transportation of high voltage energy. Payment is calculated on an annual basis by OSINERGMIN and it is based upon (i) annual investment costs pursuant to new replacement values at an applicable rate of 12% and (ii) efficient standard costs for maintenance and operation. Payment to transmission companies owning a Principal Transmission System facility shall be paid by way of a Transmission Toll and a Tariff Income.

#### **Guaranteed Transmission System:**

This system is composed of those transmission lines whose COD was after July 2006. However, these transmission facilities were deployed under an auction system which led to concessions being awarded for the construction, operation and maintenance of a transmission line. Under this system, the awardee files an economic offer which sets forth a base tariff composed of investment costs and operational and maintenance costs. The concession is awarded to the bidder with the lowest offer. The base tariff is compensated pursuant a Transmission Toll which is calculated on an annual basis by OSINERGMIN.

#### **Secondary and Complementary Transmission System:**

These systems are composed of those transmission lines that connect generators and users of the grid. Payment is based upon historical investment costs, which are updated during the ratemaking procedure, and maintenance and operation costs, obtained pursuant to the OSINERGMIN calculation. The ratemaking procedure is undertaken by OSINERGMIN every four years.

However, service terms are established in the regulatory framework and in the concession agreement entered into by the transmission company. There is no negotiation of the terms and conditions or the services to be provided by the transmission line owner. It is only when transmission services are provided to private users that both parties can establish the terms of the transmission service.

#### 5.2.3 Open-access Transmission Service

As electricity transmission is considered to be a public service, these services are subject to open access regulations, which implies that transmission concessionaires are forced to allow third parties, upon request, to use and access their facilities.

This can be reached through a private negotiation and a subsequent subscription to a connection agreement. In case the transmission concessionaire denies access to a transmission facility without having any technical or legal grounds, the petitioner can require OSINERGMIN to intervene.

If reinforcements or other works are needed for the transmission system, the interested party is entitled to make the corresponding investment. However, these investments do not give the petitioner any property rights over the transmission system. Any discrepancy about the transmission capacity or extensions needed will be resolved by OSINERGMIN.

#### 6. Distribution

### **6.1 Regulation of Construction and Operation of** Electricity Distribution Facilities

### 6.1.1 Principal Laws Governing the Construction and Operation of Electricity Distribution Facilities

The LCE and the RLCE provide the most important governing legislation for the distribution of electricity. According to Article 2 of the LCE, electricity distribution is considered to be a public service and when system demand exceeds 500 KW a definitive concession is required to carry out distribution activities. Definitive concessions are granted by MINEM, or, for projects of a smaller scope, the Energy and Mines Directorate of the regional government. For systems supplying a demand below 500 KW, no government concession or authorisation is required, only compliance with the applicable technical, environmental and National Cultural Heritage provisions, and the requirement to notify MINEM of any other required information.

### 6.1.2 Regulatory Process for Obtaining Approvals to Construct and Operate Distribution Facilities

As previously stated, power distribution systems servicing a demand in excess of 500 KW require the operation of a definitive concession. This definitive concession allows the titleholder to use public property, including the use of easements acquired by MINEM, to build and operate distribution networks and subsystems.

The requestor must submit a description of the project together with copies of feasibility studies, a works execution calendar stating the COD, the budgetary projection, a detailed list of the required easements, the limits of the required concession area, approved environmental certifications and a performance guarantee for the works execution, among others.

The procedure to obtain the definitive concession and the environmental impact assessment study is described in Section 4.2 Regulatory Process for Obtaining All Approvals to Construct and Operate Generation Facilities.

### 6.1.3 Terms and Conditions Imposed in Approvals to Construct and Operate

The main requirement for the construction and operation of distribution facilities is the definitive concession and the EIA study. No construction works can take place without these authorisations. The main terms and conditions imposed in approvals to construct and operate distribution facilities are described in Section 4.3 Terms and Conditions Imposed in Approvals to Construct and Operate Generation Facilities.

### 6.1.4 Proponent's Eminent Domain, Condemnation or Expropriation Rights

The Peruvian legal framework does not contemplate the possibility of land expropriation for the development of transmission facilities. However, it is possible to establish easement rights, either through private agreements or through imposition mandates issued by governmental authorities. The easement imposition regime has already been described in Sections 4.4 Proponent's Eminent Domain, Condemnation or Expropriation Rights and 5.1.4 Proponent's Eminent Domain, Condemnation or Expropriation Rights.

#### 6.1.5 Distribution Service Monopoly Rights

Distribution service rights are served on an exclusive basis; thus, when a definitive concession for electricity distribution is granted, the concessionaire obtains the right to be the sole provider within that specific geographical location. Article 30 of the LCE expressly states that electricity distribution activities, when categorised as a public service, will only be carried out by one provider who will have exclusive rights, and that their concession area will not be reduced without prior approval from MINEM.

In the case of Lima, the state-owned distributor Electrolima was unbundled and divided into the northern and southern half of the Lima province, now operated by two companies, Edelnor (today Enel Distribucion) and Luz del Sur. Under the terms of the LCE, a power distribution concessionaire may request an extension to their concession. In recent years, power distributors in the Lima province have extended their concession area to encompass several other provinces within the greater Lima region. Additionally, under the Rural Electricity Systems regime, power distributors have sought to increase electricity coverage inside their concession areas.

### **6.2** Regulation of Distribution Service, Charges and Terms of Service

6.2.1 Principal Laws Governing the Provision of Distribution Service, Regulation of Distribution Charges and Terms of Service

As previously mentioned, the LCE sets forth the methodology to determine the maximum rates. Additionally, *Law 27332*, *Law of Regulatory Agencies*, establishes that regulatory agencies such as OSINERGMIN have the power to carry out ratemaking proceedings for the sectors and industries under their purview. *Law 27838*, *Transparency and Simplification of Ratemaking Proceedings Law*, established an array of procedural guarantees for these proceedings, including that each regulatory agency must issue a specific regulation with regard to ratemaking provisions and proceedings, which must be approved at the highest level within the entity. Thus, these regulations are approved by the board of directors.

Furthermore, the RLCE sets forth the applicable stages for the ratemaking procedure, establishing the information that the distribution concessionaires must file.

### 6.2.2 Establishment of Distribution Charges and Terms of Service

The distribution segment is a recognised natural monopoly that sets rates under an efficient average cost model coupled with cost reduction incentives. Overinvestment issues are handled through a "model company" approach based on recognising efficient cost structures for different companies, which are categorised in "typical distribution sectors" in relation to their installations, clients and load density.

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Power distribution rates are set every four years and take into consideration values such as user-associated costs (independent from their energy and power demand), standard energy and power loss in distribution, investments and standard O&M investment costs per each energy unit delivered, together with an additional surcharge related to technological innovation or energy efficiency improvements in the distribution system.

The most relevant component of the regulated rate structure for power distributors is the Distribution Added Value ("VAD") agreement, which is intended to represent the added value required to deliver the energy to the end users (ie residential, industrial, etc) supplied by the distributor. VAD is calculated as (i) a yearly cost corresponding to a yearly assessment of the new replacement value ("VNR" refers to the cost of replacing works and goods required to provide the existing service under current technology under an efficient system model) and (ii) the exploitation costs (ie, fixed O&M costs). Afterwards, a "unit VAD" is calculated taking into account the maximum demand projection for the electricity grid in the following five years.

VAD is calculated individually for each power distributor supplying over 50,000 users or clients, and its ratemaking requires highly technical cost studies submitted by the distributors to OSINERGMIN, which will assess them under investment and management efficiency criteria that take into account the obligations set forth by the legal framework in force, particularly environmental, occupational health and safety, labour, transport and municipal law. Cost studies can only be modified by OSINERGMIN in cases in which the concessionaires have not resolved inquiries previously issued by the regulator.

Resolutions deciding on ratemaking issues and/or finishing proceedings on the matter can be questioned through reconsideration appeals which may be solved by OSINERGMIN.