Chambers

GLOBAL PRACTICE GUIDE

Definitive global law guides offering comparative analysis from top ranked lawyers

Alternative Energy & Power

Second Edition

Brazil: Law & Practice

Tauil & Chequer Advogados in association with Mayer Brown

chambers.com

2019

Law and Practice

Contributed by Tauil & Chequer Advogados in association with Mayer Brown

Contents

Tauil & Chequer Advogados in association with Mayer Brown is a full-service law firm, offering clients in-depth local knowledge combined with global reach. Founded in 1992, the firm has grown rapidly, forming an association with Mayer Brown in December 2009. Today, TCMB has approximately 160 lawyers in Rio de Janeiro, São Paulo and Brasília, with a team of specialists in several areas of business law in Brazil, who advise in operations ranging from the routine to the highly complex and sophisticated. The firm offers clients the full range of legal services and has a particularly strong and long-standing presence in the energy, oil and gas, and infrastructure industries. It offers a full-service alternative energy and power practice, offering legal advice to domestic and international clients, financial institutions and government agencies.

Authors

Eduardo Alves Lima is a partner in the banking and finance practice. Eduardo represents financial institutions, multilateral organisations, equity sponsors, private equity houses and corporate clients in financing transactions, banking regulatory and related matters, including project financing (with experience in a wide range of infrastructure and energy transactions), acquisition financing, out-of-court restructurings, asset-based loans and structured trade finance. He has particular experience advising sponsors, lenders (including ECAs) and government agencies, on the commercial and financing aspects of the development, funding, restructuring, sale and purchase of energy and infrastructure assets.

Bruno Werneck counsels Brazilian and foreign clients on matters related to infrastructure, energy, mining, oil and gas projects and M&As. His experience includes joint ventures, project development, concessions and public-private partnerships (PPPs). Bruno also has substantial experience assisting clients in regulatory matters, project finance, and negotiation of tax incentives. He is frequently quoted in the press in matters related to infrastructure and has deep experience in cross-border deals, including with Asian investors.

Débora Yanasse is a partner in the energy and infrastructure practice. Débora represents clients in the power, oil and gas, and other infrastructure projects in transactional, litigation and arbitration matters in Brazil, Africa and the Middle East. Débora is widely recognised for her regulatory expertise in power and gas matters. She has been involved in high-profile mergers and acquisitions, privatisations, joint ventures, project development, project financing and arbitrations, and is a member of the Brazilian Institute of Energy Law (IBDE).

Bruno Salzano is a partner in the Infrastructure and M&A practice of Tauil & Chequer Advogados in association with Mayer Brown. He focuses on the Energy industry, acting on cross-border M&As, corporate restructurings, inbound and outbound investments and other cooperative ventures involving international and Brazilian companies in the industry. Bruno completed his master degree (LLM) at King's College London and worked as a foreign associate at Cravath, Swaine & Moore LLP. The partner is also post-graduated in management and administration at Fundação Getulio Vargas and completed an specialization in the energy sector at Associação Brasileira de Companhias de Energia Elétrica.

1. General Structure and Ownership of the Power Industry

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

Historically, the power facilities in Brazil have been controlled by state-owned companies. In the 1980s, Brazil made a political transition from a military dictatorship to a liberal democratic regime. In 1988, the Brazilian Federal Constitution was promulgated and it provides that the services related to power facilities may be undertaken directly by the federal government or indirectly through the granting of concessions, permissions or authorisations.

In the 1990s, in the context of a broader privatisation programme, the Brazilian government implemented a number of measures to increase private investment in the Brazilian power industry and, accordingly, three federal and 20 state-owned power generation and distribution companies were privatised.

In 1995, Law No 8,987, also known as the Concessions Law, established the general rules for concessions and permissions relating to public services, and Law No 9,074 introduced the concepts of independent power producers and free customers with open access rights to all distribution and transmission facilities.

In 1996, Law No 9,427 created the National Electricity Regulatory Agency (*Agência Nacional de Energia Elétrica*, or ANEEL), an independent federal regulatory agency that regulates and supervises the power industry in accordance with the policies set forth by the Ministry of Mines and Energy (*Ministério de Minas e Energia*, or MME).

In 1998, Law No 9,648 completed the legal framework for the development of a market-driven industry, as it established a regime of free power contracting among holders of concessions, permissions and authorisations of power services, as well as certain initial rules for the deverticalisation (unbundling) of power companies in the generation, transmission, distribution and trading segments. Such law also created the Power Wholesale Market (*Mercado Atacadista de Energia Elétrica*, or MAE), which was later replaced by CCEE, as defined below, and the National Electric Grid Operator (*Operador Nacional do Sistema Elétrico*, or ONS), a non-profit private entity that co-ordinates and regulates the power generation and transmission operations in the National Interconnected System (*Sistema Interligado Nacional*, or SIN) under ANEEL's regulation and supervision.

After a serious power shortage crisis in 2001, the federal government carried out an extensive reform of the power industry to further attract private investment in power generation, transmission and distribution facilities with the purpose of providing customers with a stable power supply at reasonable prices. Accordingly, Law No 10,848/2004, also known as the New Industry Model Law, created the free and regulated power contracting markets and the Electricity Trading Chamber (*Câmara de Comercialização de Energia Elétrica*, or CCEE), a non-profit private entity responsible for, among other things, registering, accounting for and clearing all energy sale and purchase transactions in the free and regulated markets; the Energy Research Company (*Empresa de Pesquisa Energética,* or EPE), a federal public company responsible for conducting strategic studies and research in the energy sector; and the Power Sector Monitoring Committee (*Comitê de Monitoramento do Setor Elétrico*, or CMSE), a committee of the executive branch responsible for monitoring power service conditions and recommending preventative measures to ensure power supply safety; as well as indicated new attributions to the National Energy Policy Council (*Conselho Nacional de Política Energética*, or CNPE), which provides advice to the president of the Republic of Brazil regarding the development and creation of national energy policies.

The New Industry Model Law completed the deverticalisation in the power industry by preventing the power distribution concessionaires from developing power generation and transmission activities, selling power to free customers, holding equity interests in other companies, and performing activities unrelated to the power distribution services.

The New Industry Model Law allowed the increase of private investors in the power industry, who currently own most of the power generation and distribution assets, and almost half of the power transmission assets, in Brazil.

In 2012, the Brazilian government enacted:

- Provisional Measure No 577, later converted into Law No 12,767/2012; and
- Provisional Measure No 579, later converted into Law No 12,783/2013, also known as the Concession Renewal Law.

Law No 12,783/2013 established the obligation of the granting authority to render power services in the event of a termination of a power concession, as well as new rules related to the intervention of the granting authority in power concessions to ensure adequate performance of utility services. The Concession Renewal Law established new rules that changed concessionaires' ability to renew concession agreements. Under this Law, generation and distribution concessionaires were allowed to renew their concession agreements that were in effect as of 1995, and transmission concessionaires were allowed to renew their concession agreements that were in effect prior to and as of 1995 for an additional period of 30 years, provided that the concessionaires agreed to amend their concession agreements to reflect the new tariff regime established by ANEEL.

In 2015, the Brazilian government enacted Provisional Measure No. 688/2015, later converted into Law No 13,203/2015, to revise the allocation of the hydrological risks borne by hydroelectric power plants that share hydrological risks under Energy Reallocation Mechanism (*Mecanismo de Realocação de Energia*, or MRE). In 2014 and 2015, given the poor hydrological conditions, the MRE participants generated less power than their assured energies, which was confirmed by a significant decrease of the Generating Scaling Factor (GSF), a measurement of the proportion between the power generated by the MRE participants and their respective assured energy. These generation deficits resulted in losses for the MRE participants given their exposure to hydrological risks. As a consequence, Law No 13,203/2015 established an optional mechanism that allows each generation plant to transfer these risks to final customers upon payment of a risk premium to the Brazilian government, as well as certain temporary extensions of generation concessions to compensate for losses during such period.

1.2 Principal State-owned or Investor-owned Entities

The principal federal state-owned power company in Brazil is *Centrais Elétricas Brasileiras SA* or Eletrobras, a holding company that controls the following power generation and transmission companies:

- *Amazonas Geração e Transmissão de Energia S.A.*;
- *Companhia de Geração Térmica de Energia Elétrica* – Eletrobras CGTEE;
- *Companhia Hidro Elétrica do São Francisco* – CHESF;
- *Centrais Elétricas do Norte do Brasil S.A.* – Eletronorte;
- *Eletrobras Termonuclear S.A.* – Eletronuclear;
- *Eletrosul Centrais Elétricas S.A.*;
- *Furnas Centrais Elétricas – Furnas*; and
- *Itaipu Binacional. Petróleo Brasileiro S.A.* – Petrobras, the federal state-owned oil and gas company in Brazil, also controls certain thermo-power generation assets.

Certain power generation and distribution companies are still under the control of the federal states, as follows:

- *Companhia Energética de Minas Gerais* – CEMIG, controlled by the State of Minas Gerais;
- *Companhia Paranaense de Energia* – COPEL, controlled by the State of Paraná;
- *Centrais Elétricas de Santa Catarina S.A.* – CELESC, controlled by the State of Santa Catarina;
- *Companhia Estadual de Energia Elétrica* – CEEE, controlled by the State of Rio Grande do Sul;
- *Companhia Energética de Brasília* – CEB, controlled by Distrito Federal; and
- EMAE – *Empresa Metropolitana de Águas e Energia S.A.*, controlled by the State of São Paulo.

The principal investor-owned companies in the generation segment are:

- Engie Brasil Energia S.A.;
- Energia Sustentável do Brasil S.A.;
- Santo Antonio Energia S.A.;
- China Three Gorges Brasil Energia Ltda.;
- AES Tietê Energia S.A.;
- Energias do Brasil S.A. – EDP Brasil;
- Neoenergia S.A.;
- CPFL Energia S.A. e CPFL Energias Renováveis S.A.;
- Enel Brasil S.A.;
- Companhia Energética de São Paulo – CESP;
- Light S.A.;
- Omega Geração S.A.; and
- Brookfield Energia Renovável S.A.

The principal investor-owned companies in the transmission segment are:

- Companhia de Transmissão de Energia Elétrica Paulista – CTEEP;
- Transmissora Aliança de Energia Elétrica S.A. – TAESA;
- State Grid Brazil Holding S.A.; and
- Alupar Investimentos S.A.

The principal investor-owned companies in the distribution segment are:

- Enel Brasil S.A.;
- CPFL Energia S.A.;
- Neoenergia S.A.;
- Grupo Energisa S.A.;
- Energias do Brasil S.A. – EDP Brasil;
- Equatorial Energia S.A.; and
- Light S.A.

1.3 Foreign Investment Review Process

The only restriction to private investment in the power industry – whether foreign or domestic – is in nuclear power generation, as the Brazilian Federal Constitution provides for the federal government's monopoly over such activity and does not provide for delegation of such activity through the granting of concessions, permissions or authorisations.

The Sixth Constitutional Amendment of 1995 revoked Article 171 of the Brazilian Federal Constitution, which provided for preferential treatment for companies controlled by Brazilians over companies directly or indirectly controlled by foreigners. Since then, equal and non-discriminatory treatment of companies, whether controlled by Brazilians or foreigners, is a constitutional principle.

There are certain restrictions to the acquisition or lease of rural lands by foreign companies or Brazilian companies directly or indirectly controlled by foreign companies, which

commonly impact power generation, transmission and distribution projects, but there are alternative legal structures that circumvent such restrictions, which have been accepted by lenders and stakeholders in the development of power projects in Brazil. There are also restrictions to the acquisition of lands within the country's border areas, but such a restriction is not usually relevant in the development of power projects in Brazil.

Finally, concessions, permissions and authorisations related to power activities must be granted to companies incorporated pursuant to Brazilian laws.

1.4 Principal Laws Governing the Sale of Power Industry Assets

The Concessions Law provides that the transfer of the concession or the control of the concessionaire is subject to prior approval of the competent authority, and the interested party must meet the requirements of technical and financial capacity, as well as legal and tax compliance, and must commit to comply with all the terms and conditions of the concession agreement.

ANEEL is the entity in charge of approving the transfer of concessions, permissions or authorisations or the change of control of companies that hold concessions, permissions or authorisations related to power activities.

As a general rule, the transfer of concessions, permissions or authorisations (asset deal) is subject to ANEEL's prior approval, while the change of control of companies (equity deal) in the power industry may or may not be subject to ANEEL's prior approval.

ANEEL Normative Resolution No 484/2012 provides for the rules applicable to change of control of companies in the power industry and, in summary, the change of control of the following companies is subject to prior approval by ANEEL:

- power generation, transmission and distribution companies that hold concessions and permissions; and
- hydro and nuclear power generation companies, whether holders of concessions or authorisations.

In accordance with the guidelines of the Concessions Law, ANEEL Normative Resolution No 484/2012 establishes that the potential purchaser must submit evidence to ANEEL with respect to its financial and technical capacity; legal, tax and regulatory compliance; and commitment to comply with the terms and conditions of the concession, permission or authorisation.

The change of control of oil, coal, gas, biogas, biomass, wind and solar power generation companies is usually not subject to prior approval by ANEEL, as these projects are mostly granted authorisations (and not concessions). Nevertheless, the purchaser has an obligation to inform ANEEL about the change of control within 30 days after implementation of the transaction, upon registration of the corporate documents with the competent board of trade.

1.5 Central Planning Authority

The central authority that oversees and administers the electricity supply and the development of transmission facilities to ensure the reliability of the electricity system and the adequacy of supply to satisfy the demand for electricity is ONS, which is a non-profit private entity comprised of generation, transmission, distribution, importation and exportation companies and free customers.

The primary role of ONS is to co-ordinate and regulate the generation and transmission operations in the SIN, subject to ANEEL's regulation and supervision.

ONS's main responsibilities include, among others:

- operational planning for the generation industry;
- organising the use of the SIN and international interconnections;
- ensuring that industry participants have access to the transmission network in a non-discriminatory manner;
- proposing plans to the MME for extensions of the SIN; and
- formulating regulations regarding the operation of the transmission system, subject to ANEEL's approval.

1.6 Recent Material Changes in Law or Regulation

There have been two recent material changes to regulation of the power industry:

- the first is that the requirement of minimum demand for consumers to purchase conventional or renewable energy in the free market has been reduced from 3 MW to 2.5 MW as of 1 July, 2019 and to 2 MW as of 1 January, 2020 pursuant to MME Ordinance No 514/2018. The federal government intends to continue gradually decreasing such requirement so that the majority of customers have the right to freely select their power suppliers by 2026; and
- the second is that the rules and procedures for imposition of penalties for legal and regulatory violations to companies in the power industry have been revised pursuant to ANEEL Normative Resolution No 846/2019. In general terms, penalties will be proportional to the economic capacity of the companies or groups, and certain penalties may be extended to affiliated companies.

1.7 Announcements Regarding New Policies

The federal government has announced that it intends to continue with the privatisation of certain power generation and transmission assets owned by Eletrobras, as well as the

privatisation of the holding company Eletrobras. Certain state governments also intend to privatise their power generation and distribution assets.

1.8 Unique Aspects of the Power Industry

Brazil has one of the cleanest energy matrices in the world as 60% of its power generation capacity is based on hydropower plants and 20% on wind, biomass and solar power plants. Investments in renewable energy will continue to flow in parallel with investments in gas-fuelled thermo power plants, which increase the stability and safety in the power supply.

Brazil is also a continental country that requires continuous investments in power transmission and distribution facilities.

With an increasing energy demand of 467 TWh, Brazil is in the top ten countries with the largest power demands in the world and only 30% of such demand is contracted in the free market (ie, 70% of the demand from customers is still supplied by the power distribution companies in the regulated market).

The cost of electricity in Brazil is higher than that of other developing countries, such as China, India, Mexico and Russia, especially due to taxes.

2. Market Structure, Supply and Pricing

2.1 Structure of the Wholesale Electricity Market

The Brazilian wholesale electricity market is under the so-called Regulated Contracting Market (*Ambiente de Contratação Regulada* or ACR), in which all power distribution companies mandatorily purchase 100% of the demand of their captive customers through public auctions defined by MME and carried out by ANEEL and CCEE. In these public reverse auctions, power generation companies compete to be awarded long-term power purchase agreements at the lowest electricity prices.

The Free Contracting Market (*Ambiente de Contratação Livre* or ACL), or free market, covers power sale and purchase transactions freely negotiated among generation companies, trading companies, export and import companies and free consumers.

The ACR and ACL were created in 2004 by the New Model Industry Law. The ACR has been primarily responsible for development of greenfield power generation projects, but recently the ACL has been gaining relevance as:

- the demand in the regulated market has reduced in the past years;
- the free market offers higher energy prices; and
- the Brazilian Development Bank (*Banco Nacional de Desenvolvimento Econômico e Social* or BNDES) and other lenders have been financing projects in the free market, including distributed generation projects.

Power generation companies have been building mixed portfolios of power purchase agreements both in the regulated and free markets to develop greenfield power generation projects.

2.2 Imports and Exports of Electricity

The importation or exportation of electricity is an activity subject to authorisation by the MME pursuant to MME Ordinance No 596/2011. Pursuant to Decree No 5,668/2006 and ANEEL Normative Resolution No 225/2006, electricity import and export transactions are subject to ANEEL's approval through the importation licence or exportation registry with the Foreign Trade Integrated System (*Registro de Exportação no Sistema Integrado do Comércio Exterior* or SISCOMEX).

In 2018, Brazil imported 1.1 GWh from Argentina and Uruguay, and exported an insignificant amount to Uruguay.

2.3 Supply Mix for the Entire Market

According to information available on ANEEL's website, the supply mix of electricity in Brazil is composed of the following principal sources, with corresponding rounded percentages based on installed capacity:

- hydro – 60%;
- wind – 9%;
- biomass – 8%;
- natural gas – 7%;
- oil – 5%;
- coal – 2%;
- solar – 1%; and
- nuclear – 1%.

2.4 Principal Laws Governing Market Concentration Limits

Law No 12,529/2011, also known as the Competition Law, provided for an institutional reorganisation of the Brazilian System for the Defence of Competition. Under this law, the Administrative Council for Economic Defence (*Conselho Administrativo de Defesa Econômica* or CADE), an independent agency reporting to the Ministry of Justice, is the authority with jurisdiction over the national territory responsible for investigating and deciding, ultimately, on competition issues.

Pursuant to Law No 12,529/2011, concentration acts (amalgamations, mergers, share or asset acquisitions, associations, consortia or joint ventures) must be submitted to CADE's prior approval if one of the groups involved in the transaction has an annual gross revenue equal to or greater than

BRL750 million and the other group involved in the transaction has an annual gross revenue equal to or greater than BRL75 million.

The electricity market is divided, according to the case law of CADE, into four distinct relevant markets:

- generation;
- transmission;
- distribution; and
- trading.

There are no concentration limits regarding percentage of market share in these segments of the power industry. In general terms, CADE understands that there is a "competition by the market" in the power transmission and distribution segments, where concessions are granted after a public bidding procedure with participation of Brazilian and foreign bidders.

2.5 Agency Conducting Surveillance to Detect Anti-competitive Behaviour

As mentioned above, CADE is the authority with jurisdiction over the national territory responsible for investigating and deciding, ultimately, on competition issues. ANEEL supports CADE's activities by analysing concentration acts and violations to competition laws by power companies pursuant to ANEEL Normative Resolution No 378/2009.

In the event of violation of competition laws, CADE may impose fines for an amount equivalent to 0.1% to 20% of the company's or group's gross revenues, as well as other penalties, such as the prohibition to enter into contracts with official financial institutions and to participate in public tenders for a five-year period, denial of payment by instalment of federal taxes and cancellation of tax incentives or public subsidies, the transfer of corporate control, sale of assets or partial suspension of activities. Furthermore, companies may be subject to prosecution in the civil sphere and individuals in the criminal sphere.

3. Climate Change Laws and Alternative Energy

3.1 Principal Climate Change Laws and/or Policies

Brazil ratified the United Nations Framework Convention on Climate Change in 1994, as well as the Kyoto Protocol, which was promulgated by Decree No 5,445/2005.

Law No 12,187/2009 introduced the National Policy on Climate Change, establishing Brazil's commitment to reducing its greenhouse gas emissions between 36.1% and 38.9% by 2020, based on emissions registered in 2005.

Following the 21st Paris Conference of the United Nations Framework Convention on Climate Change in 2015, Brazil's Nationally Determined Contribution (NDC) came into force in 2016, which provides for Brazil's commitment to reduce greenhouse gas emissions to 37% below 2005 levels by 2025, and 43% by 2030. Specifically, in relation to the power industry, Brazil has undertaken to reach the estimated participation of 45% of renewables in its energy mix by 2030, including:

- expanding the use of renewable energy sources other than hydro power in the total energy mix to between 28% and 33% by 2030;
- increasing the share of wind, biomass and solar in the power supply to at least 23%; and
- achieving 10% in power efficiency gains.

In 2018, Decree No 9,578 consolidated rules related to the National Fund of Climate Change, which financially supports studies and projects related to mitigation of climate change effects, and it updated the regulation on the National Policy on Climate Change, projecting to limit the national greenhouse gas emissions by the energy industry in 2020 to 868 million tonnes CO2e (in 2017, the emissions by the energy industry were approximately 430 million tonnes CO2e).

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

There are no laws and/or policies in Brazil requiring early retirement of carbon-based generation.

In fact, in the context of the opening of the gas market in Brazil, there are policies encouraging the development of new gas-fired thermo power plants to improve safety in the power supply towards the increasing power intermittency of wind and solar power generation.

Oil-fuelled thermo power plants have a higher operational cost compared to other sources available in Brazil and, recently, the federal government announced that it will recommend the replacement of oil by gas-fuelled thermo power plants to reduce the cost of electricity in the country.

Finally, coal-fuelled thermo power plants, which have the highest CO2 emission levels among carbon-based power plants, despite Brazil's technological developments to reduce such emissions, face significant resistance from environmental entities.

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

Brazil has implemented several programmes and incentives for the development of alternative energy sources in the past 20 years, including feed-in tariff programmes and alterna-

tive energy auctions, tax incentives, grid charge incentives, preferential financing, market reserve and net metering.

The 2002 Programme of Incentives for Alternative Electricity Sources (*Programa de Incentivo a Fontes Alternativas de Energia Elétrica* or PROINFA) has granted 20-year PPAs with Eletrobras to greenfield wind, small hydro and biomass power plants. In addition, from 2005 to 2019, tenths of public auctions exclusively directed to greenfield renewable energy projects have been promoted in Brazil.

In relation to grid charge incentives, pursuant to Law No 9,427/1996 and ANEEL Normative Resolution No 77/2004, as amended, solar, wind, biomass, qualified co-generation and small hydro power plants, subject to certain limits of power injection capacity, have the right to discounts from 50% to 100% over the transmission and distribution grid use tariffs (*Tarifas de Uso do Sistema de Distribuição e Transmissão*, TUSD and TUST). Such discounts are also applied to the purchasers of power generated by these qualified projects.

Law No 9,427/1996, as amended, also created the so-called 'special customers' who may migrate from the captive to the free market to purchase power from renewable sources only, provided that they have a minimum demand of 500 kW.

In addition, BNDES and Banco do Nordeste do Brasil, or BNB, provide long-term financing for renewable energy projects that meet local content requirements. Renewable energy projects have also been raising funds through the so-called infrastructure debentures introduced by Law No 12,431/2011, which establishes a set of tax and regulatory incentives for domestic and foreign investments in infrastructure projects.

There are also certain tax exemptions on the import and purchase of equipment for renewable energy projects at federal and state levels.

Furthermore, ANEEL Normative Resolution No 482/2012, as amended and currently under a review process by ANEEL, established net metering for captive consumers with renewable energy distributed generation projects up to 5 MW. Solar power distributed generation projects have been booming in Brazil in the past years based on this regulation.

4. Generation

4.1 Principal Laws Governing the Construction and Operation of Generation Facilities

Pursuant to Law No 9,074/1995 and the Concession Renewal Law, the construction and operation rights of power generation facilities may be granted through concessions or authorisations by MME or ANEEL depending on the source and size of the power plant. Both concessions and authorisations have a 35-year term for the concessionaire and authorised agent to act as an independent power producer or self-producer.

The construction and operation of large hydro power plants is subject to a concession, which is granted after a public bidding process. The construction and operation of small hydro, wind, solar, biomass and fossil fuel thermo power plants is subject to authorisation by MME or ANEEL. Power generation projects with installed capacity equal to or below 5 MW must simply be registered with ANEEL.

Environmental licences at federal or state level are also required for the construction and operation of power generation facilities, as well as certain construction and operation permits at local level. Depending on the project's characteristics, other permits may be required, such as a water-usage permit.

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

Hydro power generation concessions are usually granted after a public auction, where the winning bid criterion is the lowest power price, considering the payment of a fee for the use of a public good (*Uso do Bem Público* or UBP).

Authorisations for power generation facilities may be granted by ANEEL upon fulfilment of certain legal, technical and financial requirements pursuant to ANEEL Normative Resolutions No 395/1998 (small hydro), No 343/2008 (small hydro), No 390/2009 (thermo), No 391/2009 (wind), No 412/2010 (small hydro), No 673/2015 (small hydro), No 765/2017 (small hydro), and No 676/2015 (solar).

Authorisations are also automatically granted by MME to the winners of the new energy auctions. To participate in these auctions, the projects need to be technically qualified by EPE upon evidence of certain technical, environmental, real estate, grid connection and fuel supply (if applicable) conditions that confirm the project's feasibility.

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

Concession agreements provide for several obligations of concessionaires regarding the regularity, continuity, safety, efficiency and quality of the public services, as well as payment of the UBP, if applicable. Authorisation acts make reference to the obligation of authorised agents to comply with ANEEL Normative Resolution No 389/2009, which sets forth the rights and obligations of independent power producers and self-producers under authorisations.

Both the concession agreements and authorisation acts of greenfield projects establish the construction schedule with the dates for achieving intermediary milestones and the

dates for commencing the commissioning and commercial operation of the power plant and, specifically for thermo power plants that sell energy in the free market and are connected to the distribution grid, the authorisation acts indicate a 36-month term for commencing their commercial operation.

In relation to greenfield power generation projects that have sold energy in the regulated market, the concession agreements and authorisation acts also make reference to the performance bond that must be submitted by the concessionaire or authorised agent to ANEEL, usually for an amount equivalent to 5% of the project's CAPEX, to guarantee the timely implementation of the project pursuant to its approved construction schedule.

Concession agreements and authorisation acts also indicate the officially approved power output of the project, the so-called 'physical guarantee' (*garantia física*), which is the maximum amount of power that the concessionaire or authorised agent is entitled to sell to the market.

Non-compliance with the terms and conditions of the concession agreements and authorisation acts is subject to penalties imposed by ANEEL after an administrative proceeding. Depending on the seriousness of the violation, ANEEL may impose penalties of a warning; fine; suspension of works or activities; specific performance; temporary prohibition to participate in public auctions for new concessions, permissions or authorisations and to enter into contracts with ANEEL; revocation of the authorisation; intervention and forfeiture of the concession or permission.

4.4 Proponent's Eminent Domain, Condemnation or Expropriation Rights

If the proponent fails to reach an amicable agreement with landowners over compensation for the construction and operation of power generation facilities on their land, the proponent may request the issue of a Declaration of Public Utility (*Declaração de Utilidade Pública* or DUP) by ANEEL, pursuant to ANEEL Normative Resolution No 740/2016, which entitles the proponent to easement or expropriation rights over these lands. Based on the DUP, the proponent may judicially obtain injunctions against landowners to access their land, and the court will define the fair compensation due to landowners, usually based on market value.

4.5 Requirements for Decommissioning

Apart from certain environmental obligations applicable to decommissioning of nuclear power plants, there are no specific requirements for decommissioning of generation facilities in Brazil.

Power generation facilities under the concession regime must be reverted to the federal government upon compensation if the investment by the concessionaire has not been fully amortised. Power generation facilities under the authorisation regime may be freely disposed of by the authorised agent.

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

Pursuant to Law No 9,074/1995 and the Concession Renewal Law, the construction and operation rights of power transmission facilities may be granted through concessions followed by public auctions. MME and ANEEL define the transmission facilities to be auctioned, the cap for the annual revenue of each concession (*Receita Annual Permitida* or RAP) and the deadline for commencement of the commercial operation of such facilities, and then ANEEL promotes the reverse auction, where the winning bid criterion is the lowest RAP. The concessions have a 30-year term.

Environmental licences at federal or state level are also required for the construction and operation of power transmission facilities, as well as certain construction and operation permits at local level.

Power transmission facilities are composed of transmission lines, substations and other equipment with voltages equal to or higher than 230 kV. There are over 200 power transmission concessionaires, operating approximately 140,000 km of transmission lines in Brazil, and half of these facilities are still operated by Eletrobras.

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

The winning bidders must submit evidence of their legal, technical, economic-financial and tax qualification after the auction session. The winning bidders are also required to replace their bid bonds by performance bonds, for an amount equivalent to 5% of the project's CAPEX, to guarantee the timely implementation of the project in accordance with the construction schedule set forth in their concession agreements.

The process from the publication of the auction documents up to the signing of the concession contract usually takes four months.

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

Concession agreements provide for several obligations of concessionaires regarding the regularity, continuity, safety, efficiency and quality of public services provided, and establish the construction schedule with dates for achieving intermediary milestones and dates for commencing the commissioning and commercial operation of the power transmission facilities.

Power transmission concessionaires are subject to regulations established by ANEEL and the ONS's grid procedures, as well as the conditions defined in the concession contract and in the Transmission Service Agreement (*Contrato de Prestação de Serviços de Transmissão* or CPST) entered into by and between the concessionaire and ONS, which provides for the payment of the RAP based on the availability of the power transmission facilities. The RAP is supported by revenues arising from payments of the transmission tariff (TUST) by users of the transmission grid in accordance with Transmission Usage Agreements (*Contratos de Uso do Sistema de Transmissão* or CUST) entered into by and between ONS and such users.

5.1.4 Proponent's Eminent Domain, Condemnation or Expropriation Rights

Similarly, in relation to power generation facilities, if the proponent fails to reach an amicable agreement with landowners over compensation for the construction and operation of power transmission facilities on their land, the proponent may request the issue of the DUP by ANEEL, in accordance with ANEEL Normative Resolution No 740/2016, which entitles the proponent to easement or expropriation rights over the land. Based on the DUP, the proponent may judicially obtain injunctions against landowners to access the land, and the court will define the fair compensation due to landowners, usually based on market value.

5.1.5 Transmission Service Monopoly Rights

Power transmission concessionaires have an exclusive right to construct and operate the transmission facilities that are the object of their concession agreements. The construction of new facilities or the expansion of the capacity of existing facilities may be required by ONS, subject to the review of the RAP.

A concessionaire has no exclusive right within a specified geographical territory, but there is no competition among concessionaires, as central planning aims to define the most efficient routes for power transmission facilities and the RAP is not based on the amount of power transmitted by the concessionaires' transmission facilities, but on the availability of such facilities.

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 Concessions Law, Law No 9,074/1995, Law No 9,427/1996, Law No 9,648/1998, Law No 10,848/2004 and the Concession Renewal Law, all of which have previously been mentioned above, are the principal laws governing the provision of transmission services, as well as the transmission charges and terms of service.

5.2.2 Establishment of Transmission Charges and Terms of Service

As mentioned in **5.1.1 Principal Laws Governing the Construction and Operation of Transmission Facilities** above, the power transmission concessions are under a revenue cap regulation. These concessions may be divided into three categories, as follows:

- concessions granted prior to 1998: their RAP is adjusted annually based on the IPCA index, they were renewed for an additional 30 years in 2013 and have a tariff review every five years;
- concessions granted from 1999 to November 2006: their RAP is adjusted annually based on the IPCA or IGP-M indexes and is reduced by 50% in the 16th year of their commercial operation, they have a 30-year term and no tariff review; and
- concessions granted after November 2006: their RAP is adjusted annually based on the IPCA index, they have a 30-year term and three limited tariff reviews within five, ten and 15 years of the granting of the concessions, which only takes into account changes in the cost of capital.

ANEEL adopts the weighted average cost of capital (WACC) methodology to review the transmission tariffs.

In 2018 and 2019, the rate of return of transmission companies was 7.32% and 7.11%, respectively, as proposed by ANEEL.

The TUSTs are adjusted annually, simultaneously with the adjustment of the RAP. The adjusted TUSTs are valid from 1 July of the year in which they are published to 30 June of the subsequent year.

In general terms, in the periodic tariff review, ANEEL covers the recalculation of the cost of capital, efficiency gains in operation and maintenance of the facilities, and the revenues arising from other activities (so-called 'other revenues'). The tariff review process follows a procedure of public hearing, where the company, consumers and any other party may

submit contributions to ANEEL prior to definition of the new tariffs.

5.2.3 Open-access Transmission Service

Law No 9,074/1995, Decree No 2,655/1998 and ANEEL Resolution No 281/1999, as amended, provide for open-access rights to all power transmission facilities on a non-discriminatory basis for any power generator, distributor or consumer, subject to payment of the applicable transmission charges.

The transmission charges are divided into:

- connection charges that cover the costs incurred by the concessionaire in the construction and operation of the connection point of the user; and
- usage charges calculated based on the TUST and the capacity contracted by the user.

ONS is responsible for the procedure of access to the transmission facilities and it issues the access opinion followed by execution of the Transmission Usage and Connection Agreements (CUST and *Contrato de Conexão ao Sistema de Transmissão* or CCT).

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

Pursuant to Law No 9,074/1995 and the Concession Renewal Law, the construction and operation rights of power distribution facilities may be granted through concessions or permissions. The concessions and permissions have a 30-year term.

Environmental licences at state level are also required for the construction and operation of power distribution facilities, as well as certain construction and operation permits at local level.

Power distribution facilities are composed of distribution lines, substations and other equipment with voltages lower than 230 kV. There are 94 distribution companies in Brazil, composed of 56 concessionaires and 38 permissionaires. The permissionaires are mainly power distribution co-operatives in rural areas. Of the concessionaires, 46 out of 56 are controlled by private capital and the remaining ten are controlled by states and municipalities. In 2016, CELG Distribuição S.A., the distribution concessionaire in the State of Goiás, was privatised and sold to Enel, and in 2018, Eletrobras's six distribution concessionaires in the north and northeast regions were also privatised and sold to Energisa, Equatorial, Oliveira Energia and Atem.

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

The existing concessionaires and permissionaires have monopoly rights over the totality of the geographical territory of Brazil and they have the right and the obligation to construct and operate distribution facilities within their concession or permission areas.

6.1.3 Terms and Conditions Imposed in Approvals to Construct and Operate

Concession and permission agreements provide for several obligations of concessionaires and permissionaires regarding the regularity, continuity, safety, efficiency and quality of the public services provided, as well as the universalisation or accessibility rights of consumers, and the affordability of tariffs.

Power distribution concessionaires and permissionaires are subject to regulations established by ANEEL. The quality and continuity of the services is regulated by the Procedures for Distribution of Electricity in the National Electrical System (*Procedimentos de Distribuição de Energia Elétrica no Sistema Elétrico Nacional* or PRODIST) approved by ANEEL Normative Resolution No 794/2017. Interruptions in the power supply are assessed by two indicators called the DEC (*Duração Equivalente de Interrupção por Unidade Consumidora*) and FEC (*Frequência Equivalente de Interrupção por Unidade Consumidora*) that measure the duration and frequency of the interruptions, respectively.

ANEEL Resolution No 414/2010, as amended, establishes the directives related to the general conditions of the supply of power to consumers by distribution companies.

6.1.4 Proponent's Eminent Domain, Condemnation or Expropriation Rights

Similarly, in relation to power generation and transmission facilities, if the proponent fails to reach an amicable agreement with landowners over compensation for the construction and operation of power distribution facilities on their land, the proponent may request the issue of the DUP by ANEEL, in accordance with ANEEL Normative Resolution No 740/2016, which entitles the proponent to easement or expropriation rights over the land. Based on the DUP, the proponent may judicially obtain injunctions against landowners to access the land, and the court will define the fair compensation due to landowners, usually based on market value.

6.1.5 Distribution Service Monopoly Rights

The power distribution concessionaires and permissionaires have the exclusive right to construct and operate distribution facilities within a specified geographical territory. The concession or permission agreement indicates the areas subject to the concessionaire's or permissionaire's monopoly rights.

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

The Concessions Law, Law No 9,074/1995, Law No 9,427/1996, Law No 9,648/1998, Law No 10,848/2004 and the Concession Renewal Law, all of which have previously been mentioned above, are the principal laws governing the provision of distribution services, as well as the distribution charges and terms of service.

6.2.2 Establishment of Distribution Charges and Terms of Service

ANEEL adopts the weighted average cost of capital (WACC) methodology to review the distribution tariffs. The definition of remuneration base considers only the value of the assets which are effectively rendering services to the customers, compared to referential models established by ANEEL, specific for each company, which reflect the economic and geographic conditions of their respective concession or permission areas and the efficiency levels in services.

In 2018 and 2019, the rate of return of distribution companies was 8.09% as defined by ANEEL.

Power distribution tariffs are subject to adjustments and reviews as provided in the concession or permission agreements.

In the annual tariff adjustments, non-manageable costs are fully passed on to the consumers and manageable costs are adjusted in line with inflation, based on the IGP-M or IPCA index, reduced by a factor – the so-called X Factor – determined by ANEEL so that distribution companies can share the gains of productivity with their consumers.

Every four or five years, there is a periodic tariff review to ensure the necessary revenues to cover efficient operational costs and adequate compensation of investment. There is also the extraordinary tariff review, on a case-by-case basis, to compensate for unpredicted costs, including taxes and charges which significantly change the cost structure of the distribution company.

In the process of review of the tariffs, ANEEL takes into account the costs and the companies' markets, comparing them and other similar companies abroad, the company's efficiency, and the need for fairer tariffs and appropriate return to shareholders. The tariff review process follows a procedure of public hearing, where the company, consumers and any other party may submit contributions to ANEEL prior to definition of the new tariffs.

Tauil & Chequer Advogados in association with Mayer Brown

Aqwa Corporate Building
Av. Oscar Niemeyer 2000 – 15th floor
Rio de Janeiro, RJ,
Brazil
20220-297

TAUIL | CHEQUER
MAYER | BROWN

Tel: +55 21 2127 4210
Email: ELima@mayerbrown.com
Web: www.tauilchequer.com.br