

LATIN LAWYER REFERENCE ELECTRICITY PROJECTS & REGULATION 2019

Brazil

Fabiano Gallo and Flavia Cerutti
Campos Mello Advogados

AUGUST 2019

1 What are the principal power sources in your jurisdiction?

According to the Brazilian Electricity Regulatory Agency (ANEEL), the main power source in Brazil is hydroelectricity, which accounts for more than 108 million kW of generating capacity, corresponding to 63.98 per cent of the installed capacity of electricity.

Fossil fuels (that is, charcoal, natural gas, petroleum and other fossil fuels) are responsible for about 24.44 per cent of the installed capacity of electrical energy (approximately 41 million kW) and wind, solar, biomass and nuclear make up the rest.

2 What are the current trends affecting the energy mix in your jurisdiction?

- A Reform proposal of the power sector. At the beginning of 2019, the federal government announced its plan to submit by the end of the year a set of measures to modernise the regulation of the electricity sector and the Ministry of Mines and Energy (MME) has set up a work group for such purpose. The discussions will be based on the reform proposal released by the MME in 2018, which is still under discussion at the Federal Congress.
- B Possible changes in the rules applicable to the distributed generation market. Following the public consultation launched by ANEEL to re-evaluate the rules of distributed generation in Brazil at the end of 2018 the agency released a Regulatory Impact Analysis Report (RIAR) with its preliminary conclusions for the changes to be implemented in such rules, as well as promoted three public hearings at the beginning of 2019 to discuss with the consumers, distribution companies and players of the electricity sector the proposed amendments. The next step is the release of a draft of the new Normative Resolution that will amend the current rules. Such draft is expected to be released in the next months. In accordance with ANEEL's projections, by 2035 Brazil will reach almost 22 GW of energy being generated using net metering systems, which represents more than 150 per cent of the installed capacity of the Itaipu Binacional hydroelectric power plant (which is the second largest hydro power plant worldwide).
- C Solar and wind power generation. Brazil benefits from a large availability of solar radiation, with the north east region equalling the best regions of the world. It is estimated that photovoltaic solar energy will represent around 32 per cent of the Brazilian energy mix in 2040. Such expansion will require investments of approximately 313 billion reais over the next 10 years – 112 billion reais in generation only.

With regard to wind power, owing to Brazil's good natural conditions – with constant, intense and steady-direction winds that increase efficiency and generation capacity – such power source has been greatly expanded in recent years. According to EPE studies, an expansion of 125 per cent of wind power production is expected by 2026, when approximately 30 per cent of Brazilian energy will come from wind.

In June 2019, ANEEL promoted a renewable energy auction for the sale of electricity to distribution companies (see question 12 for further information on Brazilian electricity public auctions), by means of which 17.5TWh were contracted, which will be supplied by 15 plants, adding up 401.6MW of capacity to the system and requiring investments of 1.9 billion reais.

Projects of solar power, totalling 203.7MW of capacity, were awarded with 3.7TWh traded at an average price of BRL67.48/MWh (the lowest price ever for solar energy in Brazil). Three wind power projects, totalling 95.2MW of capacity, were also awarded with 2.7TWh.

3 What are the current forecasts for electricity demand in your jurisdiction?

In accordance with the EPE, the forecast for 2019 is that the amount of electricity consumed in the Brazilian National Interconnected System (SIN) should total 494.818GWh, representing growth of 3.71 when compared with 2018.

In addition, the demand forecasts for the next triennium (2020–2022) are the following:

Year	2020	2021	2022
Forecast (GWh)	513,324	533,080	554,424

4 Is there an open electricity market in your jurisdiction? Are any activities in the electricity market reserved for the government only? Are private entities allowed to build and operate power plants and transmission and distribution lines?

The Brazilian Federal Constitution provides that the generation, transmission and sale of energy may be undertaken directly by the Brazilian government or indirectly via concessions, permissions or authorisations.

With regard to the generation of energy, private entities are allowed to build and operate power plants upon the granting of an authorisation or a concession (depending on the power plant's generating capacity and source of energy).

With regard to transmission and distribution lines, considering that these services are considered as services of public nature, the private entities may only operate by means of concessions granted by the federal authorities.

5 What types of market participants may operate in the market? Must they provide payment guarantees to back their obligations in the market? What type of security is acceptable?

The market participants that operate in the Brazilian energy market are:

- Generation companies: The process of generation of electric energy is performed by the generation companies through plants from various sources (hydro, thermal, solar, wind, biomass). As a general rule, generation companies may sell energy both in the ACR and ACL.
- Transmission companies: The transmission companies are responsible for the transportation of electricity in high tension (from 138 kV to 500 kV) from the generation plants to the substations close to the consumer centres.
- Distribution companies: Responsible for the distribution/delivery of electricity to the final consumer. Distribution companies may buy energy in the ACR only.
- Traders: They purchase and sell energy through bilateral contracts executed in the free-market (ACL) in negotiations with generators, free consumers and other energy traders.

In the context of purchase and sale of electricity in the free-market, made by means of the Chamber of Electricity Commercialisation (CCEE), the agents have to provide certain financial guarantees, since the non-compliance of the obligations can affect the security of the operations in the short-term market. The constitution of financial guarantees is mandatory for the operation of the agent in the CCEE environment. The agents that fail to comply with such obligation are subject to an adjustment on the amount of energy in their registered PPAs registered before CCEE system.

In accordance with ANEEL's regulation, the following guarantees are accepted: (i) national currency; (ii) federal public securities; (iii) letter of guarantee; and (iv) quotas of off-market investment funds.

6 What is the role and function of the regulator? Would you describe the regulator as being independent?

The regulators of the Brazilian energy sector are the MME and ANEEL, which have the following roles:

- A MME. The MME is the main body in the government responsible for the regulation and supervision of the power industry. Following the New Industry Model Law, the Brazilian government, acting primarily through the MME, has assumed some of the authority previously undertaken by ANEEL (see below), such as the granting of concessions and issuance of guidelines regarding the bidding process for public services concessions.
- B ANEEL. The Brazilian power industry is also regulated by ANEEL, which is an independent federal regulatory agency and follows the policy dictated by the MME. ANEEL is also responsible for:
- managing concessions for electricity generation, transmission and distribution activities, including the approval of electricity tariffs;
 - supervising how services are provided by the concessionaries and imposing the applicable penalties if necessary;
 - enacting regulations for the power industry;
 - implementing and regulating the development of electricity sources, including the use of hydroelectric energy;
 - promoting the public bidding process for new concessions;
 - settling administrative disputes among agents of the power industry; and
 - defining the criteria and methodology for the determination of transmission and distribution tariffs.

The institutional framework of the Brazilian energy sector also comprises the following bodies: (i) the National Council for Energy Policy (CNPE); (ii) Operator of the National Electricity System (ONS); (iii) Chamber of Electricity Energy Commercialisation (CCEE); (iv) Energy Research Company (EPE); and (v) Energy Industry Monitoring Committee (CMSE).

7 Is there an open market for off-takers in your jurisdiction or are there restrictions on the sale of electricity?

The purchase and sale of energy in Brazil must be carried out in two markets: (i) regulated market (ACR), which is where purchase of energy by distribution companies through public energy auctions takes place; and (ii) free market (ACL), which is where the purchase of energy by non-regulated agents, such as free consumers and energy traders, takes place.

In addition to the above, there is also the short-term market, which is a market managed by the CCEE. It is the market place where the differences between the amount of energy that is physically produced and consumed and the energy set out in the contracts held by each participant (generators and consumers) are accounted for and settled.

8 If the sale of power is to a public utility as offtaker, are such entity's payment obligations backed-up or guaranteed by the government?

The payment of obligations is not backed-up or guaranteed by the government.

The granting of guarantees for the purchase and sale of energy shall be made in accordance with the rules set forth by the CCEE and by ANEEL.

9 Does the market have an independent system operator? If so, what are the ISO's tasks and duties?

The Brazilian system operator is the ONS, which is a non-profit organisation supervised by ANEEL that is in charge of coordinating and controlling the transmission grids.

The basic role of the ONS is to coordinate and monitor generation and transmission operations in the SIN, subject to regulation and supervision by ANEEL. Its institutional mission is to ensure users of the SIN of the continuity, quality and cost-efficient supply of electricity. It also proposes expansions of the network and reinforcement of existing systems to be considered in planning extensions of transmission systems as well as rules for operating transmission installations in the SIN grid, subject to approval by ANEEL.

10 How are electricity rates set and what cost components affect such rates?

A Consumer. ANEEL has the duty of fixing electricity rates to promote fair rates for both the public interest and economic-financial balance of the agents responsible for the energy services.

The rates fixed by ANEEL take into account the following:

- energy costs;
- transmission costs;
- distribution costs;
- energy sectors charges; and
- taxes.

The energy sector charges are part of the Brazilian government policy for the energy sector.

B Wholesale. The power purchase agreement executed between generators and free consumers or between free consumers and traders must be registered with the CCEE. The rates are freely negotiated between the parties.

11 What approvals are required to build and operate a power project? Are these easy to obtain? Please describe the salient features of the relevant licence conditions and the grounds for revocation. What levels of fines can be imposed for failure to comply?

The requirements to build electricity generation plants vary depending on the type of energy (hydro, wind, solar, thermic), the size of the plant (installed capacity) and the end users of the energy produced.

ANEEL is responsible for granting the authorisation, or a concession, for the construction and operation of the following types of power plants:

- Small hydro (hydro generation up to 30MW), thermo, co-generation and alternative sources (wind, solar and biomass) plants. Authorisation is granted by ANEEL under a simplified procedure. The procedures are set out in ANEEL Normative Resolution No. 343/2008, No. 390/2009, No. 391/2009 and No. 0235/2006.
- Hydro power plants. Concessions are granted by ANEEL under a bidding process. The procedures are set out in Decree No. 4,932/2003.

Authorisations grant rights to generate electricity for a specified period, which is usually 20 to 30 years. Concessions grant rights to generate electricity for a specified period, which is usually 35 years.

Generally speaking, the requirements for obtaining the authorisations or concessions are based on the technical, financial and legal capacities of the applicant.

Environmental licences are also needed, as they are a requirement for obtaining the authorisations or concessions for the construction and operation of generation power plants.

Under federal and state environmental laws and regulations, companies that use natural resources, operate facilities or perform activities with actual or potential polluting effects are required to obtain environmental licences to instal and operate their production facilities.

The process of obtaining an environmental licence follows three phases:

- Previous licence. The previous licence is granted during the preliminary phase of planning the enterprise or activity and approves its location, attests to the environmental feasibility and sets out the basic and conditioning requirements to be met during the subsequent phases of its implementation.
- Installation licence. The installation licence authorises the setting up of the enterprise or operation according to specifications in the approved plans, programmes and designs, including measures of environmental control and conditions.
- Operating licence. The operating licence authorises the operation of the activity or enterprise, after effective compliance with the installation licence and when the environmental control measures and conditions determined for the operation have been checked.

With regard to the operation of a power project, there are ongoing requirements that the authorised company must comply with, which are set out in the Authorisation Act and regulatory rules issued by ANEEL, and other governmental authorities.

In general terms, the Authorisation Act determines the schedule of implementation of the electricity generation plant, the output of the power plant and any benefits of the payment of regulatory rates.

Non-compliance with the Authorisation Act or any other rules imposed by ANEEL may result in the application of penalties by ANEEL inspectors, which may vary depending on the severity of the deviation.

The environmental licences usually determine the technical conditions to be met, such as the installation of equipment or the adoption of measures for environmental impact purposes. An environmental licence may be revoked in the event of non-compliance with the required conditions.

12 Is the government or the ISO conducting public auctions to award long-term power purchase agreements to public and private offtakers? Are the auctions open to any source of power, or are they focused on specific sources and technologies?

The organisation and the publication of official announcements of auctions are carried out by the ANEEL, in compliance with guidelines set by the MME, including the use of the lowest tariff criteria to determine the winner of the auction. Each generation company bidding in an auction executes an electricity purchase and sale agreement with each distribution company, in proportion to their estimated needs.

The power sector model foresees two main types of energy auctions:

- Regular new energy auctions, which contract an amount declared by the distribution companies in order to meet demand growth in the regulated market.
- Reserve energy auctions, which are used to contract supplementary energy to increase the system's reserve margin. Demand for reserve energy is entirely determined by the government following its own criteria of security of supply and energy policy, and the costs of these contracts are split among all consumers by means of a system charge.

While the energy contracted in regular energy auctions is essential to meet demand, and therefore must be backed up by a certain amount of firm generation (with a firm energy settlement), reserve energy contracts do not provide firm energy to the system and therefore may have more flexible terms.

Some bids specifically target alternative sources, such as wind, solar and biomass, but the bids generally allow for all sources to participate.

13 What percentage of the country's power output comes from renewable power sources and does your jurisdiction have any specific targets or milestones for renewable energy projects?

Brazil is a global leader in the generation of energy by renewable sources, with a matrix composed of approximately 80 per cent of renewable generation sources (63.96 per cent hydroelectric, 8.77 per cent biomass, 8.9 per cent wind, 1.24 per cent solar), with large potential for growth.

The Decennial Plan for Energy Expansion provides important guidance on the future strategy for the power sector, which is focused on the balance between economic growth projections and the necessary expansion of energy supply.

The plan forecasts the continued strong presence of renewable sources in the Brazilian energy matrix, which will be equal to 87 per cent in 2026.

14 Is there a different regulatory regime for renewable energy projects? Are there any government programmes that foster the development of these projects?

There is no different regulatory regime for renewable energy project. Due to Brazil's natural characteristics (topography, availability of solar radiations, strength of the winds), the country's energy matrix is already composed of approximately 80 per cent of renewable generation sources.

Currently, the Brazilian government is seeking the development of projects of alternative sources of energy (ie, sources with smaller environmental and social impact), such as solar and wind powers. For that purpose, the competent authorities may organise at their own discretion auctions in which only alternative source producers may participate.

15 Are there any tax incentives for power projects and, in particular, for renewable power projects?

Brazilian federal and state tax legislations provide for different tax incentives, which are applicable to the development of power projects, including those related to renewable sources of energy (ie, wind and solar power).

On the federal level, we highlight the Special Regime of Tax Exemption for the Infrastructure Development (REIDI), which is applicable to infrastructure projects, such as the construction of power plants (be it hydroelectric, thermal, wind or solar power plants) and transmission grids.

The REIDI regime grants the suspension of the social contributions for PIS and COFINS imposition over the local acquisitions and importation of machines, instruments, equipment, construction materials associated to the relevant infrastructure work. To enjoy such tax incentive, the project developer must present the envisaged power project before the MME, who may grant the suspension of the PIS and COFINS imposition for a period of up to five years.

On the State level, there are tax incentives that provide for state VAT (ICMS) exemption over transactions involving certain listed machinery and equipment, all of which related to the development of renewable power projects. There are also other ICMS tax incentives that aim at fostering the renewable power industry in Brazil, but are not specifically related to the construction or expansion of power plants in Brazil

In addition, Brazil has a policy mechanism that is similar to the feed-in tariff adopted in Europe. For the past 10 years, the Brazilian government has been holding yearly electricity energy auctions, as a way to foster investment in the energy sector. Some of these auctions specifically target alternative sources, such as wind and biomass, but there is generally room in the competition for all major sources to participate.

16 Are there any investment vehicles or structures that permit the maximisation of investment in a power company, such as tax equity, master limited partnerships, real estate investment trusts (REITs) or yield cost?

As a general rule, Brazilian law does not set forth different tax regimes for different corporate structures, being companies organised and existing under Brazilian law (limited liability companies or corporations) subject to the same tax treatment.

Nevertheless, investments made by foreigner investors in financial and capital markets in accordance with the Resolution No. 4,373/14 of the National Monetary Board (CMN) are subject to favourable income tax treatment. Specifically with regard to investments made by means of an equity investment fund (FIP), the income arising from investment in such funds and gains arising from the sale or amortisation of FIP quotas by non-resident investors that are not resident or domiciled in a favourable tax jurisdiction are currently taxed at zero per cent, provided the following requirements are met:

- the non-resident investor does not hold, individually or with related parties (as defined by applicable legislation), 40 per cent or more of all shares issued by the fund (shareholding test) or does not have the right to receive 40 per cent or more of the total income generated by the fund (economic test);
- the fund does not have in its portfolio, at any time, debt securities in an amount exceeding 5 per cent of its net worth, except if such securities correspond to convertible debentures, subscription warrants or public bonds;
- at least 67 per cent of the portfolio is composed of shares of corporations, debentures that are convertible into shares and subscription warrants (allowed assets); and
- the fund is compliant with additional portfolio requirements provided by Brazilian Securities Commission regulations, which currently require at least 90 per cent of FIP portfolios to be composed of allowed assets.

17 Are there any governmental subsidies, benefits (other than tax-related) or incentives for investment in power projects and, in particular, renewable power projects?

The Brazilian government is providing incentives for the development and use of renewable sources in the country, especially wind and solar sources. Incentives include:

A Discounts on the TUST and on the TUSD. These are:

- a 50 per cent discount on the TUST and on the TUSD to hydroelectric projects with power equal to or less than 5,000kW, or more than 5,000kW and less than or equal to 30,000 W, where the injection of power into the transmission or distribution systems is less than or equal to 30,000kW;
- a 50 per cent discount on the TUST and on the TUSD to solar, wind, biomass or qualified cogeneration projects where the injection of power into the transmission or distribution systems is less than or equal to 30,000kW;
- a 50 per cent discount on the TUST and on the TUSD to solar, wind, biomass or qualified cogeneration projects where the injection of power into the transmission or distribution systems is more than 30,000kW and less than or equal to 300,000kW that have won new energy auctions as from 1 January 2016 or that have been granted licences from 1 January 2016.

ANEEL has also granted an 80 per cent discount on the TUST and on the TUSD to solar projects that started operation from 31 December 2017 for the first 10 years, this being the 50 per cent discount applied from the eleventh year.

B Power system of compensation for microgeneration. This was established by ANEEL under the Normative Resolution No. 482/2012, which states that:

- end users may produce and supply energy to the network in which they are connected if they comply with the technical procedures established by ANEEL;
- end users may deduct the energy injected into the network from their own consumption, that is, only pay the distributors the difference between the consumption and the power injected into the network; and
- the energy projects must have a maximum output of 3MW for hydro projects and 5MW for qualified cogeneration projects.

C Special financing programmes. The National Bank for Economic and Social Development (BNDES) has a financing programme called FINAME Renewable Energy (FINAME Energia Renovável), which provides financing for the acquisition and sale of solar and wind power generation systems and solar heaters, including installation service and the working capital associated with the acquisition and installation of such equipment. Both companies and individuals are eligible to be granted with such financing.

Also, the National Bank of the Northeast (BNB) has a credit line called FNE Sun (FNE Sol), which was specially designed for the financing of systems for distributed generation/net metering systems. Companies, individuals and rural producers are eligible to be granted with such credit line.

Finally, other public banks (such as Bank of Brazil, the Federal Savings Bank, etc) and private banks have created specific credit lines for the financing of renewable power projects.

18 Are there any capital controls or other regulations in your jurisdiction that prevent investors from repatriating investments in a power project?

Brazilian law does not provide specific restrictions for repatriating investments in power projects. Such as foreign investments in other sectors, the investments made in power projects in Brazil can be repatriated provided that they comply with all Brazilian regulations (such as registration before the Brazilian Central Bank System).

19 Is there a market for emission reduction certificates or clean energy certificates in your jurisdiction?

Brazil is developing its clean energy certificates market. Since 2017, Brazil has been using the platform of the International REC Standard (I-REC), in order to assure that the Renewable Energy Certificates issued in Brazil comply with international standards. It is worth noting that the I-REC is a voluntary platform, not being regulated by public authorities.

20 Which renewable power sources have been most successful in your jurisdiction and what is the medium to long-term outlook for them?

Owing to Brazil's topography (many rivers with large gradients), the most successful renewable power source in Brazil is hydro power. According to the Brazilian Power Decennial Plan for 2026, Brazil has a potential for hydroelectric power generation of 111,624MW.

21 Are there any non-regulatory factors that affect the development and financing of power projects in your jurisdiction, such as social, environmental, political or security concerns or rights of third parties?

One of the main obstacles for the development of power projects specifically regarding renewable energy, is the location of power plants, which are far from the larger consumption centres, requiring huge investments in transmission and distribution capacities. Most of the potential for hydroelectric, wind and solar generation is located in the north and northeast of Brazil, while the largest cities such as São Paulo and Rio de Janeiro are in the southeast.

Another obstacle is the cost and time it takes to obtain the environmental licences required for the development of new power plants, especially new hydropower plants, considering the potential impact of such power plants with regard to deforestation of protected areas, relationship with local communities and existence of indigenous communities in areas that are affected by such power plants.

22 Are subsurface rights separate from land rights? If so, what factors must a project take into consideration in determining whether an owner of subsurface rights could create issues for a project?

Under Brazilian law, subsurface rights are separate from land rights. The Brazilian Constitution sets forth that land rights are of exclusive ownership of the Federal Union.

23 How are wheeling tariffs set and are there any differences based on the power source and technology used? Is there a postage-stamp wheeling tariff in your jurisdiction?

The Brazilian wheeling tariffs are the TUST and the TUSD, which are the tariffs charged by the transmission and distribution companies for the use of the grid. The applicable charge will depend if the generation facility is connected in the transmission or distribution system.

ANEEL is responsible for determining the calculation parameters for the TUSD and the TUST to be charged by the distribution and transmission companies, respectively.

Brazilian law sets forth that renewable energies are entitled to a discount on such charges. For more details on this matter, see question 16.

24 Are there any open access rules for transmission? If so, how is access determined? Are there private transmission lines to which open-access rules don't apply?

Brazilian law assures the right of any accessor to connect and make use of the Brazilian electric system. Such access shall be requested by means of an application, which shall be submitted to the ONS or to the transmission company or to the distribution company, as applicable, accompanied by data, preliminary studies of access, and information about the energy project that the applicant intends to connect to the grid.

The access to the grid must be requested from ONS or from the transmission company that enables physical access (if the generation company intends to connect to the basic network), or from the distribution company (if the generation company intends to connect to the distribution network or to any other transmission facilities).

The document that consolidates and establishes the conditions of access is the “opinion access” issued by the ONS, the transmission company or the distribution company, as the case may be.

The opinion access is one of the requirements for the issuance of the Authorisation Act by ANEEL.

25 Are cross-border power exchanges regulated?

Pursuant to Brazilian law, cross-border exchanges are subject to the authorisation of the MME.

The granting of such authorisation requires the presentation of documents and information of the interested trader to the MME, such as corporate documents, clearance certificates, financial statements, among others, as provided in the MME's rulings.

26 Are merchant power projects financeable in your jurisdiction?

In Brazil, the financing of merchant power projects is made by means of corporate financing.

27 What are the biggest obstacles in obtaining debt financing for renewable power projects?

Pursuant to the report prepared by the Brazilian Business Council for Sustainable Development (CEBDS), currently, these are the biggest obstacles to obtain debt financing for renewable power projects:

- A Subsidised credit and private credit. As an alternative to the capital market, credit from the BNDES presents lower rates, but it requires that the power plants are built using national equipment. However, the national equipment industry has not yet developed.
- B External borrowing. It has lower interest rate, but a very high exchange rate hedging cost (estimated 10–15 per cent), due to the volatility of the exchange rate in Brazil and the long term of the contracts.
- C High risk perception, which increases the return required by investors. Some technologies and processes are relatively new in Brazil (solar energy and new technologies such as energy storage and geothermal generation), which increases the risk perception of such investments. Other factors that impact this perception are that some of the players do not have long-term credit history and that there are effective risks in the connection and distribution procedures of the generated energy.

28 What are currently the most significant obstacles to the growth of the electricity market in your jurisdiction?

One of the most significant obstacles being faced by the Brazilian energy market is the legalisation of the market (which can be considered both political and regulatory). Such legalisation is a consequence of several regulatory changes made by the past government, which brought complexities to the hydropower sector.

A proposal addressing most of the legalisation issue was approved by the Chamber of the Representatives and have been submitted to the approval of the Senate. If approved, it will finally settle a controversy that has dragged on since 2015, allowing the renegotiation of more than 7 billion reais in accumulated debt by generation companies in the short-term market.

Market expectation is that the proposal will be approved and become effective in the second half of 2019.

Another obstacle is related to the structure of the free market (ACL) (therefore, market-related) and it can be divided in two main branches:

- Price formation: Much of the hardship of wholesale energy trading stems from the dysfunctionality of PLD, a short-term price made up of computational models. PLD is highly volatile and rarely comes close to electricity production costs or contract prices in longer terms.
- Payment and guarantee system: The Brazilian free energy market lacks a robust risk system in respect to payments and guarantees. The contracting takes place bilaterally and guarantees are freely agreed between the parties (ie, the free market guarantee system may not effectively cope the players' actual default risk).

29 What are the biggest growth areas in the electricity market in your jurisdiction?

The biggest growth areas in Brazilian power market are in solar and wind energy. Regarding solar power generation, in accordance with EPE studies, the country is expected to reach 25GW of installed capacity by 2030, through investments of more than 125 billion reais. Indicators also show that by 2040, 32 per cent of the Brazilian grid will be photovoltaic.

With regard to the wind power, according to EPE studies, an expansion of 125 per cent of wind power production is expected by 2026, when approximately 30 per cent of Brazilian energy will come from the wind source.

Also, the power transmission sector has shown great development since 2017. ANEEL has promoted five auctions since 2017, by means of which 67 transmission lines were auctioned, representing an investment of more than 34 billion reais.

30 Please describe any recent trends observed in your jurisdiction affecting the structuring of investments and financings in power projects.

Brazil has become an important investment destination for foreign investors, not only due to Brazil's great potential in renewable energy, but also due to the sale of energy assets of local groups facing financial distress.

Another recent investment trend is the financing rules of BNDES, which aim to stimulate that part of the funds required for the development of a power project are obtained by the players in the private financing market.

31 How actively involved are foreign and local development banks and multilateral agencies in the financing of power projects in your jurisdiction? Are there any non-traditional sources of financing available to project sponsors?

The power projects were traditionally backed by local development banks, such as the BNDES and the BNB, owing to their relatively smaller interest rates when compared to the interest rates offered by private banks.

With the recent gap narrowing between interest rates offered by public and private banks, new sources of financing have become popular, specially the issuance of infrastructure debentures (a debt security similar to a project bond). This new investment trend has emerged in the context of the Investment Partnership Programme (IPP), a comprehensive plan supported by the federal government that aims at a better integration between public and private sectors to foster investments in infrastructure.

The main goal of the issuance of infrastructure debentures is the raising of long-term funding at the beginning of a project's construction works, obviating the need for bridge loans, which increase the cost and bureaucracy of operations. It also supports the circulation of private capital, helping to revitalise the Brazilian economy, with stimulus to the secondary market of these securities.

In addition to BNDES and the Investment Fund of the Government Severance Indemnity Fund (FI-FGTS), private banks and other funding sources are participating in this new funding model, which requires qualified projects with rates of return that are sufficient for market funding conditions.

Remuneration to foreign investors (non-residents) on infrastructure debentures can qualify to tax exemptions provided that certain basic requirements are met.

32 Are debt offerings on the capital markets becoming a more common tool in your jurisdiction to refinance construction financing?

Debt offerings on the capital markets have not become a common source of refinance construction financing.

33 Are power purchase agreements in your jurisdiction denominated in local currency or US dollars?

The power purchase agreements are currently denominated in reais (Brazilian currency).

34 Are there regulatory limitations on foreign investment in, or control of, electric generation, transmission or distribution assets?

There are no restrictions on the foreign ownership of electricity companies or assets in Brazil, provided, however, that a regulated company (that is, the company with rights to generate, distribute or transmit energy) must be incorporated under Brazilian laws.

35 How active in your jurisdiction is the M&A market for power assets?

The power sector has received a great amount of foreign investments in recent years. In 2018, the Brazilian electricity sector recorded the third largest number of mergers and acquisitions in the past 20 years (55 transactions were carried out, 31 per cent more than in the previous year).

According to experts, the reasons for such increase are the investments of oil companies and large consumers of energy in search for a cleaner matrix, effects of regulatory changes in the sector, privatisations and divestments of state-owned electricity companies.

36 What are the most common dispute resolution mechanisms under local law-governed power purchase agreements in your jurisdiction?

In Brazil, the most common dispute resolution mechanism under local law-governed power purchase agreements is mediation or arbitration.



Fabiano Gallo

Campos Mello Advogados

Fabiano Gallo is a senior partner in Campos Mello Advogados corporate and energy practices, based in São Paulo.

He practises in different areas of law, with special emphasis in M&A, corporate, commercial contracts, foreign investment, energy and regulatory. He also serves as board member and secretary for companies of several industries.

Fabiano is frequently recognised as a leading lawyer in Brazil by clients and publications such as *Chambers and Partners*, *The Legal 500*, *IFLR1000*, *Leaders League* and *Best Lawyers*.

He authored several articles and publications relating to foreign investment in Brazil, M&A and energy projects.

Flavia Cerutti

Campos Mello Advogados

Flavia Cerutti is an associate Campos Mello Advogados corporate and energy practices, based in São Paulo.

Her experience is focused in corporate law, mergers and acquisitions, foreign investment and private equity, energy and infrastructure.

Before joining Campos Mello, Flavia was an associate in Veirano Advogados, being part of the corporate practice in São Paulo.



Founded by professionals with more than 35 years of legal practice, Campos Mello is a full-service business law firm serving Brazilian and international companies with a clear focus: to partner with clients in facilitating business.

With offices in Rio de Janeiro, São Paulo and New York, the firm operates throughout Brazil with the support of a team experienced in several industry sectors. As a result, it has been able to develop and offer creative, innovative and sound legal solutions in a tailor-made and result-oriented manner.

The client teams are assembled to match the size and focus of every business in which Campos Mello takes part. Further, the firm's relatively flat structure ensures that its partners can be in regular contact with clients, developing a profound knowledge of their business.

Tailored, high-quality services characterise Campos Mello's practice and are in large part responsible for its positive reputation in the market as well as long-time relationships with clients.

Team: Campos Mello currently has more than 100 lawyers who are graduates of leading Brazilian law schools. Many have obtained master's degrees abroad and worked at companies and law firms outside of Brazil, bringing their international experience to the firm's day-to-day activities.

Rua Lauro Müller, 116 – 25th floor
Condomínio do Edifício Rio Sul Center
Botafogo - Rio de Janeiro, RJ
22290-906 - Brazil
Tel: +55 (21) 3262 3000
Fax: +55 (21) 3262 3011

Fabiano Gallo
fabiano.gallo@cmalaw.com

Flavia Cerutti
flavia.cerutti@cmalaw.com

www.cmalaw.com