



The Legal 500 Country Comparative Guides

Brazil

ENERGY - OIL & GAS

Contributor

Pinheiro Neto Advogados



Marcelo V. de Moura

Partner | mvmoura@pn.com.br

Raphael Paciello

Partner | rpaciello@pn.com.br

Mauricio Andre Alves

Associate | malves@pn.com.br

Hugo Perez Gesualdo

Legal Assistant | hgesualdo@pn.com.br

This country-specific Q&A provides an overview of energy - oil & gas laws and regulations applicable in Brazil.

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BRAZIL

ENERGY - OIL & GAS



1. Does your jurisdiction have an established upstream oil and gas industry? What are the current production levels and what are the oil and gas reserve levels?

Pursuant to the Brazilian Petroleum and Gas Institute (the so-called IBP), Brazilian national oil production is expected to reach a total volume of around 5.2 million barrels per day by 2031, providing more than 400,000 jobs in the upstream segment alone on an annual average over the 2022-2031 period. Brazil is the current 9th largest oil producer in the world and the 8th biggest consumer. In 2023, September was the best month in terms of oil production, recording the daily crude oil production an average of 3,665 Mbbbl/d, and gas production, which registered an average of 144 MMm³/d. In terms of oil and gas reserve levels, Brazil has seen in 2022 the best results for oil reserves since 2014, with around 14.857 billion barrels, and the best results for gas reserves since 2015, with impressive 406,5 billion m³.

2. How are rights to explore and exploit oil and gas resources granted? Please provide a brief overview of the structure of the regulatory regime for upstream oil and gas. Is the regime the same for both onshore and offshore?

In Brazil, the subsoil is a property of the Federal Government, as are the mineral resources it contains. In the case of oil and natural gas, exploration can be carried out by state-owned or private companies through public tenders – the so-called bidding rounds, held by the National Petroleum, Natural Gas and Biofuels Agency (the so-called ANP) – under the concession or production sharing regimes, or through total or partial assignment of contracts from other companies.

The ANP carries out the studies and indicates the areas that will be offered in the bidding rounds in accordance with the national energy policy and based on the

guidelines of the National Energy Policy Council (CNPE).

Companies interested in one of the areas on offer can register to take part in the rounds and, if their registration is approved, they can bid in the auctions. If it submits the winning bid, in accordance with the criteria set out in the notice, and pays the signature bonus, the company (or consortium, as the case may be) can sign the contract that will give it the right to carry out studies in search of oil and natural gas in the area won, assuming the exploration risk.

Concession and Sharing Regime:

Since 2010, Brazil has had a mixed regulatory regime, with areas located within the Pre-salt Polygon or in strategic areas being tendered under the sharing regime and the others under the concession regime. In the latter, if oil and/or natural gas is discovered, the company (or consortium) will have the right to market its production, paying the appropriate government participation (royalties and special participations). Under the sharing regime, production is divided between the company (or consortium) and the Federal Government, minus operating costs.

The permanent offer of areas:

Consists of the continuous offer of exploration blocks and areas with marginal accumulations. In this format, there is a continuous offer of exploration blocks and areas with marginal accumulations located in any onshore or offshore basins.

Assignment of Contracts:

Another way for companies to acquire a stake in exploration blocks or producing fields is through the transfer, in whole or in part, of oil and natural gas exploration and production contracts.

3. What are the key features of the licence/production sharing

contract/concession/other pursuant to which oil and gas companies undertake oil and gas exploration and exploitation?

Contracts for the exploration and production of oil and natural gas are two-phase, covering the exploration and production stages. In the exploration phase, the companies conduct studies in the areas acquired, such as seismic surveys and well drilling, with the aim of identifying possible deposits of oil and/or natural gas.

If no discoveries are made, the company has the option, at its discretion, of returning the area to the National Agency for Petroleum, Natural Gas and Biofuels (ANP), which can re-bid it at a later date. If there is a discovery, the company must assess whether it considers it commercially viable.

If so, it issues a “declaration of commerciality” and submits a development plan to the ANP. If the assessment is negative, the company can choose to continue exploiting the area (within the period stipulated in the public notice) or return it, in whole or in part, to the ANP, ensuring compliance with the mandatory minimum investments stipulated in the contract.

Once the development plan has been approved, the area delimited by the company becomes a producing field, and the contract moves on to the production phase, which unfolds in two distinct stages. The first is the production development phase, in which the companies prepare all the necessary infrastructure to enable production in the field.

Finally, there is the actual production phase, in which operators actually extract oil and/or natural gas. This stage represents the longest phase in the entire life cycle of an oil field, and can last for decades, depending on the field's production capacity.

4. Are there any unconventional hydrocarbon resources (such as shale gas) being exploited and is there a separate regulatory regime for unconventional?

Although there is still no specific legislation regulating shale and other unconventional forms of hydrocarbons in Brazil, ANP Resolution 896 of November 18, 2022 classifies hydrocarbons obtained from refining well oil or shale oil and recoverable fractions of natural gas as basic derivatives.

Shale is a sedimentary rock rich in organic matter (kerogen). When subjected to high temperatures, it decomposes into oil, water, gas and a solid residue

containing carbon. Through its transformation, it is possible to produce a series of by-products that can be used by the most diverse industrial segments. In November 2022, Petrobras completed the sale of the Shale Industrialization Unit (SIX) to Forbes & Manhattan Resources Inc. The shale industrialization unit was renamed Paraná Xisto S/A. In 2022, the volume of crude shale processed was just over 1.4 million tons, 10.4% higher than in 2021.

The following energy derivatives are obtained from the transformation of shale: shale gas, LPG and fuel oil. Naphtha and other non-energy derivatives are also produced. Naphtha is sold to the refinery of Paraná - Repar, where it is incorporated into the refinery's production of derivatives. Production of shale gas in 2022 amounted 36,900 tons, an increase of 23% compared to 2021. The volume of LPG obtained from shale processing fell by 7.5% to approximately 8,200 m3. The volume of fuel oil fell by 3.9% compared to the previous year, totalling almost 155,000 m3. As for non-energy products, naphtha production rose by 0.6% to 28,400 m3. There was no production of other non-energy derivatives in 2022.

5. Who are the key regulators for the upstream oil and gas industry?

The Brazilian upstream oil and gas industry has several important agents. At the government level, the most important institution is the Ministry of Mines and Energy - MME, an agency of the federal administration, which aims to create and ensure the practice of public policies related to the sustainable use of energy and mineral resources in the country. Also, the National Council of Energy Policy - CNPE works as an advisory body to the President of the Republic, for the formulation of energy policies and guidelines. At last, The National Petroleum, Natural Gas and Biofuels Agency - ANP, created by Law No. 9.478/97, is an entity that is part of the Federal Public Administration, subject to a special autarkic regime, linked to the MME, with an indefinite term of duration, with headquarters and jurisdiction in the Federal District and Offices. Its purpose is to regulate, contract and supervise the economic activities of the oil industry, in accordance with the legislation, the guidelines issued by the CNPE and the interests of the country.

6. Is the government directly involved in the upstream oil and gas industry? Is there a government-owned oil and gas company?

Brazil has a significant government involvement in the

upstream oil and gas industry. *Petróleo Brasileiro S.A. – Petrobras* is a major Brazilian multinational corporation, in which the Federal Government is the controlling shareholder, that operates in the energy, oil, and gas sectors. While Petrobras is a publicly traded company, the Brazilian government has historically held a controlling stake in the company. Another example is *Pré-Sal Petróleo S.A. – PPSA*, that is a public company totally controlled by the Federal Government and part of those contract subject to the production sharing regime.

7. Are there any special requirements for or restrictions on participation in the upstream oil and gas industry by foreign oil and gas companies?

Although there are, usually, no specific restrictions for investors to operate or promote foreign ventures in Brazil, some formal requirements must be met (such as obtaining a tax enrolment number –CNPJ, having an account in Brazil, having a representative in the country, etc.). Also, the foreign companies are not prevented from fully controlling its local Brazilian subsidiaries. Foreign companies wishing to take part in public tenders must set up a legal representative in the country for the execution of the contracts.

8. What are the key features of the environmental and health and safety regime that applies to upstream oil and gas activities?

From an environmental perspective, several licenses are required, in particular: (i) prior environmental licenses (*Licença Ambiental Prévia* –LP); (ii) environmental installation license (*Licença Ambiental de Instalação* –LI); and (iii) environmental operation license (*Licença Ambiental de Operação* –LO). In specific cases it is possible to have a simplified environmental license.

In cases of activities considered as potentially polluting, in turn, prior licensing must be obtained before the competent environmental agency. Article 10 of Law No. 6938/81 requires the issuance of environmental licenses to assure the feasibility of potentially pollutant activities. The criteria for environmental licensing is defined and regulated by the National Council of the Environment – CONAMA.

Companies must maintain compliance with the legal and technical requirements set forth in these environmental licenses, as well as keep its activities within the licensed production limits/capacity, so as not to incur in administrative penalties.

9. How does the government derive value from oil and gas resources (royalties/production sharing/taxes)? Are there any special tax deductions or incentives offered?

A: The Federal Government derives value from oil and gas resources in several ways, including (a) royalties; (b) taxes; (c) signature bonus; (d) special participation; and (e)

(a) Royalties are financial compensation owed to the Federal Government, the states, the Federal District, and the beneficiary municipalities by companies that produce oil and natural gas in Brazilian territory: a payment to society for the exploitation of these non-renewable resources. Royalties are levied on the value of the field's production and are paid monthly by the concessionaires by the last day of the month following the month in which production took place; (b) Companies that export Brazilian oil must typically pay 9.2% on the value of the oil exported. In the case of international companies present in the country, this represents an additional tax of 9.2% on the entire value of production, since they export all the oil they produce; (c) Signature bonus is the amount paid by the concessionaire that wins the bidding process for exploration fields, when the contract is signed, to obtain permission to carry out exploration and exploitation activities in a given area (onshore or offshore). Its minimum value is set by ANP in the bidding notice, on a case by case basis; (d) Special participations are only paid to oil and gas producing fields with a large volume of production or high profitability. The special participation is distributed between the Ministry of Mines and Energy (40%), the Ministry of the Environment (10%) and producing states and municipalities or those bordering the continental shelf where production takes place (10% for the states and 10% for the municipalities); and (e) payment for occupation or retention of area is due in the case of onshore blocks.

Transfer of royalties and so-called special participations from the major producing fields amounted to R\$117.9 billion in 2022.

10. Are there any restrictions on export, local content obligations or domestic supply obligations?

Brazil has historically used local demand in its oil and gas sector as a way to encourage domestic industry development and ensure that a certain percentage of the value of production stays in the country.

These provisions are usually defined in contracts, production sharing agreements, or specific regulations of the relevant authorities, such as the Brazilian National Agency for Petroleum, Natural Gas and Biofuels (ANP) and Ministry of Mines and Energy provides.

During the entire duration of the contract, it is imperative that the contractor adheres to the stipulated local content requirements outlined in the respective agreement. The contractor is expected to fully comply with and meet the specifications set forth in the contract pertaining to local content.

11. Does the regulatory regime include any specific decommissioning obligations?

The regulatory regime approaches specific decommissioning obligations by means of the ANP Resolution No. 817, of April 24, 2020, that regulates on the decommissioning of oil and natural gas exploration and production facilities.

Decommissioning responsibilities encompass the removal of all assets from the field, with exceptions subject to specific conditions. Additionally, the operator is obliged to indemnify any damages resulting from their activities, facilitate the environmental recovery of the area, and oversee the monitoring of assets permitted to remain in the field.

Approval for the decommissioning plan is mandatory and must be obtained from ANP.

12. What is the regulatory regime that applies to the construction and operation of offshore and onshore oil and gas pipelines?

According to Law No. 14,134/2021, the construction and operation of both offshore and onshore gas pipelines for transporting natural gas from offshore Exploration and Production (EP) units to natural gas processing plants are contingent upon obtaining authorization from ANP.

By means of Resolution No. 35/12, ANP made it possible to the use, by interested third parties of transportation pipelines intended for the movement of oil, its derivatives, and biofuels, existing or to be built, for an appropriate fee to the owner of the facilities. Free access to facilities classified as transportation, established in article 58 of Law No. 9,478/1997, was regulated by the ANP through ANP Resolutions No. 35/2012, 15/2014, 11/2016, 716/2018 and 881/2022, as well as by Law No. 14,134/2021.

Transfer is the dynamic movement of oil, its derivatives, biofuels, or natural gas, taking place in a means or route designated as the exclusive interest of the owner or operator of the facilities, as established by Law 12.490/2011.

Transport refers to the fluid movement of oil, its derivatives, biofuels, or natural gas, in a medium or route considered to be in the public interest, as defined by Law No. 12,490/2011.

In 2022, Brazil had 589 pipelines for moving oil, oil products, natural gas and ethanol, totalling 20,200 km. Of these, 183 pipelines (14.4 thousand km) were for transportation and 406 (5.8 thousand km) for transfer. There were 113 pipelines for moving natural gas, covering 11,600 km.

For oil products, there were 416 pipelines, totalling 5.9 thousand km. There were 30 pipelines – totalling 2.3 thousand km – that were used to move oil. And the remaining 450 km, made up of another 30 pipelines, were reserved for moving ethanol.

13. What is the regulatory regime that applies to LNG liquefaction and LNG receiving terminals? Are there any such terminals in your jurisdiction?

The LNG and LNG receiving terminals are regulated by the Law No. 14,134 from 2021.

By mid-2023, Brazil had five regasification terminals: in Guanabara Bay and Açú Port, in Rio de Janeiro; in Pecém Port, in Ceará; in Sergipe Port; and in Todos os Santos Bay, in Bahia.

These terminals allow cooled natural gas to be imported by sea and condensed into liquid to facilitate transportation. The units store LNG and convert it into gas ready for use.

14. What is the regulatory regime that applies to gas storage (not LNG)? Are there any gas storage facilities in your jurisdiction?

In Brazil, gas storage is regulated by Law 14,134/21. It provides for the end of the concession regime for Underground Storage of Natural Gas (“ESGN”), with the authorization regime being adopted for any area where the activity is developed. It also established that third parties have the right to access ESGN facilities, pending regulation by the ANP.

Furthermore, a noteworthy development unfolded in 2023, marked by the issuance of the inaugural ESGN authorization under the auspices of the New Gas Law. The recipient of this authorization is an energy integration company, with operational footprints extending across the upstream, midstream, and power generation sectors. The company is poised to actualize a storage project in the Pilar field situated in Alagoas, drawing guidance from ANP Resolution 17/15. This signifies a paradigm shift in the governance and execution of ESGN activities, underscoring the dynamism introduced by the legislative framework and the tangible advancements taking shape within the sector.

Although there is no underground natural gas storage installations in Brazil, ANP this year approved the start of studies into the underground storage of natural gas. According to the regulator, the studies will serve as a subsidy for granting authorizations to regulated companies interested in the activity.

15. Is there a gas transmission and distribution system in your jurisdiction? How is gas distribution and transmission infrastructure owned and regulated? Is there a third party access regime?

In 2022, Brazil had 113 pipelines, covering 11,600 km, for the transportation of natural gas. Of these, 63 pipelines, totalling 2,257 km, were for transfer and 50, totalling 9,306 km, were for transport.

The gas transmission system is owned and operated by private enterprises, holding authorization from ANP, as stipulated in Law No. 14,134/2021. All the capacity of the gas transmission system is open to third parties; therefore, as per the mentioned law, the operator is prohibited from engaging in gas trading.

It's noteworthy that in Brazil, each state has its own legislation governing the provision of gas distribution network services.

Interested third parties have free access to transport pipelines and waterway terminals intended for the movement of oil, its derivatives and natural gas, whether existing or to be built, for adequate remuneration to the owner of the facilities. Free access to facilities classified as transport (q.v.), established in article 58 of Law 9.478/1997, was regulated by the ANP through ANP Resolutions 35/2012, 15/2014, 11/2016, 716/2018 and 881/2022, as well as by Law 14.134/2021.

16. Is there a competitive and privatised downstream gas market or is gas supplied to end-customers by one or more incumbent/government-owned suppliers? Can customers choose their supplier?

In a landmark move for Brazil's natural gas sector, the New Gas Law, officially designated as Law No. 14,134/2021, was enacted in April 2021. This legislative stride is strategically designed to catalyse the growth of the natural gas industry in the country, fostering heightened competition and ushering in a sweeping liberalization of the market.

Working in tandem with a suite of complementary measures implemented by the Federal Government, the New Gas Law aims to orchestrate a fundamental shift from a historically monopolistic model to a vibrant, competitive, and dynamic market. The overarching objectives include facilitating price reductions, enticing fresh investments, enhancing infrastructure accessibility, and propelling the development of pre-salt gas production.

Under the provisions of the New Gas Law, significant consumers of natural gas (free consumers), as well as gas distribution and trading companies, now enjoy the freedom to procure natural gas from any ANP-authorized agent acting as a natural gas trader. This encompassing approach embraces distribution companies, allowing for increased flexibility and choice in the procurement process, thereby contributing to a more agile and diversified market landscape.

17. How is the downstream gas market regulated?

The New Gas Law plays a pivotal role in dismantling the historical monopoly in Brazil's downstream gas sector. By promoting an open and competitive market, the legislation allows for increased participation from private enterprises, facilitating a more diverse and dynamic gas industry.

Under the new regulatory framework, any entity seeking to operate as a natural gas trader must obtain authorization from the National Agency of Petroleum, Natural Gas, and Biofuels (ANP). This requirement ensures that market participants adhere to standardized guidelines and operate within a transparent and regulated environment.

As per the provisions outlined in the Federal Constitution, the regulation of the downstream gas market falls within the purview of the states.

18. Have there been any significant recent changes in government policy and regulation in relation to the oil and gas industry?

Recent and pivotal shifts in government policy and regulation have reshaped the landscape of the oil and gas industry. Notably, the enactment of Law No. 14,134/2021, also recognized as the New Gas Law, has marked a significant turning point. This legislative initiative is strategically designed to propel the natural gas sector in Brazil forward, fostering heightened competition and paving the way for a comprehensive market expansion.

Beside the Law No. 14,134/2021, Brazilian legal scenario is waiting for two important frameworks, being them the regulation of Green Hydrogen and the Offshore Wind Energy. Both of them are still being debated at congress.

19. What key challenges have been identified by the government and/or industry in relation to your jurisdiction's oil and gas industry? In this context, for example, has the Russia/Ukraine war had an impact on the oil and gas industry and if so, how has the government and/or industry responded to it?

Considering the international scenario, the key challenges for the Brazilian government and the oil and gas industry are to manage the internal prices of oil and gas, considering the highs and lows on the world scale, mostly because of the reverberation of the Russia-Ukraine war, and to try to adapt to the energy transition that our planet is demanding. That being said, one of the most relevant topics, is trying to regulate and establish a solid legal certainty concerning the green hydrogen production, considering that Brazil is a country of extreme potential in this area. Also, and in the same sense of following the global tendency of carbon reduction, the importance of establishing the legal framework for the offshore wind energy.

20. Are there any policies or regulatory requirements relating to the oil and gas industry which reflect/implement the global trend towards the low-carbon energy transition? In particular, are there any (i) requirements for the oil and gas industry to reduce their carbon impact;

and/or (ii) strategies or proposals relating to (a) the production of hydrogen; or (b) the development of carbon capture and storage facilities?

Environmental stewardship is deeply ingrained in Brazil's international identity and is explicitly enshrined in the country's Constitution. Presently, a robust array of legal instruments and legislations underscores Brazil's commitment to environmental protection, facilitating a gradual and secure transition toward sustainable energy practices.

Highlighted below are some key Brazilian normative acts, laws, and programs that exemplify the nation's dedication to environmental sustainability:

National Policy for the Production and Use of Biodiesel (PNPB):

The PNPB, an inter-ministerial initiative of the Brazilian Federal Government, is dedicated to the sustainable implementation of biodiesel production and usage. Emphasizing both technical and economic aspects, the program focuses on productive inclusion and sustainable rural development, fostering employment and income generation.

RenovaBio:

Enacted through Law No. 13,576/2017, RenovaBio stands as the National Biofuels Policy. This policy serves multiple objectives, including contributing significantly to Brazil's commitments under the Paris Agreement, promoting the expansion of biofuels in the national energy matrix, ensuring fuel supply regularity, and enhancing energy efficiency while reducing greenhouse gas emissions throughout the biofuel production, commercialization, and utilization processes.

Program for Development in Renewable Energy and Energy Efficiency in Federal Education Institutions (Energif):

Initiated by the Ministry of Education, Energif is a program that actively promotes professional training geared towards the energy transition. It achieves this by organizing workshops, courses, and initiatives at Brazilian universities on a federal level.

Climate Fund:

Administered by the National Bank for Economic and Social Development (BNDES), the Climate Fund supports investments in local generation and distribution of renewable energy. Its scope extends to technological development and the entire production chain within the

renewable energy sector.

Growth Acceleration Program (PAC):

PAC, a federal government investment plan, has the overarching goal of ensuring that 80% of additional electricity capacity in Brazil is derived from renewable sources. This ambitious target aligns with Brazil's commitment to sustainable energy practices.

National Hydrogen Plan (PNH2):

The PNH2 has been established to drive the development of the hydrogen economy in Brazil, positioning the nation at the forefront of advancements in this critical field.

These legislative measures collectively demonstrate Brazil's proactive stance in fostering environmental

sustainability and embracing a comprehensive energy transition strategy.

Green Hydrogen:

Brazil is yet to approve a legal framework for green hydrogen projects. Although there are a couple of Bills of Laws concerning the matter, they are still on preliminary analysis at the Chamber of Representatives and Senate. They are: (i) the Bill of Law number 1.878/22 – which aims to create a policy to regulate the production and usage of energy ends of green hydrogen; (ii) No. 1.880/22 – responsible for the creation of programs to encourage the large-scale production of fuel cells; (iii) No. 2308/23 which includes green hydrogen and hydrogen fuel in the National Energy Policy; and (iv) No. 725/22 – that foresee the establishment of incentive parameters to the usage of sustainable green hydrogen.

Contributors

Marcelo V. de Moura
Partner

mvmoura@pn.com.br



Raphael Paciello
Partner

rpaciello@pn.com.br



Mauricio Andre Alves
Associate

malves@pn.com.br



Hugo Perez Gesualdo
Legal Assistant

hgesualdo@pn.com.br

