GETTING THE DEAL THROUGH

Climate Regulation

in 17 jurisdictions worldwide

2014

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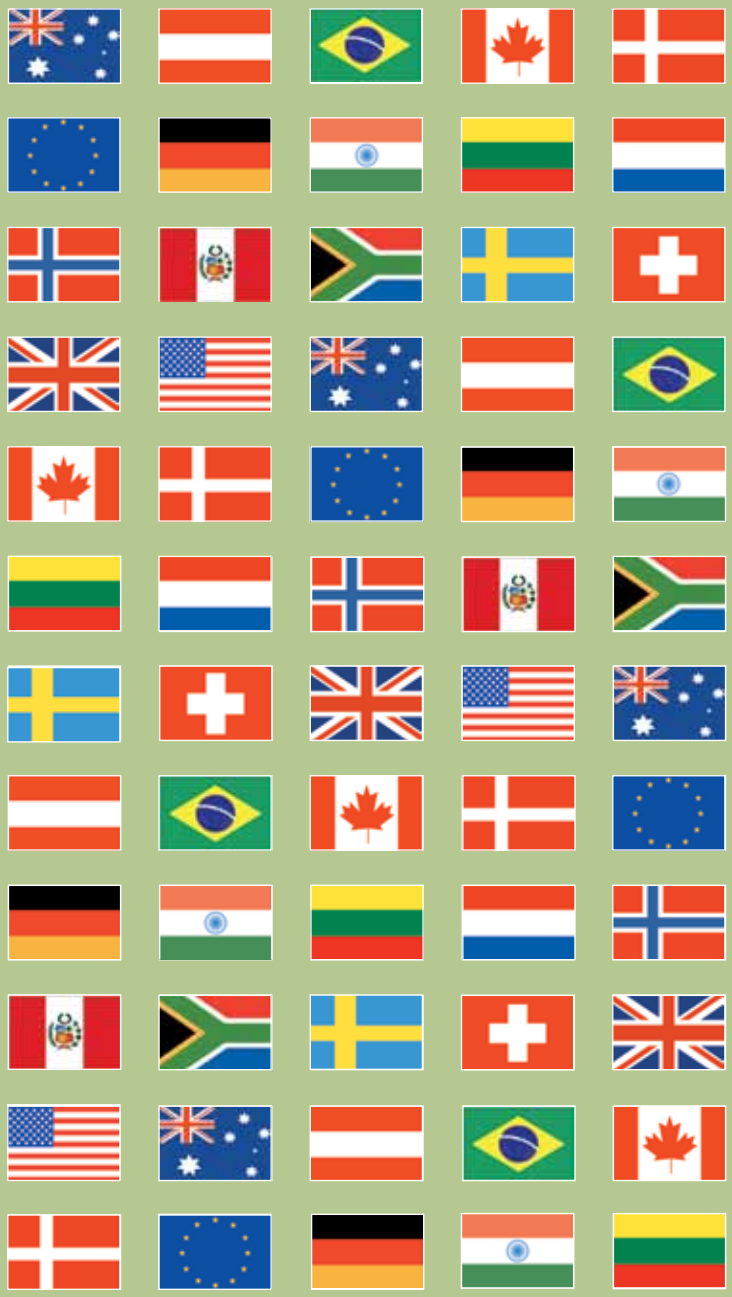

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Main climate regulations, policies and authorities

1 International agreements

Do any international agreements or regulations on climate matters apply in your country?

Brazil signed the United Nations Framework Convention on Climate Change (UNFCC) and its Kyoto Protocol, which were ratified by the country through Decree No. 5,445/05. The Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on substances that deplete the ozone layer (Decree No. 99,280/90) were also ratified by Brazil. It must be said, however, that Brazil is not part of Annex 1 of the Kyoto Protocol, which means that the country does not have any mandatory emissions reduction targets. Therefore, it is in this sense that the national applicability of the Protocol is understood. Examples of how Brazil is acting in this scenario are shown through the clean development mechanism (CDM) projects and the Brazilian voluntary GHG reduction commitment.

2 International regulations and national regulatory policies

How are the regulatory policies of your country affected by international regulations on climate matters?

In Brazil, after an international agreement is signed, it must be submitted to the Congress for approval and then enacted by the President as an executive decree. Once this is done, the agreement is treated as a federal law and can revoke any prior contrary regulations. The Kyoto Protocol, for example, was internalised by the Decree No. 5,445/05.

Even though Brazil doesn't have any international target to reduce emissions, it expects to contribute to international commitments related to climate change by reducing its emissions. Such concern is supported by the fact that the energy matrix in Brazil is almost 80 per cent renewable. In addition, energy supply through thermal coal-fired sources has been discouraged in recent years and renewable sources like biofuels and waste have been prioritised. Also, it is worth noting that in November 2013 an energy auction with most of the projects related to wind and solar energy is going to be held. This will be the first time in Brazil that solar energy has been incorporated in the energy auction.

As for wind energy, Brazil already has several projects producing electric energy from wind.

3 Main national regulatory policies

Outline recent government policy on climate matters.

The National Policy on Climate Change (NPCC) (Law No. 12,187/09) is the main policy on climate matters, and it has been regulated subsequently by Decree No. 7,390 published on 9 December 2010. This policy has emerged from the First National Communication of Brazil regarding actions to mitigate emissions of greenhouse gases (GHG) at the UN Framework Convention on Climate Change Conference of Parties No. 15, the Intergovernmental Panel on Climate Change United Nations (IPCC). At the time, then-President Luiz Inacio Lula da Silva said that Brazil would voluntarily reduce its emissions of GHG from 36.1 per cent to 38.9 per cent related to projected emissions until 2020. Currently the National Policy on Climate Change is being updated by the Brazilian Forum on Climate Change with the aim of integrating policies and plans already developed in some federative states.

4 Main national legislation

Identify the main national laws and regulations on climate matters.

The main national laws and regulations on climate matters are:

- Law No. 12,187/09 (NPCC);
- Decree No. 7,390/10, which regulates Law No. 12.187/09;
- Law No. 6,938/81 (National Environmental Policy);
- Decree 5,445/05 (Kyoto Protocol);
- Decree No. 99,280/90 (Vienna Convention on the Ozone Layer and Montreal Protocol);
- CONAMA Resolutions Nos. 5/89, 8/90, 436/11 and 382/06, which regulate air pollution; and
- IBAMA Resolution No. 12/10 that requires measures to mitigate or compensate GHG emissions within the environmental permitting proceeding.

The NPCC and its regulation (Decree No. 7,390/10) are the main policies on climate matters and set out its general guidelines. The main goal is to reduce GHG emissions, preserve and recover environmental resources, and also harmonize socioeconomic development and climate protection, promoting sustainable development.

The Environmental National Council (CONAMA) has the competence to enact resolutions that are used as national standards, and they shall be applied within federal law and decrees, such as Resolutions No. 5/89, 8/90, 436/11 and 382/06.

It is worth mentioning that Law No. 6,938/81 sets the National Environmental Policy, despite the fact that it doesn't address climate change directly. It aims at the preservation, improvement and recuperation of environmental quality. In this sense, since climate change is inherently connected with environmental welfare, this policy is also a main regulation on climate matter.

There are also some state and municipality rules that regulate climate matters, such as the Climate Change Act of Rio de Janeiro (Law No. 5,248/11), São Paulo (Law No. 13,798/09), Paraná (Law No. 17,133/12) and Distrito Federal (Law No. 4,797/12), among others.

5 National regulatory authorities

Identify the national regulatory authorities responsible for climate regulation and its implementation and administration. Outline their areas of competence.

The national regulatory authorities responsible for climate regulation and its implementation and administration are:

- the Ministry of Environment: promotes the adoption of principles and strategies for knowledge, protection and restoration of the environment, sustainable use of natural resources and the integration of sustainable development in the formulation and implementation of public policy;
- the Environmental National Council (CONAMA): advising on and proposing government guidelines on the environment and natural resources, editing rules about environmental quality standards. It is the executive organ of the National Environmental System (SISNAMA);
- the Interministerial Commission on Climate Change (CIMGC): headed by the Ministry of Science and Technology, which deliberates on government policies;
- the Ministry of Foreign Relations: assists the president in formulating Brazilian foreign policy and ensuring its implementation;
- the Ministry of Science and Technology: creates policies and programmes concentrating on scientific, technological and innovative development in areas of strategic interest for the increase and sustainable use of national resources, as well as working in areas such as national policy on biosecurity and nuclear policy;
- Brazilian Climate Change Forum (FBMC): headed by the president of Brazil with the goal of encouraging a social discussion about problems concerning GHG as well as the CDM. The Forum should help the government incorporate the climate change debate into policy-making;
- Interministerial Committee on Climate Change (CIM) established by Decree 6,263/07; and
- Executive Group of CIM.

General national climate matters

6 National emissions and limits

What are the main sources of emissions of greenhouse gases (or other regulated emissions) in your country and the quantities of emissions from those sources? Describe any limitation or reduction obligations. Do they apply to private parties in your country?

According to a recent study made by the Ministry of Science and Technology (Brazil's Annual GHG emission Balance – 2010), the main sources of GHG emissions in Brazil are:

- land-use change – 279,163 thousand tonnes CO^2e;
- energy – 399,302 thousand tonnes CO^2e;
- agriculture – 437,226 thousand tonnes CO^2e;
- industrial processes – 82,048 thousand tonnes CO^2e; and
- waste treatment – 48,737 thousand tonnes CO^2e.

It is interesting to note that in 2005 the total of GHG emissions due to land-use change was 1,167,917 thousand tonnes CO2e. That means that in five years Brazil managed to reduce its emissions by a remarkable 76.1 per cent.

In regard to the emission limitations, Decree No. 7,390/10, which regulates some articles of the NPCC, established the following projections of emissions in order to enforce the Brazilian voluntary commitment:

- land-use change – 1,404 million tonnes CO^2e;
- energy – 868 million tonnes CO^2e;
- agriculture – 730 million tonnes CO^2e; and
- industrial processes and waste treatment – 234 million tonnes CO^2e.

In respect to the reduction obligations voluntarily assumed, in cases of federal competence to issue the environmental permit, IBAMA has enacted a normative instruction (No. 12/2010) that requires measures to mitigate or compensate for the effects of the emission of greenhouse gases.

7 National emission projects

Describe any major emission reduction projects implemented or to be implemented in your country. Describe any similar projects in other countries involving the participation of government authorities or private parties from your country.

An important reduction project is the Amazon Protected Areas Program (ARPA). This is considered by the Ministry of Environment as the largest rainforest conservation programme of the planet and it aims to protect 60 million hectares of the Brazilian Amazon. The initiative combines biology conservation with best practices for planning and management to create protected areas. A study produced by WWF-Brazil with the Amazon Environmental Research Institute (IPAM), the Federal University of Minas Gerais and the Woods Hole Research Center in Massachusetts, calculates the total carbon stored in all protected areas supported by the ARPA compared with the estimated deforestation in the region, in areas that were not in the programme hypothesis.

REDD (reducing emissions from deforestation and forest degradation) should also be mentioned in connection with reduction projects. In Brazil, there are currently seven REDD projects in preparation or implementation stages, namely:

- the Acre State Carbon Project – Payment for Environmental Services;
- the Ecomapuá Carbon Project;
- sustainable settlements in the Amazon: the challenge of transition from family production on the frontier to a low-carbon economy;
- the Juma Sustainable Development Reserve Project;
- the restoration projects in the Atlantic Forest:
  the Pilot Project for Reforestation in Antonina; and
  the Guaraqueçaba Climate Action Project;
- the Surui Project, Sete de Setembro Indigenous Reserve; and
- the Genesis Forest Project (information available from IPAM – Amazon Environmental Research Institute: third edition of REDD in Brazil: An Amazon Focus: Grounds, Criteria And Institutional Structures For National Rules Regarding Reducing Emissions From Deforestation And Forest Degradation – REDD).

In the regular market, carbon credits are created within the CDM – Clean Development Mechanism. According to data obtained from the CDM/JI Pipeline Analysis and Database (www.cdmpipeline.org/cdm-projects-region.htm), to date there are 491 CDM projects in Brazil, representing 35 per cent of investments in Latin America. Most of those projects are related to methane avoidance, followed by hydro projects, then by wind and finally by landfill gas. São Paulo is the leading CDM state with 82 projects (26 related to landfill gas, 26 to biomass, 15 to methane avoidance, five to hydro, four to N2O, four to fossil fuel switch, one to reforestation and one to industry). Most recently, UHE Jirau was the first hydroelectric energy plant approved by the UN to be within the CDM.

Domestic climate sector

8 Domestic climate sector

Describe the main commercial aspects of the climate sector in your country, including any related government policies.

CDM projects have a major commercial significance related to climate policy in Brazil by providing the sale of carbon credits from projects that replace sources of CO_2 emissions.

In particular, Brazil created the National Fund on Climate Change (Climate Fund) through the NPCC, which aims to fund studies and projects aimed at mitigating climate change and adapting to its effects. This is under the supervision of the Ministry of Environment and provides financial refundable and non-refundable resources.

Also, Law No. 12.651/12 (Forest Code) foresees a possibility to trade a share of environmental reserve (Cota de Reserva Ambiental – CRA), which means that a green area can be treated as a trading title. A regulation concerning how the trade should work is expected and should be done in the near future.

General emissions regulation

9 Regulation of emissions

Do any obligations for emission limitation, reduction or removal apply to your country and private parties in your country? If so, describe the main obligations.

Brazil has no international target limitations with regard to the reduction of GHG emissions, as already mentioned, since it is not part of Annex 1 of the Kyoto Protocol. However, Brazil voluntarily set a domestic goal to reduce emissions by between 36.1 per cent and 38.9 per cent by 2020, as per Law No. 12.187/09. This obligation intends to meet the goals of the National Climate Change Policy, which shall be respected by private parties, especially through environmental permitting proceedings and other permitting restrictions related to mitigation and compensation of emissions.

CONAMA (Environmental National Council) is responsible for regulating environmental standards. For instance, Resolution CONAMA 01/86 foresees that all potentially polluting activities are subject to an environmental permitting proceeding in which they have to present an Environmental Impact Assessment (EIA/RIMA). This study is an instrument to predict the potential environmental impact, including in some cases the projected emissions of a project.

Nonetheless, states can also impose measures to ensure a certain environmental quality, such as a GHG inventory, which is done, for example, in Distrito Federal by Law No. 5.113/13 and in Rio de Janeiro by the State Environmental Agency (INEA) and Resolution No. 65/12.

10 Emission permits or approvals

Are there any requirements for obtaining emission permits or approvals? If so, describe the main requirements.

Not applicable.

11 Oversight of emissions

How are emissions monitored, reported and verified?

For GHG, under CDM, it is necessary to have the approval of the Ministry of Science and Technology for the methodology of how to monitor, report and verify. There are different procedures, depending on the activity developed. All of them are defined or approved by the Ministry of Science and Technology.

For air pollutants, states can monitor their own emissions. In Rio de Janeiro, for example, the State Environmental Agency (INEA) measures and publishes online the quantity of emissions by enterprises. The Agency can also measure emissions in different areas of Rio de Janeiro, so it can monitor the air quality all over the city.

Also, general emissions are controlled under the environmental permitting proceeding. For example, emissions reports can be set as a condition for an entrepreneur renewing an environmental permit.

Emission allowances (or similar emission instruments)

12 Regime

Is there an emission allowance regime (or similar regime) in your country? How does it operate?

No, there is no emission allowance regime in Brazil. However, in the permitting proceeding some targets and provisions related to GHG emissions may apply and become a restriction in the environmental permit.

13 Registration

Are there any emission allowance registries in your country? How are they administered?

Not applicable.

14 Obtaining, possessing and using emission allowances

What are the requirements for obtaining emission allowances? How are allowances held, cancelled, surrendered and transferred?

Not applicable.

Trading of emission allowances (or similar emission instruments)

15 Emission allowances trading

What emission trading systems or schemes are applied in your country?

There is still no emission trading in Brazil. On the other hand, since Brazil is not part of Annex 1 of the Kyoto Protocol, it receives projects under CDM. This mechanism is the only one in the international market that encourages sustainable development and the reduction of GHG emission in developing countries.

The CDM 'boom' in Brazil took place in 2005, with 41 projects approved. Until 2012, there were 397 projects being developed under CDM in Brazil of which 89 were implemented as renewable energy.

16 Trading agreements

Are any standard agreements on emissions trading used in your country? If so, describe their main features and provisions.

No, Brazil does not yet have an emission trading system.

Sectoral regulation

17 Energy production, use and efficiency

Give details of (non-renewable) energy production and consumption in your country. Describe any regulations on emissions. Describe any obligations on the state and private persons for minimising energy use and improving efficiency. Describe the main features of any scheme for registration of energy savings and for trade of related accounting units or credits.

According to a study made by the Energy Research Company (EPE) in 2013, oil and its derivatives represent 39.2 per cent and natural gas represents 11.5 per cent of the internal energy offer. Concerning consumption, the most-used source is diesel (including biodiesel), which represents 18.3 per cent. Fuel oil only represents 1.6 per cent of consumption. The remaining energy consumed is represented by electricity (16.9 per cent).

As to regulation, CONAMA Resolution Nos. 5/89, 8/90 and 382/06 and 436/11 set air standards that should be respected. Also, it is worth mentioning the ANEEL Resolution No. 556/13 that approves the procedures of the Energy Efficiency Programme and the INMETRO Ordinance No. 164/12, which establishes that all

products that use energy should have a label indicating how much energy they use.

Also, PROCEL (the National Program for Electric Energy Conservation) aims to promote production and rational consumption of electricity, in order to reduce waste and costs related to sectoral investments.

18 Other sectors

Describe, in general terms, any regulation on emissions in connection with other sectors.

The topic of GHG emissions is analysed within the environmental permitting proceeding necessary to obtain an environmental permit, independently of the activity sector. The environmental agency competent to issue the environmental permit can establish a GHG emission limitation and use it as a restriction to be followed by the entrepreneur. Distrito Federal, for example, requires a GHG inventory as part of its environmental permitting proceeding.

CONAMA is responsible to set national environmental standards, the Resolution No. 382/06, complemented by Resolution No. 436/11, sets a maximum of pollutant emissions by stationary energy sources. In addition, the Resolution No. 18/86 sets limits for vehicle emissions.

Renewable energy and carbon capture

19 Renewable energy consumption, policy and general regulation

Give details of the production and consumption of renewable energy in your country. What is the policy on renewable energy? Describe any obligations on the state and private parties for renewable energy production or use. Describe the main provisions of any scheme for registration of renewable energy production and use and for trade of related accounting units or credits.

According to a recent study made by the EPE in 2013, renewable energy sources represent 42.4 per cent of the Brazilian energy matrix and hydroelectric energy represents 76.9 per cent of the Brazilian energy matrix. Concerning consumption, electricity (mainly hydroelectric) represents 16.9 per cent and is the second most-used source, followed by sugarcane with 11.2 per cent. Ethanol represents 4.2 per cent of energy consumption. It is important to note that the most-used source is diesel with 18.3 per cent, but biodiesel is included in that percentage.

In August 2013, the National Energy Agency (ANEEL) held an auction exclusively for wind energy (reserve energy). The Energy Research Enterprise (EPE) registered 655 wind projects with a total of 16,040MW installed capacity to participate in this auction. From them, sixty-six projects were approved, representing a total of 1,505MW. The investments in the construction of wind plants will total 5.457 billion reais.

The policy for renewables is also in the NPCC. There is no obligation on the state or private parties to use renewable energy, though there are incentives to do so. In this sense, it is worth mentioning the PROINFA (Incentive Programme for Alternative Electric Energy Sources), which was created to encourage investments in wind energy, biomass and also in small hydro plants (PCHs).

20 Wind energy

Describe, in general terms, any regulation of wind energy.

The following regulations are applicable to wind energy:

- Decree No. 5,025 – PROINFA;
- Decree No. 7,685/12 – agreement between Brazil and Germany for cooperation in the energy sector, especially in renewable energy and energy efficiency;
- ANEEL No. 391/09 – establishes the Authorization procedures for wind energy;
- Resolution CEPRAM No. 4,180/11 – permitting proceeding of Bahia;
- IN FATMA No. 53/09 – permitting proceeding of Santa Catarina;
- Port SEMA No. 74/13 – permitting proceeding of Maranhão; and
- Law No. 15,698/05 – Minas Gerais's fiscal incentive.

In Brazil, ANEEL is responsible for policy-making in the energy field. Regarding renewable energy, and especially wind energy, the most important legal document is the PROINFA that gives fiscal incentives to companies. Resolution No. 319 of ANEEL also sets the requirements for developing wind energy.

Also, concerning permitting proceedings, in the case of wind power projects, a simplified environmental study (RAS) is usually required, which is quicker to produce and less expensive. This provision can be seen in CONAMA Resolution No. 279/01. Nonetheless, in some cases, environmental agencies may request an environmental impact assessment (EIA/RIMA), which usually is a more complex study.

Some states – such as Bahia, Minas Gerais and Maranhão – have specific regulations concerning environmental permitting proceedings for wind energy. Minas Gerais has a State Incentives Policy for Wind Energy Use.

In 2013, EPE has approved 377 wind energy projects making 8,999MW of installed capacity. In Bahia alone, 123 projects were approved with a total of 2,920MW installed capacity, but only 28 won the energy auction. Still, Bahia is the state with the most wind energy contracted projects. In total, the government contracted 1,505MW.

21 Solar energy

Describe, in general terms, any regulation of solar energy.

The following regulations are applicable to solar energy:

- Decree No. 7,685/12 – agreement between Brazil and Germany for cooperation in the energy sector, especially in renewable energy and energy efficiency;
- Law No. 5,936/09 – Piaui's fiscal incentives;
- Law No. 20,849/13 – Minas Gerais's fiscal incentives;
- Law No. 16,488/09 – Goias's state policy to encourage solar energy;
- Law No. 3,896/10 – encourages the use of solar energy in government's programmes of popular housing in Mato Grosso do Sul;
- LC No. 81/09 – Ceará's fiscal incentives; and
- Port. SEMA No. 74/13 – environmental permitting proceeding of Maranhão.

ANEEL is competent to approve solar energy plants. There is still little regulation on this topic. However, states such as Rio de Janeiro and Ceará have their own incentives to produce solar energy, for example, Carta do Sol and Fundo de Investimento à Energia Solar (FIES). More recently the state of Minas Gerais enacted its State Incentives Policy for Solar Energy Use.

Regarding the permitting proceeding, in the case of solar energy (CONAMA Resolution No. 279/01), an environmental study shall be required (RAS or EIA/RIMA depending on the estimated impact of the project). Solar energy is a renewable source, usually with minor impact on the environment. Please note that a request for a simpler study may encourage the implementation of such projects.

For the auction planned to take place in November 2013, EPE received for the first time solar energy projects. In total, there were 109 photovoltaic projects with a capacity of 2,729MW and 10 heliotermic projects with a capacity of 290MW. Together with wind energy, they represented the highest number of the auction's subscriptions, with a total of 748 from 784 projects and a power capacity of 18,061MW.

It is worth mentioning that ANEEL published Resolution No. 482/12 regarding minigeneration and microgeneration access to the systems of electric power and, also, its compensation. Solar energy is included in its provisions.

22 Hydropower, geothermal, wave and tidal energy

Describe, in general terms, any regulation of hydropower, geothermal, wave or tidal energy.

Besides the main rules related to the environment (LC 140/11, Law No. 6,938/81, CONAMA Resolution No. 237/97 and 01/86), it is worth mentioning the following:

- Law No. 12,783/13 – establishes the energy generation, transmission and distribution concessions;
- Decree No. 7,891/13 – regulates the Law No. 12.783/13;
- Decree No. 7,685/12 – agreement between Brazil and Germany for cooperation in the energy sector, especially in renewable energy and energy efficiency;
- Decree No. 5,025 – PROINFA;
- Resolution ANEEL No. 343/08 – establishes authorisation procedures for small hydro plants (PCH);
- Resolution ANEEL No. 652/03 – establishes the criteria for classification as small hydro plants (PCH);
- Resolution ANA No. 131/03 – about the procedures of declaration of hidric availability;
- Resolution SEMAD No. 1,606/13 – Adopts the Integrated Environmental Assessment in Santo Antonio Basin (Minas Gerais);
- COPAM Deliberation No. 175/2012 – establishes the use of Integrated Environmental Assessment within the implementation of new hydroelectric projects in the state of Minas Gerais;
- IN No. 44/08 (FATMA) – about hydroelectric energy production in Santa Catarina; and
- CONAMA Resolution No. 06/87 – regarding environmental permitting proceedings for the energy sector.

Hydroelectric energy represents the main source of electric energy in Brazil and represents 76.1 per cent of the Brazilian energy matrix, according to study published by EPE in 2013. The specific requirements in permitting proceedings are initially established by CONAMA Resolution No. 06 of 1987, and usually an Environmental Impact Assessment (EIA/RIMA) is required.

With regard to geothermal, wave and tidal energy, the regulation is still underdeveloped in Brazil.

23 Waste-to-energy

Describe, in general terms, any regulation of production of energy based on waste.

The regulation may be pointed below:

- Law No. 12,305/10 – Solid Waste National Policy;
- Decree No. 7,404/10 – Regulates the Solid Waste Policy;
- Decree No. 7,685/12 – Agreement between Brazil and Germany for Cooperation in the energy sector, especially in renewable energy and energy efficiency;
- Resolution CONAMA No. 313/02 – National Solid Waste Inventory;
- Resolution CONAMA No. 316 – Establishes the procedures for the activity of solid waste thermic treatment.
- Resolution SMA No. 79/09 – Establishes the permitting proceeding of solid waste in Energy Recuperation Plants in the State of São Paulo;
- Law No. 18,031/09 – Minas Gerais's Solid Waste Policy;
- Law No. 12,288/06 – São Paulo's Solid Waste Policy;
- Law No. 7,862/02 – Mato Grosso's Solid Waste Policy;
- Law No. 14,248/02 – Goias's Solid Waste Policy;

Update and trends

For the first time, solar energy projects are going to participate in the public energy auction. There were 109 photovoltaic projects subscriptions, offering 2,729MW. In addition, with the price decrease of photovoltaic panels, solar energy may attract even more investment to Brazil, becoming more competitive in the near future.

In 2010 the National Solid Waste Policy was enacted – Law No. 12,305/10. Although the Policy indicates the applicable principles and instruments in general terms, there isn't any specific regulation on production of energy based on waste yet. Some states, as mentioned above, have their own solid waste policy.

24 Biofuels

Describe, in general terms, any regulation of biofuels.

The regulation may be pointed below:

- Law No. 11,097/05 – Regulates the introduction of biofuels into the energy matrix;
- Decree No. 7,685/12 – Agreement between Brazil and Germany for Cooperation in the energy sector, especially in renewable energy and energy efficiency;
- Resolution ANP No. 30/13 – Regulates the activity of biodiesel production;
- Law No. 8,503/08 – Establishes the State Policy of Incentives for Biodiesel Production Chain as alternative fuel in the State of Mato Grosso;
- Decree No. 3,272-R/13 – Creates the State Programme of Energy Efficency in the State of Espírito Santo; and
- Decree No. 37,927/05 – Encourages the use of biodiesel in Rio de Janeiro.

In 2005, Law No. 11,097 was enacted introducing biofuels as part of the electric energy matrix in Brazil and giving the National Agency of Petroleum, Natural Gas and Biofuels (ANP) the competence to regulate on this subject. In 1974 the Pro-Alcohol programme was created, which introduced ethanol extracted from sugar cane into the Brazilian fuel matrix.

The main biofuels in Brazil are ethanol and biodiesel. It is worth mentioning that Brazil is one of the world's largest producers of ethanol and biodiesel.

Regarding biodiesel, in 2004 Brazil launched the National Program for Biodiesel Production and established a mandatory addition of 2 per cent of biodiesel to the diesel sold in the country. The ANP Resolution No. 06/09 increased this percentage to 5 per cent and in 2010 Brazil produced 2.4 billion of litres of biodiesel, according to ANP's website.

25 Carbon capture and storage

Describe, in general terms, any policy on and regulation of carbon capture and storage.

There is no specific policy or regulation on carbon capture and storage. In the NPCC, CCS is established as the method to reduce the climate change. The same idea is verified in the Federative States Climate Acts, such as in Rio de Janeiro and São Paulo. In those documents, carbon capture and storage is shown as a way to mitigate climate change, but they don't specify a technique to be used. Nevertheless, regulation in Brazil is required on this subject.

In addition, it is worth mentioning that the Brazilian National Oil Company (Petrobras) has been developing projects on enhanced oil recovery (EOR) since 1987. Currently, the Miranga Project foresees the introduction of pure carbon capture and storage in Brazil.

More recently, Petrobras has started to inject CO_2 for EOR into the offshore pre-salt Santos Basin.

Climate matters in transactions

26 Climate matters in M&A transactions

What are the main climate matters and regulations to consider in M&A transactions and other transactions?

There is no regulation. There are contract clauses that set a taxation cost of CO_2 according to the activity and that can affect the negotiation price. In other words, the NPCC might be considered in acquisitions, but there is no mandatory rule for that.

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