



Energy

# dena-Market Information System Permitting Guidelines for Onshore Wind Energy Plants in Brazil

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## Overview of the permitting process

Year	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7			
Month	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
Total duration of the processes (average based on experience)	[Dark orange bar]																											
 Preliminary survey phase of the project	[Dark orange bar]																											
Legal form of the project company	[Bright orange bar]																											
Financing and tax benefits	[Bright orange bar]																											
 Land use	[Dark orange bar]																											
Site selection, wind measurements	[Bright orange bar]																											
Lease/purchase agreement with landowner	[Bright orange bar]																											
 License for power generation	[Dark orange bar]																											
Application submission	[Bright orange bar]																											
Notification by ANEEL	[Bright orange bar]																											
 Environmental permits	[Dark orange bar]																											
Creation of EIA study	[Bright orange bar]																											
Issuance of preliminary license, known as the Licença Prévia (LP)	[Bright orange bar]																											
 Grid connection	[Dark orange bar]																											
Request for grid connection	[Bright orange bar]																											
 Construction and commissioning	[Dark orange bar]																											
Construction permit, known as the Licença de Instalação (LI)	[Bright orange bar]																											
Construction phase	[Bright orange bar]																											
Operating license, known as the Licença de Operação (LO)	[Bright orange bar]																											

Source: main process in dark orange, sub-process in bright orange

The figure provides a rough representation of the permitting processes. **Clicking the icon on the left edge** takes you to the respective process steps. There you will find:

1. Brief overviews in table form with the most important references (hyperlinks reference the original sources and legal bases<sup>1</sup>)
2. Detailed descriptions

The compiled information (sources: expert interviews, research, cooperation with legal advisors) is assigned the following icons for the sake of clarity:

 Legal basis	 Duration	 Tip	 Infobox
 Costs	 Attention	 Form	 Institutions

<sup>1</sup> The most current version should always be heeded. We assume no liability for accuracy.

# 1 Preliminary survey phase of the project

Under the energy expansion plan Brazil intends to increase installed wind capacity. Currently, the country has 1.5 GW, by 2020 this number should, according to the national plan, rise to 11.5 GW. As wind energy becomes more and more competitive with conventional energy sources an increasing number of wind projects is being admitted in the national electricity auctions. With wind energy in Brazil also benefiting from numerous tax incentives, the market is becoming increasingly attractive for German companies. This chapter outlines the basis for project implementation (legal entity, financing and tax incentives, participation in national electricity auctions). It also addresses the differences at state level.

## Brief overview



- ▶ [Statutory provision no. 391 from 15 December 2009, ANEEL: Fundamentals of Power Generation](#)
- ▶ Articles 12, 18, 19 and 20 of ordinance no. 5,163 from 30 July 2004, Article 1, ordinance no. 6,353 from 01/2008: in regard to connecting to the combined grid and the sale of power
- ▶ Federal law no. 10.848 from 2004 and ordinance no. 5,163/2004: Basic Provisions of Electricity Auctions



- ▶ [ANEEL](#), according to ordinance no. 113 from 01 February 2011, gives authorisation for the organisation of tenders of electricity capacities
- ▶ The energy planning authority, known as [Empresa de Pesquisa Energética \(EPE\)](#), sub-department of the [Ministry for Mining and Energy](#)



- ▶ The validity period for contracts awarded through electricity auctions is 20 years



- ▶ Legal form: trade registry entry in what is, known as the [Junta Comercial](#)
- ▶ Financing:
  - ▶ Support Agency for Studies and Projects, known as [Financiadora de Estudos e Projetos \(FINEP\)](#)
  - ▶ Development Bank for Economic and Social Policy, known as [Banco Nacional de Desenvolvimento Econômico e Social \(BNDS\)](#)
  - ▶ Plan for Energy Expansion, known as [Plano Decenal de Expansão de Energia \(PDE\) 2010-2020](#)
- ▶ Tax exemptions:
  - ▶ Exemption from the Social Integration Contribution (PIS) and the Programme for Capital Formation of Employees in Public Service (PASEP)
  - ▶ Exemption from tax on industrialised products (IPI)
  - ▶ Additional tax exemptions on the federal state level (such as exemptions from the wage income tax, commodity sales tax (ICMS) and capital transaction tax (IOF))

### Legal form of the project company

According to article 1,126 of the revised Brazilian Civil Code from 2002, all companies that are organised according to applicable Brazilian laws and that have their headquarters in Brazil are considered to be domestic companies.



According to a notice from the National Agency for Electrical Power (Agência Nacional de Energia Elétrica, ANEEL) regarding electricity auction no. 06/2009, if foreign legal persons under civil law want to participate in a tender as individual companies, they need to establish a special purpose entity (SPE) in order to be able to receive a permit. If they are participating in a tender in a consortium with a Brazilian legal person under civil law, control is always given to the Brazilian legal person under civil law.

## 1.1 Support mechanisms and financing

### Financing and tax benefits

The Support Agency for Studies and Projects (Financiadora de Estudos e Projetos, FINEP) offers many financing models under a wide variety of conditions to renewable energy companies. One of their programmes, Juro Zero (Zero Interest), supports small entrepreneurs in their various projects in the area of renewable energy (such as wind energy and hydroelectric plants). The programme exists in partnership with the states in Bahia, Minas Gerais, Pernambuco, Pará, Santa Catarina, Rio Grande do Sul, São Paulo, Espírito Santo and Rio de Janeiro.

The Development Bank for Economic and Social Policy (Banco Nacional de Desenvolvimento Econômico e Social, BNDES) has interesting loan and financing offerings for (future) wind energy plant operators. For example, the BNDES granted approx. 125 million Euros (BRL 274 million) for the construction of five wind farms in the state of Bahia at the beginning of October 2011.

The Brazilian government also supports wind energy through the Ten-Year Plan for Energy Expansion (Plano Decenal de Expansão de Energia, PDE). Roughly 85 billion Euros of its total budget of 190 billion Euros for the period between 2010 and 2020 is dedicated to the development of renewable energy generation capacities, such as through small hydroelectric plants, biomass power plants and wind farms.

The Special Provision for Creating Incentives for Infrastructure Development ([Regime Especial de Incentivos para o Desenvolvimento de Infraestrutura, REIDI](#)) provides for an exemption for wind energy plant operators from the Programme for Capital Formation of Employees in Public Service (Programa de Formação do Patrimônio do Servidor Público, PASEP) and from the social integration contribution of the Programme for Social Integration (Programa de Integração Social, PIS). The PIS is a social contribution to be paid by legal persons. It provides financing for unemployment insurance for workers who earn up to two times the minimum wage.



In the states of Piauí, Ceará, Rio Grande do Norte, Pará, Pernambuco, Alagoas, Sergipe and Bahia as well as in several municipalities in the state of Minas Gerais, wind energy plant operators enjoy a wage tax exemption of 75 percent.

### Tax incentives on the state level



Ordinance no. 57,145 was enacted in the state of São Paulo in July 2011. It stipulates that supplier companies for wind energy plant installations are exempt from sales tax (Imposto sobre Circulação de Mercadorias e Serviços, ICMS) for the import of raw materials. The exemption of wind energy plant operators from the ICMS through ordinance no. 101/97 was extended with ordinance no. 11 from 01/04/2011 so that companies in the wind energy sector continue to enjoy these tax exemptions (the commodities to which the exemption applies include steel sheets, control cables and high-voltage cables if they are used for the construction of wind towers). In December 2009, wind energy plants were permanently exempted from the tax on industrial products (Imposto sobre Produtos Industrializados, IPI) through ordinance no. 6,890/2009. The National Office for Finance Policy (Conselho de Política Fazendária, CONFAZ) extended the tax benefits and tax exemptions for the support of wind energy until September 2012. According to an estimate by ABEEólica, this means 17 percent savings in the investment in wind energy.

The Programme for the Support of Alternative Energy (Programa de Incentivo às Fontes Alternativas de Energia Elétrica, [PROINFA](#)) provided extensive support. As this programme has ended, the support is now concentrated on the electricity auctions that take place exclusively for wind energy, known in Portuguese as leilões de energia elétrica.

### Electricity auctions

As soon as the company is in possession of a license for power generation in accordance with ordinance no. 391 (extensive description of the process in section [License for power generation](#)), it can operate its wind energy plant and connect to the National Combined System ([Sistema Interligado Nacional, SIN](#)) and sell electrical power. Through public tenders (electricity auctions) in accordance with articles 12, 18, 19 and 20 of ordinance no. 5,163 from 30 July 2004 and in accordance with article 1 of ordinance no. 6,353 from 16 January 2008, the companies were not just permitted to connect to the combined grid and sell power, but also given the option to offer their services to several customers.

The National Agency for Electrical Power (Agência Nacional de Energia Elétrica, ANEEL) and the Energy Planning Authority (Empresa de Pesquisa Energética, EPE) can sponsor public tenders as energy authorities.



For participation in the auction process, wind energy plants can produce either the license for power generation or the preliminary license (Licença Prévia). The preliminary permit gives approval to the technical and environmental feasibility of the construction proposal (viabilidade). In the [Environmental permits](#) section, you will find the permission steps required for this.

Previously, companies from the entire renewable energy generation sector could participate in the public tenders. On 14 December 2009, the first electricity auction exclusively for wind energy took place. With this public tender, the construction of 71 wind energy plants in five states in the northeastern and southern regions was made possible. The agreements concluded in this public tender have a validity period of 20 years and go into force on 1 July 2012.

### Procedure for electricity auctions



The Ministry for Mining and Energy first issues an announcement of a public tender (known as the leilão or electricity auction). This announcement occurs in the form of an ordinance. For example, ordinance no. 113 from 01/02/2011 includes provisions to give ANEEL the authority to sponsor public tenders for the purchase of electricity in the second quarter of 2011. According to article 1 of this ordinance, ANEEL needed to sponsor the following public tenders of type leilão (electricity auction) in the second quarter of 2011: tender of type leilão A-3 for “purchase of electricity from new power generation plants” with power deliveries to begin on 1 January 2014. Companies that would like to participate in public tenders need to apply and strictly follow the guidelines described in this ordinance. The announcements are made several times per year. On the website of the [Ministry for Mining and Energy](#) and of the [ANEEL](#), you can find information about current tenders on an ongoing basis. Public tenders directed at plants currently under construction are referred to as A-3 and A-5



The electricity prices for wind energy are falling annually: In 2008 a megawatt hour still cost BRL 189.00 (approx. 75.80 Euros, exchange rate from 29/09/2011). At the fourth auction for electricity generation capacity, which was held by ANEEL in August 2011, the average offer price was just under BRL 100 per MWh (41.50 Euros per MWh, as of 13/10/2011).

## 1.2 Differences on the state level

The permitting processes and their configuration (legal basis, duration and cost, among other factors) differ greatly in the individual states. The states of Rio Grande do Norte (RN), Ceará (CE), Bahia (BA), Rio Grande do Sul (RS) und Santa Catarina (SC) have the largest proportion of registered wind energy plants in Brazil (status: planning, construction, operation; source: ANEEL as of August 2011). This is why the regional differences of these states are of particular relevance.



Brazilian states counting most wind energy projects

## State profiles of RN, CE, BA, RS and SC

**Rio Grande do Norte (RN)**

2,413 MW in generation capacity (project status: planning, construction, operation),  
source: ANEEL as of August 2011

- ☺ State with the highest natural potential (Atlas Eolico 2001) and the most registered wind projects
- ☺ Infrastructure conditions for the use of wind energy were improved through several large projects
- ☺ Plan for an industry centre shared with Ceará: subsidies and improved infrastructure are to increase investor interest in the region



The number of purchase and lease agreements has increased dramatically, leading to increasing land speculation. Purchasers are urged to get offers from several brokers to elicit the actual value of the property.

**Ceará (CE)**

1,529 MW in generation capacity (project status: planning, construction, operation),  
source: ANEEL as of August 2011

- ☺ State with the second highest natural potential for wind energy (Atlas Eolico 2001)
- ☺ The administration is highly interested in supporting wind energy
- ☺ Plan for an industry centre shared with Rio Grande do Norte: subsidies and improved infrastructure are to increase investor interest in the region
- ☹ Traditionally a structurally weak region characterised by agriculture, but appreciable increase in wind energy projects
- ☹ Lack of skilled employees



For some projects in the region, the courts forced a halt to construction and operation (the reason was environmental damage through wind energy plants: noise, destruction of the dune landscape, silting up of coastal areas).

**Bahia (BA)**

884 MW in generation capacity (project status: planning, construction, operation),  
source: ANEEL as of August 2011

- ☹ Traditionally a structurally weak region characterised by agriculture
- ☹ Administrative processes inefficient, lack of skilled employees
- ☺ Interest of the local government in supporting wind energy



To represent a foreign company locally, one should ideally commission a native lawyer who has good contacts with the public administration and who knows the customs and can correctly interpret them.

**📍 Rio Grande do Sul (RS)**

817 MW in generation capacity (project status: planning, construction, operation),  
source: ANEEL as of August 2011

- 😊 State is represented at electricity auctions with many wind energy projects
- 😊 Very high efficiency of the administrative sector
- 😊 Well-developed technical and social infrastructure



Issuance of the environmental permit depends on the consent of the Assembleia Legislativa of the state, which can greatly delay the permitting process.

**📍 Santa Catarina (SC)**

286 MW in generation capacity (project status: planning, construction, operation),  
source: ANEEL as of August 2011

- 😊 Very high efficiency of the administrative sector
- 😊 Very well-developed technical and social infrastructure
- 😊 High environmental consciousness of the population, with broad support for wind energy projects as a result



As in Rio Grande do Sul, issuance of the environmental permit depends on the consent of the Assembléia Legislativa of the state, which can lead to project delay.

**Evaluation of the states according to parameters relevant for the permitting process**

States	Installed capacity, including registered projects being planned/under construction (Source: ANEEL as of August 2011)	Regulatory framework conditions (Evaluation of statements from local legal experts and project planners)	Degree of electrification (Source: ONS electrical grid map, 2007)	Final evaluation
<b>Bahia</b>	3 (884 MW)	5	5	<b>4,3</b>
<b>Ceará</b>	2 (1.529 MW)	3	3	<b>2,7</b>
<b>Rio Grande do Norte</b>	1 (2.413 M W)	3	3	<b>2,3</b>
<b>Rio Grande do Sul</b>	4 (817 MW)	1	2	<b>2,3</b>
<b>Santa Catarina</b>	5 (286 MW)	2	1	<b>2,7</b>

Explanation of the table: Ranking of the states from 1 to 5, with 1 being the best rating and 5 being the worst.

## 2 Land use

### Brief overview



- ▶ Purchase or lease agreement for the property
- ▶ Deed registration at the district court



- ▶ Real estate broker/lawyer at the closing of the purchase or lease agreement
- ▶ Municipality (increasingly active as a provider of wind farm land)



- ▶ Duration of the process varies according to state, municipality, see chapter 1.2 on the [Differences on the state level](#)



- ▶ Ceára as an example:
  - ▶ Leasing costs approx. 1.5 percent of the annual total revenue
  - ▶ Lease price: BRL 40,000 (16,460 Euros as of 13/10/2011) per MW

The operator usually has two options for securing a site: lease or purchase of a property from private individuals or from the municipal administration in whose territorial jurisdiction the wind energy plant is located.



To participate in electricity auctions, it is necessary to provide proof of the conclusion of a purchase or lease agreement for the property on which the wind farm is being erected. It is also necessary to provide proof that an entry was made at the responsible land registry.



In the states of Rio Grande do Norte and Santa Catarina, you often see advertisements in newspapers and on the Internet in which private individuals offer topographically suitable properties for sale and/or lease to wind energy companies at favourable prices. In São José do Norte in the state of Rio Grande do Sul, for example, an association of property owners exists that leases its properties for wind projects in an organised coalition.

### Lease agreement

For what are known as independent electricity generators (Produtores Independentes de Energia, PIE, see law no. 9,074 from 7 July 1995 and the reforms introduced by law 11,668 from 2007), the lease of properties makes the most sense from a business perspective, since the cost of the lease is spread over the entire duration of the investment, meaning that the operator does not need to deal with any disproportionately large financial burdens in the start-up phase.



A lease agreement is usually valid for 15 to 20 years and includes a sort of “trial period” during which the operator has the opportunity to determine whether the climatic conditions at the selected site are really present and favourable for the planned use (contrato de opção). The operator can create a cartographic representation of the wind conditions for this purpose.

In the state of Ceará, the annual lease costs in such a contract are approx. 1.5 percent of the annual total revenue of the wind farm. The average lease price for a property for wind energy generation located in the state of Ceará is approx. BRL 40,000 (16,100.00 Euros) per megawatt. In Ceará and Bahia, the prices are lower than in Rio Grande do Sul, Santa Catarina and Rio Grande do Norte, but higher than in the state of Piauí. In Ceará, the wind energy plant operator must state precisely which wind energy turbines it will be using and ensure that the plants are at least 150 metres from the next inhabited house. Subsequent changes to the project (output, plant components, etc.) are only possible if they are contractually agreed upon or covered by the concluded agreement.

#### General information about the specification of prices for lease agreements



The criteria for determining lease prices vary from state to state. In Bahia, for example, it is common to specify the annual lease price for each wind tower. The highest price was BRL 3,500.00 per year and tower (approx. 1,400.00 Euros), and the lowest price is BRL 2,800.00 per year and tower (approx. 1,120.00 Euros). In contrast, Ceará has lease prices geared toward the output of the wind plant to be installed.

#### Lease agreements with municipalities



On the rural, municipal level, mayors are increasingly promoting the leasing of public properties to wind energy operators at attractive conditions. However, it should be noted that rural municipalities often have insufficient transport connections and infrastructure.

#### Purchase agreement

The purchase of a property for a planned wind energy plant is not common, since the additional costs incurred cause the already high costs for such a project to rise further. Most of the property purchases are made only if the property is needed for research purposes.



Ownership of the property has the advantage that the WEP operator has control over the property over the long term, allowing further plants (or expansions) to be implemented after conclusion of the first project without additional lease negotiations being necessary.

The purchase of properties through WEP operators is uncommon not least because large land owners are often unwilling to sell landholdings that have been in their families for many generations. This attitude is primarily found in the northeast, but also to a lesser extent in southern Brazil.

### 3 License for power generation

#### Brief overview



- ▶ [Statutory provision no. 391 from 15 December 2009, ANEEL: Fundamentals of Power Generation](#)
- ▶ [Statutory provision no. 63 of ANEEL from 12/05/2004](#)



- ▶ Supervisory Office for Authorisations and Permits for Power Generation (Superintendência de Concessões e Autorizações de Geração, SCG)
- ▶ [ANEEL: Plant registration](#)
- ▶ [National grid operator, ONS: Applying for grid connection](#)
- ▶ [Regional Council for Architecture and Agricultural Sciences, Conselho Regional de Arquitetura e Agronomia \(CREA\): Proof of proper registration of the engineer](#)
- ▶ The Brazilian Federal Environmental Office, known as the [Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais \(IBAMA\)](#): Application for the environmental impact assessment process



- ▶ According to article 15, paragraph 2 of the Civil Code no. 391, SCG grants a grace period of 60 days for the submission of missing documents



- ▶ Permit application (Portuguese: Requerimento de Outorga)
  - ▶ Description of the legal person
  - ▶ Description of the technical proposal (title Ficha Técnica de Usinas Eólicas); for format see Appendix IV and V of statutory provision no. 391
  - ▶ Layout of the plant (Planta de localização da usina)
- ▶ After notification about the recording:
  - ▶ Environmental permit (known as the Licença ambiental); detailed explanation in the section on environmental permits
  - ▶ ONS receipt notification (known as the Informação de acesso ao ONS)
  - ▶ Detailed construction schedule of the plant (known as the Cronograma físico da implantação do empreendimento)
- ▶ Registration of the plant with ANEEL:
  - ▶ Form Appendix III (known as the Formulário de Registro de Usina)
  - ▶ Environmental permit (known as the Licença ambiental)

Statutory provision no. 391 from 15 December 2009 (issued by the National Agency for Electrical Power, known as the Agência Nacional de Energia Elétrica, ANEEL) enables the commercial operation of wind energy plants in Brazil. The responsible authority for submitting applications is the Supervisory Office for Authorisations and Permits for Power Generation, a sub-department of ANEEL (known as the Superintendência de Concessões e Autorizações de Geração, SCG) in the federal district of Brasília. Both statutory provision no. 391 and form “Anexo III: Formulário de Registro de Usina” are available online. Statutory provision no. 391 is available on the Internet at [www.aneel.gov.br/cedoc/ren2009391.pdf](http://www.aneel.gov.br/cedoc/ren2009391.pdf).

Statutory provision no. 391 names the conditions under which permits are granted to power generation plants with an output greater than 5 MW. The conditions under which the output of power generation plants can be changed (from 5 MW to 7 MW, for example) are also listed there.



To date there has been no federal law passed for the licensing of power generation. However, negotiations are ongoing about draft law no. 1214/2011, which provides for the taxation of operators of wind energy plants at a rate of 6 percent of the energy produced. The draft law was introduced in the Federal House of Representatives in May 2011 by representative Pereira from the PR party. If the draft law is passed, it will likely go into effect in March 2012.

### Steps for receiving a license for power generation

According to article 2, I, of statutory provision no. 391, applicants are legal persons who intend to operate wind energy plants for the purpose of power generation. According to article 5 paragraph 2, the company submitting the application must verify that it is properly paying taxes during the duration of the entire permit process. This verification is issued by the Ministry of Finance in the form of a clearance certificate. If this verification is not provided, the penalties mentioned in article 2 of statutory provision no. 63 of ANEEL from 12/05/2004 are imposed on the company, including: warnings, fines, construction freezes, closure of the plants and temporary exclusion from participation in public tenders for the receipt of new permits, as well as the prohibition of concluding agreements with ANEEL and receiving permits for power generation.



**The permit application (in Portuguese: *Requerimento de Outorga*) will be submitted together with the documents listed in Appendix I of statutory provision no. 391. These documents include:**

- ▶ A comprehensive description of the legal person, including the declaration about property or direct ownership of the property on which the wind energy plant is to be erected (this declaration must correspond to the formal requirements of Appendix IV of statutory provision no. 391).
- ▶ A comprehensive technical description of the proposal, including the completed form (known as the *Ficha Técnica de Usinas Eólicas*) in Appendix V and certification of the lack of aerodynamic disturbances to neighbouring wind farms caused by the wind energy plant applied for.
- ▶ Layout of the plant (known as the *Planta de localização da usina*)

If the application is seen to be valid, the SCG issues a notification of the recording of the application according to article 6 of statutory provision no. 391. If the documents provided are incomplete or insufficient, the SCG grants a grace period of 60 days for submitting the missing documents in accordance with article 15 paragraph 2 of statutory provision no. 391. However, the notification about the recording of the application does not exempt the applicant from having to apply for an environmental permit.

After the notification is received, the applicant needs to apply for the environmental permitting process and registration/grid connection at the national grid operator ( **Operador Nacional de Sistema, ONS**) (article 6 of statutory provision no. 391). In accordance with article 7 statutory provision no. 391, the application now already has the option to start with the construction of the plant. However, the start of construction is “at the operator’s own risk”, since there is still no guarantee at this point in time that the permit for power generation will actually be issued.

The application will not be approved if it is found during the application that the applicant did not fulfil at least one requirement of the statutory provision (article 9). If the applicant has neither presented one of the documents of Appendix I nor submitted it after the fact, the process is abandoned. If the applicant desires a continuation of the permitting process, a new application must be submitted.

After receiving notification of the recording of the application (as in article 6 of statutory stipulation no. 391), the applicant needs to present the following documents from Appendix II of statutory provision no. 391 within a period of 60 days:

- ▶ Environmental permit (known as the Licença ambiental); detailed explanation in the section on [Environmental permits](#)
- ▶ ONS receipt notification (Informação de acesso ao ONS)
- ▶ Detailed schedule of the construction of the plant (cronograma físico da implantação do empreendimento)

According to article 8, the wind energy plant may not be connected to the electrical combined grid and begin test and business operation until after the decision regarding the license for power generation is made public. According to article 15 paragraph 1, special attention is paid to possible irregularities during the evaluation of the documents. Irregularities, such as improprieties in regard to tax payment, can lead to halting of the process until these irregularities are dealt with. The applicant is granted a grace period of 60 days to rectify irregularities. If the applicant does not make use of this grace period to deal with the irregularities, the process is abandoned. If the irregularities are dealt with within the grace period, the applicant must re-submit all documents named in Appendix I



**The applicant must make the following documents available to ANEEL – preferably already at the beginning of the process (see article 16, I-IV):**

- ▶ The environmental impact assessment (known as the Estudo de Impacto Ambiental, EIA)
- ▶ The report about environmental effects (known as the Relatório de Impacto Ambiental, RIMA)
- ▶ The basic project (known as the Projeto básico)
- ▶ Test results in regard to the commissioning of the plant (known as the Resultados dos ensaios de comissionamento)
- ▶ Climatological and anemometric test results (known as the Ensaios anemométricos e climatológicos)

If the permit is to be transferred to another (legal) person during the ongoing process (article 14), the successor must provide ANEEL with the documents that comprehensively describe the legal person of the applicant (as listed in Appendix I).

### **Requirements for the issuance of the license for power generation**

Before issuance of the license, ANEEL particularly analyses the following key factors for power generation and operating conditions: potential of wind energy at the location, the output of the plant to be erected, access and access provisions to the electrical combined grid and to the transformer station (see article 12). If all of these pre-requisites are fulfilled, the proposal is approved. Operators registered as generators of electrical power for own use are authorised to sell their surplus of generated power (see article 26, IV of federal law no. 9,427 from 26/12/1996).

### Registration of wind energy plants with low output

According to article 19 of statutory stipulation no. 391, ANEEL must be formally informed about the construction and operation of wind farms with low output (less than or equal to 5 MW). In contrast to the permit for plants with an output greater than 5 MW, wind farms with low output need only be registered. The environmental permit is crucial for proper registration. For registration, the operator sends the completed form in Appendix III (known as the Formulário de Registro de Usina) to ANEEL along with a corresponding environmental permit. However, the registration does not exempt the operator from other environmental requirements of local environmental authorities. According to article 20, the low-output wind energy plants registered with ANEEL (defined according to article 19 as plants with an output less than or equal to 5 MW) are permitted to be operated on a commercial basis and are granted access to the electrical combined grid and switchgear in accordance with applicable law.



ANEEL is allowed to demand supplementary documents or completions of the documents listed in this ordinance (article 23). All technical information about the project must be signed by the lead engineer (article 21). Evidence of proper registration and occupational licensing of the engineer issued by the Regional Council for Architecture and Agricultural Sciences (Conselho Regional de Arquitetura e Agronomia, CREA) must be provided in the process.

## 4 Environmental permit

### Brief overview



- ▶ Article 24 VI, XII and article 25 VI of the Brazilian constitution, known as the [Constituição Federal \(CF\)](#)
- ▶ Law no. 6,938/81
- ▶ Articles 6 and 7 of ordinance no. 237/97 of the CONAMA
- ▶ Ordinance no. 001/86 CONAMA (precondition of the UVP)



- ▶ National Environmental Council, known as the [Conselho Nacional do Meio Ambiente \(CONAMA\)](#)
- ▶ The Brazilian Federal Environmental Office, known as the [Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais \(IBAMA\)](#)
- ▶ Environmental authorities at the state level, known as (Órgãos Estaduais do Meio Ambiente, OEMA)
- ▶ Municipal environmental authorities, known as órgãos municipais



- ▶ Environmental impact assessment: the report about environmental effects, known as the Relatório de Impacto Ambiental (RIMA). Time needed to create the report: 6-12 months
- ▶ Study of the non-necessity of the environmental impact assessment, known as the Relatório de Ausência de Impacto Ambiental (RAIA); expected time needed to compile the report: approx. 2-3 months



- ▶ Costs for the creation of the RIMA and RAIA reports must be paid by the applicant; these costs are between roughly 0.5 percent and 5.0 percent of the total value of the project

The environmental permitting process, known as the Licença ambiental, is the process for permitting an activity that could potentially harm the environment. This process is a multi-stage administrative act, during which the environmental impact of the proposal is reviewed and the environmental requirements for project implementation are defined. The three stages of the administrative act are:

- ▶ The preliminary permit, known as the Licença prévia (LP)
- ▶ The building or construction permit, known as the Licença de instalação, (LP)
- ▶ The operating license, known as the Licença de operação, (LO)

### Responsible authorities at the federal and state level

Nature conservation is an area of competing legislative powers. According to article 24 VI, XII and article 25 VI of the Brazilian constitution (Constituição Federal, abbreviated to CF), the federal government is responsible for legislation in regard to general regulations of nature conservation law. According to article 25, VI of the CF, the federal government is responsible for defining the general regulations for the environmental permitting process. However, this legislative power does not exclude the states from regulating individual features of the environmental permitting process.



In the states of Rio de Janeiro and Bahia, for example, what is known as the “simplified environmental permit” exists (the Licença ambiental simplificada, LAS). In the state of Ceará, a simplified environmental permit was also introduced in spring 2011, but it was declared unconstitutional shortly thereafter because requirements were not met.

The National Environmental Council ([📄 Conselho Nacional do Meio Ambiente, CONAMA](#)) is the federal authority that issues laws and ordinances in regard to nature conservation for the entire country. It was established by law no. 6,938/81 as the normative body for environmental matters. In the National Environmental System (Sistema Nacional do Meio Ambiente, SISNAMA), which was also established by federal law no. 6,938/81, the organisation of environmental protection is set up on three levels: on the federal level, on the state level (or district level [Brasília-DF]) and on the municipal level.

The Brazilian Federal Environmental Office (Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais, IBAMA) is the executive body on the federal level for matters of nature conservation. This authority reviews laws and ordinances issued by CONAMA. Every Brazilian state has a corresponding body that needs to align itself with the general guidelines of CONAMA, but adds to these rules in accordance with the different circumstances of the respective states.



A list of the Brazilian environmental authorities on the state level – what are known as the Órgãos Estaduais – can be found on page [📄 www.cnrh.gov.br](#).

Report no. 132/2004 issued by the legal department of the Ministry of the Environment (Consultoria Jurídica junto ao Ministério do Meio Ambiente, CONJUR-MMA) in 2004 provides clarification of the question of responsibility for the issuance of environmental permits. What is crucial for determining jurisdiction is not just the location at which the proposal is to be implemented, but the spatial dimensions of the possible environmental harm that is expected. The jurisdictions are defined in ordinance no. 237/97 of the CONAMA as follows:

Spatial dimensions of the environmental harm	Authority responsible for permitting
On two or more states	IBAMA
On two or more municipalities (municípios)	Environmental authority of the state, such as the Instituto Ambiental do Paraná (IAP)
On one municipality (município)	The municipal environmental authority, such as the Secretaria Municipal do Meio Ambiente de Curitiba

### Responsible authorities on the municipal level

Articles 6 and 7 of ordinance no. 237/97 of the CONAMA provide for legislative powers on the municipal level: According to article 6, the municipal environmental authorities are responsible for issuing environmental permits for undertakings and activities with impacts on the local environment after consultation with the federal government (união), the states and the federal district. The municipalities are also entitled to make decisions about undertakings that have been delegated down to the municipal environmental authority by the state on a legal basis or in the form of agreements. This means that every municipality has an environmental authority to which an application for the environmental permitting process can be submitted.



Examples for such municipal environmental authorities (órgãos municipais) are:

Municipal environmental authority	State
Superintendência Municipal de Meio Ambiente (SMA)	Bahia (BA)
Secretaria Municipal de Meio Ambiente e Controle Urbano (SEMAN)	Ceará (CE)
Secretaria Municipal do Meio Ambiente (SMAM)	Rio Grande do Norte (RN)
Fundação do Meio Ambiente de Florianópolis (FLORAM)	Santa Catarina (SC)

### General approach for obtaining the environmental permit (known as the Licença ambiental)

The applicant submits a detailed description of his plans to the responsible environmental authority. Depending on the hazard level (1 to 6), the authority decides whether an environmental permitting process (EPP) is necessary or not. In case of hazard level 1, no EPP is necessary. In this case the applicant receives a certificate and is allowed to immediately begin the activity that was applied for. In case of hazard level 2, the EPP may be waived in exceptional cases. However, for proposals of hazard level 2 and above, an EPP is usually required by the authorities.



In this context it should be emphasised that the specific definition of the individual hazard levels falls under the jurisdiction of the states, meaning that in some cases it can be quite different from one state to the next (in the state of Rio de Janeiro, the hazard levels are defined by ordinance no. 42,159/2009, for example).

As already mentioned, the environmental permitting process in Brazil is a multi-stage administrative act consisting of the granting of the preliminary permit (known as the Licença prévia), the construction permit (known as the Licença de instalação) and the operating license (known as the Licença de operação). The processes for obtaining the preliminary permit are to be described first. The details of the construction permit (known as the Licença de instalação) and the operating license (known as the Licença de operação) are explained in section [➤ Construction and commissioning](#). In section [➤ Overview of the complete process](#), the entire permitting process is shown graphically.

### The preliminary permit (known as the Licença prévia)

This phase is described in article 8, I, of ordinance no. 237/97 of the CONAMA. The preliminary permit gives approval to the technical and environmental feasibility of the construction proposal (viabilidade). The requirements that must be fulfilled in the next phases are also defined in this phase. According to article 18, I, of the ordinance mentioned above, the preliminary permit has a period of validity of up to 5 years.



Article 5 paragraph 1 of the CF grants Brazilian citizens and foreigners living in Brazil the right to reasonable duration of processes. That means that the authority is not allowed to draw out a process unnecessarily and must provide a legal justification for any delay. If the process is delayed a great deal, it is advisable to use a lawyer to bring about faster processing by the environmental authority.

#### Overview of the legal documents for the issuance of the preliminary permit, known as the *Licença previa*:

<b>Relatório de Ausência de Impacto Ambiental (RAIA)</b>	Study whose purpose is to certify that it is not necessary to carry out an environmental impact assessment.
<b>Environmental Impact Assessment (EIA/RIMA)</b>	Carried out by an independent working group; this group also creates the audit report RIMA
<b>Environment Impact Audit Report, known as the Relatório de Impacto Ambiental (RIMA)</b>	Report to the public explaining the results of the environmental impact assessment



If the RIMA receives a positive assessment from the environmental authority, a preliminary permit is issued.

#### Relatório de Ausência de Impacto Ambiental (RAIA)

The Relatório de Ausência de Impacto Ambiental (RAIA) is a study whose purpose is to certify that it is not necessary to carry out an environmental impact assessment. It needs to be just as extensive as the EIA report. The designations for this report differ from state to state (in São Paulo it is called the Relatório Ambiental Preliminar, RAP, for example). The authority can exempt the proposal from the obligation to perform an EIA if it is sufficiently convinced by the RAIA that the proposal will cause no substantial environmental harm. However, that does not prevent it from ordering supplementary studies.



It is usually the case that the environmental authorities require the companies to carry out the EIA/RIMA after the RAIA is submitted. Environmental authorities proceed on the assumption that environmental harm will be caused by a wind energy plant. The question to be clarified is not whether a potential environmental harm is present, but the extent and relevance of the harm.

#### The environmental impact assessment

The environmental impact assessment (EIA) is a component of the environmental permitting process rooted in article 225 paragraph 1, IV, of the Brazilian constitution (CF).

Since ordinance no. 001/86 of the CONAMA (already before the proclamation of the Brazilian constitution in 1988), the conditions under which the EIA and the associated report about environmental impacts (Relatório de Impacto Ambiental, RIMA) are defined. Article 2 of the ordinance lists the precise circumstances and cases in which the EIA is always obligatory, namely when potential environmental harm is possible. The responsible authority also uses the EIA to consider the technical and local alternatives to the proposal, as well as the severity of

the environmental harm that arose in the first and second phase. At this point an assessment is made of whether the proposal is consistent with the governmental programmes currently being implemented locally.

Article 7 of ordinance no. 001/86 of the CONAMA requires that the EIA be implemented by a multidisciplinary and empowered working group independent of the applicant. This regulation was rescinded by article 11 of ordinance 237/97, which states that the studies necessary for the environmental permitting process must be created by legally empowered experts and that the costs incurred here are to be billed to the applicant. It also states that the operator and experts have to sign the studies created and are responsible for the information contained in them from an administrative, civil and criminal law standpoint.



Freelancers and companies are commissioned for the implementation of an EIA (EIA/RIMA). The former can be biologists, university professors (natural scientists) or specialised technicians (contacts can be made through in-quiries at universities, for example). There are companies throughout Brazil that offer to perform the EIA/RIMA. However, most of these companies are located in the business metropolis of São Paulo.

According to articles 11, 12 and 17 of ordinance no. 237/97, the costs for the EIA (EIA/RIMA) are to be borne by the company submitting the application.



The cost for the performance of an EIA/RIMA is generally between 0.5 percent and 5.0 percent of the total value of the project. Even in the case of extremely complex and controversial proposals, the expense exceeds 10 percent of the project value only in exceptional cases. The duration of an EIA/RIMA is 6 to 12 months on average.

The responsible authority has considerable latitude in the environmental permitting process. Articles 170, VI, and 225 of the Brazilian constitution postulates the concept of sustainable development, so that the municipal or state environmental authority weighs environmental protection against economic development, taking into account the principles of reasonableness and expediency. Thus the environmental permit can be issued even if the EIA and report about environmental impacts (RIMA) are negative for the relevant environmental permitting process. In this case the authority needs to comment on all relevant items of environmental harm and justify why it nevertheless favours the permit. If it does not do this, the decision is contrary to article 37 of CF2 and is thus subject to administrative appeal.

In contrast, if the EIA or the report about environmental impacts (RIMA) is positive, the responsible authority needs to approve the proposal. In this case it is a matter of what is known as a bound administrative act. Since the permit depends only on potential environmental harm (in conformity with article 170, VI, of the CF), if such harm does not exist, the permit must be approved. It should be mentioned in this context that it is not always necessary to perform an EIA. According to article 225 paragraph 1, IV, of the CF, it is necessary to perform an EIA for activities that could potentially cause significant environmental harm.



For permitting processes for wind energy plants, it must be noted that even noise is considered to be environmentally harmful according to article 3, III, of law no. 6,938/81.

### Environment Impact Audit Report (Relatório de Impacto Ambiental, RIMA)

This report is created to explain the result of the environmental impact assessment to the public. It needs to be written in generally understandable language that is free of technical terms and can be understood by non-experts. The audit report must accurately reflect the content and process of the assessment. After the report is drawn up, it needs to be submitted to the responsible authority. If the RIMA receives a positive assessment from the environmental authority, a permit is issued. According to case law, neither the public prosecutor's office nor other members of the judiciary can raise objections to the issuance of the permit.<sup>2</sup>

### Civil liability



The environmental authority that issued an environmental permit can be prosecuted in civil court if the permitted plant or activity causes environmental harm. If the authority issues the permit even though the results of the EIA are negative for the proposal, this authority is liable if causality can be established between the harm and the decision of the authority. If the EIA was performed and the result was positive for the proposal, the authority is not liable because its decision was a bound administrative act.

### Participation of the public in accordance with ordinance no. 001/86 and 9/87

The right to information in environmental matters has constitutional status and is ensured by article 225 paragraph 1, IV, of the federal constitution and article 9, IV, of federal law 6,938/81. Public participation is optional. It is included when the responsible authority sees it as necessary, when at least 50 citizens request it from the authority or when it is ordered by the public prosecutor's office. If the permit applicant does not allow for public participation even though it was requested by the public prosecutor's office or the people, the permit is considered to be invalid. If the authority orders public participation, the period for public participation is according to article 10 of ordinance no. 001/86 of the CONAMA. This means that the period specified by the local authorities is valid. If public participation was demanded by the public prosecutor's office or citizens, it must be carried out 45 days after submission of the RIMA.

<sup>2</sup> Agravo de Instrumento (appeal) no. 2001.03.00.0000007-5 in the matter of Cia Energética de São Paulo (CESP) vs. the Federal Attorney's Office.

## 5 Construction and commissioning

### Brief overview



- ▶ The preliminary permit, known as the Licença prévia (LP): [Ordinance no. 237/97 of CONAMA](#)
- ▶ Erection and construction permit, known as the Licença de instalação (LI): [Ordinance no. 237/97 of CONAMA](#)
- ▶ The operating license, known as the Licença de operação (LO)



- ▶ Depending on the extent of environmental effects [Responsible authorities on the federal, state and municipal level](#)



- ▶ The sequence and prerequisites of the individual phases of the environmental permitting process are defined by the states independently in the form of supplementary laws.
- ▶ The duration of validity of the preliminary permit (known as the Licença prévia) may be up to 5 years according to article 18, I, of ordinance no. 237 from 19 December 1997.
- ▶ The construction permit (known as the Licença de instalação) is valid for up to 6 years (article 18, II).
- ▶ The validity of an operating license (known as a Licença de funcionamento) is at least 4 and at most 10 years (article 18, III).



- ▶ [Table of the process costs](#)

The construction permit is issued in the course of the environmental permit process and the permit process for power generation (the procedure of the latter process is regulated by ordinance no. 391). The two processes are linked with each other.



The environmental permit is also a construction permit (Licença de construção), making a separate application unnecessary.

The exact sequence and prerequisites of the individual phases of the environmental permitting process are defined by the states independently in the form of supplementary laws.

### Phase I: The preliminary permit (known as the Licença prévia)

The erection and construction permit is issued when the previous phase is complete. In accordance with article 8, II, of ordinance no. 237/97 of CONAMA, in this phase the erection of the proposed structure is specified with relevant instructions of drawings, programmes and approved projects, including measures for environmental monitoring. This phase must be completed within a period of six years (article 18, II).

### Phase II: The erection and construction permit (known as the *Licença de instalação*)

The erection and construction permit is issued when the previous phase is complete. In accordance with article 8, II, of ordinance no. 237/97 of CONAMA, in this phase the erection of the proposed structure is specified with relevant instructions of drawings, programmes and approved projects, including measures for environmental monitoring. This phase must be completed within a period of six years (article 18, II).

### Phase III: The operating license (known as the *Licença de operação*)

After this stage the final permit for the activity (known as the *Licença ambiental*) is issued. Issuing of the operating license depends on the results of measures taken for environmental impact control. This phase includes a thorough review of whether the requirements of the two previous phases have been completely fulfilled (see [article 8, III, of ordinance 237/97 of CONAMA](#)). The validity of an operating license is at least 4 and at most 10 years (article 18, III).



The actual construction of the wind energy plant does not depend on the duration of the environmental permitting process, but on the strategic construction management of the commissioned construction company. From the start of planning until the final commissioning of a wind energy plant, the following benchmarks can be named:

- ▶ Very fast process: 2-3 years
- ▶ Average process duration: 4-7 years
- ▶ Protracted planning process: 8-10 years or more

The fees of the environmental permitting process differ from state to state. They create revenue for the municipal environmental authorities. All activities that require permits are associated with a fee for each process. For example, in the state of Bahia, the following fees apply for the environmental permitting process (according to Appendix IV of ordinance no. 11,235 from 10 October 2008).

Table of the process costs

Type	Fee (in REAL, R\$)				
Simplified environmental permit (known as the Licença simplificada, LS)	500,00				
Environmental permit, multiple (known as the Licença conjunta, LC <sup>1</sup> )	9.000,00				
Company name change	300,00				
Transfer of ownership	500,00				
Type of process	Scope of the planned project				
	Very small (park < 15 towers)	Small (park ≥ 15 < 30 towers)	Medium (park ≥ 31 < 60 towers)	Large (park ≥ 60 < 120 towers)	Extremely large (park ≥120 towers)
Preliminary permit (known as the Licença previa, LP)	500,00	800,00	1.500,00	3.000,00	6.000,00
Erection and construction permit (known as the Licença de instalação, LI) and change permit (known as the Licença de operação da alteração, LOA <sup>2</sup> )	500,00	1.500,00	3.000,00	6.000,00	9.000,00
Operating license (known as the Licença de operação LO) or its extension (known as the renovação da Licença de operação, RLO) and operating license for the change	500,00	1.000,00	2000,00	5.000,00	8.000,00

1 Administrative act that approves the site, erection/construction or operation of several proposals at the same time

2 Administrative act through which a change (of the scale, of the output, etc.) of the proposal is permitted.

## 6 Grid connection

### Brief overview



- ▶ [Statutory provision no. 391, ANEEL](#)
- ▶ Law no. 9648, Basis for the Purchase and Sale of Energy
- ▶ Application for Access to and Use of the Transmission and Distribution Grids, acc. to articles 15, 16, law no. 9074/1995



- ▶ The national grid operator, known as the [Operador Nacional do Sistema Elétrico \(ONS\)](#)
- ▶ Power supply companies



- ▶ Processing duration of the application for access to the electrical combined grid:
  - ▶ 30 days: no need for improvements
  - ▶ 120 days: improvements needed
  - ▶ 1 year: extensions needed



- ▶ Agreement for grid use, known as the Contrato de Uso de Sistema de Transmissão (CUST)
- ▶ Agreement for grid connection, known as the Contrato de Conexão ao Sistema de Transmissão (CCT)

Grid connection and the grid use process occur after the National Agency for Electrical Energy (Agência Nacional de Energia Elétrica, ANEEL) has issued the license for power generation to the company. According to article 6 of statutory provision no. 391, the company can now apply for membership and grid connection with the national grid operator (Operador Nacional de Sistema Elétrico, ONS). The ONS is a non-profit, legal person under civil law that controls and manages the National Combined System (Sistema Interligado Nacional, SIN) under the supervision of ANEEL. Further information on the ONS can be found at: [www.ons.org.br](http://www.ons.org.br)

The National Combined System SIN is the control and coordination system in which the entire electrical power generation and power transmission sector of Brazil is consolidated. Just 3.4 percent of the electrical power generated in Brazil is not distributed via the SIN, but instead via independent systems mainly located in the Amazon region. The Brazilian Combined System SIN is divided into four large subsystems:

<b>Subsystem Southeast/Midwest (SE/CO)</b>	The Southeast and Midwest regions without the state of Mato Grosso do Sul
<b>Subsystem South (S)</b>	Includes the South region and the state of Mato Grosso do Sul
<b>Subsystem Northeast (NO)</b>	Includes the entire Northeast region without the state of Maranhão
<b>Subsystem North (N)</b>	Includes parts of the states of Pará, Tocantins, Maranhão, Rondônia and Acre

The ONS has the task of managing SIN in an integrative, transparent, impartial and neutral manner, so that the safety, continuity and profitability of the energy supply of the country is ensured.

## Electricity trading

The legal basis for electricity trading is law no. 9648 from 27 May 1998. Article 9 states that for electricity trading among permit holders or authorised parties, agreements concerning access to and use of the transmission and distribution grids need to be concluded. It is the responsibility of ANEEL to set the fees and general contract conditions for access to and use of transmission and distribution grids by permit holders, licensees, authorised parties and consumers in accordance with articles 15 and 16 of law no. 9,074/1995).

In accordance with article 15 of law 9,074, the principle of free access applies, according to which every producer and consumer has the right to connect to and use the electrical combined grid. Electricity trading can be contractually agreed independently from access to and use of the electrical grid. The principle enables direct trading between producers and electricity providers (regardless of their geographical location), strengthens competition between traders and thus leads to a drop in prices, which benefits the end consumer (ordinance no. 281/99 of ANEEL, Introduction).



According to ordinance no. 281/1999 of ANEEL, power supply companies, importers, exporters and independent end users can apply for permanent access. A permanent connection is established faster than a temporary connection and receives preferential treatment (article 2, V, of ordinance no. 715/2001 ANEEL). According to article 1 of the above-mentioned ordinance, temporary access can be requested by power supply companies, importers, exporters and independent end consumers. Temporary connections are valid for one year and can be extended.

Access can be requested:

- ▶ From the national grid operator ONS (Operador Nacional de Sistema Elétrico), if the connection is established to the transmission grid (Rede Básica) or the transmission installations (instalações de transmissão, DIT) that are directly connected to the transmission grid;
- ▶ From the power supply company, if the connection is established to the transmission grid or the transmission installations (instalações de transmissão, DIT) that are not directly connected to the transmission grid (Rede Básica);



### Prerequisites for grid connection

- ▶ License for power generation issued through ANEEL in accordance with statutory provision no. 391.
- ▶ Compliance with the technical standards for the electrical grid (from SRT/ANEEL resolution no. 2744/2010 and REN resolution no. 372/2009)
- ▶ Compliance with the stipulations regarding duties of the energy supplier to other agents (Procedimentos de Distribuição, PRODIST, see [www.aneel.gov.br/area.cfm?idArea=82](http://www.aneel.gov.br/area.cfm?idArea=82))
- ▶ Operation of switchgear in compliance with the technical standards and specifications of the permit holder
- ▶ Prescribed grid connection point

### Application for grid access

The application for grid access must be submitted in a specific, prescribed form. The processing duration is:

- ▶ 30 days if there is no need for improvements (technical improvements, for example)
- ▶ 120 days if there is a need for improvements
- ▶ 1 year if extensions are required



Conducting studies in regard to connecting to the transmission grid is the responsibility of the company connecting to the grid. Such studies cover the energy quality, possible short circuits and power flow.

After receipt of the access notification, the Agreement Regarding the Use of the Transmission Systems (Contrato de Uso do Sistema de Transmissão, CUST) must be concluded with the ONS within 90 days. It is also necessary that what is known as an Agreement Regarding Connection to the Transmission System (Contrato de Conexão ao Sistema de Transmissão, CCT) be concluded within this period. Information regarding the costs for these two agreements can be obtained from the ONS.

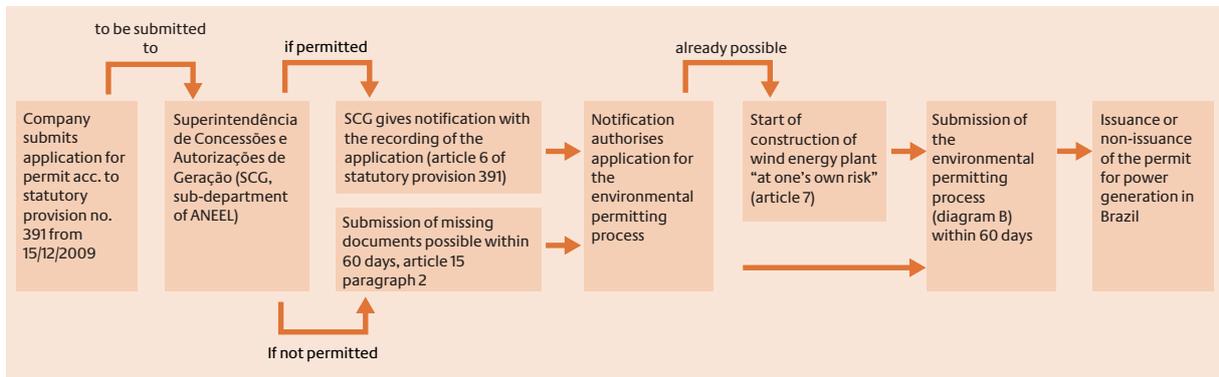


It is possible to first make an inquiry with the ONS in regard to access to the electrical grid. In this case it is just an exchange of information that does not create any obligations for either side.

## 7 Overview of the entire process

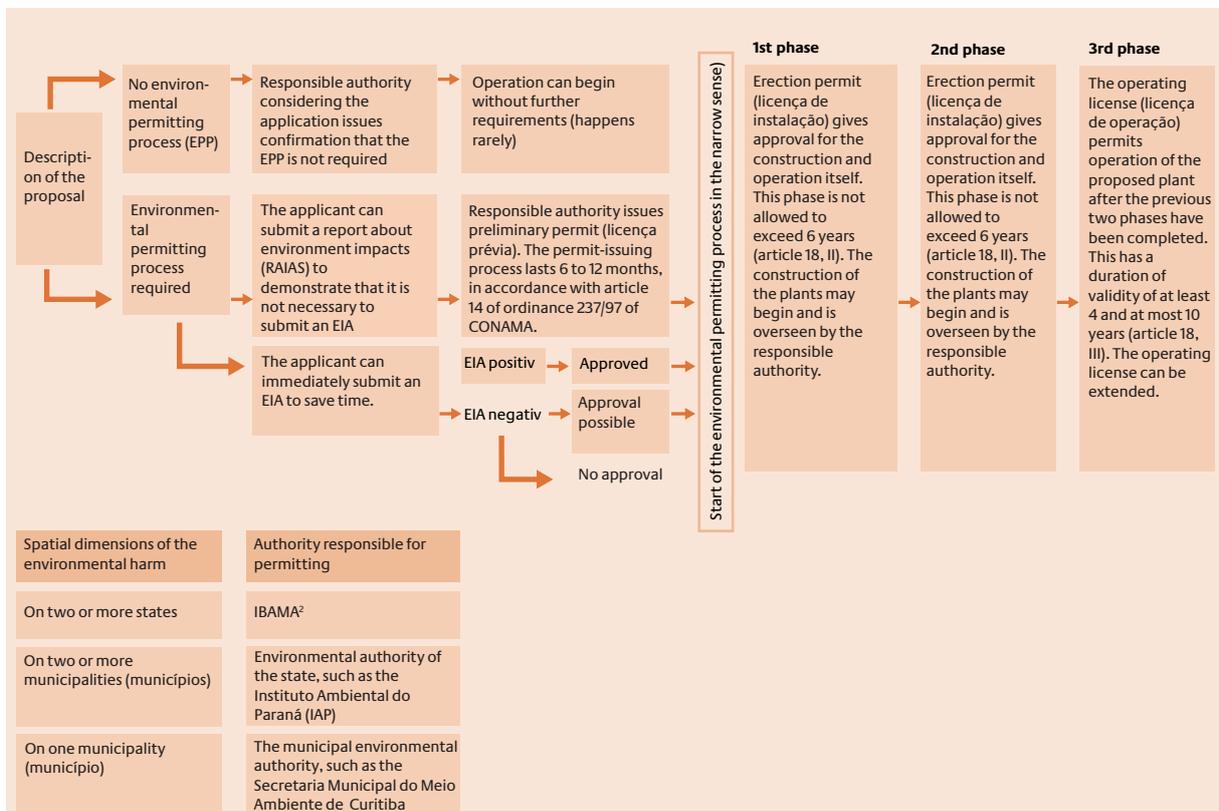
**Diagram A: Permitting process for power generation**

(statutory provision no. 391 from 15/12/2009 from ANEEL)



Responsible authority: Agência Nacional de Energia Elétrica (ANEEL, English: National Agency for Electrical Energy)

**Diagram B: Environmental permitting process (legislative decree 237/97 of CONAMA<sup>1</sup>)**



<sup>1</sup> CONAMA: Conselho Nacional do Meio Ambiente (English: National Environmental)

<sup>2</sup> IBAMA: Instituto Brasileiro do Meio Ambiente dos Recursos Naturais Renováveis (English: the Brazilian Federal Environmental Office)

## 8 Contacts

### ANEEL

Agência Nacional de Energia Elétrica  
(Regulatory authority)  
Superintendência de Mediação Administrativa Setorial  
Quadra 603, modulo J, 1º andar  
CEP 70-830-030, Brasília – DF  
Tel.: +55 61-2192 8600  
[www.aneel.gov.br](http://www.aneel.gov.br)

### CCEE

Camara de Comercializacao de Energia Elétrica  
(Wholesale market for electricity)  
CNPJ: 03.034.433/0001-56  
Alameda Santos, 745 - 9º andar  
Cerqueira César - São Paulo - SP  
CEP: 01419-001  
[www.ccee.org.br](http://www.ccee.org.br)

### EPE

Empresa de Pesquisa Energética  
(Public energy research organisation)  
Escritório Central  
Avenida Rio Branco, 1º-11º andar, Centro  
CEP 20090-003 Rio de Janeiro, RJ  
Tel.: +55 21-3512 3100  
Fax: +55 21-3512 3199  
[www.epe.gov.br](http://www.epe.gov.br)

### IBAMA

Instituto Brasileiro do Meio Ambiente e dos Recursos  
Naturais Renováveis  
(The Brazilian Ministry of the Environment)  
SCEN Trecho 2, Ed. Sede Bloco C, 1º andar  
Caixa Postal n° 09870 Asa Norte  
Brasília, DF  
Tel.: +55 61-3316 1212  
Fax: +55 61-3225 0564  
[www.ibama.gov.br](http://www.ibama.gov.br)

### MME

Ministério de Minas e Energia  
(Ministry for Mining and Energy)  
Tel.: +55 61-3319 5620/3319 5588  
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[www.mme.gov.br](http://www.mme.gov.br)

### ONS

Operador Nacional do Sistema Elétrico  
(National grid operator)  
ONS – Rio de Janeiro  
Escritório Central  
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Tel.: +55 21-2203 9400  
Fax: +55 21-2203 9444  
[www.ons.org.br](http://www.ons.org.br)

## 9 Legal bases

ANEEL resolution 112 from 18/05/1999

<http://www.aneel.gov.br/cedoc/res1999112.pdf>

ANEEL resolution 63 from 12/05/2004

<http://www.aneel.gov.br/cedoc/ren2004063.pdf>

ANEEL resolution 391 from 15/12/2009

<http://www.aneel.gov.br/cedoc/ren2009391.pdf>

The Brazilian constitution, known as the Constituição Federal (CF)

[http://www.planalto.gov.br/ccivil\\_03/constituicao/constitui%C3%A7ao.htm](http://www.planalto.gov.br/ccivil_03/constituicao/constitui%C3%A7ao.htm)

CONAMA resolution no. 001 from 23/01/1986

<http://www.mma.gov.br/port/conama/res/res86/res0186.html>

CONAMA resolution no. 237 from 19/12/1997

<http://www.mma.gov.br/port/conama/res/res97/res23797.html>

Law 10,438 from 2002 (PROINFA programme)

[http://www.eletronbras.gov.br/EM\\_Programas\\_Proinfa/default.asp](http://www.eletronbras.gov.br/EM_Programas_Proinfa/default.asp)

Law 10,847 from 15/03/2004

[http://www.planalto.gov.br/ccivil\\_03/\\_Ato2004-2006/2004/Lei/L10.847.htm](http://www.planalto.gov.br/ccivil_03/_Ato2004-2006/2004/Lei/L10.847.htm)

Law 10,848 from 15/03/2004

<http://www.aneel.gov.br/cedoc/blei200410848.pdf>

Portal for Brazilian laws:

<http://www.dbjv.de/dbjv-high/links/index.htm>

## 10 Overview of icons used

Permitting process	Detailed Informationen
 <p>Preliminary survey phase of the project</p>	 <p>Legal bases</p>
 <p>Land use</p>	 <p>Institutions</p>
 <p>License for power generation</p>	 <p>Duration</p>
 <p>Environmental permits</p>	 <p>Costs</p>
 <p>Grid connection</p>	 <p>Tip</p>
 <p>Construction and commissioning</p>	 <p>Attention</p>
	 <p>Infobox</p>
	 <p>Form</p>

As part of the Renewable Energies Export Initiative of the German Federal Ministry of Economics and Technology (BMWi), dena continuously analyses current developments in the global markets for renewable energies. The aim of the study “Permitting Guidelines for Wind Energy Plants in Brazil”, is to support the German renewable energy industry in entering the Brazilian market and in implementing actual projects in Brazil.

More information about the publications of the Renewable Energies Export Initiative can be found at:  
[www.exportinitiative.de](http://www.exportinitiative.de)

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