# LEGAL REVIEW ON THE BRAZILIAN POWER SECTOR



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#### INTRODUCTION

Brazil is a country with a population of almost 184 million people, according to estimates from the Brazilian Institute of Geography and Statistics (IBGE), and stands out as the world's fifth most populous nation. In 2008, approximately 95% of the population had access to electricity. According to data published in September of that year by the Brazilian Electricity Regulatory Agency (Aneel), the country already had more than 61.5 million consumer units in 99% of Brazilian cities. The majority of these consumers, about 85%, are residential. Out of all segments of infrastructure, electricity is the most widely spread utility service.

According to Aneel, in November 2008, Brazil already had 1,768 plants in operation, which correspond to 104,816 MW (megawatts) of installed capacity. Out of this total, 159 are hydroelectric power plants, 1,042 thermal power plants, supplied by various sources (natural gas, biomass, diesel and fuel oil), 320 Small Central Hydroelectric Power Plants (PCHs), two nuclear power plants, 227 central hydroelectric power plants (small hydroelectric power plants) and one solar power plant. This segment has over 1,100 regulated agents among public generation service dealers, self-producers and independent producers. On the other hand, the electricity distribution market, is formed by 63 dealers, responsible for the supply of more than 61 million consumer units.

The National Power Balance for 2008 indicates that electricity was the most consumed utility in the country in 2007. The volume absorbed, 35.443 million TEP, corresponded to a 17.6% of the total volume and an increase of 5.7% over the previous year. The trend of a continuous and robust expansion that began in 2003, remained unchanged, with regards to the performance mentioned above.

Being aware of the importance of this sector of the economy, Almeida Advogados hereby presents a series of twelve articles regarding the Power topic and its relationship with the various fields and areas of law, such as: corporate, contractual, regulatory, consumer, labor, social security, among others.

With this study, Almeida Advogados does not expect to exhaust the infinite range of legal issues that originate from the countless legal transactions developed and conducted in the power sector. It is only meant to be a contribution to help the reader to get up to date with some interesting legal issues related to this strategic sector of the global economy.

#### 1. INSTITUTIONAL ASPECTS OF THE BRAZILIAN ELECTRICITY SECTOR

The initial milestone of the use of electricity in Brazil dates back to 1879, when a dynamo was installed at the Dom Pedro II Railroad Central Station. Nevertheless, Marmelos-Zero, located in the City of Juiz de Fora (MG) is officially the Country's and Latin America's first hydroelectric power plant destined to supply electricity in the national territory, having started its operations in 1889<sup>2</sup>.

A few years later, in 1903, the Brazilian National Congress approved the first document creating rules for the use of electricity. With Brazil owning the largest hydrographic system in the world, stretching over 55,547 km<sup>2</sup>, on 1920, the country already had 360 MW of installed capacity.

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<sup>&</sup>lt;sup>2</sup> Source: National Electricity Agency – ANEEL.

At that time, the State had no strong intervention on electrical power generation sources, basically represented by hydroelectric power plants. It was only in 1934, with the institution of the Water Code, by means of the Decree No. 24.643, that Brazilian Government was empowered to grant the right to use hydroelectric resources and the exploration of the concession of electricity transmission and distribution services, limited exclusively to Brazilian companies or others headquartered in the Country.

In the 40's, as a result of the construction of several hydroelectric power plants, Brazil, along with Canada, became one of the world's top producers of renewable power. The great evolution in the sector lead to the creation of the state-owned company Eletrobrás, which scope was to coordinate the power sector, according to Law No. 3.890–A of April 25, 1961.

In the 80's, Brazil already had more than 33 thousand MW of installed capacity, a potential that did not keep the Country from another power rationing (the first was in the 50's), affecting the North and Northeast regions.

By establishing public policies for several areas of the economy, the Constitution of 1988 authorized the Public Authority to contract the provision of public services, as determined by law, either directly or under a concession or permit system, always upon a bid proceeding<sup>3</sup>. This constitutional command was only regulated in 1995, with the enactment of Law No. 8.987/95 (the Concessions Act).

However, it was Law No. 8.031/94 that gave the first, and maybe the most significant push, for what is today's power sector in Brazil. The law in question launched the National Privatization Program (Programa Nacional de Desestatização - PND). Its primary purpose was to introduce the opening of the economy in the Country. At that time, Brazil topped 53 thousand MW of generation capacity. The Era of Privatizations had begun.

However, it is necessary to clarify that the law that regulated the power sector (Law No. 9.427/96) was enacted when the privatizations were already taking place. Instituted by that Law, ANEEL was born with the mission to regulate and inspect the production, transmission, distribution and sale of electricity, according to the federal government's policies and guidelines4.

According to ANEEL, the model created introduces competitive generation, with the market defining the value of electricity, independent transmission and free access, open sale and expansion of the network under the agents' responsibility. It is appropriate to clarify that according to Law 9427/96, the regulation only applies to transportation (transmission and distribution) of electricity<sup>5</sup>; the generation remains under the control of the Ministry of Mines and Power.

In 2004, a new model was introduced for the sector by Laws No. 10.847 and 10.848. These legal instruments created: the Brazilian Power Research Company (Empresa de Pesquisa Energética – EPE), Electricity Sales Chamber, Electricity Sector Monitoring Committee (Comitê de Monitoramento do Setor Elétrico - CMSE), and the substitution of the criterion for

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Federal Constitution, art. 175 introductory paragraph.

<sup>&</sup>lt;sup>4</sup> Art. 2 of Law No. 9427/96.

<sup>&</sup>lt;sup>5</sup> ANEEL 10 Years Report / National Electricity Agency. – Brasília: ANEEL, 2008, page 21.

auctions of new projects, by which the winner becomes the investor that offers the lowest price of electricity, among other innovations and changes.

Notwithstanding the changes and the perfection of the regulatory model, the Brazilian power sector still has major challenges ahead. The development of the power potentials represents a constant goal, once it contribute with the development of other sectors, as, or equally important to the national economy.

On such line, the constitution of the Brazilian Power Research Company (Empresa de Pesquisa Energética – EPE), with the primary mission to develop the studies necessary to plan the expansion of the electrical system, represented an important step on the search for the development of Brazil's power potential.

#### BRAZILIAN **POWER** RESEARCH **COMPANY** (EMPRESA DE **PESQUISA** ENERGÉTICA - EPE) SOLUTION OR PROBLEM FOR THE ENVIRONMENTAL ISSUES OF THE BRAZILIAN POWER SECTOR?

The need for development of the Brazilian power potential to propel Brazil's growth is a topic that has been included in the agendas of investors and representatives of the Country's public sector since 2000. The difficulty, however, resides on the articulation of the interests involved.

On one hand, the Public Authority's necessity to obtain private financing for sumptuous investments; and, on the other hand, the investors' requirement of a well-defined legal milestone, with rules that minimize legal and environmental risks. The Brazilian Power Research Company, can be an important step for the solution of such issues.

#### 2.1. Base scenario – from privatization to blackout

The period preceding the EPE's creation is a good demonstration of the terrible scenario that the Brazilian power network experienced in the 80's and 90's. Created from a public model of investments, supported by the State only, the Brazilian Power sector suffered the consequences of the debts generated by the large expansion of the 70's, subsidized fees and over 35 billion dollars in accrued deficit.

The only option to prevent collapse was to remodel the power sector to ensure that private investments would bear the cost of the development of new projects and finance the country's development. Then the privatizations came, attracting to the Sector more than 60 billion dollars on the second half of the 90's.

However, the period of austerity faced by the Brazilian State at that time and the lack of programmatic studies on the power sector, in light of unfavorable hydrographic conditions (prolonged drought period and reduction of the reservoirs for generation of hydroelectric power), resulted in such investments being insufficient to prevent the 2001 blackout.

The imposition of power rationing and the incredible losses caused by this situation forced the Brazilian State to employ significant institutional and regulatory efforts to revise the orientation and rules surrounding the power issue in Brazil.





# 2.2. Power sector reorganization premise – environmental licensing

The conclusions from various studies indicated environmental licensing as the critical factor in the development of the Brazilian power sector. According to the surveys made at the time, the environmental licenses and related social issues (relocation of the populations affected by hydroelectric projects, for example) represented almost 20% of the total cost of the hydroelectric projects in the country, to the extent that every procedure for obtainment of the necessary licenses required an average of 3 years.

Added to such issues was the practical aspect that the power potentials were contracted by procurement process without the proper previous environmental licensing, which transferred the risks that environmental variable could imply (the project's environmental viability, difficulty in stipulating the start of the generation of electricity and, consequently, the financial implications generated in the amortization of the investments, among others) to the investor and to the project.

This scenario implied not only in a significant increase of the cost of Brazilian power projects, but also generated uncertainties capable of keeping away a good part of the investors.

#### 2.3. Creation of the EPE

This scenario of uncertainties and obstacles led to the creation of the EPE<sup>6</sup> in 2004. It is a public company which scope includes, among other things, the accomplishment of studies and projections on the Brazilian Power Matrix. Preparation of studies for the determination and development of the country's power resources and, in response to the environmental issues indicated in topic 2 above, the grant of powers to promote the actions to obtain the environmental licensing necessary for the procurements involving hydroelectric power generation and power transmission projects.

Based on such grounds, the EPE would become responsible for the obtainment of the previous licensing of the hydroelectric projects to be contracted by procurement process and, consequently, the State would absorb an interesting part of the environmental and regulatory risks generated by the production of electricity in Brazil. Indeed, the idea seems interesting, to the extent that no one better than the State to negotiate internally the obtainment of environmental licenses.

Although not capable of resolving all regulatory issues of the country's power sector, the EPE is, without doubt, an important evolution in this direction, and that already confers regulatory support to interested investors, especially with respect to critical issues.

An extremely important subject, in relation to the interests of the investors in this market, is related to the form of contracting of electricity, to the contracting environments and, to the characteristics of this type of contract.

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Created by Federal Law No. 10.847/2007 and governed by Decree No. 5.184/2004.

#### 3. POWER CONTRACTS AND CONTRACTING ENVIRONMENTS

#### 3.1. Sale of electricity

The regulation of the sale of electricity in Brazil was created by Law 10.848 of 2004, by Decrees No. 5.163 and No. 5.177 of 2004, and by ANEEL Normative Ruling 109 of 2004, which created the Electricity Sale Convention.

This legislation establishes that the commercial relationships among the participants of this market must be established by electricity purchase and sale contracts, with mandatory registration before the Electricity Sales Chamber - "CCEE", within the National Interconnected System.

For any type of contracting, the registration must include the parties involved, the quantities of electricity agreed and the period of electricity supply. The prices stipulated in private dealings are, naturally, not registered before the CCEE.

One of the CCEE'S functions includes the accounting of the differences between the quantities produced and the quantities effectively consumed, in relation to the contracts executed. The positive or negative differences are settled in the Short Term Market and valued by the Price of Settlement of the Differences, determined weekly for each load level and for each submarket.

Among other attributions, the CCEE is also responsible for:

- Keep the record of all electricity agreements, of both Regulated and Open Contracting Agreements;
- Account the amount of electricity sold in the Short Term Market and the Financial Settlement:
- Assess violations of limits of electricity agreements and other violations; and
- Promote Electricity Purchase and Sale Auctions, according to ANEEL's delegation.

#### 3.2. Contracting environments

Today, in Brazil, the sale of electricity is made in two market environments, the Regulated Contracting Environment - "ACR", and the Open Contracting Environment - "ACL".

The Regulated Environment is that where the relationships are established through regulated bilateral agreements and the purchases are made through electricity purchase and sale auctions. Such agreements are referred to as Regulated Environment Electricity Sale Contracts (CCEAR), and are entered into between the "seller agents", in other words, dealers, generators, independent producers or self-producer with surplus production, and the buyers / distributors.

The Open Contracting Environment is that where the parties have greater freedom to contract, as well as a special commercial interest in the relationship established. There is open negotiation between generators-sellers, and the qualified buyers in this market:

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electricity dealers, private consumers, importers and exporters.

Both the "Generation Agents", regardless if public generation service dealers, independent producers or self-producers, and the dealer agents, can sell electricity in the two environments, in order to promote competition in this sector, and maintaining the competitive character of the generation, and all agreements, whether ACR or ACL, are registered before the CCEE, serving as a base for the accounting and settlement of the differences in the short term market.

It is interesting to mention that, according to art. 13 of Decree No. 5.163/2004, in order to ensure the supply to their markets, the distributor agents of the Regulated Environment may acquire electricity through:

- i. Auctions for the purchase of electricity originating from existing generation projects and from new generation projects:
- ii. Distributed generation;
- iii. Plants that produce electricity from wind sources, small central hydroelectric power plants and biomass, contracted on the first stage of the Alternative Electricity Source Incentive Program – PROINFA; and
- iv. Itaipu Bi-National.

### 3.3. Electricity Agreements

The most notable characteristic of electricity agreements is their primordially financial nature. It means that the agreements intend to supply electricity to the power and distribution grid as a whole, and not exactly to the client-buyer. Likewise, the electricity acquired will be removed from the power and distribution grid, and not directly from a client-seller. As such, these agreements do not represent in fact a supply and consumption directly established between the contracting suppliers/consumers.

Another characteristic that is appropriate to highlight is that the agreements related to the Regulated Environment, resulting from electricity sale auctions, contain a specific validity period for each type of auction, as described below:

- i. For auctions for the purchase of electricity originating from new projects, the CCEARs have at least fifteen and at most thirty years of duration, counted as of the start of the supply of electricity; and,
- ii. For auctions for the purchase of electricity originating from existing projects, the CCEARs have at least five and at most fifteen years of duration, counted as of the year following the year of the promotion of such auctions.

Moreover, the distribution agents may reduce the quantities contracted in the auctions for the purchase of electricity originating from existing projects, when potentially free consumers come to exercise their right to opt to purchase from another supplier, when there is reduction in its market, annually limited to four percent, and by virtue of additions for the acquisition of electricity originating from contracts executed before 03/16/2004.

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Being the regulatory agency of the Electricity Sector, ANEEL'S objective is to ensure, through regulation and oversight, the operation of all agents in a balanced environment. Among other factors, this balance is reached by a series of rules created by this Agency, among which one of the most important is Resolution 456/2000.

In the topic below, considerations are made regarding the main provisions of Resolution 456/2000 of the Brazilian Electricity Regulatory Agency – ANEEL, as well as its practical application before the Judiciary.

# 4. THEORETICAL AND PRACTICAL ASPECTS OF RESOLUTION 456/2000 OF THE BRAZILIAN ELECTRICITY REGULATORY AGENCY - ANEEL

### 4.1. Territorial limit of liability of power dealers – article 9 of the Resolution

Power dealers are responsible for the supply of electricity only up to the point of delivery, located on the limit of the public path with the property.

This determination is described in article 9 of ANEEL Resolution 456/2000, and is intended to prevent the dealer from being held liable for problems taken place in the user's internal electricity grid, considering that it is the user who is responsible for keeping the property's wiring in good conditions.

#### 4.2. Reading of the consumption for billing in "sensitive" areas – Article 41 – of the Resolution

Resolution 456/2000 authorizes the dealers to bill the consumption of electricity on a quarterly basis for properties located in rural areas, low-income clients, and regions with up to 1,000 (one thousand) properties.

This determination is justified by the difficulty of access, low monthly consumption, as well as the reduced availability of the electricity distributed.

It is important to clarify that for the months when there is no billing, the consumer has the option to report its consumption to the dealer for billing purposes.

Nevertheless, if the consumer does not make this reading, the dealer itself will make the calculation based on the previous months, as well as the proper adjustment upon the following billing in loco.

#### 4.3. Default per se

A problem commonly faced by every power dealer, namely consumption without payment, is default pure and simple.

Resolution 456/2000, supported by the majority jurisprudence, authorizes power dealers, after formal prior notice to the consumer, to interrupt the supply of electricity during the period in which the consumer remains in default.

It is important to say that, although electricity is characterized as an essential utility service, the dealers are not compelled to supply electricity unconditionally, under penalty of leading its distribution to bankruptcy, this without counting the burden that would be imposed to all other consumers who pay their bills on time. This is what the majority jurisprudence

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determines<sup>7</sup>.

#### 4.4. Irregular procedures

One of the topics subject to greater legal discussions in actions involving power dealers related to irregular procedures, commonly referred to as "illegal hookups" on the electrical grid.

Article 72 of Resolution 456/2000 defined the practice of irregular procedures by consumers, meaning the adulteration of meters, the equipments responsible for recording the electricity consumed, aiming to pay only part of the electricity used.

As such, the dealer, a defender of its product, and to the benefit of all other consumers, relies on inspections to refrain this type of procedure.

In this sense, and considering that there is need to assess the quantity of electricity that was not billed, the dealers use a few forms of calculation, considering: (i) the user's electricity consumption before or after the irregularity; or, also, (ii) the average consumption produced by the existing electrical equipments, and, consequently, the meter's integrity.

However, there is much legal discussion on this matter, provided, nevertheless, that there is extremely favorable jurisprudence in this sense<sup>8</sup>.

This discussion will always exist, considering the fact that we are a Democratic State of Law, with a Judiciary that is independent and ready to act for the consumer and power dealer.

What must be made clear is that there is a constitutional legislation related to the electricity sector, which intends to protect the dealers in public and well-known situations of free consumption of electricity, despite the undoubted bilaterality of the provision of the electricity supply service.

<sup>&</sup>lt;sup>7</sup> In summary: the continuity means that the service can not be interrupted in relation to the collectiveness, the society. If the consumers do not pay and, even then, the individual is maintained, the overall continuity (the one in reality that deserves protection) will then be threatened. (São Paulo State Appeals Court - appeal No. 1059417-0/5, judged on 09/26/2008).

<sup>8</sup> UNSPECIFIED PUBLIC LAW. PUBLIC SERVICES. POWER UTILITY. RGE. RECOVERY OF THE CONSUMPTION NOT MEASURED. USER'S DEFAULT. SUSPENSION OF THE SUPPLY. POSSIBILITY. ADMINISTRATIVE COST. EXCLUSION. The specific legislation allows the recovery of consumption not measured before the user, in the event of verification of an irregular procedure not attributable to the utility in a meter and its consequent reduction, under the terms of art. 72, item IV and subitems of ANEEL Resolution No. 456/00. The procedure for the recovery of consumption not measured is authorized by law. The calculation must observe the regulation (ANEEL Resolution 456/2000), because it is issued according to the law (Law No. 9.427 of 12/26/96, art. 3 combined with art. 29 and 30 of Law No. 8.987 of 02/13/95, while applicable to electricity services), within the sphere of authority of the Federal Government, according to the Federal Constitution. Although the collection of the administrative cost is appropriate, it depends on evidence, not produced in the case records, because it does not represent a fine, but rather indemnification. With the debt becoming not enforceable, the plaintiff's default is removed. It is imperative to remake the calculations and notification. In case of no payment, the suspension is justified regarding the debts in the case records. APPEAL DENIED. (Civil Appeal No. 70023716657, Twenty-Second Civil Chamber, Rio Grande do Sul Appeals Court, Reporting Judge: Rejane Maria Dias de Castro Bins, judged on 04/24/2008).

In this sense, the lack of payment for the consumption of electricity and even its theft by consumers is a recurring problem that results in major losses to power dealers. The following topics will analyze the matter under the perspective of collection of the use of electricity, as well as for the legality of cutting the supply of those in default.

# 5. COLLECTION OF CREDITS RESULTING FROM THE FAILURE TO PAY ELECTRICITY **BILLS**

When facing an issue related to the lack of payment of an electricity bill by the consumer who used the service, the main dichotomy that arises regarding this subject is if the dealers committing an abusive practice by cutting the supply of electricity due to lack of payment, consequently putting the consumer in an awkward position, or if it would be correct to abandon such practice for the companies to rely exclusively on legal means for the collection of their credits before the Judiciary.

This issue deserves a first consideration regarding the suspension of the service supply per

Before seeing the disconnection of electricity supply as a "form of unilateral and abusive collection" by power dealers, it is appropriate to remember that this conduct results from a normative provision established by ANEEL – the Brazilian Electricity Regulatory Agency.

In this sense, the disconnection of the electricity supply is a consequence, considered by many as an act of business management, for all who, after using a service in full, provided for a fee, fail to pay their bills in full and in due time, even after being administratively notified by the power dealer at least 15 (fifteen) days in advance (article 91 of ANEEL Resolution 456/2000 and Law No. 8.987/95, article 6, paragraph 3, item II).

However, the truth is that power dealers have been adopting in their internal policies, several forms of engagement seeking to reduce the default rates and, consequently, reduce their revenue losses.

Among the most used practices, it is possible to highlight the administrative practices, such as remittance of notices and negotiation attempts through utility's agents or third parties, or judicial measures, such as collections lawsuits and submittal of counterclaims.

# 5.1. Collection of unpaid electricity bills before the Judiciary and disconnection of the supply

Aware of the viability of the judicial collection of debts resulting from the supply of electricity not paid by the consumer public, whether natural persons or legal entities, the discussions regarding the nature, motivation and how to proceed with the suspension of the electricity supply as a result of default, invariably permeate the judicial discussions.

As briefly exposed above, although such issue is legally defined in federal rules and laws, its practice raises heated judicial discussions, in the most various levels of the Judiciary.

This because the debt originating from the use of electricity per se, by its payable and bilateral nature, is always recognized as being due.

In the last few years, however, in light of consumer's default, part of the jurisprudence

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became inclined to not admit the suspension of the service, under the argument of the essential nature of the utility service in question and the characteristic of continuity of the electricity supply service, supported by rules such as the Consumer Defense Code (Law No. 8.078/90), which consecrates the principle of continuity of essential public services.

On the other hand, such matter ended up reaching the Federal Appeals Court that, confirming the understanding materialized in some State Courts, through some of their chambers, in the sense that the disconnection of the electricity supply is the Public Authority's or its public dealer's right, in case of default by the user, emphasizing that such practice results from a legal provision and, for this exact reason, could never be considered a constraining instrument or a violation of the consumer's rights, and, as such, not characterizing discontinuity of the service.

Now on the administrative sphere, there have been many discussions regarding the changes and revisions practiced over the last few months by the ANEEL, aiming, besides a general revision, the introduction of new rules until then covered by Resolution 456/2000, destined to regulate the general conditions of the supply of electricity between the dealers and the general contracting of services.

With respect to default due to lack of payment, some new provisions have been discussed in order to provide greater security and clarity for the parties involved.

Within this concept, the new draft of ANEEL Resolution, still pending final publication, continues to contemplate the need for prior, specific and verifiable notice to the consumer before practicing any form of disconnection of the service.

Seeking to reduce the number of complaints and to provide more freedom to the dealers' field teams, an important change that should be contemplated in the final text is that the disconnection of the supply will be declared undue if it is verified that the electricity bill was paid within the deadline informed on the notice and not the deadline of the original bill.

With this, the dealers tend to be a lot more careful in their daily routines regardless to the consumers who are already able to suffer disconnection of the service.

In its new Resolution, ANEEL intends to establish that the dealer shall only be allowed to make the disconnection of the supply after the expiration of the 90 (ninety) days period counted as of the consumer's default, except upon evidence of the obstruction of its execution by judicial determination or another justifiable reason, to the extent that the counting will be suspended for the period for which the obstruction remains.

Although the new rule that ANEEL has been seeking to contemplate are not as general or radical with respect to default of the monthly electricity bill (regular consumption), there is a clear intent to harmonize all those involved on the search for a more transparent and safe relationship between dealers and their consumers, consequently preventing a considerable volume of administrative complaints and lawsuits that could, on many occasions, be easily resolved by the presence of rules implemented and more broadly disclosed for everyone's knowledge.

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#### 6. CURRENT CHANGES IN THE REGULATION ON THEFT OF ELECTRICITY IN BRAZIL

During the last fifteen years, there were various governmental and regulatory changes in the scenario involving the Brazilian electricity sector.

With respect to the companies responsible for the distribution of electricity to consumers, in almost their totality, these companies realized the migration of the management of their business, through concession system, before the sole responsibility of the public sector.

Along with this new form of governmental engagement and orientation also came the evolution on the legislative handling regarding the general conditions of the supply of electricity, seeking to improve the relationship between the agents responsible for the provision of the public service and consumers in general.

It was then that, celebrating the era of privatizations in Brazil and after the advent of the Consumer Defense Code (Federal Law No. 8.078/90), the recently created ANEEL - the Brazilian Electricity Regulatory Agency, enacted Resolution 456/2000, seeking to modernize and consolidate the inherent rules of the electricity sector.

# 6.1. Fight against fraudulent consumption of electricity in Brazil

Before the group of consumers in general, it is possible to well define two fronts of consumption of electricity in the routines of distribution dealers, those resulting from the regular consumption of electricity (inherent to the regular consumer and generator of the monthly bill), and the detrimental fraudulent consumption of electricity.

Generally speaking, fraudulent consumption of electricity occurs when the consumer, despite using the product (electricity), cheat the power consumption meters with the use of irregular procedures not attributable and not authorized by the distributor, leading to bills lesser than the correct value or even zero for the service provided.

Aware of the enormous losses that such practice causes to power dealers, a situation extremely aggravated by many years of irresponsibility and lack of investment under the previously public management, the effective fight against fraud became an extremely relevant policy to settle the bills and stop the dealers' losses, now under private management.

Although ANEEL Resolution 456/2000 contains the main procedures to verify fraud, the necessary requirements to formalize the notice to the consumer, possibilities for suspension of the supply of electricity and specific calculation formulas for the recovery of losses, most of the time, the existing rules often fail to meet the needs of the parties involved or have no backing in the Judiciary.

Among the countless criticisms made on the current Resolution in effect, representatives of the Public Prosecution, Consumer Defense agencies and Judges responsible for the judgment of the disputes, among others, point to the existence of an extremely unilateral fraud verification procedure, lack of clarity about the possibilities and means to prepare the calculations for recovery and the actual disconnection of the electricity supply, eventually too early and unclear.

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After heated debates between the most various representatives from all interested parties, and although the issue is still polemic, ANEEL, contemplating the movement of perfection and orientation of the Judiciary in the judgment of thousands of claims in various States of the Federation involving the fight against fraud, began many months ago, the debates and works for the reformulation of the rules in effect up to then in Resolution 456/2000, which is starting to demonstrate its new results.

# 6.2. Expectation and new rules inherent to the fraudulent consumption of electricity in the Resolution to be enacted by ANEEL

Considering the suggestions received in Public Hearing No. 008/2008 and after an in-depth study and discussions involving various representative entities, ANEEL has already started to disclose the new rules and new aspects that will be contemplated in its next Resolution, to be published still in 2009, establishing the general rules and conditions for the supply of electricity in Brazil.

In the specific field of the regulation, regarding the verification and recovery of revenues originating from the use of irregular procedures, there is much news, to the extent that some of them deserve to be highlighted:

Verification of fraud: i) expands the regulation regarding the form and procedures at the time of verification, contemplating the possibility of obtainment of visual evidence of fraud by the use of photos and videos; ii) provides for the possibility of removal of the meter, upon packaging in a sealed enclosure, identifiable, and delivery of a receipt to the consumer.

Consumption recovery calculations: i) the calculation modalities must always be used successively; ii) expands the calculation modalities, in special introducing the possibility of calculation of value by the average consumption after regularization; iii) changes the amounts and form of imposition of the administrative cost, segregating different groups of consumers.

Disconnection and payment of the consumption: i) regulates the form of notification and periods of time to be observed by the dealer, in case of suspension of the supply of electricity; ii) provides for the possibility of payment of the debt in installments, which may be included in the subsequent electricity bills.

After analyzing the expansion and specificity in the rules that have been announced by ANEEL, it is possible to clearly see that the new regulation only comes to create rules for various procedures that had already been used in practice or that were then imposed by the Judiciary, thus sending a clear sign of the evolution of the commercial relationships and concerns between dealers and consumers.

As such, electricity distribution dealers can expect the enactment of ANEEL'S new Resolution for the near future, which result in greater transparency and security in their relationships with consumers in general, even more than just the need for some adjustments in its internal administrative procedures.

Notwithstanding the right to receive the due payment from consumers for the services provided, the conduction of an economic activity in the form of the provision of a public service, of an essential nature, imposes to power dealers liability for the practice of acts that cause damage to the consumers of their services, as well as third parties

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#### 7. CIVIL LIABILITY OF POWER DEALERS

The civil liability imposes to the agent the legal obligation to hold the victim of the damage harmless, repairing the damage or restituting the losses caused by its illegal conduct.

Today, contrary to what the classic legal teachings said, the damage to be repaired will not be necessary material, even if it may be expressed in monetary amounts for indemnification purposes.

In civil liability, we find the least strict system of them all, while in criminal and administrative law only the fraudulent intent is punished and exceptionally the fault, in civil liability it is only required intent, being unnecessary the demonstration of the fraudulent intent.

Starting from a system where the rule was the subjective liability, the evolution lead to the ample acceptance of the idea of objective liability for certain cases, upon the provision of specific situations for the presumption of fault and liability with no fault.

Currently, with respect to Civil Liability, the system adopted is the duplex, with the following general rules: one of subjective liability (Civil Code, art. 186) and the other of objective liability (art. 927, sole paragraph).

In this sense, as per article 12 of the Consumer Defense Code, article 10 of Resolution 456/2000, and article 10 of Resolution 61/2004, all from ANEEL, power dealers are objectively liable for the damages caused.

Therefore, up to the point of delivery of the electricity, dealers must adopt all measures to enable the supply, with due regards for the conditions established in the legislation and the applicable regulations, and to operate and maintain their electrical system, being also liable for the damages caused to consumers' equipments, independently from the existence of fault.

However, since the Consumer Defense Code did not adopt the Theory of Full Risk, it consequently admitted factors excluding civil liability, in the event of termination of the causal link.

As a result of the provisions of the Consumer Code, certain factors remove the dealer's duty to indemnify, namely: (i) exclusive fault of the consumer (ii) or of a third party and (iii) act of God or event of force majeure.

In this sense, ANEEL Resolution 456/2000, in its article 99, and in strict compliance with the Consumer Defense Code, provides for the exclusion of Objective Liability in the event of improper use and conservation by users of the consumer unit or as a result of inadequate use of electricity, even if preceded by an inspection. As such, and due to this legal provision, power dealers may be exempted from the duty to indemnify in the events of exclusive fault of the consumer or third party, or, also, in situations that configure an act of God or event of force majeure.

The Federal Appeals Court has also made a position in this sense, as registered in the Court's following precedent: "the fact that article 14, § 3 of the Consumer Defense Code does not refer to acts of God or events of force majeure, by listing the causes for exemption

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of the service provider's liability, does not mean that they can not be invoked in the system instituted by the same." (Min. Carlos Alberto Menezes Direito, Special Appeal (Resp) No. 330.523/SP)

In the same understanding, when covering the subject related to the possibilities for exclusion of the objective civil liability, some jurists affirm that: "... if a party that does not participate in the consumption relationship causes the damage, the causal link between the supplier's action and the damage caused to the consumer is terminated.9"

Therefore, it is possible to conclude that in the events of exclusive fault of the consumer or third party, or, also, upon configuration of an act of God or event of force majeure, the utility's objective civil liability will be removed and, consequently, the duty to indemnify.

The assurance of workplace safety at companies of electricity sector has been a constant concern to infra-constitutional legislators, as observed in the Brazilian labor legislation.

In the topic below, after brief considerations regarding the health hazard and dangerous working conditions, the calculation base and value of the respective allowances will be discussed, specifically the rules applicable to the electricity sector. The measures that the companies in this segment of the economy may take to mitigate eventual labor liabilities with respect to the health and workplace safety will be mentioned.

### 8. RULES RELATED TO OCCUPATIONAL HEALTH AND SAFETY APPLICABLE TO THE **ELECTRICITY SECTOR**

#### 8.1. Health hazard: concept and recent changes in the calculation base

According to the Consolidated Labor Act (CLT), activities and operations that, by their nature, conditions or work methods, expose the workers to agents hazardous to the health, above the tolerance limits defined according to the nature and intensity of the agent and the time of exposure to its effects, are considered hazardous activities or operations.

The Consolidated Labor Act also determines that the Ministry of Labor must approve the list of hazardous activities and operations and adopt rules on the criteria for the characterization of health hazard, the tolerance limits of aggressive agents, means of protection and the maximum time of the workers' exposure to these agents. 11 Currently, such regulation is established by Regulation 15 (NR 15) of the Ministry of Labor and Employment.

The work under hazardous conditions, above the tolerance limits established by the Ministry of Labor, ensured the receipt of an allowance of 40% (forty percent), 20% (twenty percent) and 10% (ten percent), respectively, of the minimum wage of the region, as classified in maximum, medium and minimum levels. 12

Nevertheless, since mid 2008, the Federal Supreme Court established the understanding in the sense that the minimum wage must not be used as the calculation base for the health

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<sup>&</sup>lt;sup>9</sup> DENARI, Zelmo. Código de Defesa do Consumidor Comentado.

<sup>&</sup>lt;sup>10</sup> According to art. 189 of the Consolidated Labor Act.

<sup>&</sup>lt;sup>11</sup> According to Art. 190 of the Consolidated Labor Act.

<sup>&</sup>lt;sup>12</sup> According to Art. 192 of the Consolidated Labor Act.

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hazard allowance.<sup>13</sup> Such positioning was also subsequently adopted by the Superior Labor Court, which determined that the health hazard allowance shall be calculated over the basic salary, save a criterion more advantageous established in a collective rule, maintaining the rates originally established by law. 14

At any rate, the health hazard allowance, paid according to the above-mentioned rates possesses a salary nature for all legal effects, while due. 15

It is appropriate to clarify that the work executed under an intermittent system, in hazardous conditions, per se does not remove the right to receive the respective allowance. 16 Upon application of more than one health hazard factor, only the highest degree will be considered for the calculation of the allowance. No cumulative receipts will be allowed.

# 8.2. Concept of dangerous working conditions and specific rules in relation to the electricity sector

According to the law, activities or operations that, by their nature or work methods, imply on permanent contact with flammables or explosives in high risk conditions are considered dangerous activities or operations.<sup>17</sup> The concepts of explosive and flammable substance are respectively contained in Regulations No. 19 (NR 19) and No. 20 (NR 20) of the Ministry of Labor and Employment.

Work in Electrical Power Systems (SEP), energized High Tension electrical facilities and other forms of electricity for which the law defines specific protective measures, both collectively and individually, is also considered a dangerous activity.

Among the collective protection measures applicable to the electricity sector established by law, we can mention: (i) depowering (priority), (ii) use of safety tension (priority); (iii) isolation of hot parts, (iv) obstacles, (v) barriers, (vi) signaling, (vii) automatic supply sectioning system, (viii) blockage of automatic reconnection; and, (ix) grounding of electrical installations.18

In works in electrical installations, when the collective protection measures are technically unfeasible or insufficient to control the risks, specific protection individual equipments must be adopted, adequate for the activities carried out.

In this sense, the work clothes must be adequate for the activities, contemplating a conductivity, flammability and electromagnetic influences. The use of rings, necklaces and the like in work in or near electrical installations is strictly prohibited.

Adequate lighting and a safe work position must be ensured to those working for activities in electrical installations, in order to allow the upper limbs to be free to execute the tasks.

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<sup>&</sup>lt;sup>13</sup> According to Binding Abridgment No. 4 of the Federal Supreme Court.

<sup>&</sup>lt;sup>14</sup> Abridgment 228 of the Superior Labor Court.

<sup>&</sup>lt;sup>15</sup> Abridgment 139 of the Superior Labor Court.

<sup>&</sup>lt;sup>16</sup> According to Abridgment 47 of the Superior Labor Court.

<sup>&</sup>lt;sup>17</sup> According to art. 193, introductory paragraph, of the Consolidated Labor Act.

<sup>&</sup>lt;sup>18</sup> According to NR 10 of the Ministry of Labor and Employment.

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Furthermore, services in energized high tension electrical installations, as well as those executed in Electrical Power Systems, can not be performed alone by an individual.<sup>19</sup>

As additional safety measures, note that every work in energized high tension electrical installations, as well as those who interact with Electrical Power Systems, may only be performed upon a specific service order for the date and place, signed by the supervisor responsible for the area.

Power utility workers have not only the duty to care for their own safety and health, but also for that of other people who may be affected by their actions or omissions at work; be responsible before the company for complying with the legal and regulatory requirements, also regarding the internal safety and health procedures; and immediately inform the person responsible for the execution of the service of the situations considered to pose a risk to their own safety and health, as well as that of other people.

On the other hand, workers may interrupt their tasks and exercise the right of refusal, whenever they see evidence of serious and imminent risks to their safety and health or that of other people, immediately informing the fact to their hierarchic superior, which will take the appropriate measures.

Power companies also have obligations in relation to the health and safety of their electrical workers. Electrical installations must be built, assembled, operated, reformed, expanded, repaired and inspected in order to ensure the safety and health of the workers and users. and must be supervised by an authorized professional, as determined by the law.

Furthermore, in works and activities with electrical systems, it is necessary to adopt preventive measures to control the additional risks, in special those related to height, confined space entry, electrical and magnetic fields, explosiveness, humidity, dust, fauna and flora and other aggravating factors, adopting safety signaling.

Also note that only electrical equipments, devices and tools compatible with the existing electrical installation may be used in the workplace, preserving the protection characteristics, respecting the manufacturer's recommendations and the external influences.

#### 8.3. Dangerous working conditions allowance: calculation base

Work in dangerous working conditions, whether due to the contact with flammables, explosives or electrical systems, ensures the worker the right to receive a 30% (thirty percent) allowance over the salary without the additions resulting from bonuses, premiums or profit sharing in the company.<sup>20</sup>

The dangerous working conditions allowance has a salary nature for all legal purposes<sup>21</sup>, and may not be cumulated with the health hazard allowance. As such, if the worker is exposed both to hazardous conditions and dangerous conditions, the same must opt to receive the

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<sup>&</sup>lt;sup>19</sup> According to NR 10 of the Ministry of Labor and Employment.

According to art. 193, § 1, of the Consolidated Labor Act; as well as Abridgment 191 of the Superior Labor Court.

According to Abridgment 132 of the Superior Labor Court.

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allowance that is most beneficial to the same.<sup>22</sup>

A worker permanently exposed or that, intermittently, is subject to risk conditions, is entitled to receive a dangerous working conditions allowance. The allowance is not payable only when the contact is eventual, or that, being habitual, occurs only for an extremely limited period of time.

Also note that, according to the Courts, the determination of the dangerous working conditions allowance at a lower percentage than the legal rate and proportional to the time of exposure to the risk must be respected, provided that it is agreed in collective bargaining agreements.23

# 8.4. Characterization and neutralization of hazardous or dangerous work conditions.

The characterization and classification of health hazard and dangerous working conditions. according to the rules of the Ministry of Labor, are made through an expert examination performed by an Occupational Doctor or Engineer, registered before the Ministry of Labor and Employment.<sup>24</sup>

As such, if the payment of the health hazard or dangerous working conditions allowance is eventually claimed in court, whether by the worker or by the Union in favor of a group of members, the judge will designate a qualified expert examiner, and, where one is not available, will request an expert examination to the competent agency of the Ministry of Labor.<sup>25</sup>

In this sense, the performance of an expert's examination is mandatory to verify a health hazard and dangerous working conditions. When it is not possible to perform such expert examination, as in case of a company's closure, the judge may rely on other means of evidence.<sup>26</sup>

It is important to remember that the above-mentioned judicial examination does not exempt the classification of the activity between hazardous or dangerous, which is an act under the authority of the Minister of Labor and Social Security.<sup>27</sup>

The elimination or neutralization of an eventual hazardous or dangerous work condition will be made upon the adoption of measures that conserve the workplace within the tolerance limits or with the use of individual protection equipment (IPE) by the worker, which reduce the intensity of the aggressive agent to tolerable limits.<sup>28</sup> Once the risk to the worker's health or physical integrity is eliminated, the same will no longer be entitled to receive the health hazard or dangerous working conditions allowance.<sup>29</sup>

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<sup>&</sup>lt;sup>22</sup> art. 193, § 2, of the Consolidated Labor Act.

<sup>&</sup>lt;sup>23</sup> According to Abridgment 364 of the Superior Labor Court. In the same sense, check Abridgment 361, which specifically covers the health hazard allowance payable to power company workers.

According to art. 195 introductory paragraph, of the Consolidated Labor Act

According to art. 195 § 2, of the Consolidated Labor Act

Jurisprudential Orientation No. 278 of SDI-1 of the Superior Labor Court.

Abridgment No. 460 of the Federal Supreme Court.

<sup>&</sup>lt;sup>28</sup> According to art. 191 of the Consolidated Labor Act.

<sup>&</sup>lt;sup>29</sup> According to art. 194 of the Consolidated Labor Act.

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Such understanding is confirmed by the Labor Courts, to whom the elimination of the health hazard upon the supply of protection devices approved by the competent agency of the Executive excludes the receipt of the respective allowance.<sup>30</sup>

Notwithstanding, the simple supply of the protection device by the employer does not exempt it from the payment of the health hazard allowance. It is responsible for informing the measures that lead to the reduction or elimination of the hazard, among which those related to the worker's effective use of the equipment.31

It is also important to emphasize that, according to the Courts, the reclassification or disqualification of the health hazard, by an act of the competent authority, has repercussions in the satisfaction of the respective allowance, without offending the right acquired or the principle of salary irreducibility.<sup>32</sup>

# 8.5. Practical suggestions to prevent contingencies related to health hazard and dangerous working conditions

In light of the laws and understandings of the Courts indicated above, the employer may adopt certain strategies to prevent an eventual contingency in relation to issues related to occupational health and safety, among which: (i) proceed with the correct verification of the degree of health hazard and dangerous working conditions eventually existing before the company, upon expert examination; (ii) supply, upon receipt, duly certified IPEs and CPEs to the workers who work in hazardous or dangerous conditions, in adequate periodicity; (iii) instruct and inspect the correct use of the IPEs and CPEs provided; and (iv) proceed with the payment of the allowance, as required.

Furthermore, the company must maintain implemented, according to the legal requisites, the correct sizing, as well as the corresponding documentation, with respect to: Internal Accident Prevention Commission (CIPA): Specialized Occupational Engineering and Safety Service (SESMT); Environmental Risk Prevention Program (PPRA), generally defined by CIPA members and executed by SESMT; Control Medical and Occupational Health Program (PCMSO), generally executed by the doctor member of SESMT; and LTCAT.

The performance of activities that expose the worker to risks, besides an occupational accident per se, equally causes repercussion in the area of social security relationships, as demonstrated in the following topics.

# 9. INCREASE OF THE SOCIAL SECURITY CONTRIBUTION AS A RESULT OF THE **EXPOSURE OF WORKERS TO HAZARDOUS ACTIVITIES**

The verification of isonomy presupposes the contextualization of the objects seized. Under the scope of Social Security, the identity must be assessed in light of the social risk. Different risks demand different treatments, the same as equal risks presuppose equal treatment.

The social value of work values the social security contributions. The link between the possibility of application and the calculation base of this tax with the labor relationships is

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 $<sup>^{\</sup>rm 30}$  According to Abridgment No. 80 of the Superior Labor Court.

According to Abridgment No. 289 of the Superior Labor Court.

<sup>&</sup>lt;sup>32</sup> According to Abridgment No. 248 of the Superior Labor Court.

unbreakable. Not all forms of work are identified, but above all, the environment where the work is performed.

An inhospitable environment maximizes the probability of risk, because it presumably brings the worker closer to the contingency. Pursuant to the protection, this specialty justifies an alternative benefit, which anticipates retirement proportionally to the degree of hazard to which the worker is exposed.

Normal jobs admit ordinary retirement, for men after 35 years of contribution, and for women after 30 years of contribution. The performance of a special activity, classified in three levels, substantially reduces the time of contribution necessary for retirement.

For both type of workers, men or women, the time of contribution is reduced to 15, 20 or 25 years in case of hazardous activities, depending on the level of hazard to which the person is subject.

Hazard is not a synonym of health hazard, dangerous working conditions or strain. These defects of the labor relations belong to the context of labor law. Hazard does not result from the application of the agent over the worker, but rather the worker's simple exposure to an agent characterized by law as hazardous.

A worker exposed to hazardous agents does not necessarily perform a hazardous activity, above all because the use of efficient Individual protection equipment – IPEs neutralize the application of the agent, preventing hazardousness of the activity. Notwithstanding this neutralization, IPEs do not remedy the exposure, which is intrinsically connected to the workplace.

Therefore, it is not the job that characterizes an activity as hazardous but rather the workplace. The existence of hazardous agents at a given workplace demands the immediate characterization of all activities carried out at that environment as hazardous.

The advancement of retirement is justified because of the increased probability of damage. A hazardous environment increases the probability of invalidity, justifying a differentiated treatment for activities subject to this context.

The social security contribution is measured by the probability of the occurrence of damage (social risk). The greater this probability, the greater the funds necessary for the financial and actuarial balance. And it is exactly for this reason that some companies pay greater contributions than others.

This balance relationship is only presented in the social security contribution for the Occupational Accident Insurance – SAT. The method also acts over the special retirement funding, imposing an increase of the social security contributions to companies that maintain hazardous environments.

Differently from the social security contribution for Occupational Accident Insurance, the special retirement funding contribution does not apply over the workers' payroll as a whole, applying only over the payroll of the workers exposed to hazardous conditions.

The increase, similarly to the assessment of the fact imposing the benefit, also observes the

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proportionality. The greater the level of hazard, the greater the applicable rate; a high hazard (15 years) justifies a rate of 12%, a moderate hazard (20 years), 9%, and a minimum hazard (25 years), 6%.

The identification of the level of hazard presupposes expert knowledge of the workplace environments existing at each of the company's establishments. This knowledge, by rule, is presented by the Technical Report on Workplace Environment Conditions- LTCAT or by the Workplace Environment Risk Prevention Program – PPRA.

This situation is better understood through the example below. Let's imagine the following company:

	Type of Activity			
	Ordinary	Special 15	Special 20	Special 25
Earnings of each type	20,000.00	5,000.00	15,000.00	10,000.00
Total earnings	50,000.00			

Besides the 20% social security contribution applicable over the total earnings (50,000.00), and the social security contribution for Occupational Accident Insurance at the rate of 1%, 2% or 3% of the same calculation base, this company will also have to pay: 12% over 5,000.00, 9% over 15,000.00 and 6% over 10,000.00, that is: 2,550.00.

Notwithstanding the legality of this contribution, there are doubts regarding its constitutionality, namely because the funding was created after the provision, and at a time of considerable reduction of the concession of this provision. Furthermore, in order to avoid taxation, companies may adjust their expert examiner documents to the social security legislation, disqualifying the hazard of certain environments before the application of more conservative criteria.

#### 10. EFFECTS OF OCCUPATIONAL ACCIDENT IN SOCIAL SECURITY RELATIONS

An occupational accident involves various filed of law. The labor law covers this phenomenon on the assessment of liability, identification of stability and maintenance of the social security deposits.

The tax law covers this phenomenon on the principal and ancillary tax obligations, the occupational accident is shown to increase the rate, considering that it pertains to the Accident Prevention Factor. In ancillary relations, the phenomenon pertains to the Severance Pay Fund and Social Security Information Form – GFIP, to the extent that the occupational accident receives specific treatment.

In addition to these effects, an occupational accident also has repercussions on the social security relations. In the area of protection, an occupational accident, as a type of accident of any nature, exempts a grace period, allowing the concession of retirements and allowances without the need for financial contribution. In this respect, there is no other consequence, above all because the benefit granted as a result of the occupational accident has the same value of the payment resulting from another cause.

The occurrence of an occupational accident, namely as a result of negligence of the standard occupational safety and hygiene rules, generates another social security consequence. This situation authorizes the Social Security Institute to bring action against the negligent company to recover the amounts spent to fund the resulting social security benefit. Upon verification of the cause-event, the Social Security Institute transfers to the company the financial obligation to pay the benefit, without prejudice of the reparation action filed by the injured worker or by its dependants.

The possibility of recovery has been defined in the social security legislation since 1991. Without prejudice of this authorization, the National Social Security Institute - INSS rarely use this type of action. This situation changed in 2006, the year that verified a substantial increase in the number of recovery actions. The data from 2007 and 2008 prove that the change of posture was not punctual, considering that the increase became exponential.

With these recovery actions, the INSS expects to collect something close to 13 billion reais. The perspectives are good, because the regional courts' jurisprudence confirmed the constitutionality of this measure. The Federal Appeals Court - STJ has already analyzed some of these measures; the immaturity of the data, however, prevents the verification of the direction. Notwithstanding some arguments of unconstitutionality, the Federal Supreme Court - STF has not yet analyzed the constitutionality of article 120 of Law No. 8.213/91, which grounds the pretension.

This context, excessively negative for companies, imposes prevention. Instead of expecting the recovery action and fighting a negative jurisprudential trend, companies must prevent the constitution of said recovery action, proving in the administrative sphere that the presuppositions of the recovery action are not present. It is not a sanitary measure, but rather a legal posture to disqualify the negligence or accident nature of the event, which in the majority of times is identified through statistical methods.

Through these preventive measures, the company may mitigate the risk of a recovery action, preventing high contingencies. Note that the INSS' pretension seeks not only the recovery of amounts past due, but also the constitution of a social security fund to fund the benefit up to the probable extinction (beneficiary's death).

Having concluded the analysis of some important labor and social security-related issues covered in the previous topics, it is now appropriate to make a few clarifications regarding the profitable carbon market and its importance to developing countries such as Brazil.

#### 11. THE BRAZILIAN CARBON MARKET

Currently, one of the most important topics in comment in Brazil is the global warming caused by greenhouse gas emissions (GGE) and its damaging consequences to the global economy, caused by the increase of the global temperature, estimated to rise up to 5°C by the year 2100.

In this context of chaos announced, where climatic catastrophes, such as thermal inversions, droughts and floods, are already being noticed. The Kyoto Protocol created an excellent economic opportunity for developing countries, namely the preparation of Clean Development Mechanism projects, or CDM.

CDM Projects allow developed nations to finance greenhouse gas emission reduction

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projects and purchase volumes of greenhouse gas emission reduction from developing countries, in order to allow them to meet the targets established in the Kyoto Protocol.

In Brazil, the market for Carbon Credits transacted approximately US\$ 1 billion in credits in 2008 and Brazil consolidated third place in number of CDM projects, right behind China and India.

In order for a CDM project to result in marketable certified emission reductions (CERs), the activities comprised in the same must pass through seven stages of analysis: (i) drafting of a project concept document (PCD), using the methodologies already approved or that come to be approved by the various instances in charge; (ii) validation (verification if the project complies with the Kyoto Protocol regulations); (iii) approval by the Designated National Authority (DNA), in Brazil's case the Interministerial Commission on Global Climate Changes (CIMGC), which analyzes if the project contributes to sustainable development; (iv) submission to the Executive Committee for registration: monitoring:(vi) verification/certification and (vii) issuance of units according to the project.

After issued, the CERs will be qualified for trading in the financial market. The trading in CERs presents al characteristics of a concentrated and organized market, using commodities and futures exchanges similar to the traditional negotiations of agricultural commodities. These exchanges demonstrate the transparency of the unrestricted development of the negotiations for the market, spreading information on a global scale, bringing buyers and sellers closer together.

In Brazil, the country's commodities and futures exchange (Bolsa de Mercadorias e Futuros -"BM&F"), was the first exchange of an emerging country to trade in carbon credits generated by the CDM pursuant to the Kyoto Protocol, competing with important markets in Europe, Asia and the USA.

All projects qualified under the Brazilian alternative power source incentive program, such as wind power, biomass and PCH, for example, are able to generate carbon credits and, as such, represent an extremely attractive source of revenues for the sector's companies.

Notwithstanding the high gains enabled by the carbon market to countries, the world is currently living a critical moment related to the production and demand for electricity. The current scenario, which counters the increasing growth in the global demand for electricity with the perspective of near exhaustion of fossil fuels, environmental pollution and global warming, exposes the signs of overload of the world's power model, signaling the strategic need for changes.

# 12. INCENTIVES FOR THE PRODUCTION OF RENEWABLE POWER IN BRAZIL -STRATEGIC DEVELOPMENT OF THE BRAZILIAN POWER SECTOR

The renewable sources of power, or simply Renewable Power, appears as the point of contact between the power sector's concerns and a possible solution to the dilemma related to the production of power with the reduction of pollution levels.

### 12.1. Brazilian Power Matrix

Thanks to alcohol (ethanol) and hydroelectric power, today Brazil holds a privileged position in relation to the rest of the world when the subject is the power matrix. Approximately 45%

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of all power consumed in the country comes from sources considered renewable, almost 3 times the global average of 14%.

Nevertheless, notwithstanding the excellent positioning of the Brazilian Power Matrix, the development of new renewable power production projects always has to be stimulated. This because the pressure from power sources considered polluting is important, above all when considering the costs of production and use of such energies.33

# 12.2. Incentives for the production of renewable power in Brazil

Over the last 5 (five) years, Brazil created various tools to stimulate private investors to develop projects related to renewable power.

Besides various bills of law before the Congress<sup>34</sup>, a wide range of initiatives have been implemented to benefit the renewable power sector, among which:

- (i) Simplified Environmental Licensing Process (Conama Resolution 279/2007): establishes a period of up to 60 days for the concession of each environmental license, with priority for the analysis and prevision of simplified studies.
- (ii) Simplified grant concession process subject to simple authorization (and not bid proceedings) and exempt from declarations of Use of a Public Asset.<sup>35</sup>
- (iii) Creation of a market reserved for the sale of renewable power: consumers with significant demands, but that would be initially excluded from the open power market, may acquire electricity from Small Central Hydroelectric Power Plants.
- (iv) 50% reduction on the Electricity Use and Distribution Fees (TUSD and TUST) for power originating from renewable sources.

Various other benefits are offered in order to attribute economic benefits to electricity projects in general<sup>36</sup>, without excluding the possibility of registration of the renewable power projects

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<sup>&</sup>lt;sup>33</sup> In the absolute majority of times, the large scale production cost of non-renewable power is significantly lower than that of renewable energies.

<sup>&</sup>lt;sup>34</sup> Bill of Law 1563/2007, Bill of Law 7692/2006, Bill of Law 2505/2007, Bill of Law 2023/2007, Bill of Law 523/2007, Bill of Law 630/2003, etc.

Art. 26 of Law 9.427/96 and ANEEL Resolution 395/98.

<sup>&</sup>lt;sup>36</sup> Subrogation of the Participation of the CCC in Isolated Electrical Systems: CCC means Isolated Systems Fossil Fuel Consumption Account, created in 1973. Its idea is to impose the apportionment of the burden/Bonus generated by the production of power via fossil fuels in isolated systems. Its value composes the calculation of the TE and its payment is borne by the Distribution and Transmission Agents. Participation in the ERM - even if the power Generated is not dispatched in a centralized manner (Power Sale Assurance): The ERM allows the sharing of the hydrologic risk between the generators. The plants with greater water availability in their reservoirs can eventually generate more power to offset the fall in the level of the reservoirs of other projects. Does not require the payment of Financial Compensation: ANEEL Resolution 87/2001 that provides for the payment of Financial Compensation for the Use of Water Resources for Hydroelectric Generation; Exemption from the application of 1% of the Net Operating Income in R&D of the Electricity Sector: Art. 24 of Law 10.438/2002, which amends art. 2 of Law 9.991/2000; Does Not Participate in the Accounting of the

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in the Clean Development Mechanisms created by the Kyoto Protocol.

A point that draws attention and that is frequently subject to questionings by investors, is the security of the incentives granted for the implementation of these projects. Since a great part of the incentives results from resolutions and normative acts by the State, there is not necessarily a binding legal relationship that ensures that they would all be available to the investors in the do long-term amortization of their investments. Under a practical perspective, such incentives could be changed depending on the changes in the government's orientation.

Investments in renewable power can be excellent and profitable options, but one must have caution and proper legal advice when making formalizing the deal, to ensure that its structure is adequately surrounded by all guarantees for the capital invested and the expected rates of return.

#### 13. CONCLUSION

The present study sought to cover the main issues related to the topic of Power, such as those related to the institutional aspects of the Sector in Brazil, to electricity contracts and contracting environments, civil liability of power dealers, rules related to occupational health and safety applicable to the Sector, social security inherent to the labor activities performed, carbon market, renewable power, among others.

Almeida Advogados is a law firm focused on the corporate business environment. Its greatest premise is to strive to understand the market of each of its clients, the nuances of each industry, the corporate culture and the objectives of each company. From a legal perspective, this type of focus allows us to structure and provide support to our clients in a safe and economic manner.

Born from the union of competent professionals, committed with the legal practice, whose activities are focused on rendering legal services to Brazilian and foreign companies in various areas of law, including corporate legal advice, risk management and consultancy in litigation in general, Almeida Advogados also plays an important role in the provision of legal services and legal advice before Power Sector companies.

Almeida Advogados remains at your disposal to provide any other clarifications related to the subject covered in this study.

Self-Dealing Limit of the Distributors: Rules for concentration in the production/distribution of power created by ANEEL Resolution 278/2001.

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