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**Brazil State Tax on Electrical Energy - ICMS – Constitutional,
Legal and Regulatory Aspects and the Judicial Decisions about
the ICMS Incidence**

Guido Roberto do Rêgo Cavalcanti Júnior

Advisor – Luiz Maurer

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Abstract

Supplying electrical energy in Brazil is a Federal public service. Based in the Constitution, the Federal Government establishes the legal and regulatory dispositions about electrical energy.

The Federal Government grants concessions and permissions to provide the supplying of electrical energy.

To remunerate the cost of supplying electrical energy, electrical energy tariffs are applied to the units of measurement – kW and kWh.

The first legal and regulatory denomination of the unit of measurement kW was Power Demand.

The first and current legal and regulatory denomination of the unit of measurement kWh is Electrical Energy Consumption.

The first taxation on electrical energy was established by the Federal Government in 1954 through the IUEE, Imposto Único sobre Energia Elétrica, which stands for Single Tax on Electrical Energy.

The first tariff structure for the electrical sector was established in 1968 with Tariff of Demand applied to Power Demand and Tariff of Consumption applied to Electrical Energy Consumption.

The 1988 Federal Constitution extinguished the federal tax IUEE and established that the state tax ICMS – tax on goods circulation, transportation and telecommunications, should be applied to electrical energy.

ICMS is the main state tax. It represents about 87 percent of the states' revenue, based on the states' total revenue of 2013.

The ICMS levy on electrical energy represents about 7 percent of the total ICMS revenue.

The restructuring of the Brazilian electrical sector started in 1995 with legal and regulatory dispositions that established new tariffs of electrical energy, Tariff of Use of Distribution System – TUSD and Tariff of Use of Transmission System – TUST, replacing the Tariff of Demand and the Tariff of Consumption.

The current legal and regulatory denominations of the unit of measure kW is Power Demand, MUSD – Amount of Use of Distribution System and MUST – Amount of Use of Transmission System.

The purpose of this research is to analyze the constitutional, legal and regulatory dispositions concerning the ICMS incidence on electrical energy.

Based on these dispositions, the judicial decisions about this incidence on the Brazilian superior judicial courts will be analyzed. The main questions about the ICMS incidence on electrical energy are:

- The ICMS incidence on the Power Demand and;
- The ICMS incidence on the current electrical energy tariffs, TUSD and TUST.

The new tariffs of electrical energy, TUSD and TUST, are equivalent to the initial tariffs of electrical energy. These tariffs are also applied to the unit of measurement kW currently denominated Power Demand, MUSD and MUST, and to Electrical Energy Consumption(kWh), and have the same objective of remunerating the Federal Public Service of supplying electrical energy.

The objective of this paper is to demonstrate that the misunderstanding about the ICMS incidence on electrical energy can cause the Brazilian states to have a revenue loss of about 45 percent of the ICMS corresponding to the electrical energy segment. This revenue loss represents R\$ 11.4 billion based on the 2013 total ICMS revenue.

Keywords: ICMS, Constitutional, Brazilian Electrical System, Brazilian Electrical System regulation.

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1. Brazilian Electric Sector History

1.1 Introduction

Learning about the Brazilian electric sector through its history will provide an understanding of the evolution of the sector and its concepts, which will lead to a stronger comprehension of the current constitutional, legal and regulatory aspects related to the ICMS incidence on electrical energy. The following periods were established by Waltenberg (2000, pp. 353 to 357), except the last period, which is considered to have started in 1995 in this paper.

1.1.1 Local interest – 1889 – 1934

The Federal Law 1,145/1903, in article 23, established the first legislation about electrical energy, which determined the Federal competence to exploit the electrical energy. This competence could be granted to the companies willing to offer this service.

The Federal Decree 5,407/1904 regulated the Law 1,145 and fixed the requirements to the hydraulic generation of electrical energy.

With the technology available then, the generation of electrical energy had to be made near the consumption points. The electrical systems were isolated, serving only local consumers. With this model, the Local Governments assumed control of the electrical energy generation and distribution.

With the evolution of the generation, expansion of transmission, distribution, and connection between generation systems, the electrical system could not continue to be treated as a local interest. The Federal Decree 24,643/1934 ended this period.

1.1.2 Federalization 1934-1950

The Federal Decree 24,643/1934, amended by the Federal Decree 3,763/1941, attributed to the Water Division of the National Department of Mineral Production's supervision of the hydroelectric energy production, transmission, transformation and distribution. The article 178 of the Decree 24,643/1934 established the goals of the electrical system which continue to prevail today:

- Assure an adequate service;
- Establish fair tariffs;
- Guarantee the financial stability of the companies.

At that time, the transformation of electrical energy represented an isolated activity made by electrical substations to raise or lower voltage. This activity no longer exists as an isolated activity; it is incorporated on generation, transmission and distribution activities (Álvares, 1978, p. 198).

The Federal Decree-Law 1,285/1939, created the CNAEE (acronym of “Conselho Nacional de Águas e Energia Elétrica”), which stands for the

Brazilian Council of Water and Electrical Energy, directly subordinated to the Presidency of the Republic as a council of consultancy, orientation and control about hydric resources and electrical energy.

The Federal Decree-Law 8.031/1945, created the first federal generation company, CHESF (acronym of “Companhia Hidroelétrica do São Francisco”), which stands for the Hydroelectric Company of São Francisco, located on the Brazilian northeast. São Francisco is the river that was the source of the first hydroelectric plant of the CHESF. This was the first Federal generation company and started the following period.

1.1.3 Nationalization 1950-1995

At this time, Brazil had vast unexplored hydraulic potential of electric generation.

Electrical energy was essential to the Brazilian industrial development and the private capital could not afford the investments to construct great hydraulic generation plants to expand the generation capacity. These plants required great investments with financial return in the long run.

The Federal government continued creating generation companies and the states created distribution companies.

Although the Federal Constitution of 1946 had determined the federal competence to create a tax on electrical energy, this tax was only established by the Federal Law 2,308/1954. The tax was denominated IUEE (acronym of “Imposto Único Sobre Energia Elétrica”), which stands for the Single Tax on Electrical Energy, a federal monophasic tax applied to electrical energy consumption (kWh). This law also created the National Fund of Electrification and the IUEE revenue should be destined partly to this fund and partly to the states. The National Fund of Electrification was applied to the generation, transmission and distribution of the electrical energy.

The Federal Decree 41,019/1957 regulated the electrical services and the article 178 of the Federal Decree 24,634/1934.

With the nationalization intent, the Federal Law 3,890-A/1961 created Eletrobrás - Centrais Elétricas Brasileiras, which means Brazilian Electrical Plants, a federal owned corporation with the purpose of undertaking studies, designs, construction and operation of production plants and transmission lines, and the distribution of electrical energy, as well as the execution of transactions arising from these activities.

The Federal Law 4,156/1962, created a compulsory loan, a tax to finance the Eletrobrás attributions. The compulsory loan was a percentage of the electrical energy invoice applied to determined consumers. The compulsory loan was converted into bonds redeemable in 10 years.

The Federal Law 4,904/1965, created the Ministry of Mines and Energy and the DNAE (acronym of “Departamento Nacional de Águas e Energia”), which stands for Brazilian Department of Water and Energy, without extinguishing the CNAEE.

The Federal Decree 62,724/1968, established general rules for tariff definitions by the electrical distribution concessionaries, according to Federal Decree 24,643/1934 and Federal Decree 41,019/1957.

The Federal Decree 63,951/1968, changed the name of the department responsible to regulate the electrical system from, DNAE (acronym of “Departamento Nacional de Águas e Energia”), which stands for National Department of Water and Energy, to DNAEE (acronym of “Departamento Nacional de Águas e Energia Elétrica”), which stands for National Department of Water and Electrical Energy. This Decree also extinguished the CNAEE, attributing its functions to the DNAEE.

The Federal Law 7.181/83 extended the compulsory loan term until December 31, 1993.

In the 1980’s the nationalization of the electrical system was in crisis. An international credit crisis, mismanagement of federal and states of the federation owned companies, political interference on these companies, and tariffs used to reduce inflation were some of the problems of the model.

Due to the difficult in payment the debts, Brazil declared moratorium in its external debts in February of 1987.

The Brazilian Constitution of 1988 repealed the IUEE established by the Federal Law 2,308/1954, and transferred to the states the competence to tax the electrical energy. The main state tax, ICMS which means tax on goods circulation, transportation and communications services, should be applied to electrical energy.

1.1.4 Regulation/Competition – 1995 until now

In the years 1980 to 1982, the annual investment on the electric sector was about US\$ 14 billion per year. In the years 1995 and 1996, the investment was reduced to about US\$ 5 billion per year. (Privatização no setor elétrico – trabalho BNDES http://www.bndes.gov.br/SiteBNDES/export/sites/default/bndes_pt/Galerias/Arquivos/conhecimento/ocde/ocde06.pdf)

The Federal Laws 8,987/1995 and 9,074/1995, established rules for concessions and permissions on electrical energy and initiated the restructuring of the Brazilian electrical system.

The Federal Law 9,074/1995 created the free consumer of electrical energy. This consumer, attending the law requirements, became free to choose his energy supplier.

The consumer that is not a free consumer is denominated captive consumer.

The first company privatized in 1995 was the ESCELSA – Espírito Santo Centrais Elétricas, one of the federal distribution companies.

Many distribution companies owned by the states of the federation were also privatized.

The Federal Law 9,427/1996, created ANEEL (acronym of “Agência Nacional de Energia Elétrica”), which stands for National Electrical Energy Agency, tied to the Ministry of Mines and Energy, in order to regulate and supervise the production, transmission, distribution and sale of electrical energy, ensuring the quality of services provided, the universality of service to consumers by establishing tariffs for end consumers, always preserving the economic viability of the agents.

The Law 9,427/1996 determined that the publication of the ANEEL internal bylaws should extinguish the DNAEE. The Federal Decree 2,335/1997 established the ANEEL internal bylaws, consequently extinguishing the DNAEE.

The Federal Law 9,648/1998, created the ONS (acronym of “Operador Nacional do Sistema”), which stands for National Electrical System Operator, to operate, supervise and control the generation of electrical energy in the SIN, (acronym of “Sistema Interligado Nacional”), which stands for National Interconnected System, and administer the basic energy transmission network, in order to meet the load requirements, optimize costs and ensure the system reliability, setting the access conditions to the Brazilian transmission network.

The SIN consists of all facilities responsible for the supply of electrical energy to all regions of the country electrically interconnected. Only about 2 percent of the production capacity of the country's electrical energy is out of SIN, in small isolated systems located mainly in the Amazon region.

The basic energy transmission network is composed of the interconnected electric system transmission lines, substations, power transformers with voltage equal or exceeding 230 kV, as specifically defined by ANEEL.

The Federal Decree 2,655/1998, regulated the MAE (acronym of “Mercado Atacadista de Energia Elétrica”), which stands for Wholesale Electrical Energy Market, and defined the rules of organization of the ONS, according to the Law 9,648/1998. The MAE was a legal private entity, subject to authorization, regulation and supervision of ANEEL to register, accounting and settle transactions of purchase and sale of electrical energy. The MAE should register all electrical energy sales operations.

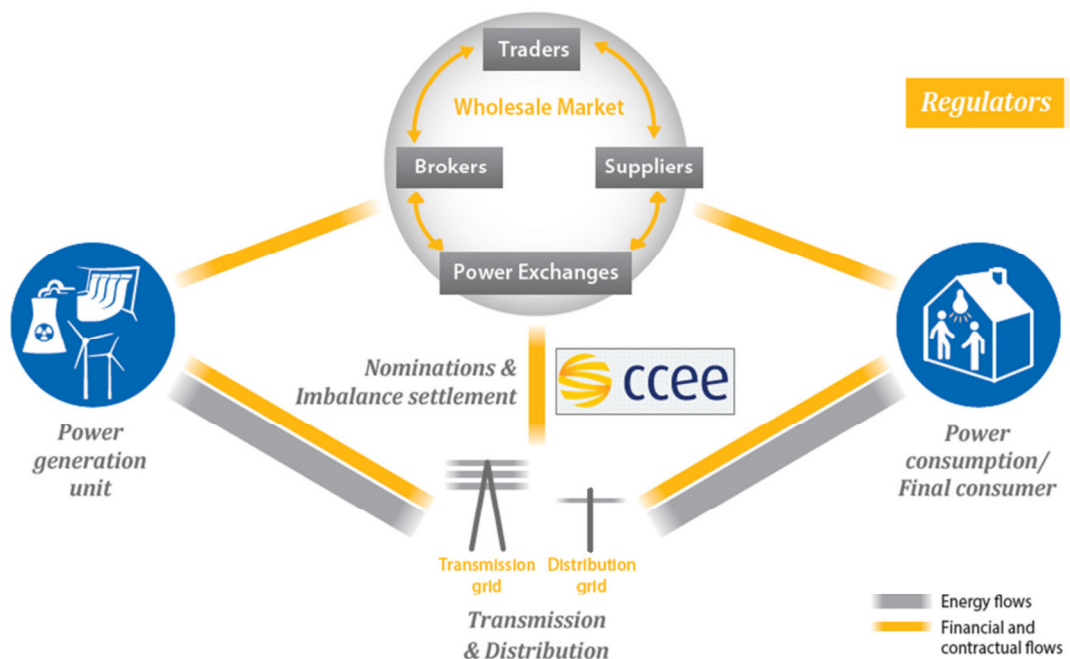
The lack of investments in generation and transmission combined with unfavorable hydrological conditions resulted in electrical energy rationing between June 2001 and February 2002.

The Federal Law 10,847/2004, created the EPE (acronym of “Empresa de Pesquisa Energética”), which means Energetic Research Company, Federal-owned company responsible for the long term planning of the energetic sector.

The Federal Law 10,848/2004, created the CCEE (acronym of “Câmara de Comercialização de Energia Elétrica”), which stands for Chamber of Electric Energy Commercialization, a private entity, successor of the MAE. The Law also established two environments to contract electrical energy:

- ACR (acronym of “Ambiente de Contratação Regulada”), which stands for Regulated Contracting Environment, regulated activities run by CCEE under ANEEL supervision;
- ACL (acronym of “Ambiente de Contratação Livre”), which means Free Contracting Environment, in this environment the free consumers contract electrical energy.

CCEE – Organized Market Framework



http://www.ccee.org.br/cs/groups/bibpublic_comunicacao/documents/conteudoccee/ccee_062683.pdf

Eletrôbras maintains 6 subsidiaries of generation and 6 subsidiaries of distribution.

The electrical energy consumption in September 2014 in the ACL, Free Contracting Environment, represented 25 percent of the total electrical energy consumption with 618 free consumers and 1,171 special free consumers. (Infomercado CCEE Setembro 2014, p. 6 and p. 10 http://www.ccee.org.br/portal/faces/pages_publico/quem-somos/informacoesmercado/info_mercado?_afLoop=954961423879266#%40%3F_afLoop%3D954961423879266%26_adf.ctrl-state%3D197cmyxx7n_356)

Currently, the free market has more than 2,600 agents and the participation of electrical energy consumption in the free market. This participation can reach 46 percent of the total electrical energy consumption, considering the current eligibility criteria.

2 Tariffs of Electrical Energy

2.1 Power Demand and Electrical Energy Consumption

The Decree 62,724/1968 established that the tariffs of electrical energy are applied to power demand and electrical energy consumption to remunerate the cost of supplying electrical energy.

Concepts that were defined on the Decree 62,724/1968 are currently in use. These concepts will be exposed in the next Chapters as set out on the Normative Resolution ANNEL 414/2010, which established the current general supply conditions of electrical energy.

“Article 2 For the intents and purposes of this Resolution, the following definitions are adopted:

XX – power demand: average of active or reactive electrical power, requested from the electrical system on the portion of the installed load operating in consumer unit, for a specified time interval, measured in kilowatts (kW) and kilovolt-ampere-reactive (kvar), respectively;

XXXI – active electrical energy: one that can be converted into another form of energy, measured in kilowatt-hours (kWh).”¹

The active power demand, measured in kW, is the component of power that can be converted to another kind of energy, e.g., mechanical, thermal, etc. An electric motor with the power demand of 1 kW is an example. This means that, when this motor is turned on, it will require from the electrical system 1 kW of power demand, or active electrical power.

The electrical energy consumption, measure of the active electrical energy, represents the active power demand multiplied by the hours that the electrical equipment is being used. The electrical energy consumption is measured in kWh.

An example of the same electrical energy consumption with different power demands:

House 1: 1 fan with power demand of 0.2 kW, turned on for a full month:

Consumption = 0.2 kW x 24 hours x 30 days = 144 kWh

House 2: 1 shower with power demand of 7.2 kW, turned on for 20 hours a month:

Consumption = 7.2 kW x 20 hours = 144 kWh

¹ All the texts in quotes are free translation from Portuguese.

The two houses have the same electrical energy consumption, but House 2, which has a higher power demand, requires much more from the electrical system.

2.2 Initial Tariffs of Electrical Energy – Tariff of Demand and Tariff of Consumption

The Federal Decree 41,019/1957 regulated the electrical energy services established on the Federal Decree 24,634/1934. The article 4 of the Decree 41,019/1957 established that the transmission service is the transport of the electrical energy from the generators to distribution plants or between distribution plants. The Decree 41,019/1957 established that the tariffs for the granted public service of electrical energy, should be established in the form of the service by the cost.

The Federal Decree 62,724/1968, established general rules for tariff definitions for the concessionaries of the public service of electrical energy according to the Federal Decree 41,019/1957.

The Decree 62,724/1968 established the allocation of the costs of the supply service of electrical energy between power demand and electrical energy consumption. The tariffs should guarantee the financial stability established in article 178 of the Decree 24,643/1934 and regulated by the Decree 41,019/1957.

The Decree 62,724/1968 defined the tariff of electrical energy structure, creating Group A, great consumers connected at voltage exceeding 2,300 volts, and Group B, small consumers connected at voltage less than 2,300 volts.

For Group A, the tariffs of electrical energy were binomially established – a tariff denominated Tariff of Demand (R\$/kW)² applied to Power Demand(kW) and another tariff denominated Tariff of Consumption(R\$/kWh) applied to Electrical Energy Consumption(kWh).

The current Normative Resolution ANEEL 414/2010 also establishes:

“Article 2 For the intents and purposes of this Resolution, the following definitions are adopted:

L – Tariff modality: set of tariffs applied to components of electrical energy consumption and active power demand.”

For Group B, the tariffs of electrical energy were initially binomially established, as the tariffs for Group A, then converted into a monomial tariff, the Tariff of Consumption(R\$/kWh) applied to Electrical Energy Consumption(kWh). Group B Tariff of Consumption(R\$/kWh) considers the Power Demand(kW) in its composition.

² The current Brazilian currency denomination (Reais – R\$) will be utilized in this paper

The Decree established a Supply Contract for Group A consumers and an Adhesion Contract for Group B.

The Decree 62,724/1968 established that Group A had to contract on the Supply Contract an amount denominated Contracted Power Demand(kW). The denomination is still applied and has the following definition on the current Normative Resolution ANNEL 414/2010:

“Article 2. For the intents and purposes of this Resolution, the following definitions are adopted:

XXI – Contracted Power Demand: Demand of active power to be mandatory and continuously provided by the distribution and transmission companies, at the point of delivery, according to the value and duration fixed in the contract, and must be paid in full, whether or not used during the billing period, expressed in kilowatts(kW)”.

The Tariff of Demand (R\$/kW) should be applied to the measured Power Demand(kW) or to the Contracted Power Demand(kW), whichever is greater.

The Contracted Power Demand represents the investment that has to be made by the distribution and transmission concessionaires to mandatorily guarantee the availability of this Power Demand to the great electrical energy consumers of Group A.

Transmission as transport, according to the Federal Decree 41,019/1957, did not represent a new unit of measurement or a new component of the initial electrical energy tariffs. The transmission of electrical energy cost compounds the costs of the electrical energy supply that have to be remunerated by the tariffs of electrical energy.

The Decree 62,724/1968 defined the following tariffs of electrical energy and contracts:

Table 1 – Initial Tariffs of Electrical Energy from 1968	
Consumer – Group A:	
Tariff of	Applied to
Consumption(R\$/kWh)	Electrical Energy Consumption(kWh)
Demand(R\$/kW)	Power Demand(kW)
Contract - Supply Contract with Contracted Power Demand(kW)	
Consumer – Group B:	
Tariff of	Applied to
Consumption(R\$/kWh)	Electrical Energy Consumption(kWh)
Tariff of Consumption considers the Power Demand(kW) in its definition	
Contract - Adhesion Contract	

2.3 Brazilian Restructuring of the Electrical Sector – New Tariffs of Electrical Energy – TUSD and TUST

The Chapter 1.1.4 explained that the Federal Laws 8,987/1995 and 9,074/1995 initiated the restructuring of the Brazilian electrical system.

The restructuring had the following objectives:

- Increase the efficiency of transmission and distribution sectors;
- Introduce a competitive market in generation and commercialization activities of electrical energy.

(Nota Técnica nº 166/2006–SRE/ANEEL - http://www.aneel.gov.br/arquivos/PDF/NT_Empresa%20de%20Refer%C3%AAncia.pdf)

The electrical distribution and transmission are considered natural monopolies. The ANEEL Resolution 12/2002 established the definition of natural monopoly for distribution which is also applied to transmission:

“distribution of electrical energy is a natural monopoly, not admitting, therefore, overlapping networks of agents in the same location, including rural electrification cooperatives.”

New agents were created, such as the independent electrical energy producer, the own-generator of electrical energy, and the special free consumer, which is the consumer that contracts electrical energy from alternative sources of generation.

The articles 15 and 16 from the Federal Law 9,074/1995, defined the requirements to be a free consumer of electrical energy.

The charge, as defined in Law 9,074/1995, condition for a consumer to be free, corresponds to the Contracted Power Demand in accordance with the Technical Note 070/2009-SEM/ANEEL, attached to ANEEL Resolution 376/2009:

“28. Indeed, in the adhesion process of a free consumer to CCEE, requires the proof of the contracted power demand, the voltage level and the date of connection of the electrical installations of each consumer unit that the demand will be modeled. In the modeling process, in turn, there is the involvement of the distribution company that has interest in whether the conditions imposed on a consumer to make the migration to the ACL (Free Contracting Environment) are all met.” (Nota Técnica nº 070/2009–SEM/ANEEL - <http://www.aneel.gov.br/cedoc/nren2009376.pdf>)

Group A captive consumers need to have Contracted Power Demand equal or greater than 3,000 kW to become a free consumers. Consumers potentially free are the captive consumers that have Contracted Power Demand equal or greater than 3,000 kW and did not make the option to become free consumers.

Group A captive consumers need to have Contracted Power Demand equal or greater than 500 kW and contract electrical energy from alternative sources of generation to become a special free consumer.

The article 15 from the Federal Law 9,074/1995, paragraph 6º, defined the criteria to the access of the transmission and distribution systems:

"It's assured to suppliers and consumers free access to distribution and transmission systems of concessionaire and permittee of public service, by reimbursement of the cost of the transport involved, based on the criteria set by the grantor."

As explained in Chapter 2.2, the Federal Decree 41,019/1957 established transmission as transport. The Federal Law 9,074/1995 established that transmission and distribution of electrical energy are transport.

The article 6 from the Federal Law 9,074/1995 established that the distribution service is the supply of energy to final consumers.

The article 29,V of the Law 8,987/1995 established the general competence of the granting power, the Federal Government, to homologate adjustments and revise the tariffs under the Law, according to the contract relevant standards.

The Chapter III of the Law 9,427/1996 established the Economic and Financial Regime of Concessions of Public Service of Electrical Energy. The article 14, I of this chapter established that the economic and financial regime of the concession of public service of electrical energy is provided by the tariffs based on the service by the price, paid by the final consumers to remunerate the service provided pursuant the Federal Law 8,987/1995.

The tariffs of electrical energy established in the Law 9,427/1996, amended by the Law 9,648/1998 which included the §1 in article 26, and the Law 10,484/2004 which included incise XVIII in article III, to remunerate the electrical energy supply are:

- Tariff of use of distribution system (TUSD) and;
- Tariff of use of transmission system (TUST).

2.3.1 TUSD and TUST applied to Power Demand

The DNAEE Ordinance 459/1997 defined the reimbursement of the cost of transport involved.

Instead of using the denomination Tariff of Demand, it was established for free consumers new denominations for this Tariff. These denominations were: Tariff for the Use of the Transmission System (R\$/kW), for consumers connected to transmission system, and Tariff for the Use of the Distribution System (R\$/kW), for consumers connected to distribution system, both tariffs applied to Power Demand (kW).

The Federal Law 9,648/1998, determined that the free consumers should contract the access and use of the distribution system separately from the electrical energy consumption.

According to Federal Decree 2,655/1998, the transmission concessionaries have to make available their facilities and equipment to ONS.

The ANEEL Resolution 248/1998, established the general conditions of provisioning transmission services, hiring the access and use of electric power transmission systems.

The ANEEL Resolution 247/1999, revoked the ANEEL Resolution 248/1998, and established the Contracts of Provision of Transmission Service - CPST, Contracts of Use of Transmission System - CUST and Contracts for Connection to System Transmission – CCT.

The ANEEL Resolution 281/1999, in its original wording, established the general contracting conditions of access, including the use and the connection to the distribution and transmission of electrical energy systems. This Resolution repealed DNAEE Ordinance 459/1997.

The Tariff for the Use of the Transmission and Tariff for the Use of the Distribution system, established by DNAEE Ordinance 459/1997, was replaced by the Tariff of Use of the Transmission System, TUST in R\$/kW, and Tariff of Use of the Distribution System, TUSD in R\$/kW.

The denomination Power Demand(kW) used on DNAEE Ordinance 459/1997, and from Decree 62,724/1968, was named: Amount of Use of Transmission System (MUST) and Amount of Use of Distribution System (MUSD), for free consumers, both in kW.

Several excerpts from the current Normative Resolution ANEEL 414/2010, confirm the equivalence of the Contracted Power Demand(kW) for the captive consumer and the Contracted MUSD(kW) for the free consumers. As an example:

"Art . 93 When the amounts of active power demand or use of the distribution system – MUSD measured exceed by more than 5% (five percent) of the contract value, shall be added to the regular billing charges for exceeding according to the following equation: (Writing by ANEEL REN 418/2010) "

According to ANEEL Resolution 281/1999, the same exceeding limit of 5% (five percent) is applied to Contracted MUST.

Based on ANEEL Resolution 281/1999, ANEEL Resolution 282/1999, established the Tariffs of Use of the Transmission System - TUST and ANEEL Resolution 286/1999, established the Tariffs of Use of the Distribution System – TUSD.

At this moment the new tariffs TUSD and TUST were only applied to the new denominations of the Power Demand(kW) for the free consumers: MUSD(kW) and MUST(kW). The Tariff of Demand(kW) was applied to the Power Demand(kW) for the captive consumers.

We had the following tariffs of electrical energy and contracts from 1999:

Table 2 – Tariffs of Electrical Energy from 1999	
Captive Consumer – Group A:	
Tariff of	Applied to
Consumption(R\$/kWh)	Electrical Energy Consumption(kWh)
Demand(R\$/kW)	Power Demand(kW)
Contract - Supply Contract with Contracted Power Demand(kW)	
Captive Consumer – Group B:	
Tariff of	Applied to
Consumption(R\$/kWh)	Electrical Energy Consumption(kWh)
Tariff of Consumption considers the Power Demand(kW) in its definition	
Contract - Adhesion Contract	
Free Consumer – Group A connected to Distribution System:	
Tariff	Applied to
TUSD (R\$/kW)	MUSD(kW)
Contract - CUSD with Contracted MUSD(kW)	
Free Consumer – Group A connected to Transmission System:	
Tariff	Applied to
TUST(R\$/kW)	MUST(kW)
Contract - CUST with Contracted MUST(kW)	

2.3.2 TUSD and TUST applied to Power Demand and Electrical Energy Consumption

The ANEEL Resolution 456/2000 consolidated the General Conditions of Electrical Energy Supply, but made no reference to the new tariffs TUSD and TUST.

A Tariff in R\$/kW only to power demand(kW) did not reflect the total costs of the distribution and transmission systems. The Technical Note ANEEL 47/2003 explained the necessity of establishing a new Tariff applied to electrical energy consumption:

“Given the current tariff policy, it is highlighted that tariffs of the use of distribution system will be the basic pillar for opening of retail tariffs and subsequent correction of their cross-subsidies.

3.3.1 TUSD applicable to Active Demand Power

Tariffs of use of the distribution systems applicable to active power demand as a proportion of the wire component, considering the marginal costs of capacity for voltage ranges and reference market demand.

3.3.3 TUSD applicable to Electrical Energy Consumption

Tariffs of use of the distribution systems applicable to electrical energy consumption shall be calculated by the relation between burden component and reference energy market component, excluding the supply of electrical energy to other distribution *companies*.”

(Nota Técnica nº 047/2003-SRD/ANEEL - http://www.aneel.gov.br/Arquivos/PDF/NT0472003SRDANEEL_04112003_CEA_M.pdf)

The ANEEL Resolution 152/2003, according to the Federal Decree 4,562/2002, established the TUSD with these two components:

- TUSD(R\$/kW) applied to the MUSD(kW);
- TUSD(R\$/kWh) applied to Electrical Energy Consumption(kWh).

The Normative Resolution ANEEL 166/2005, established the current tariff structure for the distribution system.

Tariff	Tariff component	Reference cost
TUSD	TUSD Wire B	Reintegration Share of assets
		Remuneration
		O&M Costs
	TUSD Wire A	TUST RB
		TUST FR
		Use of other D
		Conection to RB plants
		losses in RB due losses in D
	TUSD Burden of Distribution Service	RGR
		P&D
		TFSEE
		ONS
	TUSD CCC interconnected	TUSD CCCs/SE/CO
		TUSD CCCN/NE
	TUSD CCC isolated	CCC isolated
	TUSD CDE	TUSD CDEs/SE/CO
		TUSD CDEn/NE
TE	TUSD Proinfa	Proinfa
	TUSD Technical Losses	Technical Losses
	TUSD Non-Technical Losses	Non-Technical Losses
	TE	Cost Reference
		EE Acquisition Cost for resale
		Own-Generation Cost
		Itaipu(Power/Transport/Basic Network)
		Use Basic Network linked to Initial Contracts
		ESS
		Losses in Basic Network
		R&D

(Nota Técnica nº 360/2010-SRE-SRD/ANEEL – Tabela 6.- Composição da tarifa REN nº 166/2005 -
http://www.aneel.gov.br/aplicacoes/audiencia/arquivo/2010/120/documento/nota_tecnica_n%C2%BA_360_2010_sre-srd-aneel.pdf)

The components of the TUSD – TUSD Wire A and TUSD Wire B are tariffs in R\$/kW applied to Power Demand(kW) for captive consumers and to MUSD(kW) for free consumers.

The other components of the TUSD and TE – Tariff of Energy are in R\$/kWh applied to electrical energy consumption for captive and free consumers.

As it was established a new electrical energy tariff applied to electrical energy consumption, the TUSD(R\$/kWh), the previous Tariff of Consumption(R\$/kWh) was split in two:

- TE – Tariff of Energy(R\$/kWh) applied to Electrical Energy Consumption (kWh) for captive consumers of Groups A and B;
- TUSD(R\$/kWh) applied to Electrical Energy Consumption(kWh) for captive and free consumers.

The sum of the two tariffs, TE and TUSD, is named TA – Tariff of Application. The captive consumer is billed according to the TA, but in the Resolutions ANEEL which defines the value of the tariffs, the TA is split in TE(R\$/kWh) and TUSD(R\$/kWh). (Nota Técnica nº 360/2010-SRE-SRD/ANEEL, item 120
http://www.aneel.gov.br/aplicacoes/audiencia/arquivo/2010/120/documento/nota_tecnica_n%C2%BA_360_2010_sre-srd-aneel.pdf)

The correct allocation of the costs of distribution and transmission happened with the tariff realignment, from 2003 to 2007, which equaled the TUSD and TUST, for captive and free consumers from 2008, as stated in the Technical Note N. 106/2005 - SRE / ANEEL:

“ii) the tariff realignment has the intent of phasing out cross subsidies existing between the consumers classes. The tariff realignment is the result of the application of the tariffs of electrical energy, resulting in costs of energy purchased, and the tariff of the use of the transmission and distribution systems. Both captive consumers as free consumers will be subject to the same tariffs of the transmission and distribution systems.

278. According to Decree No. 4,562, of December 31, 2002, Resolution CNPE n. 12, of September 17, 2002, ANEEL Resolution 666 of September 29, 2002, and Decree No. 4.667 of 4 April 2003, ANEEL proceeded simultaneously with the periodic review of CELPE, opening and realigning tariffs for its electrical energy supply, in order to initiate the schedule for phasing out of cross subsidies, over the period from 2003 to 2007.” (Nota Técnica nº 106/2005 – SRE / ANEEL -
http://www.aneel.gov.br/aplicacoes/audiencia/arquivo/2005/003/documento/nt_106_celpe.pdf)

As result of the tariff realignment, the captive consumers and free consumers have, from 2008, the same value for the two components of the TUSD – TUSD in R\$/kW) and TUSD in R\$/kWh.

The Law 10,848/2004 amended article 3 of Law 9,427/1996 and established guidelines for setting the TUST by ANEEL.

The Normative Resolution ANEEL 71/2004 established the TUST with the components TUST(R\$/kW) applied to MUST(kW) and TUST(R\$/kWh) applied to Electrical Energy Consumption(R\$/kWh).

The ONS holds through the CPST, acronym of Contrato de Prestação de Serviços de Transmissão, which means Contract for Transmission Services, signed with all transmission concessionaires, control and operation of the entire transmission network.

The CUST – Contract of Use of the Transmission System is signed by free consumers connected to transmission system with ONS that has the right over the entire transmission network through the CPST. In the CUST the consumer contracts the Contracted MUST(kW) that corresponds to the Power Demand(kW) for captive consumers.

The ONS informs by a document named AVD, acronym of “Aviso de Débito”, which means Debit Notice, what has to be paid to every transmission company. The transmission companies receive from ONS an AVC, acronym of “Aviso de Crédito”, which means Credit Notice, informing what will be paid for every consumer.

According to Normative Resolutions ANEEL 74/2004, 127/2004, 427/2011 and 515/2012, other sectorial burdens on electrical energy consumption on the transmission system are paid directly to the transmission company with whom the consumer is connected. These burdens are also informed by the ONS and the current burdens are CDE (acronym of “Conta de Desenvolvimento Energético”), which stands for Energy Development Account, and PROINFA, that is a program to incentivize alternative sources of energy, both created by the Federal Law 10,438/2002 (ONS - Apuração Mensal de Encargos Setoriais – http://www.ons.org.br/download/procedimentos/modulos/Modulo_15/Subm%C3%B3dulo%2015.10_Rev_1.1.pdf).

The references to TUST in R\$/kWh in this paper should consider containing the TUSD – CDE(R\$/kWh) and TUST – Proinfa(R\$/kWh).

The TUSD and TUST in R\$/kW applied to Power Demand(kW), MUST(kW) and MUST are named “Tarifa Fio”, which means Tariff of Wire.

The TUSD and TUST in R\$/kWh applied to Electrical Energy Consumption are named “Tarifa Encargos” which stands for Tariff of Burden.

The Tariffs of Burden represent the sectorial burdens that compound the tariffs of electrical energy according to Federal Law 9,427/1996.

In the current ANEEL resolutions it is only made reference to the value per unit of measurement of the TUSD and TUST in R\$/kW and in R\$/kWh. This criterion will be also utilized in this paper.

The current Tariffs of Electrical Energy and contracts from 2005 are:

Table 3 – Current Tariffs of Electrical Energy from 2005	
Captive Consumer – Group A:	
Tariff	Applied to
TE - Electrical Energy(R\$/kWh)	Electrical Energy Consumption(kWh)
TUSD(R\$/kWh)	Electrical Energy Consumption(kWh)
TA(R\$/kWh) – Tariff of Application = TE(R\$/kWh) + TUSD(R\$/kWh)	
TUSD(R\$/kW)	Power Demand(kW)
Contract - Supply Contract with Contracted Power Demand(kW)	
Captive Consumer – Group B:	
Tariff	Applied to
TE - Electrical Energy(R\$/kWh)	Electrical Energy Consumption(kWh)
TUSD(R\$/kWh)	Electrical Energy Consumption(kWh)
TE and TUSD considers the Power Demand(kW) in its definitions	
TA(R\$/kWh) – Tariff of Application = TE(R\$/kWh) + TUSD(R\$/kWh)	
Contract - Adhesion Contract	
Free Consumer – Group A connected to Distribution System:	
Tariff	Applied to
TUSD (R\$/kW)	MUSD(kW)
TUSD(R\$/kWh)	Electrical Energy Consumption(kWh)
Contract - CUSD with Contracted MUSD(kW)	
Free Consumer – Group A connected to Transmission System:	
Tariff	Applied to
TUST(R\$/kW)	MUST(kW)
TUST(R\$/kWh)	Electrical Energy Consumption(kWh)
TUST - CDE(R\$/kWh)	Electrical Energy Consumption(kWh)
TUST - PROINFA(R\$/kWh)	Electrical Energy Consumption(kWh)
Contract - CUST with Contracted MUST(kW)	

3. ICMS – State Tax on Electrical Energy

3.1 National Tax System

The article 2 of the Federal Law 5,172, named CTN (acronym of “Código Tributário Nacional”), which stands for National Tax Code, establishes the National Tax System: Constitutional dispositions, Complementary Laws, Senate Resolutions and, on the limits of their competences, Federal Laws, State Constitutions and Laws, and Local Laws.

The Constitution establishes some matters that have to be ruled by a Complementary Law. This Law completes the matters constitutionally required and has a special quorum to its approval.

Although not being formally a complementary law, the CTN is a complementary law *ratione materiae*, meaning that can only be amended by a complementary law (Coêlho, 2007, pp. 417-418).

In Portuguese we have the word “tributo” as a genus for all the species of taxes. Genus and species of taxes are translated as tax, which can confuse the understanding.

The article 3 of the CTN establishes the general definition of tax as genus (“tributo”):

“Tax is all compulsory monetary payment, in currency or whose value can be express in it, which does not constitute punishment for an illicit act, established by law and charged fully bounded administrative activity.”

The article 5 of the CTN establishes the species of taxes:

- Taxes;
- Fees;
- Improvement contributions.

Taxes as specie, named “imposto” in Portuguese, are defined in Article 16:

“Tax(“imposto”) is the kind of tax(“tributo”) whose obligation is based on a situation independent of any particular statal activity, relatively to the taxpayer.”

Brazil has an extensive and thorough constitutional disposition in terms of taxation. The Brazilian Federal Constitution 1988 establishes through articles 145 to 162 the National Tax System.

The fundamentals of the Brazilian tax law are rooted in the Constitution, and these fundamentals have to be observed on the legal orders of the Federal, State and Local governments (Coêlho, 2007, pp. 47-48).

Taxes as specie (imposto) are established in article 153 for the Federal Government, in article 155 for the States and in article 156 for the Local Governments.

The Federal District, Brasilia, has both the State competence, according to article 155, and Local competence, according to article 147, to establish taxes (“imposto”). Every reference to States or Local governments regarding to taxes also includes the Federal District.

The Federal Constitution of 1998 establishes more species of taxes in addition to those specified by the CTN (Coêlho, 2007, pp. 67-71):

- Article 145, concurrent attribution to Federal, States, Federal District and Local governments to establish:

- Taxes (“imposto”);
- Fees, due to the exercise of the police power or the use, actual or potential, of specific and divisible public services provided to the taxpayer or made available to them;
- improvement contribution, resulting from public works

- Article 148, attribution to Federal Government to establish:

- Compulsory Loans.

Article 149, attribution to Federal Government to establish:

- Social Contributions.

Article 149-A, attribution to Federal District and Local Governments to establish:

- Public Lighting Contribution.

Article 154, attribution to Federal Government to establish:

- Other taxes (imposto) not defined in article 153 that establishes the Federal Taxes (imposto), by Complementary Law, non-cumulative with tax base and hypothesis of incidence defined in the Constitution. This is named residual competence of the Federal Government;
- Extraordinary tax (imposto) on the verge or in case of war.

3.2 – Current Taxes on Electrical Energy

3.2.1 – ICMS

The article 155 of the Federal Constitution defines the state competence to establish taxes.

The Constitution of 1988 repealed the Federal tax on electrical energy, IUEE, established by the Federal Law 2,308, august, 31, 1954, and established for the states the ICMS, acronym of “Imposto sobre Circulação de Mercadorias e Serviços”, tax on operations relative to goods circulation, interstate and intercities transportation services and communications services, even though these operations and services begin abroad. The former state tax was named ICM, tax on goods circulation, so the new tax included services in its incidence.

In its original wording, the first Constitutional reference to electrical energy regarding to ICMS was made in article, 155, §2, X, b, establishing the non-incidence of the ICMS on the interstate operations with electrical energy, petroleum, including lubricants, liquid and gaseous petroleum derived fuels. The constitutional non-incidence is named immunity.

The article 155, §2, XII, defines the matters that require a Complementary Law for the ICMS.

The Brazilian Constitution has a Chapter named Act of Transitory Constitutional Dispositions (ADCT). This Chapter defines constitutional matters until the edition of further laws.

The article 34, § 8º, established that if within sixty days from the promulgation of the Constitution is not edited the complementary law required to define the ICMS, the states and the Federal District, under an agreement concluded pursuant to the Complementary Law 24/1975, shall establish standards to regulate the matter provisionally.

The article 34, §9º from ADCT establishes the ICMS levy on electrical energy until the edition of a complementary law. It attributes to the distribution companies as taxpayer or substitute the responsibility at the exit of the product from their establishments even though destined to another state, for the ICMS payment from production or import until the last operation, being the tax applied to the price of the final operation, ensured its collection to the state or Federal District, according to the locale where these operations should occur.

The law was not edited and according to the article 34, § 8, from ADCT, the states and the Federal District established the Agreement ICM 66/1988. The STF recognized that this Agreement had the status of a Complementary Law. (STF - RE 629943 / RJ - RIO DE JANEIRO <http://www.stf.jus.br/portal/jurisprudencia/listarJurisprudencia.asp?s1=%28%28RECURSO+EXTRAORDIN%C1RIO+STF+629%2E943+RIO+DE+JANEIRO+%29%29+NAO+S%2EPRES%2E&base=baseMonocraticas&url=http://tinyurl.com/m6gixjo>)

The Agreement ICM 66/1988 repeated the same as defined in article 34, § 9 from ADCT for the ICMS incidence on electrical energy.

The Federal Complementary Law 87/1996 is the complementary law constitutionally required for the ICMS and repealed the Agreement ICM 66/1988.

3.2.2 PIS and COFINS

The Federal contributions PIS (acronym of “Programa de Integração Social”), which stands for Social Integration Program, created by the Federal Complementary Law 7/1970 and COFINS, contribution to financing of Social Security, created by the Federal Complementary Law 70/1991, are also applied to electrical energy.

The Federal Law 10,637/2002 established the non-cumulative for the PIS, and the Federal Law 10,833/2003 established the non-cumulative for the Cofins.

The third Constitutional Amendment of 1993 included the third paragraph in article 155, which stated that with the exception of the ICMS and the federal taxes of importation and exportation no other tax, as the general definition of tax (“tributo”), could be applied to the operations relative to electrical energy, communications services, petroleum products, fuels and minerals from the country. This amendment included the incidence of the Federal taxes of importation and exportation on these goods and services.

This caused litigation about the incidence of these contributions, which are included on the general definition of tax (“tributo”).

Although the STF did not recognize the non-incidence on these contributions, the Constitutional Amendment 33/2001 changed the general definition tax (“tributo”) to tax as specie (“imposto”) to the article 155, paragraph 3, finishing the possibility of arguing in court the incidence of these contributions on electrical energy (Paulsen, 2006, p. 444).

3.3 Hypothesis of Incidence of ICMS on Electrical Energy

The IUEE had its incidence on the consumption of the electrical energy (kWh).

The Constitution of 1988 did not limit the ICMS incidence on electrical energy consumption and established new possibilities of interpretation of the incidence on electrical energy.

The delimitation of this incidence is the matter of the litigation over the ICMS incidence on electrical energy, as will be later discussed.

3.3.1 Electrical Energy as a Service

The public service is always vested in the Government competence (Di Pietro, 2007, pp. 90-91), pursuant to art. 175 of the Constitution and always depends on the Government:

- their creation made by law and represents an option from the Government that assumes the implementation of any particular activity that, by its importance to the community, seems not to be convenient be dependent on the private sector;
- its management also lies with the Government, which can do it directly (through the organs themselves) or indirectly, through a concession or permission or legal entities created by the Government for this purpose.

From Federal Decree 24,643/1934 electrical energy is treated as a Federal public service.

The Federal Constitution of 1988, in the same sense, establishes in its

article 21, XII, b, that is competence of the Federal Government to exploit directly or by authorization, concession or permission the electrical energy services and the electrical energy plants.

The Federal Law 9,074/1995, according to article 175 of the Constitution, has a Chapter about concessions, permissions and authorizations for electrical energy plants and services.

The article 155, II, § 2, IX, b, established a constitutional disposition to avoid the competence concurrency between States and Local Governments concerning the services. It defined the state competence, through the ICMS, on the total operations when goods are provided with services not submitted to the local tax competence.

The Local tax over services is the ISS (acronym of “Imposto Sobre Serviços”), which stands for Tax on Services, established in article 156, II. The services, for ISS incidence, could not be the services established to the ICMS and should be defined on a complementary law. The Complementary Law 116/2003 is the current definition of the services submitted to the ISS.

When goods are provided with services not listed on the Complementary Law 116/2003, the total operation is hypothesis of incidence of ICMS. That is the case for the electrical energy services.

3.3.2 Electrical Energy as a Good

The Federal Decree-Law 2,848/1940, Brazilian Penal Code, in its article 155, which describes the theft crime, defines electrical energy as a movable good.

The Brazilian Tax Code, CTN, established in its article 74, paragraph 1, that for the IUEE, electrical energy is considered an industrialized good.

The Federal Law 10,406/2002, Brazilian Civil Code, in its article 83, establishes that energy which has economic value is considered a movable good.

The article, 155, §2, X, b, established the non-incidence of the ICMS on the operations that destine to other states electrical energy, petroleum, including lubricants, liquid and gaseous petroleum derived fuels.

According to these dispositions the doctrine lectured that for the ICMS the constitution had determined electrical energy as a good (Carrazza, 1999, p. 141).

Considering electrical energy as a good, the article 155, II, establishes the incidence on operations relative to goods circulation, not only operations with the goods.

Reassuring the operations relative to goods, the Constitutional Amendment 3, 1993, that included the paragraph 3, in article 155, and the Constitutional Amendment 33/2001, that amended this paragraph establishes that with the exception of the ICMS and the federal taxes of importation and exportation no other tax (“tributo”) could be applied to the operations relative to electrical energy, communications services, petroleum products, fuels and minerals from the country.

The Constitution describes electrical energy as a good and includes in the ICMS hypothesis of incidence the operations relative to electrical energy.

Another possibility is electrical energy as a good with two components: electrical energy consumption and power demand.

3.3.3 Electrical Energy as Transport

The Federal Decree 41,019/1957 established transmission as transport.

The Federal Law 9,074/1995 established that transmission and distribution of electrical energy are transport.

The initial tariffs of electrical energy, Tariff of Consumption and Tariff of Demand, and the current tariffs of electrical energy, TE, TUSD and TUST, do not have any relation with the regular concept of transportation, as exposed in items 2.2, 2.3.1 and 2.3.2.

The costs of distribution and transmission make part of the electrical energy tariffs, regardless of their denomination of transport.

The service of interstate and intercities transportation is hypothesis of incidence of the ICMS.

The Chapter 5.4 will discuss the STJ decisions that are withdrawing the ICMS incidence on the TUSD and TUST. In these decisions the STJ is stating that there is no legal forecast to consider the TUSD and TUST as transport of goods, goods meaning electrical energy.

The TUSD and TUST are tariffs of electrical energy and not tariff of transport.

3.4 ICMS Tax Base for Electrical Energy

The original wording of the Constitution made the following references to ICMS tax base:

Article 155, §2º, IX, b – the ICMS incidence and the tax base on the total operations when goods are provided with services not submitted to the local tax competence;

Article 155, §2º, XI – it will not be included in the ICMS tax base, the amount of federal tax on industrialized goods, when the operation between taxpayers and relative to a good destined for industrialization or sale, when is taxable event for the two taxes;

Article 34, § 9, ADCT, established until a complementary law is not edited, the tax base for electrical energy over the price applied on the final operation by the distribution companies, corresponding to the operations from production or import until this last operation.

The Agreement ICM 66/1988 and the ICMS Federal Complementary Law 87/1996, restated the previously commented constitutional dispositions in article 34, § 9, from ADCT, attributing the tax base as the price applied by the distribution companies and established as a general rule the value of operation as tax base for ICMS.

This disposition comprehends the Brazilian model before the restructuring when all the consumers were captive consumers. It is also applied for the TUSD and TUSD for the free consumers.

For the electrical energy acquired by the free consumers on the free market, the article 12, I combined with 13, I of the Complementary Law 87/1996, establishes, as general rule that the tax base is the value of the operation.

The article 13, §1, I of the Federal Law 87/1996 establishes that the tax base of ICMS includes the amount of the ICMS.

This is named tax-inclusive base. As an example:

- Product without ICMS – R\$ 750.00
- Tax rate – 25 percent
- $ICMS = 750 \times (0.25 / (1 - 0.25)) = R\$ 250.00$

On the invoice:

Product – R\$ 1,000.00

$ICMS = \text{Product} \times \text{tax rate} = 1,000.00 \times 0.25 = R\$ 250.00$

The taxpayers argued in court that this tax-inclusive base was at really expanding the real tax base for ICMS.

The STF on the RE 249.864-5 SP, on a judicial case about electrical energy decided that the tax-inclusive base for the ICMS does not offend Constitutional Principles.

The Constitutional Amendment 33/2001 included the item i in article 155, § 2, XII, that establishes the attributions of the ICMS Complementary Law, including the ICMS on its tax base also for the importation operations.

If the amendment included also for the importation operations, the other operations already had the tax-inclusive base for the ICMS.

3.5 ICMS Tax Rate for Electrical Energy and the Principle of Selectivity

According to Carrazza (1999, p. 140), the intent of establishing the federal IUEE was to avoid the discriminatory taxation of electrical energy by States or Local governments that could hinder the industry development in Brazil.

The ICMS represents the main revenue of the states. The ICMS represented 87 percent of the states' revenue in the year of 2013. (<http://www1.fazenda.gov.br/confaz/boletim/>)

The Constitutional Principle of Selectivity, is established for the federal tax on industrialized products, named IPI, and for the ICMS.

The article 151, § 3, I, establishes that the IPI shall be selective, depending on the essentiality of the product.

The article, article 155, § 2, II, establishes that the ICMS can be selective, depending on the essentiality of the good or service.

The essentiality as a reduction on the tax burden is an obligation for the IPI and a possibility for the ICMS.

As a general rule the ICMS tax rates on the states internal operations are 17 percent or 18 percent.

The state of Pernambuco Law 10,259/1989, which establishes the ICMS for the state of Pernambuco, in its article 23 defines the tax rates for the ICMS:

- 25 percent for superfluous products;
- 17 percent for the other products.

For electrical energy, in Pernambuco:

- Exempt for low-income residential consumers which have the benefit of the social tariff according to the Federal Law 10,438/2002, rural producers and State of Pernambuco owned establishments;
- 25 percent for the other consumers.

The state of Rio de Janeiro has the following tax rate for electrical energy:

Consumer class	Consumption rate (kWh/month)	ICMS rate
Residential	0 a 50	Exempt
	51 a 300	18%
	> 300	29%
State Government	-	Exempt
Other Classes	0 a 300	19%
	> 300	29%

Excepting exemptions and reductions of the tax rate according to consumption, the vast majority of consumers have the application of the maximum tax rate in every state. Utilizing the Table with the tax rates per concessionaire (Ganin, 2009, pp. 471-505) the average maximum tax rate per state is about 25 percent for electrical energy.

As a consequence of the tax-inclusive base for ICMS, the effective tax rate for a tax rate of 25 percent is 33.33 percent.

As in the State of Pernambuco and other States' Laws, this is a tax rate for superfluous products, which is not the case for electrical energy.

Since the establishment of these tax rates, the consumers argued in court that the constitutional principle of selectivity was not being applied for the ICMS on electrical energy.

After many judicial decisions that denied the consumers judicial requests, the STF will decide on the RE 714739 if these tax rates for electrical energy are according to the Constitutional disposition of selectivity for ICMS.

3.6 Principle of Destiny

The article 155, §2, IV of the Constitution defined that a Senate Resolution should establish the ICMS interstate tax rate for interstate operations with goods and services. The Senate Resolution 22/1989 established these ICMS interstate tax rates.

The article, 155, §2, X, b, of the Constitution establishes the non-incidence of the ICMS on the operations that send to other states electrical energy, petroleum, including lubricants, liquid and gaseous petroleum derived fuels. The Constitutional non-incidence is named immunity.

This is the Constitutional Principle of Destiny, an exception to interstate rates for ICMS, and it has the intention to distribute the revenue on petroleum and electrical energy, that otherwise would be concentrated on the producing states (Coelho, 1995, pp. 33-34).

The Federal Complementary Law 87/1996, determined for interstate operations with electrical energy, that the ICMS incidence occurs on the entrance on the destiny state, if the electrical energy is not destined to commercialization or industrialization, .i.e., not destined for consumption (article 2º, §1º,III and article 12, XII). The ICMS belongs to the state where the consumer that acquired the electrical energy is located.

Regarding the industrialization of electrical energy, as in the Constitution, electrical energy is prescribed on the law together with oil and its products. In some articles it is stated that the incidence should not be applied when these products are destined to commercialization or industrialization. Oil, e.g., can be used as raw material for an industrialization process that results in another product. This could not happen to electrical energy. Although present in the law, the operation of industrialization makes no sense for electrical energy. For an industry, energy is an input for the industrialization process. The references on the law about the electrical energy industrialization will still be mentioned on the commentaries, despite its impropriety.

The non-incidence on interstate operations is conditioned to operations destined to commercialization and industrialization (article 3, III). In this way, the law established a limitation that is not apparently in the Constitution. The consumption is not submitted to the non-incidence, and this limitation to the non-incidence was established in the interest of the states.

On the interstate operations with electrical energy, the ICMS taxpayer is whoever purchases electrical energy not destined for commercialization or industrialization, i.e., for consumption (article 4, IV). If it was not excluded the non-incidence for consumption on the interstate operations, according to article 3, III, there wouldn't exist a taxpayer or substitute for this operation. The non-incidence on the interstate operations, that has the goal to carry the ICMS levy to the destined state, would become an exemption.

The Law 87/1996 is also, according to the article 34, §9, ADCT of the Constitution which establishes the ICMS incidence even though the electrical energy is destined to another state.

The consumers argued in court that this interstate non-incidence, the Principle of Destiny, was in reality an exemption. The STF, Federal Supreme Court, decided about the Principle of Destiny:

“tax benefit that has not been established in favor of the consumer, but in favor of the state of destination of the products concerned, which is benefited, in its entirety, for the ICMS incident on them, from their sending until the consumption. (STF – RE 198,088 – May 2000)”

4. Brazilian Judicial system

The article 92 of the Federal Constitution establishes the courts that compound the Brazilian Judicial System. The courts involved with the litigation of the ICMS incidence on electrical energy are:

- STF – Federal Supreme Court;
- STJ – Superior Court of Justice;
- Courts and judges from the states, Federal District and Territories.

As the ICMS is a state tax, the first instance is the judge from the state of the consumer.

An appeal against the state judge decision should be proposed on the State Court.

Against the State Court decision, if it is not original competence of the STF, should be proposed a Special Resource to the STJ.

The STF is the guardian of the Constitution. Article 102, III, of the Constitution establishes the Extraordinary Appeal to the STF when the decision in single or last instance:

- counters a Constitutional disposition;
- declares the unconstitutionality of treaty or federal law;
- considers valid a law or act of local government contested under this Constitution;
- considers valid local law challenged in the face of federal law.

Article 102, §3 of the Constitution included by the Constitutional Amendment 45/2004, established that the general repercussion must be demonstrated to be admitted an Extraordinary Appeal.

The Federal Law 11,418/2006, regulates this paragraph determining that for the Extraordinary Appeal admission by the STF relevant questions from the economical, political, social or legal viewpoint that surpasses the subjective interests of the legal case have to be demonstrated (Moraes, 2007, 540).

It will be commented that judicial decisions about the ICMS incidence on electrical energy from the STJ and an Extraordinary Appeal admitted by the STF regarding the Power Demand.

5. Judicial Decisions About the ICMS Incidence on Electrical Energy

The chronological sequence of the trial about the ICMS incidence on electrical energy is:

- March 2000 – STJ withdrew the ICMS incidence on the entire Power Demand(kW);
- August 2009 – STF accepted an Extraordinary Appeal about ICMS incidence on the Power Demand(kW);
- October 2009 – STJ changed the understanding about the ICMS incidence on the Power Demand and edited the STJ Docket 391 recognizing the ICMS incidence on the tariff of electrical energy corresponding to the Power Demand(kW) effectively used;
- February 2011 – STJ withdrew the ICMS incidence on the TUSD and TUST.

The STJ Docket 391 decided about the ICMS incidence on the Power Demand.

The STF will also analyze the ICMS incidence on the Power Demand.

The STJ did not applied, in the decisions that are withdrawing the ICMS incidence on the TUSD and TUST, the STJ Docket 391 for the components of the TUSD and TUST, in R\$/kW, applied to Power Demand(kW) and its new regulatory denominations MUSD(kW) and MUST(kW).

The STJ did not analyzed, in the decisions that are withdrawing the ICMS incidence on the TUSD and TUST, that TUSD and TUST have components in R\$/kWh applied to Electrical Energy Consumption(kWh).

5.1 STJ - Decisions Against the ICMS Incidence on the Power Demand

Before the restructuring of the electrical system there were only captive consumers. During that period the ICMS was applied to the final price of the distribution companies with the structure tariff and contracts shown in Table 1.

Consumers of Group A started to litigate, arguing that the Constitution only established the ICMS incidence on the Consumption of Electrical Energy (kWh) and not on the Power Demand (kW).

The STJ Special Appeal No. 222,810 – from state of Minas Gerais, judged on March 14, 2000 - was the first decision about the matter, and from this decision on, the STJ started rejecting the ICMS levy on the entire Power Demand (kW).

The vote of the Minister José Delgado was the majority opinion and the summary of the decision is:

“TAX. ICMS. ELECTRICITY. CONTRACT OF RESERVED POWER DEMAND. TAXABLE EVENT. INCIDENCE.

1 - The value of the operation, which is the basis of logic and typical calculation for ICMS, as it was for the ICM, will consist of, in the case of electrical energy, the amount of the operation that delivers the product to consumers (Gilberto Ulhôa Canto).

2 - The ICMS should be applied to the amount of electrical energy actually consumed, i.e., which is delivered to the consumer, who has moved out of the transmission line and entered the establishment of the company.

3 - The ICMS is not a tax on legal traffic, not being levied because there is no incidence for establishing contracts.

4 – There is no hypothesis of incidence of ICMS on the value of the contract for the reserved power demand guarantee.

5 – Simply the formalization of these contracts for future electrical energy supply does not characterize the circulation of goods.

6 - The guarantee of power and demand, in the case of electrical energy, is not a taxable event for ICMS. It is only applied when, specifically, the energy is supplied and used, taking as a basis for calculating the amount paid as a result of calculated consumption.

7 – The Appeal was admitted and granted by the majority vote.

8 – The defeated vote was in the sense that the ICMS should levy on the value of the contract signed, that guaranteed the "reserved power demand," without being considered the total consumed."

The decision only admits the ICMS incidence on the Consumption of Electrical Energy.

The STJ decision ignored that Power Demand is contracted in the Supply Contract but is measured, representing the electrical energy consumed by a certain time unit. Power demand is not only a contract or legal traffic as stated in the decision.

The decision also considers the mistaken concept of reserved power demand, which does not have legal or regulatory definition.

The Rapporteur of the appeal, Minister Milton Luiz Pereira, exposed the decision of the Court of Minas Gerais which had recognized the ICMS on the Power Demand in accordance with Article 116, II of CTN:

"Art. 116. Unless the law provides otherwise, it is considered that the event had occurred and it has existing effects:

II - in the case of a legal situation, from the moment that is definitively established pursuant to applicable law."

In Minister Milton Luiz Pereira's report, it was stated that the intention of the consumer was to avoid the application of ICMS on the so-called "reserved power demand":

"The dispute was established under the state of Minas Gerais Treasury understanding that the ICMS levy on the portion of energy that is called "reserved demand ", and understanding that, although not for an effective circulation of energy, is a contractual condition, therefore composing of taxed legal operation.

What happens, however, is that the ICMS tax on the "reserved demand" means that the exaction for tribute without effective delivery of electrical energy to consumers had occurred."

The Ordinance DNAEE 222/1987, before the Federal Constitution of 1988, and the Ordinance DNAEE 466/1997 which repealed it, established that the electrical energy supply contract to Group A consumers should contain:

"Art. 22 The supply contract, when established with Group A consumers shall contain, in addition to the essential administrative contract clauses, others that relate to:

III – contracted power demand and / or secured with their schedules and, where appropriate, specified by hourly-seasonal segment demands;

IV - additional reserved power demand, if any;

§ 2 In the case of a consumer unit own-generator, supplied according to the hourly-seasonal pricing structure, additional demands reservation may be contracted, to be used when stopping or temporary reduction of his own power generation."

The STJ decision cites the "reserved power demand" as the object of the dispute. On the decision, the "reserved power demand" is being used as a genus, encompassing the contracted power demand and the additional reserved power demand. The term reserved, contained only to the additional demand, is used to give the sense that there will be an amount paid and that will not be used as it constitutes a reserve, which is certainly favorable to the consumers.

The reserved power demand is a specie of demand that can be hired for its own-generators of electrical energy, to be used during the stopping of or temporary reduction of its own-generation, according to the DNAEE Ordinances 283/1985, 222/1987 and 466/1997.

The DNAEE Ordinance 283/1985 was repealed by Resolution No. 371/1999.

The Process ANEEL 48500.005357 / 2006-39 proposing the improvement of ANEEL Resolution 371/1999, tells the history of DSR – acronym for Demanda Suplementar de Reserva - which means Additional Reserve Demand:

"The DNAEE Ordinance N. 283, of December 31, 1985, instituted the hiring of Additional Reserve Demand - DSR, to be used when stopping or temporarily reducing the own generation of the generation unit of electrical energy. The

said Ordinance further provided that hiring on DSR should be made at the discretion of the concessionaire, depending on the operating conditions and the availability of its electrical system. (<http://www.aneel.gov.br/cedoc/aren2008304.pdf>)”

The generation and consumption of electrical energy occurs instantaneously. There is not any stockpiling or specific allocation of the seller to the consumer as with a common commodity.

"The national electrical grid is the physical connection of all generators, transmitters, distributors and consumers. It works, as already mentioned, similarly to a system as a “single box”, at the same time, receives energy from all generators and feeds all consumers. Therefore, the production and consumption occurs instantaneously, with no possibility of stockpiling between intermediate stages of production, transmission and distribution (Clever, 2001, p. 68).”

Getting electrical energy from power generating stations to our homes and workplaces is quite a challenging process. Electrical Energy must be produced at the same time as it is used because large quantities of electrical energy cannot be stored effectively. http://www.eia.gov/energy_in_brief/article/power_grid.cfm

The contracted power demand and the additional reserve demand do not make up a stockpiling to be used in the case of need of the consumer, constituting as stated in the judicial decision a "reserved power demand."

Unaware of the nature of the electrical energy, with its components electrical energy consumption and power demand, the vote of the Court of Minas Gerais brings mistakenly the following excerpt about the power demand:

"Cemig makes available to the plaintiff a certain amount of energy, which, of course, cannot be passed to third parties, because it may be used at any time."

The additional reserved power demand for own-generators of electrical energy has no relation with the contracted power demand established on the supply contract for the consumers of Group A. Mixing the concepts on the litigation created a non-existing term of “reserved demand” that added another component to collaborate with the misunderstanding of the ICMS incidence on Power Demand.

5.2 STF – Extraordinary Appeal about the ICMS Incidence on Power Demand

In the trail of the Extraordinary Appeal 593824 – from state of Santa Catarina, on August 28, 2009 – the STF admitted the General Repercussion to the ICMS incidence on Power Demand. The summary is:

"CONSTITUTIONAL. TAX. ICMS INCIDENCE. TRANSACTIONS RELATING TO ELECTRICITY. TAX BASE. AMOUNT CHARGED BY WAY OF CONTRACTED DEMAND (POWER DEMAND). RELEVANCE OF ECONOMIC AND LEGAL CONSTITUTIONAL ISSUE. EXISTENCE OF GENERAL REPERCUSSION "

The Constitutional principles recognized by the STF to admit the General Repercussion about the ICMS incidence on Power Demand are:

- Art 150, II – principle of isonomy;
- Art 155, II, § 2, IX, b - ICMS on the total value of the transaction, when goods are supplied with services not included in the tax jurisdiction of Local Governments;
- Article 155, § 3 -. Except for the taxes referred to in item II of this article and article. 153, I and II, no other tax may be levied on transactions relating to electrical energy.

The General Repercussion is about Power Demand(kW), but it should be analyzed with its new regulatory denominations for the free consumers: MUSD(kW) and MUST(kW).

5.2.1 – Principle of Isonomy

The article 150 of the Constitution establishes limits to the taxation power of Federal, State and Local Governments. According to article 150, II, it is forbidden for these Governments to establish disparate treatment between taxpayers who are in similar situations. This is called Principle of Isonomy.

From the Decree 62,724/1968 until the Normative Resolution ANEEL 414/2010, which established the current General Conditions of Electrical Energy Supply, the Power Demand is part of the monomial supply tariff applied to Group B:

" Art. 2 For the intents and purposes of this Resolution, the following definitions are adopted:

LXXV-B – monomial tariff of supply: one that consists of monetary value applied only to the active electrical energy consumption, achieved by the combination of power demand and electrical energy consumption that make up the binomial tariff. (Normative Resolution ANEEL 414/2010, amended by REN ANEEL 479/2012) "

It is not feasible for Group B to install a Power Demand meter. For this Group the power demand is estimated and incorporated into the cost of the electrical energy supply in its tariff of electrical energy applied to Electrical Energy Consumption (kWh).

The monomial tariff for Group B has the ICMS incidence and contains the Power Demand in its composition.

As isonomy, the ICMS incidence on the current tariffs of electrical energy TUSD and TUST, in R\$/kW, applied to Power Demand(kW), MUSD(kW) and MUST(kW) should be applied to consumers of Group A, which have the measurement of the Power Demand(kW), MUSD(kW) and MUST(kW).

5.2.2 – Services not Included in the Competence of Local Governments

The Chapter 3.3.1 explained the Constitutional disposition in article 155, II, § 2, IX, b, which establishes the state tax incidence through the ICMS, on the total operations when goods are provided with services not submitted to the local tax competence.

At the trial of the Direct Unconstitutionality Action 4,389 on April 13, 2011, Minister Ellen Gracie cites the decision of the Minister Teori Zavascki on the Special Appeal 1092206 – from state of São Paulo, tried in March 2009:

"There is a whole set of standards of competence caring for taxing the movement of goods, services and joint operations.

On mixed operations, such as those that deliver goods and services, the local tax is applied to services whenever the aggregate service is in the list that comes into the Federal Complementary Law 116/2003 and ICMS is levied whenever the aggregate service is not on the list. "

Considering the tariffs of electrical energy applied to Power Demand(kW), MUSD(kW) and MUST(kW) as services, these services do not have the local tax incidence and should have the ICMS incidence.

5.2.3 Operations Relative to Electrical Energy

The article 155, §3 of the Constitution defined the ICMS incidence on operations relative to electrical energy. There is no constitutional restriction of the ICMS incidence only on the electrical energy consumption.

Regardless of the denomination, the current tariffs of electrical energy TUSD(R\$/kW) and TUST(R\$/kW) applied to Power Demand(kW), MUSD(kW) and MUST(kW) are relative, essential and inseparable components of the electrical energy supply cost, according to article 14, I of the Federal Law 9,427/1996, and must have the ICMS incidence.

5.3 STJ Docket 391 Recognizing the ICMS Incidence on the Power Demand

The STJ understanding against the ICMS incidence on Power Demand since the Special Appeal No. 222,810 – from state of Minas Gerais, judged on March 14, 2000 - was changed on the Special Appeal 960,476 – from state of Santa Catarina, judged on March 11, 2009.

The summary of the judgment is:

"TAX. ICMS. ELECTRICITY. POWER DEMAND. NON INCIDENCE ON TARIFF CALCULATED BASED ON CONTRACTED POWER DEMAND AND NOT USED. INCIDENCE ON TARIFF CALCULATED BASED ON ELECTRICAL POWER DEMAND ACTUALLY USED.

1 The STJ jurisprudence, from the judgment of the Special Appeal 222,810 / MG (1st Class, Min. José Delgado, Judicial Journal 05.15.2000) is in the sense that "ICMS is not tax on legal transactions because it is not being charged for having no bearing and because of award of contracts ", which is why, when it

comes to contracting electric power demand, "the only formalization of such a purchase contract or future supply of electrical energy does not characterize circulating goods." It is said, therefore, that "the ICMS should be applied to the value of electrical energy actually consumed, i.e., it is delivered to the consumer, who has moved out of the transmission line and entered the establishment of the company. "

2. At this line of jurisprudence, it is certain that "there is no hypothesis of ICMS incidence on the value of the contract for guaranteed reserved power demand". However, at this same line of jurisprudence, is also right to say, as *contrario sensu*, there is ICMS hypothesis of incidence on the power demand actually used by the consumer.

3. Thus, for the purpose of the ICMS tax base (tax which incidence assumes the effective energy consumption), the value of the tariff being taken into account is that which corresponds to power demand effectively used in the billing period, as such considered the measure demand, according to the methods of measuring the referred to in art. 2, XII, ANEEL Resolution 456/2000, whether it be smaller, equal or greater than the power demand contracted.

4. In this case, the request must be admitted in part, to recognize undue ICMS incidence on the value corresponding to power demand contracted but not used.

In the winning vote of the rapporteur, Minister Teori Albino Zavascki – explained the claim of the energy consumer to avoid the ICMS incidence on the entire power demand, according to the jurisprudence of the STJ since the Special Appeal 222,810 – from state of Minas Gerais:

"Thus, the plaintiff intends that the ICMS should be applied only on the amount of energy actually consumed and supplied by CEMIG(State of Minas Gerais Distribution Energy Company), excluding from its tax base the value of energy understood as reserved power demand."

The consumer seems unaware that the power demand has independent measurement, represented by the energy consumed per unit of time, and is part of the tariff for supply of electrical energy, stating on the appeal that the service was not provided, just made available:

"The tariff corresponding to "power demand", thus intended only to reward the public utility service (electrical energy supply) that, despite not having been provided, was made available to the consumer. The rate of "consumption", in turn, pays the effective supply of electrical energy by the distribution company."

The Minister Teori Albino Zavascki concludes:

"Regardless of the dubiousness of this claim (in fact also verified in the initial request -. p. 18), the plaintiff suggests that it would be illegitimate if the ICMS is levied on any value related to demand reserved power, which, as seen, is unfounded. It is perfectly legitimate to tax the value of the corresponding power demand contracted and actually consumed. What is illegitimate, repeat, is the application of ICMS to the corresponding power demand to the reserved portion simply contracted but not used by the consumer."

At the trial of this STJ Special Appeal , on September 23, 2009, following the rite of the Law of Repetitive Appeals (Federal Law 11,672/2008), the STJ issued the STJ Docket 391, published on October 10, 2009:

"The ICMS is applied to the tariff of electrical energy corresponding to the power demand effectively used."

The STJ Docket 391 establishes a limit to the ICMS incidence on tariff of electrical energy corresponding to the power demand effectively used. This limit corresponds to the amount of electrical energy effectively used in the unit of time. The decision seems to consider that electrical energy is a good with two components: electrical energy consumption and power demand.

The next Chapter will explain that the tax base defined on the STJ Docket 391 is not the tax base defined on the Complementary Law 87/1996 for electrical energy.

5.3.1 STJ Docket 391 – New Tax Base for the ICMS Incidence over Electrical Energy

The STJ Docket 391 established a new tax base for electrical energy.

The Chapters 3.3 and 3.4 explained the Federal Complementary Law 87/1996 definition of the tax base for the ICMS incidence on the electrical energy:

- the price of the final operation applied for the distribution companies (article 9, § 1, II), applied to the captive and free consumers;
- the value of the operation (article 12, I combined with article 13,I), applied to the free consumers.

As an example, if a consumer had contracted 1,000 kW of Power Demand, MUSD or MUST and effectively used 900 kW, the distribution or transmission company will bill 1,000 kW, according to the legal, regulatory and contractual definitions. The contracted 1,000 kW billed corresponds to the price of the final operation or the value of the operation as defined by the Complementary Law 87/1996.

According to STJ Docket 391 the ICMS will only be levied on the tariff of electrical energy that is applied to the effectively used Power Demand, MUSD or MUST of 900 kW.

The article 150 of the Federal Constitution establishes the limitations of the taxing power. Its paragraph 6, with the wording of the Constitutional Amendment 3/1993, establishes:

"Any subsidy or exemption, tax base reductions, concession of presumed credit, amnesty or remission, in respect of taxes or contributions, may only be granted upon specific federal, state or municipal law, exclusively enumerated matters above or the corresponding tax or contribution, without prejudice to the agreements for ICMS".

The STJ Docket 391 established an exemption or tax base reduction for the ICMS on electrical energy, limiting the ICMS incidence corresponding to the power demand effectively used, without a specific law as the Constitutional determination and against the tax base defined by the Complementary Law 87/1996.

5.4 STJ - Decisions Against the ICMS Incidence on the New Tariffs of Electrical Energy - TUSD and TUST

The previous litigations discussed were about the ICMS incidence on Power Demand on the STJ and on the STF.

Changing the subject of the litigation, the consumers began to question the ICMS incidence on the new tariffs of electrical energy TUSD and TUST.

The tariffs of electrical energy TUSD and TUST have components in (R\$/kW), applied to Power Demand (kW), MUSD (kW) and MUST (kW), and components in (R\$/kWh) applied to Electrical Energy Consumption (kWh).

To keep the same subject as the previous litigations about Power Demand, the consumers should have argued in court the ICMS incidence on the MUSD(kW) and MUST(kW), the new denominations of the Power Demand (kW) for free consumers.

The STJ decision on the Special Resource 1135984, from state of Minas Gerais, judged on February 8, 2011, was the first decision about the matter and since then the STJ has been withdrawing the ICMS incidence on the entire TUSD and TUST. The summary of this decision is:

TAX. ICMS. DISTRIBUTION OF ELECTRICAL ENERGY. "SERVICE TRANSPORTATION OF GOODS." LACK OF LEGAL FORECAST. CIRCULATION OF GOODS IN THE TRANSMISSION OF ELECTRICITY. NOT OCCUR. DOCKET 166 / STJ - PRECEDENT – DOCKET 83 / STJ.

1. Nonexistent legal forecast for the application of ICMS to the service of transporting electric power, named on the state of Minas Gerais TUST (Fee of Use of the Transmission System of Electrical Energy) and TUSD (Fee of Use of the Distribution System of Electrical Energy).

2 Although treated as commercial operations, the operations of electrical energy consumption have their own peculiarities, which is why the ICMS taxable event occurs only at the moment where the electrical energy comes out of the suppliers, and is effectively consumed. It is not cogitated about taxation of previous operations, namely, the production and distribution of energy, because they represent necessary means to provide that public service. (Decision on STJ Special Appeal 797,826, from the state of Mato Grosso, Rapporteur

Minister Luiz Fux, First Class, judged on 5.3.2007, Judiciary Journal 6.21.2007, p. 283).

3 The ICMS on electrical energy has as a taxable event, the circulation of "goods", and not the "transportation service" of transmission and distribution of electrical energy. Thus, on the "transmission of electrical energy" it is applied the Docket 166 STJ, which determines that it does not constitute a "taxable event for ICMS the simple shift of goods from one to another establishment of the same taxpayer."

Item 1 of the decision

Item 1 on the decision summary ignored that the TUSD and TUST are tariffs of electrical energy defined by the Federal Government according to Federal Law 9,074/1995, by stating that these tariffs are "fees" established by the state of Minas Gerais.

Item 2 of the decision

The STJ decisions from 2000 were withdrawing the ICMS incidence on the entire power demand. As a defense strategy the states incorrectly denied the relation of the Power Demand with the TUSD and TUST.

The following excerpt from Minister Humberto Martins's vote reproduces the defense strategy of the State of Minas Gerais Finance Secretariat claiming to be an improper analogy of the TUSD and TUST with the judicial decisions about the Contracted Power Demand:

"As summed up by the State of Minas Gerais Finance Secretariat, "then, based on federal regulations that deal with the electrical system, the decision went on to hold that, in the transmission and distribution of electrical energy, the ICMS taxable event (the output of goods) does not occur, making (undue) analogy with the cases of contracted demand (...) the egregious TJMG(State Court of Minas Gerais),thus, understood that the costs of conducting electrical energy to where it is consumed would not be taxable for the ICMS. So, the tonic of the decision: it was not the taxable event setup preventing the ICMS incidence. "-page 504-e "

The Court of Minas Gerais was making the correct analogy between the components of the TUSD and TUST in R\$/kW that are applied to Power Demand (kW), MUSD(kW) and MUST (kW), and withdraw the ICMS incidence on the TUSD and TUST, following the STJ position before the STJ Docket 391.

Item 2 of the decision cites the vote of Minister Luiz Fux in the Special Appeal 797,826, from the state of Mato Grosso. This decision was tried on December 5, 2006 and the vote of Minister Luiz Fux states the previous position

of the STJ, withdrawing the ICMS incidence on the entire Power Demand as we can see on the Summary of this trial and the vote of the Minister:

"Summary STJ Special Appeal 797,826, from state of Mato Grosso, thus, the tax base is the value of the operation of transaction which corresponds to the delivery of the product to the consumer, i.e., the price actually practiced in the final operation, according to what was established in article 34, § 9, ADCT. In this vein, there is no incidence on the reserved power demand or contracted with the distribution company, because it is necessary to effectively use the electrical energy, its mere provision by the distribution company not being enough."

The STJ Docket 391 was published on October 7, 2009 and it lists as a precedent the STJ Special Appeal 797,826. The Special Appeal 979,826 decision was reformed by the STJ Docket 391, establishing the ICMS incidence on the tariff of electrical energy applied to the power demand effectively used.

The STJ decision on the Special Appeal 797,826 in 2011 should have used the STJ Docket 391 to the components of the tariffs of electrical energy, now denominated TUSD and TUST, in R\$/kW, applied to Power Demand (kW), MUSD (kW) and MUST (kW) effectively used, as stated by the STJ Docket 391, and not the STJ previous position that was withdrawing the ICMS incidence on the entire Power Demand.

Item 3 of the decision

The states argued that the ICMS incidence on the transport of electrical energy, established for TUSD and TUST on the Federal Law 9.074/1995, is a hypothesis of incidence for ICMS.

The item 3 of the decision states that there is no prevision for the transportation service of electrical energy and that should be applied the Docket 166 STJ for the transmission of energy.

The Docket 166 STJ, cited on the item 3 of the decision, was used referring to two decisions of the STJ that have the following summaries:

- Decision on the STJ Special Appeal 933,890, from state of Goiás, judgment published on November, 7, 2007:

"SUMMARY - TAX - ICMS - ELECTRICAL ENERGY - INTERSTATE TRANSFERENCE FOR ESTABLISHMENT OF THE SAME HOLDER - NOT-SETUP MOVEMENT OF GOODS - VALUE ADDED - NON-OCCURRENCE OF HYPOTHESIS OF INCIDENCE – DOCKET 168 / STJ (SIC, 166 / STJ)."

- Decision on the STJ Special Appeal 992,603, from state of Rio de Janeiro, judgment published on May, 20, 2008, which also cites the Docket 166 STJ:

“Summary - TAX. INTERLOCUTORY APPEAL. ICMS. DISPLACEMENT OF GOODS. FROM AN ESTABLISHMENT TO ANOTHER OF THE SAME TAXPAYER. NON-INCIDENCE.”

On these judgments a distribution company receives electrical energy from a generator, both belonging to the same taxpayer. The judicial litigation is about the value added for Local governments. The value added determines the amount that the Local government will receive, since the ICMS has part of its levy destined to the Local governments.

The consumers to obtain the electrical energy supply have to sign the following contracts:

- Captive consumer:
Supply Contract with the distribution company.
- Free consumer connected to distribution system:
 - Contract of Use of Distribution System(CUSD) with the distribution company;
 - Contract of Electrical Energy Purchase with the electrical energy seller.
- Free consumer connected to transmission system:
 - Contract of Use of Transmission System(CUST) with the ONS;
 - Contract of Electrical Energy Purchase with the electrical energy seller.

The Docket 166 STJ and the decisions about value added are about the transference from establishments of the same taxpayer. The contracts for the electrical energy supply do not represent transference from establishments of the same taxpayer. The consumers acquire electrical energy from the distribution, transmission or seller of energy companies. The Docket 166 STJ and the decisions about value added do not have relation with the electrical energy supply.

Conclusion

TUSD and TUST are tariffs of electrical energy and not tariffs of transport.

The decision should have applied the STJ Docket 391 to the current tariffs of electrical energy, TUSD and TUST in R\$/kW, applied to Power Demand which has also the current denominations MUSD and MUST.

The decision did not analyze that the TUSD and TUST have components in R\$/kWh applied to Electrical Energy Consumption(kWh). The ICMS incidence on tariffs of electrical energy applied to electrical energy consumption should not be questioned.

6 ICMS States Revenue and the STJ Decisions Against the ICMS Incidence on Electrical Energy

The current tariffs of electrical energy are, as described on Table 3, TE - Tariff of Electrical Energy, TUSD and TUST.

With the STJ decisions withdrawing the ICMS incidence on the TUSD and TUST, the ICMS incidence would only be applied to the TE.

ANEEL is responsible for establishing the tariffs of electrical energy for the distribution and transmission companies.

As an example of the current tariff structure and the repercussions of the STJ decisions, the ANEEL Resolution 1,723/2014 for the state of Pernambuco distribution company, CELPE, will be used. (<http://www.aneel.gov.br/cedoc/reh20141723.pdf>)

For Group B1, residential consumers, “Tabela 2”, page 6 in the Resolution establishes the following:

	Percentage of Total Tariff of consumption
TUSD (R\$/MWh) – 172.37	49.17 %
TE (R\$/MWh) – 178.21	50.83 %
TA (R\$/MWh) – 350.58	

The initial Tariff of Consumption(R\$/kWh) is equivalent to the current Tariff of Application, which is the sum of TUSD(R\$/kWh) plus TE(R\$/kWh). If the STJ decisions about the TUSD and TUST are applied in this case, 49.17 percent of the ICMS incidence on the Electrical Energy Consumption will be withdrawn.

As an example for Group A, on page 5 of the Resolution for Group A4, for the first line:

	Percentage of Total Tariff of consumption
TUSD (R\$/MWh) – 27,50	8.87 %
TE (R\$/MWh) – 282,40	91,13 %
TA (R\$/MWh) – 309,90	
TUSD (R\$/kW) – 32,96	

For the captive consumer the STJ decisions would withdraw 8,87 % of the ICMS on the TUSD applied to Electrical Energy Consumption.

The TUSD(R\$/MWh) applied to Electrical Energy Consumption (MWh) and the TUSD(R\$/kW) applied to Power Demand (kW), for the captive consumers, and MUSD(kW), for the free consumers, from 2008 have the same value for captive and free consumers.

With the STJ decisions, the Resolution ANEEL 1,784/2014 which defines the current tariffs of electrical energy TUST in R\$/kW applied to MUST(kW) and in R\$/kWh applied to Electrical Energy Consumption(kWh), also would not have the ICMS incidence.

The following Table demonstrates the total ICMS revenue and the ICMS revenue corresponding to electrical energy.

Table 4

ICMS REVENUE 2013			
STATE/REGION	TOTAL ICMS	ICMS ELECTRICAL ENERGY	PERC. ICMS ENERGY/TOTAL
NORTH	21.824.856	1.087.860	5,0%
Acre	653.623	0	0,0%
Amazonas	7.485.739	127.439	1,7%
Pará	8.025.258	589.003	7,3%
Rondônia	2.754.585	162.785	5,9%
Amapá	703.660	24.809	3,5%
Roraima	522.973	32.730	6,3%
Tocantins	1.679.017	151.093	9,0%
NORTHEAST	57.418.861	4.455.575	7,8%
Maranhão	4.390.311	315.024	7,2%
Piauí	2.676.757	264.637	9,9%
Ceará	8.705.389	730.076	8,4%
Rio Grande do Norte	4.033.478	273.775	6,8%
Paraíba	3.787.496	344.477	9,1%
Pernambuco	11.711.614	866.463	7,4%
Alagoas	2.731.181	221.252	8,1%
Sergipe	2.551.093	192.617	7,6%
Bahia	16.831.542	1.247.254	7,4%
SOUTHEAST	187.310.601	12.572.721	6,7%
Minas Gerais	35.952.963	3.098.548	8,6%
Espírito Santo	8.787.045	677.074	7,7%
Rio de Janeiro	31.645.900	3.151.929	10,0%
São Paulo	110.924.692	5.645.169	5,1%
SOUTH	58.829.642	4.876.091	8,3%
Paraná	20.758.239	2.147.574	10,3%
Santa Catarina	14.010.837	1.028.679	7,3%
Rio Grande do Sul	24.060.566	1.699.837	7,1%
MIDWEST	32.664.232	2.488.333	7,6%
Mato Grosso	7.464.696	537.166	7,2%
Mato Grosso do Sul	6.792.785	297.465	4,4%
Goiás	12.137.751	1.294.767	10,7%
Distrito Federal	6.269.000	358.936	5,7%
BRAZIL	358.048.192	25.480.579	7,1%

Source <http://www1.fazenda.gov.br/confaz/boletim/> updated in 8/8/2014

The ICMS on electrical energy corresponds to 7.1 percent of the total ICMS revenue.

7. Conclusion

7.1 Units of Measurement

According to the first and current regulatory dispositions, the tariffs of electrical energy are defined based on two components: Power Demand(kW) and Electrical Energy Consumption(kWh). (<http://www.aneel.gov.br/arquivos/pdf/caderno4capa.pdf>, p.10) and article 2, L of the Normative Resolution ANEEL 414/2010.

The unit of measurement kW is denominated Power Demand(kW) for captive consumers and MUSD(kW) and MUST(kW) for free consumers. The same unit of measurement, kW, has different regulatory denominations according to the kind of consumer.

Even for the consumers of Group B, that only have tariffs TE(R\$/kWh) and TUSD(R\$/kWh) applied to Electrical Energy Consumption(kWh), the Power Demand(kW) is considered in the definition of these tariffs. (<http://www.aneel.gov.br/arquivos/pdf/caderno4capa.pdf>, p.14) and article 2, LXXV-B of the Normative Resolution ANEEL 414/2010.

7.2 Tariffs of Electrical Energy

The Federal Decree 41,019/1957 established that electrical energy transmission is transport of electrical energy.

The Federal Law 9,074/1995 established that electrical energy transmission and distribution are transport of electrical energy.

According to Federal Law 9,074/1995, transmission and distribution of electrical energy are costs that compound the electrical energy tariffs:

“The tariff of electrical energy is the composition of calculated values that represent each part of the investments and technical operations performed by agents of the production chain and the structure required for the energy to be used by the consumer. The tariff of electrical energy therefore represents the sum of all components of the industrial process of generation, transport (transmission and distribution) and commercialization of electrical energy. Accrued burdens are still directed to fund the implementation of public policies. Taxes and burdens are listed in the bill.”

(http://www.aneel.gov.br/biblioteca/Perguntas_e_Respostas.pdf, p. 4)

From the Federal Decree 24,643/1934 to the current Constitution, electrical energy is considered a Federal Public service. According to Federal Law 9,074/1995, distribution and transmission companies are concessionaires of the Federal Public service of electrical energy, service that is not included on the competence of Local Governments.

The distribution and transmission companies supply their own electrical energy to captive consumers or electrical energy from third parties to free consumers.

According to the article 14, I of the Federal Law 9,427/1996 the tariffs of electrical energy remunerate the Public Service of Electrical Energy pursuant the Federal Law 8,987/1995.

The current tariffs of electrical energy, according to Table 3 are:

- TE(R\$/kWh) – Tariff of Electrical Energy;
- Tariff of Use of the Distribution System(TUSD);
- Tariff of Use of the Transmission System(TUST).

(Nota Técnica nº 364/2010-SRE-SRD/ANEEL, item 15 http://www.aneel.gov.br/aplicacoes/audiencia/arquivo/2010/120/documento/nota_tecnica_n%C2%BA_364_2010_sre-srd-aneel.pdf)

TUSD and TUST have components in R\$/kW applied to Power Demand(kW), MUSD(kW) and MUST(kW), and in R\$/kWh applied to Electrical Energy Consumption.

7.3 Tariffs of Electrical Energy – Conclusion

The first tariff structure, according to Table 1, was established with only captive consumers. If costs were incorrectly allocated between the Tariff of Demand and the Tariff of Consumption, it would not be a problem. The total cost of supplying electrical energy was remunerated without harm, because there were only captive consumers.

With the creation of free consumers, these costs should be better allocated between the tariffs applied to power demand and tariffs applied to electrical energy consumption. This is because free consumers are not supposed to pay for the cost of the electrical energy that is commercialized by distribution and transmission companies for their captive consumers.

The initial TUSD and TUST in R\$/kW, according to Table 2, were only applied to Power Demand(kW).

The unit of measurement kW was named, by regulatory dispositions, MUSD(kW) and MUST(kW) for free consumers.

TUSD and TUST only in R\$/kW did not reflect the correct allocation of all the costs. To solve this problem TUSD and TUST were created in R\$/kWh applied to Electrical Energy Consumption, according to Table 3, to allocate these costs.

The TE – Tariff of Electrical Energy- was created and represents the costs of the electrical energy commercialized by distribution and transmission companies and is only applied to their captive consumers. (Fugimoto, 2010, p. 9)

Group A consumer can analyze the TE and decide to become a free consumer, purchasing electrical energy on the electrical energy free market.

TUSD and TUST are applied for captive and free consumers.

With the realignment of the tariffs from 2008 TUSD and TUST in R\$/kW and in R\$/kWh have the same value for captive and free consumers.

7.4 Judicial Decisions about Power Demand

The STJ spent from 2000 to 2009 to understand that Power Demand is not a “legal traffic” established only in contracts and that the concept “reserved power demand” does not exist.

The STJ Docket 391, edited in 2009, recognized the ICMS incidence on the tariff of electrical energy applied to the Power Demand effectively used.

The STJ Docket 391 establishes the ICMS incidence on the Power Demand corresponding to the amount of electrical energy effectively used in the unit of time. The decision seems to consider that electrical energy is a good with two components: electrical energy consumption and power demand.

In the same sense, considering electrical energy a good with two components, the document “Ofício ANEEL nº 250/2007-DR-ANEEL” replies to the state of Rio de Janeiro about the binomial tariff of electrical energy, applied to Power Demand and Electrical Energy Consumption. The document concludes:

“There is no way of consuming electrical energy without the provision of power demand conditions, which represent the capacity of supplying the peak of electrical energy consumption on the peak hours or peak of power demand.

On the binomial tariff are specified the component “energy” and the component “power demand”(contracted power demand), which characterize the true attributes of the good. On the monomial tariff the two components are considered, with the difference that the power demand is estimated, and not measured, by means of a typical charge factor.”

The STJ Docket 391 created a new tax base not established on the Complementary Law 87/1996. According to the Complementary Law 87/1996, the tax base for electrical energy should be the price or the value of the final operation.

The article 150 §6 of the Constitution also establishes that any exemption or tax base reduction can only be done by an exclusive law about these matters.

The STF Extraordinary Appeal 593824 will also analyze the ICMS incidence on the Power Demand. The STF will analyze:

- Principle of isonomy: the power demand compounds the monomial tariff of Group B;
- Power demand is a service not included in the competence of Local Governments;

- Power demand is an operation relative, essential and inseparable from electrical energy.

The STF should decide considering the STJ Docket 391 and that the unit of measurement kW named Power Demand has new regulatory denominations MUSD and MUST.

The STF should also apply the tax base for electrical energy the tax base defined in the Complementary Law 87/1996.

7.5 Judicial Decisions Against the ICMS Incidence on the TUSD and TUST

The STJ decisions from 2011 are withdrawing the ICMS incidence on the TUSD and TUST have the following misunderstandings:

- TUSD and TUST are tariffs of transport;
- TUSD and TUST are “fees” established by the State of Minas Gerais;
- Used a decision about Power Demand, edited in 2007, that was reformed by the STJ 319 Docket;
- Used the STJ Docket 166 that has no relation with the ICMS incidence on the commercialization of electrical energy.

In these decisions the STJ should have applied the STJ Docket 391 to the current tariffs of electrical energy, TUSD and TUST in R\$/kW, applied to Power Demand(kW), MUSD(kW) and MUST(kW).

With all of the misunderstandings, the decisions did not analyze the components of the TUSD and TUST in R\$/kWh applied to Electrical Energy Consumption(kWh). Tariffs of electrical energy applied to Electrical Energy Consumption are not supposed to be the object of litigation.

7.6 Misunderstanding of the Judicial Decisions about Tariffs of Electrical Energy and the Relevance of the ICMS Revenue on Electrical Energy

As stated by ANEEL the components of the tariffs of electrical energy, the current TE, TUSD and TUST, are the costs of:

- Generation;
- Transport (Transmission and Distribution);
- Commercialization;
- Burden to implement public policies.

The unit of measurement kW, with the regulatory denominations Power Demand(kW), MUSD(kW) and MUST(kW) must be considered Constitutional hypothesis of incidence for ICMS on electrical energy as:

- isonomy, the unit of measurement kW compounds the monomial tariff of Group B;
- operations relative, essential and inseparable from electrical energy;
- a service not included in the competence of Local Governments;

- a component of the good electrical energy.

The Federal Complementary Law 87/1996 establishes that the tax base for electrical energy should be the price or the value of the final operation.

TUSD and TUST are tariffs of electrical energy and not tariffs of transport.

New denominations for the unit of measurement kW, new electrical energy tariffs, new contracts, a new market for commercializing electrical energy could not have the effect of avoiding the ICMS incidence on the electrical energy tariffs applied to the units of measurement.

The electrical energy tariffs TUSD and TUST are applied to the same units of measurement as the initial tariffs , kW and kWh. The application of the Federal public tariffs of electrical energy, TUSD and TUST, represent:

- the remuneration and maintenance of the financial stability of distribution and transmission companies for providing electrical energy that they commercialize or electrical energy commercialized for third parties;
- Constitutional hypothesis of incidence of the ICMS;
- Tax base for the ICMS incidence according to the Federal Law 87/1996.

The STJ decisions that are withdrawing the ICMS incidence on the TUSD and TUST are important for the states' revenue and if they are applied to all consumers can cause an improper revenue loss of R\$ 11.4 billion based on the 2013 revenue.

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