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Heavy-Reliance on Hydro-Electric Power, Lack of Investment in Transmission, Attempts to Encourage Gas-Fired Generation, a New Legal Regime and the Crisis of Supply - Sound Familiar - the Case of Venezuela

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Heavy-Reliance on Hydro-Electric Power, Lack of Investment in Transmission, Attempts to Encourage Gas-Fired Generation, a New Legal Regime and the Crisis of Supply—Sound Familiar? The Case of Venezuela

Uisdean R. Vass*
Adriana Lezcano**

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B. Scope of the Electricity Legislation
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V. Overview

I. Introduction

This article will detail Venezuela's new legal regime for electricity and will put the
legal changes in political and business context. The Venezuelan legal regime for electricity
is made up of three principal instruments: the Constitution of the Bolivarian Republic
of Venezuela (the Constitution of the Fifth Republic),¹ the Organic Electric Services Law
(the OESL),² and Decree No. 1,124 of December 13, 2000 (the Electric Regulations).³

The political and legal whirlwind represented by Hugo Chavez Frias has dramatically
altered the economic life of Venezuela. In some sectors, this change has been peculiarly
evident, such as with gas, hydrocarbons, and telecommunications. These three areas have
been the subject of major economic initiatives. The electric sector, on the other hand, is
now governed by over 200 new articles of legal regulations, but political and economic
initiatives have not kept up with an ambitious and forward-looking legal structure.

As this article is being completed in February 2002, Venezuela is undergoing a
serious crisis in its electric sector. The critical situation, which has been building in
Venezuela's electricity sector for the last several years, is now beginning to manifest
itself. Due to the lack of investment in the country's thermal generation sector and
transmission system, and a prolonged draught which has caused the water level at the
country's Guri Dam to plunge to historic lows, the country's interconnected system has
become highly unstable.

According to one power sector expert, if there is not sufficient thermal backup to
meet demand, it will be necessary to begin load rationing during peak hours, especially
if, during these hours, the ill-equipped thermal plants fail. If the thermal generation
deficit continues in Venezuela, the country can expect increased power rationing in 2002.

¹. Constitución de la República Bolivariana de Venezuela, Gaceta Oficial No. 5.453 Extraordinario del 24 de marzo de 2000 constitution. Many of the authors' factual views are supported by information provided by IPD Latin America, Inc., an independent energy consulting and information service.
². Ley Orgánica del Servicio Eléctrico, Gaceta Oficial No. 5568 Extraordinario del 31 de Diciembre de 2001 [hereinafter OESL].
³. Reglamento General de la Ley del Servicio Eléctrico, Gaceta Oficial No. 5.510 Extraordinario del 14 de Diciembre de 2000 [hereinafter Electric Regulation].
The government has failed to aggressively react to this crisis situation. The political implications of rationing are not an appealing prospect for the Chavez administration. The government is counting on the success of an aggressive energy savings public campaign.

Most experts agree that the government has no other choice but to begin promoting private sector participation in new generation immediately. The government must do everything possible to provide incentives for new investment, as the cost to the country will be far greater as power outages become more frequent. The legislation for these new investments is in place, however, structural problems are impeding this initiative.

II. The Venezuelan Electricity Business

A. The Development of the System

Until the middle of the twentieth century, the Venezuelan electricity system was composed of a patchwork of regional systems, the most notable of which was Electricidad de Caracas, S.A. (EDC). In 1946, the Corporación Venezolana de Fomento (CVF) was created, and by the 1950s it had taken a dominant role in national electricity planning. Through its “Oficina de Estudios para la Electrificación del Caroni” (Caroni projects), it constructed the nation’s first great hydroelectric project, Macagua I, and went on to complete the first stage of the great Guri project. It then supervised the construction of transmission lines which were designed to link up a National Interconnected system. The Caroni projects, which are hydroelectric, were consolidated in the hands of EDELCA. CADAFE, the second major integrated State Company, was created through a fusion of numerous small regional companies. Its generating capacity is largely thermo-electric. CADAFe also has major transmission and distribution activities.

In 1973, with the advent of the first oil crisis, Venezuela decided simultaneously to complete the Guri hydroelectric complex and build a major new thermo-electric plant, Planta Centro, fueled by oil. By this time, important integrated State companies had evolved in Zulia (ENELVEN and ENELCO), and in Lara (ENELBAR), with a number of smaller regional companies, some of which only carried out distribution.

The 1970s also saw the creation of the Fondo de Inversiones (FIV), a kind of State investment agency, which has until very recently held control of CADAFe, ENELVEN, and ENELBAR. However, EDELCA, far and away the country’s largest electric generator, has long been owned by Corporación Venezolana de Guayana (CVG), a major state-owned concern entrusted with the development of Venezuela’s Guayana region. As César Quintini notes, this decision to split the ownership of the State companies has made integral energy planning difficult.

With the ascension of the second administration of Carlos Andrés Pérez in 1989, the concept of privatization briefly took hold in Venezuela, and the 1990s saw repeated efforts to privatize certain State companies (but never EDELCA), or certain assets. However, no major privatization took place, though there were a number of more modest processes, such as the surprisingly successful privatization of the Margarita electric company in

4. This brief summary of the origins of the Venezuelan electricity system is taken from César Quintini Rosales, Investigación Aplicable en el Sector Eléctrico Venezolano, 35–37 (1999).
1998 (SENeca). ENELVEN and ENELBAR have been on the privatization slate for a
decade, but it appears that this will not now occur. Thus, new efforts are now being
targeted at finding companies to make capital investments in state utilities and to operate
the companies. Although there has been a critical under-financing of the electricity sector
for at least ten years, the Chavez administration is not looking to make outright sales of
any state-owned electric assets.

One of the sector’s problems has been that until recently, it has lacked a clear
legal regime. Until the advent of Decree 319,5 Venezuela had no Electricity Law, and
only a handful of players participated in a vertically integrated industry. In 1989, rules
for the determination of electricity tariffs were enacted, and a National Committee of
Electricity Tariffs was created to oversee the enforcement of such rules.6 The powers of
this Committee were taken over in 1992 by a regulatory agency under the MEM, called
the Commission Regulatoria de Energía Eléctrica (CREE), and a well qualified technical
advisory body called FUNDELEC.7 It was not until 1996 that Decree 1.558 provided a
kind of “proto law” under which hydroelectric generation, transmission and distribution
were made subject to a concession regime. Decree 1.558 embodied some of the features
of Decree 319 and the OESL, such as a Dispatch Center and a Spot Market. Decree 319
derogated all but two articles of Decree 1.588,8 which are still in effect under the OESL.

Under this system, EDELCA was to thrive because of the fact that much of its hydro-
electric capacity was already paid for and it has no residential distribution responsibility,
and EDC, the only major private player, also thrived in the lucrative residential and
commercial catchment area of Caracas. However, the other state companies have not
been so successful.

As Hugo Chávez took office in 1999, the Venezuelan transmission system was suf-
f ering severely from under investment and lack of maintenance. The same problems
were apparent in the distribution systems, where losses, including widespread theft, had
become endemic. Demand for electricity was rising,9 and new investment in generation

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5. Decreto con Rango y Fuerza de la Ley del Servicio Eléctrico, Gaceta Oficial No. 36.791 del 21
de Septiembre de 1999 (Decree 319). Decree 319 is the predecessor of the OESL. Pursuant to
Article 125 of the OESL, Decree 319 is derogated in its entirety; however, the OESL basically
repeats the provisions in Decree 319 with only a few exceptions, primarily dealing with the
major deadlines established in the law. Our comments will be based on the provisions of
the OESL. However, you should bear in mind that, unless expressly stated otherwise, similar
provisions were in effect as of September 22, 1999, because the OESL largely maintains the
legal regimen introduced by Decree 319.

6. Decreto 368 mediante el cual se dictan las normas para la determinación de las tarifas del
servicio eléctrico. Gaceta Oficial No. 34.321 del 6 de Octubre de 1989.

7. Decreto No. 2.383 mediante el cual se dictan las normas para el desarrollo del servicio elé-
ctrico. Gaceta Oficial No. 35.010 del 21 de Julio de 1992. Decreto No. 2.384 mediante el cual
se autoriza al Ministerio de Energía y Minas para proceder a la constitución de una fundación
que se denominará “Fundación para el Desarrollo del Servicio Eléctrico (FUNDELEC)”: Gaceta Oficial No. 35.010 del 21 de Julio de 1992.

8. Decreto 1.558, mediante el cual se dictan las normas para la regulación del sector eléctrico.
Gaceta Oficial No. 36.085 del 13 de Noviembre de 1996. See also OESL, supra note 2 art.
125.

9. Demand has been rising by approximately 4–6% per year.
was stagnant. Additionally, much thermo-electric capacity was at the end of its useful life; change seemed inevitable.

B. THE STRUCTURAL PICTURE TODAY

With the exception of the takeover of EDC by the American giant AES, little has happened to structurally affect the Venezuelan electricity business since President Chavez was elected in 1998. Using data provided by the Cámara Venezolana de la Industria Eléctrica (Statistics for 2001) it is useful to remind ourselves of the players, and their economic positions.

The majority of the nation's public capacity (about 65 percent) is hydro-based, with gas bringing up about 25 percent and fuel oil and diesel accounting for the rest. The vast majority of generating capacity is in the hands of the State companies (87 percent).

CAPACITY AND DEMAND MEASURED IN MW: ENERGY MEASURED IN GWH

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2000</th>
<th>% Increase 01-02</th>
<th>Jan-01 Dec-01</th>
<th>Jan-00 Dec-00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CADAFAE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installed Capacity</td>
<td>3.618,7</td>
<td>3.618,7</td>
<td>0,00</td>
<td>3.618,7</td>
<td>3.618,7</td>
</tr>
<tr>
<td>Energy Generated</td>
<td>8.686,7</td>
<td>6.512,5</td>
<td>33,38</td>
<td>8.686,7</td>
<td>6.512,5</td>
</tr>
<tr>
<td>Energy Exchanged</td>
<td>18.446,2</td>
<td>18.888,6</td>
<td>-2,34</td>
<td>18.446,2</td>
<td>18.888,6</td>
</tr>
<tr>
<td>Energy Consumed</td>
<td>27.132,9</td>
<td>25.401,2</td>
<td>6,82</td>
<td>27.132,9</td>
<td>25.401,2</td>
</tr>
<tr>
<td>Maximum Demand</td>
<td>4.323</td>
<td>4.083</td>
<td>5,88</td>
<td>4.323</td>
<td>4.083</td>
</tr>
</tbody>
</table>

| **EDELCA**                  |      |      |                  |               |               |
| Installed Capacity          | 11.845,0 | 11.845,0 | 0,00             | 11.845,0      | 11.845,0      |
| Energy Generated            | 59.066,4 | 61.351,0 | -3,72            | 59.066,4      | 61.351,0      |
| Energy Exchanged            | -34.668,5 | -37.736,8 | -8,13            | -34.668,5     | -37.736,8     |
| Maximum Demand              | 3.141 | 3.075 | 2,15             | 3.141         | 3.075 |

| **EDC**                     |      |      |                  |               |               |
| Installed Capacity          | 2.345,0 | 2.255,0 | 3,99             | 2.345,0       | 2.255,0       |
| Energy Generated            | 11.392,3 | 8.129,5 | 40,14            | 11.392,3      | 8.129,5       |
| Energy Exchanged            | 630,7 | 3.219,9 | -80,41           | 630,7         | 3.219,9       |
| Energy Consumed             | 12.023,0 | 11.349,3 | 5,94             | 12.023,0      | 11.349,3      |
| Maximum Demand              | 1.888 | 1.812 | 4,19             | 1.888         | 1.812 |

continued
<table>
<thead>
<tr>
<th>Facility</th>
<th>Installed Capacity</th>
<th>Energy Generated</th>
<th>Energy Exchanged</th>
<th>Energy Consumed</th>
<th>Maximum Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENELVEN</td>
<td>1.175,3 1.175,3</td>
<td>5.491,2 4.157,9</td>
<td>3.555,0 4.348,4</td>
<td>9.046,2 8.506,2</td>
<td>1.317 1.241</td>
</tr>
<tr>
<td>ELEVAL</td>
<td>213,4 213,4</td>
<td>987,1 915,5</td>
<td>653,0 661,0</td>
<td>1.640,1 1.576,5</td>
<td>246 237</td>
</tr>
<tr>
<td>ENELBAR</td>
<td>150,9 150,9</td>
<td>608,5 479,5</td>
<td>2.115,4 2.064,6</td>
<td>2.723,9 2.544,1</td>
<td>497 504</td>
</tr>
<tr>
<td>SENECA</td>
<td>250,4 250,4</td>
<td>1.002,9 784,5</td>
<td>279,3 403,4</td>
<td>1.282,2 1.187,9</td>
<td>294 221</td>
</tr>
<tr>
<td>SEMDA</td>
<td>0,0 0,0</td>
<td>0,0 0,0</td>
<td>0,0 0,0</td>
<td>0,0 0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>ENELCO</td>
<td>40,0 40,0</td>
<td>277,4 231,6</td>
<td>3.517,5 3.238,6</td>
<td>3.794,8 3.470,2</td>
<td>657 580</td>
</tr>
</tbody>
</table>

continued
However, EDC, with a total capacity of 2,345 MW has the third largest capacity in Venezuela. Of the State companies, EDELCA is the most important, with a total installed capacity of 11,845 MW, almost all of it hydro-electric derived from Macagua I & II and the Guri complex. EDELCA has a further hydro-electric mega-project in the construction phase at Caruachi (to be operating at about 2000 MW probably in 2004) and, as a more distant project, Tocoma (also roughly 4000 MW possibly in 2010).

An odd paradox is that Venezuela desperately needs more generating capacity in the short to medium term, and yet total installed capacity, at 19,638.6 MW is very much above average demand, at 12,463 MW. There are a number of explanations for this situation. First, a large proportion of thermo-electric capacity has long been underused, under-maintained, and is frankly obsolete. Thus, Planta Centro, CADAFE’s principal generation unit, is only generating at a fraction of capacity. Second, there is no adequate transmission capacity to provide EDELCA’s huge generation potential to all of the country on a uniform basis, and EDELCA’s generating units are far from the main centers of population and demand (even though there are some significant industrial users in the Puerto Ordaz area). Furthermore, EDELCA does not engage in distribution to any significant extent, and therefore, before its electricity reaches end users, it must go through the distribution systems of the other electric companies. In the case of most State companies, these systems suffer from chronic under-investment and incur huge losses. Losses reach as much as 26 percent of the electricity generated. Furthermore, relatively low tariffs for end users encourage excessive electric use, exacerbating the problems. To try and change this imbalance carries political risks.

Today, these problems are greatly intensified because of Venezuela’s extended dry season. In mid-February 2002, the Guri Dam was at approximately 255 meters above sea level, nearly fifteen meters below the dam’s average capacity, the lowest in fifty years. EDELCA has implemented a contingency plan, which includes a “descent curve” that will be used as a measurement tool to manage the dam levels over the next five months of summer (dry season). The descent curve, it is hoped, will prevent water levels from falling below 248 meters at the end of April, at which point the levels will be considered critical, but the rainy season should begin to provide some relief. If water levels fall to
240 meters, EDELCA will be forced to take eight units in the dam's second machine house out of service to protect the integrity of the hydroelectric facility's infrastructure. Taking these units out of service would consequentially lead to the collapse of much of the national electricity system. Water levels may not reach the critical limit this year, but if 2002 is not a wet year, the Guri Dam will not recover enough to survive during next year's dry season. Most experts agree that an energy crisis is inevitable.

The Ministry of Energy and Mines has been trying to address the situation by pushing forward plans to increase thermal generation capacity (mainly by improving and replacing obsolete energy plants). This is becoming more difficult due to the country's current gas deficit. Generation capacity has increased overall, but still not enough to avert the crisis, considering that demand is expected to increase by over 6 percent. Some experts believe that 1,000 MW of newly installed capacity is required each year for the next ten years. The government has also been importing electricity from Colombia and allowing independent power producers to sell directly into the national grid. Finally, the government is pursuing plans to increase tariffs and to apply penalties (in the form of higher tariffs) to those consumers, residential or industrial, that do not reduce their power consumption by 10 percent. However, the new tariff plans (originally due out in December 2001) have been delayed due to the country's economic volatility (exchange rate, inflation, and surge in interest rates).

C. The Approach of the Chavez Administration

The Chavez administration was elected based on a relatively clear hydrocarbons policy. Chavez would end the "Oil Apertura" policies of his predecessor, Rafael Caldera, while respecting the private oil contracts entered into during the 1990s. His government would again become an enthusiastic member of OPEC. However, with respect to natural gas, his administration would open up the business to private capital, including the awarding of licenses for the exploration and production of reservoirs of non-associated gas.

However, the policies of the administration toward electricity have been less definite. The electricity business has had a low profile in Venezuela, and there is not much public debate, although this is slowly beginning to change because of the electricity crisis. The administration has vacillated on the privatization of ENELVEN, ENELBAR and ENELCO, but finally has decided (for now) against it. There has been no question on privatizing CADAFE or EDELCA. Tariffs have been kept low for a long period of time, and the recent increase may not be enough. Apart from the AES takeover of EDC, not much has happened, except perhaps that the Yucal Placer gas reservoirs in Central Venezuela have recently been licensed which will soon (within perhaps a year or so) put additional gas on the market (June 2001) that could be used for a generation.

While not much concrete has happened, the country has seen the establishment of a relatively well-written, coherent, extensive legal regime, which, for reasons discussed below, has not really been implemented.

III. The Fifth Republic and Electricity

A. General Comments

While the Constitution of the Fifth Republic as a whole has been the subject of numerous analyses and critiques, the particular constitutional provisions affecting hydrocarbons and energy are regarded as being positive to private investors, or at worst neutral. Article 299 states that the social-economic system of Venezuela will be based on principles of "social justice, democracy, efficiency, free competition, environmental protection, productivity and solidarity." Article 299 appears to envisage a market economy, but with significant governmental intervention in certain sectors. For example, Article 302 specifically reserves "petroleum activity" to the State. But generally speaking, the dominating principle is "free competition."

In terms of structure, Venezuela, under the Constitution of the Fifth Republic, has a three-tiered government. First, there is the "National Power," which is the federal government. Second, there are the twenty-three States. The States cover almost all of Venezuela's land area. In addition, there are a number of small federal territories, which are mostly offshore islands, and the Federal District. Last, the States are divided into self-governing municipalities. The municipalities are like American "counties." All of Venezuela's mainland area and the Island of Margarita are broken into municipalities. Under the 1961 Constitution, States had less power than either the national power or the municipalities, and that situation is not significantly different under the new Constitution. Critically, the States' powers to tax are very limited.

On the other hand, the municipalities, under both the former and current Constitutions, have the apparent power to, inter alia, levy a tax on gross income arising from commercial and industrial activities carried out in their jurisdictions. There is no specific constitutional or legislative provision that serves to "cap" rates of municipal tax.

B. The Electricity Sector

Apart from the activity of distribution of electricity, discussed below, the Constitution of the Fifth Republic does not speak directly to the electricity business. For example, the regulation of electricity generation and transmission is not made subject to the exclusive competence of the national power (as many other activities are). However, the national power, through the Parliament, may regulate the electricity business through

12. All translations of Venezuelan legal provisions cited in this article are free translations, which are not in any way official.
13. See art. 167 Constitution of the Fifth Republic, supra note 1. For purposes of this analysis, the power of the States to tax is simply discounted.
14. We say "apparent" because no specific provision of the 1961 or 1999 Constitutions gives the municipalities the right to tax gross income. However, the precedent is by now of long standing.
the normal legislative process. The principal effect of not being under the exclusive competence of the National Power is that players in the electricity business are likely to be subject to municipal tax.\textsuperscript{15}

To sum up, it appears that at the constitutional level, the electricity business is not subject to special status protections or restrictions.

C. ELECTRICITY DISTRIBUTION

One of the two cases where “electricity” is explicitly mentioned in the Constitution of the Fifth Republic is in Article 156 which reads, in pertinent part, as follows:

It is within the competence of the National Power:

29. The general regime of public services to private houses and, in particular, electricity, drinking water and gas.

Article 156, Ordinal 29 is drafted in a most unfortunate way.\textsuperscript{16} The effect of Ordinal 29 is to put domestic distribution of electricity under the exclusive competence of the National Power. But in operational terms, it makes no sense to divide domestic and commercial distribution of electricity. As we shall see, the OESL makes no such distinction. Instead the OESL envisages the awarding of distribution concessions for exclusive geographic areas, without reference to the domestic or commercial nature of the users.

However, a further problem is occasioned by Article 178, Ordinal 6 of the Constitution of the Fifth Republic, which is as follows:

It is within the competence of the Municipalities, the governing and administration of their interest, and the management of the matters assigned to them by this Constitution and the national laws, as respects to local life, in particular the ordering and promotion of economic and social development, the providing and performing of domestic services to private residences—the improvement, in general, of the conditions of life of the community, in the following areas:

29. The general regime of public services to private houses and, in particular, electricity, drinking water and gas ... [and so on] ...

On one reading, Article 178, Ordinal 6 gives the Municipalities competence over areas (provision of drinking water, electricity, and domestic gas), which are declared by Article 156, Ordinal 29 to be within the exclusive competence of the National Power. It may be that Article 178, Ordinal 6 can be read to give the Municipalities only the power to promote or uphold the distribution of “drinking water, electricity, and domestic gas,”

\textsuperscript{15} Elsewhere, we strongly argue that the oil and gas business, which is under the exclusive regulatory and fiscal competence of the National Power, is not subject to municipal tax. See Constitution of the Fifth Republic, \textit{supra} note 1 art. 156, Ordinal 12; Vass & Escobar, \textit{supra} note 10.

\textsuperscript{16} Article 156, Ordinal 29 is also most unfortunate from the standpoint of gas because of the same reason, one cannot divide domestic and commercial distribution of gas.
but not to regulate these industries. This argument may be plausible, albeit not totally convincing, given Article 178's vague introductory language.

IV. The OESL and the Electric Regulation: A Sketch of the New Electricity Regime

A. GENESIS OF THE OESL

On April 26, 1999, the Ley orgánica que autoriza al Presidente de la República para dictar medidas extraordinarias en materia económica y financiera requeridas por el interés público (Organic Law Authorizing the President of the Republic to dictate Extraordinary Measures in Economic and Financial Matters Required for the Public Interest) (Enabling Law) came into effect. This omnibus law gave the President power to legislate without Congressional approval with respect to a number of key economic and administrative matters, including tax, banking, gas, electricity, and mining.

Specifically, the Enabling Law empowered the President to create a new legal framework for the electricity industry from generation to commercialization. The objectives of the new electricity legislation envisaged by the Enabling Law may be summarized as follows: (a) to promote the electricity industry with the main purpose of assuring a continuous, reliable and sufficient supply of electricity at the lowest possible cost, and at the best quality, allowing for the optimum use of available resources; (b) with the participation of the State and private enterprise, to develop real free competition in generation and commercialization activities allowing for open access to transmission and distribution lines; (c) to establish efficient regulatory mechanisms and ensure the necessary return on investment; (d) to reserve for the State, through MEM, the non-delegable power to establish electricity tariffs in all areas (generation, transmission, distribution, and commercialization), which should take into account the associated costs and efficiency levels to ensure consumer rights; (e) to establish the juridical, accounting and managerial separation of generation, transmission, distribution, and commercialization activities; (f) to establish the rules required to promote the expansion of electricity services to remote, economically depressed areas, and to stimulate the use of alternate energy sources; and (g) to respect the jurisdiction of the Municipalities over the electric sector, as established in the Organic Municipal Law.

Using the powers granted under the Enabling Law, President Chavez issued Decree 319, which is almost identical to the OESL. Speaking broadly, Decree 319 is in conformity with the requirements of the Enabling Law; however, it is interesting to note the Enabling Law's emphasis on having the State control electricity tariffs in all areas, while Decree 319 and the OESL call for the creation of a Spot Market. Also, the Enabling Law seems to speak of a full separation of activities, while Decree 319, the Electric Regulation, and the OESL seem to require only a juridical and accounting separation.

17. Ley Orgánica que Autoriza al Presidente de la República para dictar medidas extraordinarias en materia económica y financiera requeridas por el interés público [Organic Law Authorizing the President of the Republic to dictate Extraordinary Measures in Economic and Financial Matters Required for the Public Interest], Gaceta Oficial No. 36,687,26 de Abril de 1999.
18. See id.
Just past a year of the enactment of Decree 319, the National Assembly began discussion for its amendment, because it was evident that major deadlines set forth therein would not be met. One version of the amendment was highly criticized on the basis that it reversed some of the market-oriented achievements of Decree 319. Fortunately, the final version of the OESL was essentially limited to its original purpose: extending the deadlines for the creation of the National Electric Services Commission, the Dispatch Center, the Spot Market, and the separation of the vertically-integrated electric companies. Another major innovation was the change in the law's hierarchy. As opposed to Decree 319, the OESL is an "organic" law, hence its new name. Being organic, the OESL should be considered the legal framework for the entire electric services regime.

B. Scope of the Electricity Legislation

The OESL is intended to provide the new "rules of the game" for the national electricity industry, including specifically the activities of generation, transmission, management of the National Electrical System, distribution, and commercialization of electricity and electric capacity (the Electric Activities).\footnote{OESL, supra note 2, arts. 1-3.} The State, as regulator, is obligated to promote an electricity industry characterized by economic equilibrium, trustworthiness, quality, equality, solidarity, non-discrimination, and transparency. All of the Electric Activities are, at least in theory, open to private participation, except for the generation of hydroelectric power from the basins of the rivers Caroni, Paragua, and Caura, and the management of the National Electrical System. In fact, the State is obligated to encourage private participation in the electric industry. The Electric Activities constitute a "public service," and the infrastructure of electricity is declared to be of "public utility."\footnote{Id. arts. 4-5.}

Following the structure of much of the new Chavez legislation, the OESL itself has no article providing a list of definitions. But Article 2 of the Electric Regulation contains forty-one generally useful definitions.

C. Regulatory Activities

The regulation of the electricity industry is the responsibility of the National Executive through the Ministry of Energy & Mines (MEM). The OESL creates a new regulatory authority called the "Comisión Nacional de Energía Eléctrica" (CNEE), which will be responsible for "the regulation, supervision, fiscalization, and control" of the Electric Activities. The CNEE will have operational, administrative, and financial autonomy, under the auspices of the MEM. The CNEE is given thirty-five specific responsibilities, ranging from elaborating the optimum methodologies for the functioning of the new Spot Market for electricity, and the calculation bases for electric tariffs, to the establishment of technical norms, and hearing customer complaints. It is envisaged that the CNEE will be obligated to call extensive public hearings on regulatory matters. The CNEE will be run by a five-person Board of Directors, three of which will be selected by the President of the Republic, one by the Minister of Energy and Mines, and one by
the Minister of Production and Commerce. The members must have experience in the electric/energy business, or otherwise in public administration/regulation.  

The OESL requires that the CNEE be established before January 1, 2003. Prior to that, the responsibilities of the CNEE will be discharged by the MEM. CNEE, then, is envisaged to be a powerful independent force in the electricity business. Unfortunately, as of February 2002, there was no political consensus on how exactly CNEE would function or who would run it.

21. Identify the best theory, 21. Id. arts. 15–23. The thirty-six statutory responsibilities of the CNEE are:

1. In a timely fashion inform service users, state, municipal, parish and neighborhood organizations, on the development of the activities destined to the rendering of the electric service and on the performance of the agents rendering such service.
2. Resolve the conflicts submitted to its consideration by any electric service agent.
3. Support user organizations and their participation in supervising the electrical service.
4. Attend to claims of electric service users in a timely fashion.
5. Apply the administrative penalties contemplated hereby.
6. Intervene electricity companies, state owned or private, in the cases contemplated hereby, with the prior authorization of the Minister of Energy and Mines.
7. Determine, collect, and receive from the agents participating in the electric service the special annual contribution for its operation established in the Law.
8. Approve its Internal Regulation and the regulations required for its operation.
9. Ensure the application of the programs defined by the Ministry of Energy and Mines for the rational use of electricity and the use of alternative energy sources.
10. Prepare and approve its annual budget and make it known to the public.
11. Submit a report on its operations to the Minister of Energy and Mines and make it known to the public, within the sixty (60) days following the end of each fiscal year.
12. Monitor the proper application of the Law and its Regulation and order audits as necessary for this purpose.
13. Supervise compliance of the concession contracts that have expressly been entrusted to it by the agencies awarding such contracts.
14. All others set forth in the Law and its Regulation. Pursuant to Article 104 of the OESL, within the 6 months following its commencement date the Commission should perform the following:

- Issue the rules for the Operation of the National Electric System.
- Supervise the performance of the Dispatch Center.
- Issue the rules on the quality of activities pertaining to the electric services and on the supervision of quality compliance.
- Issue the rules that will govern the relationship between the service provides and their customers.
- Issue the technical rules for the installation and operation of electric generation facilities.
- Issue the rules on access to the transmission and distribution lines.
- Issue any other rules and technical and operational criteria for the performance of electric services.

22. Id. arts. 102.
D. MANAGEMENT OF THE NATIONAL ELECTRICAL SYSTEM

Another major innovation of the OESL is the establishment of the function of management of the National Electrical System as a business, which will be carried out by a yet to be named State Company (the Dispatch Company).

The OESL provides that the Dispatch Company will have two core functions: coordinating electric flows on the National Electrical System, and administering the Spot Market.23 The OESL, Article 34, goes on to impose another twenty-one specific duties on the Dispatch Company. Additionally, the Electric Regulation imposes sixteen more duties on the Dispatch Company. Some of these duties bear on the Spot Market, which is discussed immediately below. Important functions of the Dispatch Company specified in the OESL are as follows:

In the event of restrictions and emergencies in the National Electric System, to direct, manage, and control the plans and operation of restoration of the supply of electric energy, ordering the connection or disconnection of generation and transmission units deemed necessary and convenient, with prevalence of the safety of the system over the economy:

Informing the CNEE of the emergency situations, failures and potential risks, both regional and national, in the National Electric System.

Coordinating the use of international interconnections.

Informing the CNEE of violations or transgressions of the Law or regulations governing this matter.

Informing the CNEE of violations or transgressions of the Law or regulations governing this matter.

Reconciling the demand and supply of energy for each programming period, in accordance with the prices resulting from the comparison of offers.

Settling and communicating the payments and collections that are to be made as a result of the participation of agents in the Spot Market and the final price of the energy resulting from the system.

Under the Electric Regulation the Dispatch Company has such important responsibilities as:

(a) Cutting off access to the transmission lines by brokers and major users who fail to make contractual payments for electricity.

(b) Co-ordinate the operation of those distribution lines which are indispensable for the functioning of the Spot Market.

(c) Create and co-ordinate committees composed of electricity industry players to review the functioning of the Spot Market.

(d) Propose for the approval of the CNEE, the rules for the operation of the National Electrical System and the Spot Market.

(e) Indemnify players in the electricity business for losses incurred due to the wrongful actions of the Dispatch Company.

According to the OESL, the Dispatch Company must be formed before January 1, 2003, and it should issue the rules organizing its functions within six months thereafter. As with the CNEE, this has not yet occurred.

23. Id. art. 33.
E. The Spot Market

Along with the new prohibition against vertical integration of the electricity business, the projected Spot Market is a cornerstone of the new regime. A Spot Market, in the classical sense, envisages a centralized short-term dynamic commodity exchange for first, and in some cases subsequent, sales of electricity. It thus implies a state of market uncertainty and an environment where generators will be able to sell for the best price, under rigorously competitive conditions. Conceptually, the establishment of a Spot Market in Venezuela was a bold step, given the fact that around 85 percent of all generating capacity is in the hands of state companies, most of whose capacity is unlikely to be privatized in the short to medium term. Additionally, distribution companies will continue to be subject to tariff regulation, and consumers are used to paying low prices for electricity and have some of the highest consumption rates in Latin America.

The Spot Market is due to be created before January 1, 2005. The OESL says little about how the Spot Market will actually work, but the Electric Regulation is somewhat more specific. In this connection, Electric Regulation Article 21 is, in pertinent part, as follows:

The following are functions of the Dispatch Company, in addition to those functions listed by the OESL:

Determine and communicate to [generators, brokers, distributors, major users, etc.], with sufficient prior time, the program of energy production for the new programmed period, and the projected price. This program will be based on the economic regime which the [CNEE]—will establish for the Spot Market.

Communicate to the [generators, brokers, distributors, major users, etc.] the results of the executed energy transactions, the final prices of the transactions between agents and the receipts and payments required under the same.

Going on the assumption that the Spot Market will be a real market, where buyers sell and sellers buy a commodity (electricity and electric capacity), under conditions of free competition, one becomes rather apprehensive about the “projected price” which the Dispatch Company will calculate beforehand. One supposes that the Dispatch Company will only know of the next “program of energy production” after it has received information from the agents of the market. Still, it is comforting that the Spot Market will determine “the final prices.”

How the Spot Market will actually function is one of the great unanswered questions of the VenezueLAN electricity regime. An obvious fear is that the State may utilize its huge generating capacity and market knowledge (it will also own almost all of the transmission and the majority of distribution capacity) to manipulate prices downwards in response to political pressures.

F. Generation

Under the OESL, the generation of electricity is declared to be a free and open activity, except for the generation of hydroelectric power from the Caroni, Paragua, and Caura River Basins.24 For incoming investors, the important point is that thermo-electric generation is a non-reserved activity.

24. OESL, supra note 2, art. 3, sole paragraph.
In order to engage in such activity, would-be generating companies must obtain an authorization (as opposed to the concession system for certain other activities) from CNEE. Facilities used to generate electricity are not subject to reversion to the State—except for companies who merely generate power for their own business (auto-generation). Generators must put their capacity and electricity at the "disposition" of the Dispatch Company, must obey the instructions of the latter, must operate subject to all applicable norms, and must submit to fiscalization and audits by the CNEE. Generators must also inform the Dispatch Company about the terms of their sales contracts, supply all necessary information required for participation in the Spot Market, and collect all special contributions from their clients which are specified in the OESL.

Articles 29 to 41 of the Electric Regulation provide useful rules on how to obtain an authorization to generate. Article 30 of the Electric Regulation states that authorizations are available for generation in the National Electrical System, auto-generation and co-generation. Applicants must send a full description of their proposed generation project to the CNEE, identifying the interested party, reflecting its technical capacity, and specifying the type of installations, energy source, geographic location, and program of works. The file will be open to the public. The CNEE must decide whether to approve the solicitation within twenty business days from the receipt of the request. Alternatively, the CNEE can give itself an extension or extensions based on complexity of issues. However, the extension or extensions cannot last for more than a total of sixty days. Despite the fact that the CNEE must decide within a short time, the Electric Regulation does not provide for a positive decision by default if the time period expires without affirmative decision. The CNEE has the power to order generators to cease violating its technical norms. If the conduct continues the authorization can be revoked.

When a generator wishes to transfer its authorization to another company, it must seek the approval of the CNEE. Article 40 of the Electric Regulation does not speak to whether the restriction on assignment applies to sales of 100 percent of the shares of special purpose corporate vehicles where there is no superficial change in the owner of the authorization.

G. Transmission

This activity, which consists of the transmission of electricity in lines of tension greater than or equal to 230 kilovolts, is open to state or private enterprise, albeit with tariff based remuneration. As we have seen, at the present time, virtually all of Venezuela's...
existing transmission lines are owned by State Companies. The OESL requires that both transmission and distribution companies offer open access to their infrastructure to qualified parties. This access must be remunerated.\textsuperscript{27}

Transmission companies may not buy or sell electricity. They will operate under a regime of concessions. Future transmission concessions, as well as distribution concessions, must be awarded through competitive bidding.\textsuperscript{28} Transmission companies must obey the instructions of the Dispatch Company. Transmission will be remunerable on a tariff basis. In this connection, the OESL, Article 81 states: “The remuneration for the activity of transmission should allow for the reimbursement, under efficient conditions of operation and maintenance of the installations and other necessary costs for the development if the activity, as well as a reasonable profit.”

The Electric Regulation Article 88 goes on to list a further four principles which should govern both transmission and distribution tariffs (distribution is discussed below):

(a) The “minimum reasonable” cost of service for the users, compatible with adequate quality, security and trustworthiness of service.

(b) Take into account reasonable differences between the costs of different services, e.g. the location of the customers, the quality of delivery demanded, the adoption of loss reduction programs, etc.

(c) To encourage the optimum location of generating capacity and avoid or reduce congestion of the transmission lines.

(d) To stimulate the efficiency of the transmission companies.

Transmission concessions should provide the means to calculate tariffs in the case of each company. This system of calculation will last for a minimum period of four years. At the end of the relevant period, MEM and the Ministry of Production and Commerce will establish a new system.\textsuperscript{29} Notwithstanding this, actual transmission tariffs may change annually, according to the formula in the concession.

As we have seen, one of Venezuela's most pressing investment requirements is in transmission line maintenance and expansion. The continual insistence on the “minimum reasonable” tariff may not assist in attracting private interest. Additionally, the government seems to envisage that virtually all existing transmission lines will remain in the hands of wholly owned State companies, whose ability to obtain financing for new investments is likely to remain limited at best. It is difficult to see how this legal framework will serve to address Venezuela's transmission problems.

\textsuperscript{27} Id. art. 7.

\textsuperscript{28} Notwithstanding, the OESL, Article 113 (transitory provision) provides that private or public companies carrying out electric transmission and distribution activities, by any title other than a concession contract, have a three year period, from the publication of the Law, to adapt to the new regime. For that purpose such companies may enter into special agreements with the MEM. At the expiration of the term established in each agreement and subject to the company's compliance with contractual obligations, the MEM shall directly award the concession to the company.

\textsuperscript{29} Electric Regulation, supra note 3, art. 90.
H. Distribution

The transfer of electricity in lines of tension less than 230 KV is also open to state or private enterprise through the award of concessions.

Distribution concessions will relate to an exclusive geographic area, and the concession may also specify a non-exclusive area for possible expansion, where no services exist as of the date of the award of the concession. Construction of service installations into such an expansion zone will convert the zone into an "exclusive" area. Distributors, unlike transmitters, must purchase and sell electricity to all users who are not "major users," but can also simply provide service to major users who elect to purchase their power from the Spot Market.30

Distribution companies have the critical task of supplying all regulated demand within their exclusive geographic areas.31 Failure in this respect can be punished with severe sanctions; see Section M below. What happens if the electricity is unobtainable? Does a concept of Force Majeure apply?

The issue of whether distribution companies will have the right, under the Spot Market, to reflect the costs of electricity acquisition in tariffs to final users is one of the hottest outstanding issues. The OESL, Article 85 makes it clear that distribution companies will be remunerated by a tariff to be established by MEM and the Ministry of Production & Commerce. According to Article 85, this tariff must "take into account the following elements": (1) Spot Market costs, including purchases; (2) transmission costs; (3) the Dispatch Company's tariff; (4) the costs of distribution in conditions of maximum efficiency; (5) costs for commercial management; and (6) costs payable to support the CNEE. This would seem to indicate that tariffs must be flexible enough to cover Spot Market costs.

However, the Electric Regulation states that the tariff calculation formulas which will be annexed to each distribution concession must contain "mechanisms which will allow for the mitigation of Spot Market fluctuations ..."32

I. The Regime of Concessions

Distribution and transmission are, as we have seen, awarded on a concessions basis. These concessions will have an initial term of up to thirty years from the date of their execution, subject to extension for up to a further twenty years. In the event that a concession is going to terminate, a bidding process for a new concession relating to the same activity will occur beginning within three years of the end of the original concession. Concessions cannot be assigned without the approval of the granting authority, in conformance with the OESL.33

30. OESL, supra note 2, arts. 35-37, and art. 47.
31. Electric Regulation, supra note 3, art. 23.
32. Id. art. 92.
33. Id. arts. 46 and 48. The OESL, Article 49 provides that concession contracts must contain the following mandatory provisions:
   (a) Identification and domicile of concessionaire.
   (b) Detailed description of the activity to be carried out by the concessionaire, stating the latter's obligation to carry out the activity at its own risk and cost.
If a distribution or transmission project is to be awarded, a Concessions Committee will be formed to run the bid, including the elaboration of the process, the pre-qualification rules, the bidding mechanisms, the concession contract, and recommending a winner. The concession will be perfected after it is signed by the parties and published in the Gaceta Oficial. There is no reference as to whether arbitration will be available as a dispute resolution mechanism.

The CNEE, after receiving authorization from the MEM, may "intervene" the concession in cases: (a) where concessionaire has failed in its contractual obligations, or has gone bankrupt; or (b) in order to prevent the concessionaire from putting the electric service in danger or because of repeated violations of the OESL, or pursuant to orders from the relevant authorities.

Article 62 of the Electric Regulation, in conformity with the OESL, provides that when the concession is extinguished, the MEM and the ex-concessionaire will review those assets prudently installed by the concessionaire, and that the concessionaire will be compensated for any non-depreciated value as stipulated in the concession.

Article 64 of the Electric Regulation provides that concessions may be terminated early by MEM for reasons of public utility or social interest. In such event, concessionaires are entitled to receive a special compensation pursuant to the terms and conditions set forth in the concession.

J. **Vertical Disintegration/Coverage Limitations**

Article 6 of the OESL prohibits the same company from carrying out two or more of the activities of generation, transmission, and distribution anywhere in the country. A number of major electricity companies have of course been doing just that. Article 108 of the OESL gives these companies until January 31, 2003 to carry out the necessary

(c) In the case of distribution concessions, a definition of exclusive service area, and the criteria for the definition of the expansion zone.

(d) In the case of transmission concessions, identification of the portion of the National Grid subject to the concession.

(e) Term of concession.

(f) Tariff determination mechanisms, including requirements of efficiency, and procedures to change tariffs.

(g) Inventory of assets dedicated to the activity.

(h) Rights and obligations of concessionaire.

(i) Quality requirements and attention to users.

(j) Coverage goals and extension of service to areas without coverage.

(k) If relevant, programs to manage demand.

(l) Guarantees of compliance with contractual obligations.

(m) Regime for sanctions, as such sanctions apply to the concessionaire and the users.

(n) Causes for regulatory intervention and applicable procedures.

(o) Methodology for valuing the assets dedicated to the activity, for all legal purposes.

(p) Procedure to terminate the concession.

34. Reading Article 21 of the OESL, it seems that all the Decisions of the Commission will be reviewed by the Administrative Authority and appealed before the Judicial Courts.
divestitures. This deadline can be extended for up to one year by a MEM resolution. As Electric Regulation Article 123 makes clear, the intent of Article 6 of the OESL is only to require that different entities carry out the activities of generation, transmission, and distribution.

On the other hand, Article 120 of the OESL contains limitations of market coverage which state, to give two examples, that no thermo-electric generation company will be able to acquire more than 25 percent of total installed capacity in Venezuela, and that no distribution company will be able to acquire more than 25 percent of all energy sold by distribution companies. The Electric Regulation provides that these important market coverage limitations will not enter into effect prior to the opening of the Spot Market, which should be functioning by January 1, 2005. Just as importantly, companies will not be able to dodge these limitations by using two or more sister companies.

It is fair to say that the prohibitions of vertical integration in the electric industry is another cornerstone of the new regime. However, the ultimate intention is not to break down overall control, but to allow for adequate fiscalization of the separate regulated activities (transmission and distribution), with isolation of generation as a wholly free activity in the future Spot Market.

K. Users, Major Users, and Traders

The OESL establishes significant rights in favor of all users. Users have a right to receive electric supply and receive all pertinent information relating to their rights from the electric companies. Users are granted significant rights to make complaints against offending companies, with a last administrative resort being to the CNEE itself.

The flip side of these rights are the forceful sanctions which are now applicable against the other participants in the electricity business, especially distributors and transmitters.

However, the only kind of user who may contract its own electricity from a source other than the local distribution company is the so called “major user.” The level of demand required by a customer in order to qualify as a major user will be subject to definition by the CNEE, but until the CNEE decides otherwise, the relevant figure is 5 MW.

The OESL also envisages that the new Venezuelan electricity system will involve traders of electricity, whose only activity will be to buy and sell. These companies will have to obtain authorization from the CNEE to operate and will be subject to a free economic regime. Interestingly, Article 130 of the Electric Regulation prohibits major users from changing their power providers until the Spot Market is functioning, unless they can show the MEM that to do so would be in the public interest. The intention of this important rule appears to be to prevent new private generators from acquiring the

35. Note that transactions performed to carry out the separation of activities are tax exempt, and such exemption shall continue until Dec. 31, 2003 for transactions involving the transfer of personal and real property.
36. Electric Regulation, supra note 3, art. 109.
37. See OESL, supra note 2, art. 40.
38. Id. art. 118.
business of established major users. It therefore militates against short term investments in generation.

L. Municipalities

Article 42 of the OESL gives the municipalities a role largely focused on the promotion of adequate electric service in their jurisdictions, and to serve as a watchdog: checking that electric companies comply with the standards of service prescribed by the CNEE, ensuring that the sanctions provisions of the OESL are implemented, hearing customer complaints, etc. Municipalities may provide public lighting themselves.

M. Sanctions

The OESL contains powerful provisions on sanctions. Companies involved in Electric Activities may be fined up to 10 percent of their gross income in the twelve months prior to the month of the infraction, if they commit any one of twelve specific violations, which include: failing to comply with norms relating to installations; failing to comply with instructions from the Dispatch Company; repeated failure to provide CNEE with requested information; failure to supply electricity as contracted without just cause; repeated failure to provide quality service, etc. Companies involved in Electric Activities may be fined up to 2 percent of their gross income in the twelve months prior to the month of the infraction if they commit any one of eight lesser offenses.39

V. Overview

In Venezuela, the contrast between the idea of a progressive, complete legal regime for electricity and a much different reality appears striking. One commentator has recently expressed to the authors that the OESL might work perfectly well in a developed country with multiple generators, an adequate transmission system, and independent distributors. However, one has to wonder whether a Spot Market covering all sales of electricity (instead of merely covering a small percentage, as was the case of Brazil) can work where the large majority of generation, virtually all transmission, and the large majority of distribution is in the hands of the State.

We accept that it would be difficult to privatize EDELCA's generating units, but we cannot see why all transmission and distribution units should not be privatized. This would allow for desperately needed new investments in infrastructure; would enhance the integrity of the Spot Market; and would achieve a real vertical disintegration of the system.

Such a privatization, however, might not be successful without a wholesale revision of the tariff policy. This would be politically difficult for the Chavez administration. However, an upward version in tariffs would not only attract new players into the industry, but might also enhance conservation.

At this time, we see no prospects for major new private investment in Venezuela's dilapidated state transmission and distribution systems. The effect of Electric Regulation

39. Id. arts. 87-101.
Article 130 (prohibiting existing major users from changing electricity suppliers) will serve to discourage new independent generators, as these generators will have to sell to either new major users or to the distribution companies who are often a bad credit risk.

On top of this, the OESL's well meaning provisions on sanctions, which as a matter of fact are not yet being applied, will simply serve to make life harder for the state distribution companies.

However, notwithstanding the foregoing, given the current electricity crisis the government seems to have no other choice but to begin promoting private sector participation in new generation and transmission immediately. Everything possible to provide incentives for new investment must be made, as the cost to the country will be far greater as power outages become more frequent.

Because of the parlous state of the Venezuelan electric system, now may be the time to look at prudent investments, given that change must come.