Developments in the Venezuelan Hydrocarbon Sector

Larry B. Pascal
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I. VENEZUELA

A. INTRODUCTION TO VENEZUELAN ENERGY SECTOR

VENezuela, a founding member of the Organization of Petroleum Exporting Countries ("OPEC"), is one of the most important energy producers in the world. It has the largest proven oil reserves in South America¹ and the seventh largest in the world,² is the seventh largest petroleum exporter in the world,³ and is the fourth largest net exporter.⁴ Venezuela also has Latin America's largest natural gas reserves and the eighth largest gas reserves in the world.⁵ It is also the home of the world’s most important refining complex (Paraguandí) and the second largest hydroelectric complex (Raúl Leoni).⁶ The national oil company, Petróleos de Venezuela, S.A. ("PDVSA"), is indisputably one of the most important oil companies in the world. Finally, the oil and gas sector accounts for more than three-quarters of total Venezuelan export

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³ See Key World Energy Statistics 2008, IEA.
⁴ Idem.
revenues, approximately one-half of total government revenues,7 and around one-third of total gross domestic product ("GDP").

Although some analysts place the start of the Venezuelan oil industry at the blast of the Zumaque I well in Mene Grande in the State of Zulia in western Venezuela in 1914, the inception of the industry can be traced back even earlier to 1878, when La Petrolia, the first Venezuelan oil industry company, was formed.9 Later, around 1890, the commercial exploitation of asphalt in Venezuela started. Although this industry did not last, it did help attract the oil sector to Venezuela.10 Royal Dutch Shell was the first major foreign oil company to enter Venezuela in 1910 via its participation in Caribbean Petroleum,11 the company that drilled the above-mentioned Zumaque I well.

After the success in Mene Grande, Standard Oil, Gulf, Texaco, and Union were some of the major oil companies that entered Venezuela in the following years.12 During the first three decades of the twentieth century, known as the "Concessionaries’ Era," many concessions for the operation of oil companies were granted by Venezuelan president Juan Vicente Gomez, who ruled the country until his death in 1935. By 1928, Venezuela was the largest oil exporter and second largest oil producer in the world. Relative to today’s standards, the concessions and underlying legislation of that era imposed significantly lower taxes on production.

In 1943, a new Hydrocarbons Law was enacted, constituting the first major step taken toward gaining control over the oil industry. This new law introduced the concept of a fifty-fifty split in profits, which was later adopted by the new Income Tax Law enacted in 1945 by the government of Romulo Betancourt. During Betancourt’s first administration, in which Juan Pablo Perez Alfonso served as Minister of Energy, the following developments took place: (i) commercial terms more favorable to the government were negotiated, (ii) the concession policy was terminated, (iii) the initial development of refineries within Venezuela was started, and (iv) oil companies were forced to improve worker conditions. In

7. In September, 2008, PDVSA’s total contributions to the State was US$36,155 million. From this amount, US$5,662 million correspond to income tax; US$15,115 million to royalties; US$680 million to dividends paid to the Venezuelan State as sole shareholder; US$10,775 million to FONDEN, and US$2,201 million were contributed to social development programs. See Informe Operacional y Financiero al 30 de septiembre de 2008, p. 27, available at http://www.pdvsa.com.
10. Id. at 487.
11. Caribbean Petroleum was an affiliate of General Asphalt, a company that had previously entered the Venezuelan market to carry out the asphalt business.
12. Phillips Petroleum, Sun, Superior, Signal, and Occidental, among others, also entered the Venezuelan market.
1960, Perez Alfonso, the Minister of Petroleum, proposed the formation of the international energy producer cartel that would become OPEC.

Several measures were taken in the direction of nationalization by the administration of President Rafael Caldera. Finally, in 1973, under President Carlos Andres Perez, Venezuela decided to nationalize its oil industry. In 1975, Venezuela enacted the nationalization law, which took effect in January 1976, with PDVSA taking over and presiding over a number of holding companies. In subsequent years, Venezuela built a vast refining and marketing system in the U.S. and Europe.

In the 1990s, under the oil policy liberalization program known as Apertura Petrolera (the “Petroleum Opening”), Venezuela opened up the hydrocarbon sector to foreign investment, promoting multi-billion dollar investment in heavy oil production, reactivation of old fields, and investment in several petrochemical joint ventures. This facilitated the creation of thirty-two operating service agreements, four strategic associations for the exploitation of the Orinoco Oil Belt, and four risk profit sharing agreements with twenty-two separate foreign oil companies, including international oil majors like Chevron, BP, Total, and Repsol-YPF. As discussed below, this liberalization program was highly criticized by President Hugo Chávez and others within Venezuela.

Since 1999, under President Chávez, Venezuela has implemented significant policy changes affecting the energy sector. President Hugo Chávez was first elected in December 1998 and took office in February 1999. In February 1999, the Venezuelan National Assembly enacted a law granting the President the power to rule by decree in many sectors of the economy for eighteen (18) months. Under the enabling law, President Chávez enacted, among other measures, the new Electricity Service Organic Law, the Gas Hydrocarbons Law, and the new Hydrocarbons Organic Law, which are further discussed below.

In 2000, Venezuela reasserted its leadership within the OPEC during its year as OPEC’s president by hosting the organization’s Second Leadership Conference in forty years, as well as by having its former Minister of Energy, Alvaro Silva Calderon, appointed as Secretary General. Earlier, the collapse of oil prices in 1997-98 prompted President Ali Rodríguez to
expand OPEC-inspired production cuts in an effort to raise world oil prices.

From December 2002 to February 2003, PDVSA managers and highly skilled technicians walked out on strike. Oil production and refining by PDVSA almost ceased, thereby greatly damaging the industry and the economy. PDVSA later resumed operations without these employees, and out of a total of approximately 45,000 PDVSA management and workers, approximately one-half were subsequently dismissed.

As a consequence of the strike, since March 2003, general currency controls have been imposed in Venezuela. However, companies operating under the gas and hydrocarbons laws, respectively, are eligible for a special rule that allows them to maintain offshore bank accounts in order to make payments and disbursements out of Venezuela. However, any surplus of foreign currency must be sold to the Venezuelan Central Bank at the official exchange rate.\(^{18}\)

In December 2006, President Hugo Chávez was re-elected for a second term, and in January 2007, the Venezuelan National Assembly enacted a second law granting the President the power to rule by decree in most sectors of the economy for eighteen months.

In 2007, the Chávez administration began taking over "strategic" sectors, pushing some of the world's largest oil companies out of projects in the Orinoco Belt (or reducing their stakes), and bringing industries such as telecommunications, power, and oil under state control.\(^{19}\) President Chávez's administration justified these actions, contending that public ownership of key industries would enable Venezuela to better develop its natural resources for the benefit of society and enable it to deal with poverty more effectively. However, the nationalization drive has dampened foreign investment and negatively affected the country's stock market. Although affected foreign investors in these industries feared that their assets would be seized without compensation, the government has reached settlements with many of the affected investors, while others from the oil sector have filed arbitrations claims, complaining of inadequate compensation.

**B. Energy Cooperation and Integration Agreements**

Since taking office in 1999, President Chávez has initiated an ambitious program of signing bilateral and multilateral energy agreements with nations all over the world, but with particular emphasis on Latin America.\(^{20}\)

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18. In recent times, the official exchange rate of the Venezuelan Bolivar has been less than the parallel market rate.
To that effect, in 2004, Venezuela launched “PetroAmerica,” an energy integration proposal that served as a component of the Bolivarian Alternative for the Americas (“ALBA”) and as an alternative to the Bush administration’s proposed Free Trade Agreement of the Americas. The ALBA was designed as a geopolitical facilitator aimed at establishing cooperation and integration mechanisms by using the region’s energy resources as the basis for the socio-economic advancement of the continent. As discussed below, PetroAmerica consists of three sub-regional initiatives: PetroSur, PetroCaribe, and PetroAndina.

PetroSur was initially launched by Venezuela and Argentina in June 2004, Bolivia in January 2006, India in March 2005, Russia in November 2004, Nigeria in August 2000, and Argentina in April 2004 and in July 2000. See, Ley Aprobatoria del Acuerdo entre el Gobierno de la República Bolivariana de Venezuela y el Gobierno de la República de Angola en el Ambito Petrolero, 38,904 Official Gazette, Apr. 7, 2008 (Venez.); Ley Aprobatoria del Acuerdo para la Instrumentación de la Cooperación en el Sector Energético entre la República Bolivariana de Venezuela y la República del Paraguay, 38,736 Official Gazette, July 31, 2007 (Venez.); Ley Aprobatoria del Acuerdo sobre la Cooperación en el Sector Energético entre el Gobierno de la República Bolivariana de Venezuela y el Gobierno de la República de Nicaragua, 38,796 Official Gazette, Oct. 10, 2007 (Venez.); Ley Aprobatoria del Memorándum de Entendimiento sobre la Cooperación en el Sector Energético entre la República Bolivariana de Venezuela y la República Arabe Siria, 38,753 Official Gazette, Aug. 23, 2007 (Venez.); Ley aprobatoria del Acuerdo Complementario al Acuerdo Marco de Cooperación entre la República Bolivariana de Venezuela y la República de Gambia en el Sector Energético, 38,751 Official Gazette, Aug. 21, 2007 (Venez.); Ley Aprobatoria del Acuerdo Marco de Cooperación entre la República Bolivariana de Venezuela y la República de Gambia, 38,598 Official Gazette, Jan. 5, 2007 (Venez.); Ley Aprobatoria del Acuerdo de Cooperación en las Áreas de Energía y Petroquímica, entre el Gobierno de la República Bolivariana de Venezuela y el Gobierno de la República de Bélgica, 38,598 Official Gazette, Jan. 5, 2007 (Venez.); Ley Aprobatoria del Acuerdo de Cooperación en Materia Energética entre el Gobierno de la República Bolivariana de Venezuela y el Gobierno de la República Socialista de Vietnam, 38,598 Official Gazette, Jan. 5, 2007 (Venez.); Ley Aprobatoria del Acuerdo de Cooperación en el Sector Energético entre la República Bolivariana de Venezuela y la República de Ecuador, 38,598 Official Gazette, Jan. 5, 2007 (Venez.); Acuerdo sobre la Cooperación en el Sector Energético entre la República Bolivariana de Venezuela y la República de Bolivia, 38,379 Official Gazette, Feb. 14, 2006 (Venez.); Ley Aprobatoria del Acuerdo de Cooperación en el Sector de los Hidrocarburos entre la República Bolivariana de Venezuela y la República de India, 38,347 Official Gazette, Dec. 30, 2005 (Venez.); Ley Aprobatoria del Convenio Integral de Cooperación Energética entre el Gobierno de la República Bolivariana de Venezuela y el Gobierno de la República Oriental del Uruguay, 38,207 Official Gazette, June 13, 2005 (Venez.); Acuerdo entre el Gobierno de la República Bolivariana de Venezuela y el Gobierno de la Federación de Rusia sobre la Cooperación en el Sector Energético, 38,104 Official Gazette, Jan. 1, 2005 (Venez.); Acuerdo de Cooperación Energética entre la República Bolivariana de Venezuela y la República Federal de Nigeria, 37,118 Official Gazette, Jan. 12, 2001 (Venez.); Convenio Integral de Cooperación entre la República Bolivariana de Venezuela y la República Argentina, 37,934 Official Gazette, May 10, 2004 (Venez.); Ley No. 43-Ley Aprobatoria del Acuerdo sobre Cooperación Energética entre la República Bolivariana de Venezuela y la República Argentina, 37,306 Official Gazette, Oct. 18, 2001 (Venez.).

but was subsequently expanded to neighboring countries. This initiative focuses on cooperation and strategic alliances among the Brazilian (Petrobras), Argentinean (Enarsa), Uruguayan (ANCAP), and Venezuelan (PDVSA) national oil companies to develop business throughout the entire hydrocarbons chain. By reducing transaction costs, having access to preferential financing, and taking advantage of commercial synergies, PetroSur seeks to reduce the economic and social disparities within the region. Under PetroSur's framework, Venezuela, Brazil, and Argentina agreed to implement the Orinoco Oil Belt Development Project in Venezuela and the Abreu de Lima Refining Project in the Northeast of Brazil, and to develop oceanic hydrocarbon basins of Argentina.

In June 2005, thirteen Caribbean countries and Venezuela signed the PetroCaribe Energy Cooperation Agreement (PetroCaribe). PetroCaribe is an energy cooperation initiative that proposes several solutions to the problems Caribbean countries face in attempting to exploit their energy resources. The agreement embraces the spirit of the San Jose Agreement and the Caracas Energy Cooperation Agreement.

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22. See Declaración de Iguazú sobre PetroSur, suscrita entre las Republicas Bolivariana de Venezuela y Argentina, en la provincial de Misiones, on July 8, 2004.
25. The nations initially signing the agreement were Antigua and Barbuda, the Bahamas, Belize, Cuba, Dominica, the Dominican Republic, Grenada, Guyana, Jamaica, Suriname, St. Lucia, St. Kitts and Nevis, and St. Vincent and the Grenadines. Barbados and Trinidad and Tobago chose not to sign. Haiti, Nicaragua and Honduras later joined in May 2006, January 2007 and December 2007, respectively. See Petrocaribe: union to be free, invisible, PDVSA, March 2, 2006, http://www.pdvsa.com.
28. The Energy Cooperation Program for Countries of Central America and the Caribbean (San José Agreement), was established by Venezuela and Mexico on August 3, 1980, in San José, Costa Rica. On August 3, 2008, Venezuela and Mexico renewed for one year the Energy Cooperation Program and agreed to supply up to 160,000 bpd (80,000 each) to Barbados, Belize, Costa Rica, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Nicaragua, Panama, and the Dominican Republic. See Decalración Conjunta de los Presidentes de la República Bolivariana de Venezuela y de los Estados Unidos Mexicanos, en ocasión del XXVII aniversario del Programa de Cooperación Energética para Países de Centroamérica y el Caribe, Official Gazette No. 38, 882, Mar. 3, 2008 (Venez.).
ment, and provides for additional advantages. PetroCaribe also includes devices to facilitate project financing. In this regard, first it provides scaled financing terms that use crude oil price levels as a reference. Second, it also liberalizes payment terms by extending the grace period for up to two years, allows an extension of the payment period for up to twenty-five years, and limits interest rates to one percent if oil prices exceed US$ 40 per barrel. Finally, the agreement extends the grace period to make short-term payments from thirty days to ninety days. In addition, Venezuela agreed to accept in-kind payment for part of the credits owed to it. PDVSA created a special-purpose affiliate under the business name of PDV Caribe to take over the related operations. In August 2007, an Energy Security Treaty ("EST") within the framework of PetroCaribe was adopted by Venezuela, Belize, Dominica, Haiti, Nicaragua, Suriname, Cuba, Grenada, Jamaica and Saint Vincent and the Grenadines. Venezuela individually signed energy security treaties with Argentina, Uruguay and Paraguay which are further discussed below.

In July 2005, at the Sixteenth Andean Presidential Council, held in Lima, Peru, Venezuela proposed the creation of a regional multi-state owned enterprise, PetroAndina, which would be responsible for meeting the sub-region's energy needs and for establishing an agenda for this effort among the member states of the Andean Community ("CAN"). To this effect, PetroAndina was designed as a cooperation mechanism for encouraging electric power and gas interconnection, the mutual supply of energy resources, and joint investments in exploration, development and industrial projects, including the development of alternative sources of energy.

In March 2007, Venezuela, along with Bolivia and Argentina, launched OPPEGASUR, the Organización de Países Exportadores y Productores


30. The price percentage to be financed varies based on the crude oil price, i.e. if the crude oil price is higher than US$50 per barrel, forty percent of the price is financed, if the crude oil price is higher than US$100 per barrel, fifty percent of the price is financed.

31. See Ley Aprobatoria del Tratado de Seguridad Energética PetroCaribe (TSE) No. 38, Official Gazette, 861 Jan. 30, 2008 (Venez.).

32. See Ley Aprobatoria del Tratado de Seguridad Energética entre la República Bolivariana de Venezuela y la República Oriental del Uruguay (TSE) and Ley Aprobatoria del Tratado de Seguridad Energética entre la República Bolivariana de Venezuela y la República Argentina (TSE) No. 38, 861 Official Gazette, Jan. 30, 2008 (Venez.).


de Gas de Sudamérica ("Organization of the South American Gas Exporting and Producing Countries").

Conceived as the "OPEC of Gas", it follows the spirit of regional energy initiatives such as the agreement on gas exchange between Venezuela and Colombia and the southern gas pipeline.

In April 2007, during the First South American Energy Summit ("FSAES") held in Venezuela, representatives from twelve countries of the region (including Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Suriname, Venezuela, Uruguay, and Peru) agreed on the formation of a South American Energy Council to implement hemispheric energy-related agreements.

Within the framework of ALBA in April 2007, Venezuela, Bolivia, Cuba, and Nicaragua entered into the ALBA Energy Agreement for the Establishment of a Supranational Company, as further discussed below, and in June 2007, Venezuela entered into three ALBA energy bilateral agreements with Nicaragua, Haiti, and Bolivia.

C. Energy Security Treaties (EST)

The four energy security treaties above mentioned (entered into within the framework of PetroCaribe, and individually with Uruguay, Argentina and Paraguay), provide for the development among the contracting parties of a wide and continuous integration process that contributes to energy security, by complementing the primary energy sources available in the region with the potential and development of renewable energies, promoting technology exchange, developing the energy chain in search of its industrialization, and promoting its rational use and efficiency.

According to the PetroCaribe EST, Venezuela will provide the Caribbean countries with the essential conditions and means to cover the oil and oil-products supply requirements in order to guarantee energy secur-

35. See Tratado Energético para la Creación de una Organización de Países Productores y Exportadores de Gas de Suramérica (OPPEGASUR), No. 38,662 Official Gazette, Apr. 12, 2007 (Venez.); Addéndum al Tratado Energético para la Creación de una Organización de Países Productores y Exportadores de Gas de Sudamérica (OPPEGASUR) No. 38,698 Official Gazette, June 05, 2007 (Venez.).


38. See Ley Aprobatoria del Acuerdo Energético del Alba entre el Gobierno de la República Bolivariana de Venezuela y el Gobierno de Nicaragua; Ley Aprobatoria del Acuerdo Energético del Alba entre el Gobierno de la República Bolivariana de Venezuela y el Gobierno de la República de Haití; and Ley Aprobatoria del Acuerdo Energético del Alba entre el Gobierno de la República Bolivariana de Venezuela y el Gobierno de la República de Bolivia No. 38,910 Official Gazette, Apr. 15, 2008 (Venez.).
ity and stability for the region. Venezuela will guarantee the continuous and stable supply in order to mitigate the effects of the market.

Under the Argentina and Uruguay EST, Venezuela grants Argentina, Uruguay and Paraguay a participation in the "Bloque Suramericano" ("South American Block") of the Orinoco Oil Belt to secure a stable oil supply for those nations. Each treaty also provides for the creation and improvement of the Uruguayan, Argentinean and Paraguayan refining capacity, the development of the petrochemical industry, and the initiatives to allow the supply of natural gas, and regasification plants among others.

The following projects, to be developed by Venezuela and Uruguay, are identified in the Uruguay EST: (i) the quantification, certification and exploitation of the oil reserves in Block Ayacucho 6 of the Orinoco Oil Belt; (ii) the expansion and adaptation of La Teja Refinery in Uruguay; (iii) the supply of crude oil and oil-products to Uruguay up to the amount of 43,800 bpd; (iv) the supply of coke from PDVSA for the cement industry and the supply of clinker from ANCAP to PDVSA; (v) the incorporation of a jointly owned enterprise between PDVSA and ANCAP for the supply of coke; (vi) the participation of PDVSA in the sucoalcoholero complex of Bella Union; (vii) the incorporation of a company for the design and construction of a LNG regasification plant in Uruguay; and (viii) the improvement in performance of the Compañía de Administración y Fomento Eléctrico, S.A. ("CADAFe").

The following projects, to be developed by Venezuela and Argentina, are identified in the Argentina EST: (i) to jointly continue the quantification and certification of the oil reserves in Block Ayacucho 6 of the Orinoco Oil Belt; (ii) the participation of PDVSA in exploration activities in offshore blocks of the San Jorge gulf in Argentina; (iii) the annual fuel supply to the jointly-owned enterprise Enarsa-PDVSA; (iv) the supply of heating oil for thermoelectric generation in Argentina; (v) the flagging of 275 service stations belonging to Sociedad Petrolera Cono Sur under the PDV Sur trademark; (vi) the construction of two panamax ships; (vii) the cooperation under the natural gas for vehicles project; (viii) the acquisition of electricity equipment by the incorporation of a jointly owned enterprise for the manufacture of this type of equipment; and (ix) the supply of sixty megawatts ("Mw") by means of electrogen groups in order to increment Argentina's power generation capacity.

The following projects, to be developed by Venezuela and Paraguay, are identified in the Paraguayan EST: (i) the extension and adaptation of Villa Elisa refinery; (ii) the incorporation of a jointly-owned enterprise between PDVSA and PETROPAR, (iii) the expansion of supply of crude oil, refined products, LPG and asphalt to Paraguay; (iv) the evaluation of the logistics and supply systems in Rio de la Plata; and (v) the construction of strategic stocks.

Finally, the Argentinean and Paraguayan EST provides for the incorporation of Petrosuramerica, a supranational company to perform activi-
ties in the following areas: oil, gas, refining, petrochemicals, transportation infrastructure development, storage, distribution, electricity, alternative energy, and maritime transport.

D. THE SUPRANATIONAL COMPANY

According to the agreement, the parties created a "supranational company" called PETROALBA, which will have a participation in the Block ALBA of the Orinoco Oil Belt, and will ensure the provision of oil reserves for energy supply in their respective countries for the next twenty-five years.

Under the agreement, the signatory countries committed to: (i) evaluate opportunities associated to exploitation, production, and supply of energy; (ii) development of opportunities that allow the supply of gas and also balance the energy matrix of the ALBA region; (iii) design of the gas strategic visualization; and (iv) other projects to be mutually agreed.

II. VENEZUELAN OIL MARKET

A. INTRODUCTION

In November 2001, President Chávez enacted under his enabling law authority a new Hydrocarbons Organic Law, which came into effect in January 2002 (later amended in May 2006), superseding the Hydrocarbons Law of 1943 and the Nationalization Law of 1975. Among the most important changes was the introduction of substantial modifications to rent capturing programs whereby royalties were increased from a maximum of 16.67% to thirty percent for liquid hydrocarbons. This law also reserves all upstream hydrocarbons activities to the government of Venezuela and its instrumentalities, which include companies exclusively owned by the Republic of Venezuela and jointly owned enterprises, which are controlled by the government and where private investors may own up to forty-nine percent of the capital stock. However, private in-

39. In Spanish, "grannacional."
40. See Decreto con Fuerza de Ley Orgánica de Hidrocarburos, No. 37,323 Official Gazette, Nov. 13, 2001 (Venez.); later reformed by Ley de Reforma Parcial del Decreto No. 1,510 con Fuerza de Ley Orgánica de Hidrocarburos, No. 38,443 Official Gazette, May 24, 2006 (Venez.); reprinted in No. 38,493 Official Gazette, Aug. 4, 2006 (Venez.).
41. Article 5 of the former Organic Law that Reserves the Industry and Commercialization of Hydrocarbons to the State, allowed by way of exception, the participation of third parties, that is, entities other than the Republic and State owned companies, in the performance of activities that were reserved to the State. Pursuant to this provision, PDVSA's operating affiliates at the time (i.e., Corpoven, Maraven, and Lagoven) subscribed to the so-called operating agreements, risk profit sharing agreement, and association agreements that were granted in three bidding rounds of the liberalization program carried out between 1992 and 1997. See From privatization to nationalization of the Venezuelan oil industry, PDVSA, http://www.pdvsa.com (last visited Dec. 30, 2008).
42. According to the Hydrocarbons Organic Law, the incorporation and the terms and conditions for the operation of jointly owned enterprises must be authorized by the Venezuelan National Assembly. See Melissa Puga, Legal Forum/Hydrocarbon
VESTORS MAY OWN UP TO 100% OF THE CAPITAL STOCK IN VENTURES CONCERNING DOWNSTREAM ACTIVITIES.

According to the Venezuelan Ministry of Energy and Petroleum ("MENPET"), Venezuela has proven oil reserves of 152 billion barrels (Venezuela is attempting to certify an additional 163 billion barrels of heavy and extra-heavy crude oil from the Orinoco Belt basin). However, Venezuela’s current production figures are widely disputed. Secondary sources, including the International Energy Agency and the OPEC Monthly Oil Market Report, estimate the country’s real oil production is approximately 2.6 million barrels per day ("bpd") and 2.3 million bpd, respectively, while other arms of the Venezuelan government have estimated production at 3.2 million bpd.

In December 2008, OPEC agreed to reduce Venezuela’s quota in 189,000 barrels per day, beginning in January 1, 2009.

B. PLAN SIEMBRA PETROLERA

In 2005, PDVSA announced Venezuela’s energy policy guidelines for the period from such time to the year 2030 that were formalized in the so-called “Plan Siembra Petrolera,” which includes six development projects and consists of two phases: one to be executed from 2005-2012, and the other, to be developed from 2012 to 2030. According to government figures, this program will require an investment of US$56 billion. PDVSA plans to provide seventy percent of the funds and will look

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44. Some industry observers point to the PDVSA strike and subsequent lay-off of almost half the employees (mainly management and technicians) in 2003, as an important milestone which subsequently negatively impacted production.


48. Translated into English as the “Oil Sowing Plan.”

to the private sector or other actors to contribute the rest.\footnote{See Business Opportunities: Petroleum, CONAPRI, http://www.conapri.org/English/MainCategory.asp?categoryid=15114 (last visited Dec 25, 2008).}

For the first stage, PDVSA has prepared a five-prong strategy for the 2005-2012 period aimed at increasing crude oil production to 5.84 million bpd. The strategy contemplates quantification and certification of reserves (Magna Reserve Project), development of the Orinoco Belt (Orinoco Project), exploitation of the country's gas potential (Delta Caribbean Project), expanding refining capacity (refining project), and oil infrastructure development and integration in the eastern part of the country (infrastructure project).\footnote{See id.}

C. MAGNA RESERVE PROJECT (PROYECTO MAGNA RESERVA)

With the quantification and certification of oil reserves in the Orinoco Oil Belt\footnote{The US Geological Survey calls the Orinoco Belt the "largest single hydrocarbon accumulation in the world, with as much as 1.8 trillion barrels in place." See U.S. Geological Survey World Petroleum Assessment 2000 Description and Results. U.S. GEOLOGICAL SURVEY WORLD ENERGY ASSESSMENT TEAM, http://energy.cr.usgs.gov/WEcont_regions/reg6/p6/tps/AU/au609814.pdf (last visited Dec 25, 2008).} located in the middle eastern part of the country, the Venezuelan government expects to certify approximately 235 billion barrels of crude oil reserves (composed mainly of heavy and extra-heavy crude oil), which, if true, would rank Venezuela as the first country in the world in terms of proved reserves.

The Orinoco Oil Belt is currently divided into four exploration and production areas: Boyacá, Junín, Ayacucho, and Carabobo, which in turn have been divided into twenty-seven blocks (which have been classified based on their technical and strategic qualifications). The program includes seismic studies conducted by PDVSA and several foreign partners and it is the first step towards more aggressive development of the Orinoco Belt reserves.\footnote{See ENERGY INFORMATION ADMINISTRATION, supra note 9. Proven reserves would likely amount to no more than twenty percent (fifty-two billion barrels) of the estimated total.}

In May 2005, PDVSA announced that it was going to assess certain blocks and the remaining ones were expected to be assigned to service companies.\footnote{See www.pdvsa.com.} Venezuela has entered into various agreements almost exclusively with foreign national oil companies for the program. The participating companies include among others the following:\footnote{See Venezuela Projects. Petropars, http://www.petropars.com/Default.aspx?tabid=65 (last visited Dec 25, 2008) [hereinafter Venezuela Projects].}

1. TNK-BP (Russia); block Ayacucho
2. TNK-BP (Russia); block Ayacucho
3. Gazprom (Russia); block Ayacucho
4. ENAP (Chile) and Petroecuador (Ecuador); block Ayacucho
5. ENAP (Chile) and Petroecuador (Ecuador); block Ayacucho
6. ENAP (Chile) and Petroecuador (Ecuador); block Ayacucho
7. ENAP (Chile) and Petroecuador (Ecuador); block Ayacucho
8. ENAP (Chile) and Petroecuador (Ecuador); block Ayacucho
ENARSA (Argentina)\(^\text{56}\) and ANCAP (Uruguay);\(^\text{57}\) block Ayacucho 7, Petropars (Iran);\(^\text{58}\) block Boyacá Norte, CUPET (Cuba); block Boyacá 5, Petronas (Malaysia); block Boyacá 6, GALP (Portugal); block Carabobo 1, Petrobras (Brazil); block Junín 1, Belarusian Oil Company (Belarus); block Junín 2, Petrovietnam (Vietnam); block Junín 3, Lukoil Oil Company (Russia);\(^\text{59}\) block Junín 4, CNPC (China);\(^\text{60}\) block Junín 7, Repsol YPF (Spain); block Junín 8, Sinopec (China);\(^\text{61}\) and block Junín Norte, ONGC (India).

In October 2007, Venezuela’s MENPET announced that Venezuela’s proven oil reserves had increased to 100 billion barrels.\(^\text{62}\) The govern-

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56. Venezuela entered into a Memorandum of Understanding with Argentina for the development of joint hydrocarbon activities for the determination and quantification of reserves and hydrocarbon exploration and production. *See Memorándum de Entendimiento para la Realización de Actividades Hidrocarburíferas Conjuntas de Determinación y Cuantificación de Reservas y de Exploración y/o Explotación de Hidrocarburos por parte de la República Bolivariana de Venezuela y de la República de Argentina [Memorandum of Understanding for the Joint Oil Activities Determination and Quantification of Reserves and Exploration and/or Exploitation of hydrocarbons by the Bolivarian Republic of Venezuela and the Republic of Argentina], No. 38,343 Official Gazette, Dec. 26, 2005. *See also Energy Security Treaty between Venezuela and Argentina, *supra* note 39.


58. Following agreement between governments of Iran and Venezuela regarding increase of the level of bilateral cooperation and commercial relations the following agreements were signed between Petropars and PDVSA: (i) Ayacucho block 7 for quantification studies of reservoir and possible investment for development and operation of field in case commercially feasible; (ii) Ayacucho blocks 1 and 2 for reservoir quantification studies; (iii) Ayacucho blocks 3 and 4 for reservoir quantification studies; (iv) North of Paria for technical and engineering services; and (v) Cardon II Gas field, for reservoir quantification studies and possible investment for development and operation of field in case commercially feasible. *See Venezuela Projects, *supra* note 56.

59. In October 2005, PDVSA signed an agreement with Lukoil Overseas Holding to form the technical teams which will undertake the study and quantification of the crude reserves contained in block Junín 3 of the Orinoco Oil Belt. *See* Lukoil, *PDVSA Sign Joint Study Agreement for Junin-3 Block*, Redorbit.com, July 23, 2008, [http://www.redorbit.com/news/business/1491786/lukoil_pdvs SOUTH_4 asking for Junin block/index.html](http://www.redorbit.com/news/business/1491786/lukoil_pdvs SOUTH_4 asking for Junin block/index.html). The work has provided complex proof of high potential of Junín-3. Drilling of stratigraphic wells was begun as part of the second stage of work at the block. The aim of the second stage is to complete a geological model using new seismic and drilling data, and to compare these data with the results of work at neighboring blocks. A total of 17 stratigraphic wells will be drilled at Junin 3. *See* Lukoil Annual Report 9 (2006), [http://www.lukoil.com/static6_5id 255_.html](http://www.lukoil.com/static6_5id 255_.html).

60. An agreement between Venezuela and China for the quantification and certification of 36 billion barrels of original petroleum in site in the block Junín 4 of the Orinoco Oil Belt was also reached. *See Junín 4 Block, *supra* note 59.


ment affirmed at such time that inspectors had already certified 20.1 billion barrels of proven crude oil reserves and more than five trillion cubic feet (tcf) of natural gas reserves in blocks Carabobo 2, 3, and 4 in the Orinoco region. This development arose out of the formal incorporation in December 2007 of 894 million barrels quantified in December 2006 and 12.4 billion barrels quantified in September 2007 to reach 99.7 billion barrels. Later, in November 2008, the MENPET updated and formalized Venezuelan reserves in the amount of 152 billion barrels by October 2008.

D. ORINOCO OIL BELT DEVELOPMENT (PROYECTO ORINOCO)

Given this project's strategic location, PDVSA has highlighted this project's importance by emphasizing the need to reduce overcrowding in more developed areas and provide local employment to an economically depressed area.

In connection with this project, in 2006, Petrobras and PDVSA established a joint venture to develop block Carabobo 1, which Petrobras is exploring as part of the Magna Reserva program. As the project was initially contemplated, Venezuela will own a sixty percent interest in the field operations and Petrobras will own the remaining forty percent interest. However, in March 2008 it was announced that Petrobras' participation will not exceed ten percent. An offsite upgrader would further process the crude oil into lighter synthetic or syncrude. The project has an estimated 28.6 billion barrels of oil in place, with an expected recovery rate of twenty percent.

Although Petrobras has already been promised a participation in the Carabobo field (in connection with the Pernambuco refinery project), Petroecuador has announced that it will obtain the rights to exploit a part of

63. See Resolución No. 214 del Ministerio de Energía y Petróleo mediante la cual se actualizan y oficializan como reservas probadas de petróleo al 31 de diciembre de 2006 la cantidad de 87,323,563 millones de barriles [Resolution No. 214 of the Ministry of Energy and Petroleum, in which it updated and formalized as the oil reserves of 31 December 2006 the amount of 87323563 million barrels], No. 38,831, Official Gazette, Dec. 13, 2007 (Venez.).

64. These oil reserves result from the drilling of estratigraphic wells in the Carabobo 2, 3 and 4 blocks in the Carabobo area of the Orinoco Oil Belt. See Walter, supra note 63.


66. See Energy Information Administration, supra note 9.


68. Id.
the Orinoco Oil Belt in cooperation with PDVSA, and in July 2008, PDVSA and Lukoil signed a joint study of potential to develop block Junin 3 (currently being quantified and certified by the latter). According to Minister of Energy and Petroleum Rafael Ramírez, the companies currently participating in the quantification and certification program are not necessarily going to be the ones participating in productions ventures. In October 2008, the MENPET announced the Carabobo Project to offer four blocks in Carabobo Areas 1, 2, and 4. The private enterprises will participate under the concept of joint ventures in association with PDVSA, and will have a participation of thirty percent.

E. Refinery Projects

Venezuela has plans to build three (3) new refineries-Cabruta (which has capacity for 400,000 extra-heavy crude oil bpd), Batalla de Santa Ines (50,000 bpd), and Caripito (50,000 bpd planned for asphalt production). In addition, Venezuela plans to expand between 2009 and 2010, the facilities of Puerto La Cruz (Anzoátegui State) and El Palito (Carabobo State), which are currently operating. The conversion capacity of these two plants will be increased by adding 200,000 bpd and 140,000 bpd, respectively, to the production of oil-products. According to PDVSA, a total of US$10.37 billion will be allocated for this purpose.

In this regard, in connection with the Orinoco Project, in June 2006, the Iranian state news agency IRNA reported that Iran and Venezuela will work together to build an oil refinery in the Orinoco Belt region designed to refine heavy oil and produce gasoline and other oil derivatives. Also, in September 2007, Lukoil announced that PDVSA and it plan to build a refinery in Venezuela to process heavy oil from the Junin 3 block in the Orinoco Belt region.

In addition to expanding its national refining capacity, Venezuela has also announced its intention to build refineries abroad. In 2005, Venezuela and Brazil announced plans to build a heavy oil refinery near Recife, Brazil, but the association agreement was not signed until March 2008. The new facilities are expected to be in operation by 2010 and have a 200,000 bpd capacity (100,000 bpd from a project in the Venezuelan Orinoco Oil Belt and 100,000 bpd from the campus basin production in Brazil). PDVSA and Petrobras anticipate that this project, in which Petrobras will hold a sixty percent stake, will require a combined invest-


70. See CONAPRI, supra note 58.

ment of US$4.5 billion. If the refinery is built as planned, it is expected that the supply from the project will be sufficient so as to allow Brazil's Northeastern region to be self-sufficient.

In 2005, Venezuela announced its plans to invest US$1 billion to upgrade the La Teja oil refinery located in the Uruguayan capital of Montevideo. This project is also included in the Energy Security Treaty entered into between Venezuela and Uruguay mentioned above. With the planned upgrade, the refinery will be able to process Venezuelan heavy oil, thereby enabling PDVSA to increase its exports to Argentina, Brazil, and Paraguay.

In February 2007, Dominica's Prime Minister Roosevelt Skeritt announced his government's intention to accept the Venezuelan government's offer to build an oil refinery on the island. The proposed facility would be able to process up to 10,000 bpd. Not surprisingly, Venezuela would provide the US$80 million needed to build the facility and make available the crude oil required for refining.

In March 2007, Venezuela and Nicaragua signed a Memorandum of Understanding for the development of a refinery construction project in Nicaragua. In August 2007, Venezuela and Ecuador agreed to invest US$5.5 billion to build a refinery in Manabí, Ecuador to process up to 300,000 bpd.

According to PDVSA's 2007 report to the Venezuelan National Assembly, it foresees developing the following refinery projects: Pernambuco, Brazil (200,000 bpd); Complejo de Refinación del Pacífico, Ecuador (300,000 bpd); Dominica (10,000 bpd); Belize (10,000 bpd); Kingston, Jamaica (50,000 bpd), Cienfuegos and Hermanos Díaz, Cuba (65,000 and 22,000 bpd) and Supremo Sueño de Bolivar, Nicaragua.

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72. Rafael Ramírez, Minister of Energy and Petroleum and PDVSA’s President, and Daniel Martínez, President of ANCAP, agreed on six commitments in the area of energy and social projects to: (i) initiate technical and economic feasibility studies for La Teja refinery expansion project, (ii) produce Ethanol in the southern country, to be used in gasoline production in Venezuela, (iii) purchase Uruguayan cement, (iv) provide technical assistance to the Venezuelan cement industry, (v) create two funds—one for social development and the other to support ethanol and cement production, and (vi) place Venezuelan coke in Uruguayan markets. See The New PDVSA Contact, supra note 41, at 7. See also Energy Security Treaty between Venezuela and Uruguay, supra note 39.


74. See Memorándum de Entendimiento entre la República Bolivariana de Venezuela y la República de Nicaragua, para el Desarrollo de un Proyecto de Construcción de una Refinería en Nicaragua [Memorandum of Understanding between the Bolivarian Republic of Venezuela and the Republic of Nicaragua, for the Development of a project to build a refinery in Nicaragua], No. 38,662, Official Gazette, Apr. 12, 2007 (Venez.).

In August 2008, Venezuela included in the Energy Security Treaty entered into with Paraguay, the plan to upgrade the Villa Elise refinery located in Paraguay, and later, in December 2008, Venezuela and Cuba signed a Memorandum of Understanding for the development of the refinery system with the expansion of Cienfuegos and Hermanos Díaz refineries located in Cuba, and the construction of a new refinery in Matanzas.77

F. Infrastructure Projects

Additional loading racks and pipelines will be put into operation to guarantee fuel supplies throughout the country. It is expected that forty new tankers will be built to handle at least forty-five percent of Venezuela’s crude oil exports.78 As part of the infrastructure effort, Venezuela entered into an agreement for the construction of the Antonio Ricaurte Trans-Caribbean Pipeline, which is further discussed below. Moreover, during the First South American Energy Summit held in Venezuela in April 2007, Venezuela and Colombia announced the construction of a poliduct between Maracaibo, Venezuela, and the Colombian Pacific, which would permit Venezuela to increase its Asiatic market share. The poliduct would be an addition to the Trans-Caribbean pipeline. Venezuela has also announced that it plans to invest US$365 million in the project, which is expected to extend up to Panama and the rest of Central America.79

In addition, in order to comply with its obligations under the PetroCaribe agreements, according to PDVSA’s 2007 report to the Venezuelan National Assembly, it is planning to implement a regional expansion plan. To this effect, PDVSA is planning to acquire a terminal in northeast Brazil capable of receiving up to 24,000 bpd of fuel, a lubricants plant; and an asphalt terminal in Ecuador with a capacity of 38,000 tons. It is also planning to lease the following facilities: (i) port, transport, and storage facilities in Guatemala (consisting of a tank farm, a port terminal and a distribution plant with a capacity of 250,000 and (ii) a tank farm and terminal in Antigua with a capacity of 260,000, from where it will dispatch oil-products to Dominica, San Cristobal and Nieves, and, Saint Vincent and the Grenadines. Finally, it is planning to lease a fuel oil storage and dispatch center in Haiti.80

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77. See http://www.pdvsa.com
78. See CONAPRI, supra note 58.
79. See Agencia Bolivariana de Noticias, supra note 45.
In order to supply products to the Caribbean, PDVSA also foresees the expansion of the terminal and tank farm at Guamache, Nueva Esparta State (Venezuela).

G. **CONVERSION FROM OPERATING AGREEMENTS TO JOINTLY OWNED ENTERPRISES ("EMPRESAS MIXTAS")**

Implementing its strategy of obtaining full national sovereignty over natural energy reserves (*Plan Soberanía Plena*), in 2005 the Venezuelan government announced that the thirty-two oil fields that were in production under operating agreements entered by PDVSA during the three rounds of the oil liberalization program in the 1990s, would be required to convert to jointly owned enterprise contemplated under the new 2001 Hydrocarbons Organic Law.  

Since taking office back in 1999, the Chávez government has attacked and criticized the agreements entered into by PDVSA during the oil liberalization program. To this effect, it has been asserted that the operating agreements were costly to the Republic (i.e. by the first quarter of 2005 the market price for oil was US$34.67 while the private companies charged the government US$18.17 or fifty-two percent of the market value) (by way of reference PDVSA was producing oil at only US$4 dollars a barrel or about eleven percent of market value). Another criticism was that as mere service contractors the companies were not required to pay royalties.

In April 2006, the Law for the Regularization of Private Participation in Primary Activities under the Hydrocarbons Organic Law was enacted. This legislation declared the termination of the existing operating

81. Earlier, in April 2005, the Venezuelan Tax Administration Authority (Servicio Nacional Integrado de Administración Aduanera y Tributaria-SENIAT) announced a change of interpretation on the applicable tax rate to the income obtained by the contractor-operators operating the thirty-two oil fields that were in production under operating agreements. Under the new interpretation SENIAT taxed the income of the contractor-operator with the fifty percent tax rate applicable, according to the Income Tax Law, to companies performing hydrocarbon exploitation and related activities. Until then the contractor-operators was regarded as a services provider the operating agreements and, therefore, the applicable tax rate was thirty-four percent (corporate tax rate). The change of interpretation was then based on the grounds that it was inappropriate to consider as “service contracts” those agreements in which the party called to “render the service” was also liable for the investment of risk capital or, at least, without any assurance of recovery. In addition, Article 22 of the Organic Hydrocarbons Law defines operating companies as those dedicated to the performance of primary activities, such as the exploration in search for hydrocarbons, the extraction of hydrocarbons in their natural state, gathering, transportation and storage.


agreements, the obligation to convert to the new form of jointly owned enterprise to comply with the Hydrocarbons Organic Law, and the prohibition of any new contract for the granting of rights to private parties in the exploration, production, storage, and initial transportation activities in connection with liquid hydrocarbons or in any production related benefit, except in the form of a minority investor in a jointly owned enterprise. According to this law, the Republic of Venezuela directly, or by means of a company 100% owned by it, shall resume the activities performed under the operating agreements, notwithstanding the possibility to incorporate jointly owned enterprises to that effect.

The negotiations with the affected investors were carried out in 2006, and in January 2007 PDVSA took control of the thirty-two oil fields, of which thirty were converted to the new form of enterprise and two were terminated with PDVSA taking over. Under this program, PDVSA, through its subsidiary, Corporación Venezolana del Petróleo ("CVP"), controls the majority stake in all the projects. The following chart illustrates the terminated operating agreements, the new twenty-one jointly owned enterprises, and their share participation:

84. See Decrees No. 4,574; No. 4,575; No. 4,576; No. 4,577; No. 4,578; No. 4,579; No. 4,580; No. 4,581; No. 4,582; No. 4,583; No. 4,584; No. 4,585; No. 4,586; No. 4,587; No. 4,588; No. 4,589; No. 4,590; No. 4,591; No. 4,592; No. 4,593; and No. 4,594 authorizing the incorporation of the jointly owned enterprises Boquerón, S.A.; Petroperija, S.A.; Petronado, S.A.; Petroboscan, S.A.; Petroindependiente, S.A.; Petrocaracol, S.A.; Petrorinoco, S.A.; Lagopetrol, S.A.; Petrolera Kaki, S.A.; Petrocuragua, S.A.; Petrowarao, S.A.; Petroven-Bras, S.A.; Petrowayú, S.A.; Petrolera Mata, S.A.; Petroritupano, S.A.; Petroquiriquire, S.A.; Petroregional del Lago, S.A.; Petrocabimas, S.A.; Baripetrol, S.A.; Petroguárico, S.A.; and Petromiranda, S.A.; respectively; published in the Official Gazette No. 38,464 dated June 22, 2006. Petrocaracol, S.A. changed denomination to Petrolera Sino-Venezolana, S.A. by Decree No. 4,579 published in Official Gazette No. 38,613 dated January 26, 2007; Petrorinoco S.A. changed denomination to Petrodelta, S.A. by Decree No. 4,580 published in Official Gazette No. 38,484, dated July 21, 2006; Petro Mata, S.A. changed denomination to Petrokariña, S.A. by Decree No. 4,587 published in Official Gazette No. 38,484, dated July 21, 2006; Petromiranda, S.A. changed denomination to Petrocumarebo, S.A. by Decree No. 4,594 published in Official Gazette No. 38,484, dated July 21, 2007. Presidential Transferring Decrees No. 4,790; No. 4,791; No. 4,792; No. 4,793; No. 4,794; No. 4,795; No. 4,796; No. 4,797; No. 4,798; and No. 5,807 transferring the right to operate in the corresponding area to the jointly owned enterprises Baripetrol, S.A. (Petrolera La Palma); Petrowarao, S.A.; Petroregional del Lago, S.A.; Petroboscan, S.A.; Petroindependiente, S.A.; Petroquiriquire, S.A.; Petroven-Bras, S.A.; Petrowayú, S.A. and Petroritupano, S.A., respectively, published in the Official Gazette No. 38,533, dated September 29, 2006; Decrees No. 4,865; No. 4,866; No. 4,867; No. 4,868; No. 5,000; No. 5,001; No. 5,002; and, No. 5,003 transferring the right to operate in the corresponding area to the jointly owned enterprises Petrocabimas, S.A.; Petronado, S.A.; Petrokariña, S.A. (formerly Petrolera Mata S.A.); Petroperija, S.A.; Boquerón, S.A.; Petrocuragua, S.A.; Petrocumarebo, S.A. (formerly Petromiranda S.A.); and Petroguárico, S.A., respectively, published in the Official Gazette No. 38,571, dated November 24, 2006; Decrees No. 5,152 and No. 5,153 transferring the right to operate in the corresponding area to the jointly owned enterprises Petrolera Sino-Venezolana S.A. (formerly Petrocaracol, S.A.), and Petrolera Kaki S.A. respectively, published in the Official Gazette No. 38,614, dated January 29, 2007; Decree No. 5,653, transferring the right to operate in the corresponding area to the jointly owned enterprise Petrodelta, S.A. (formerly Petrorinoco, S.A.), published in the Official Gazette No. 38,796, dated October 25, 2007;
<table>
<thead>
<tr>
<th>Jointly Owned Enterprise</th>
<th>Operating Agreement (OA)</th>
<th>Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baripetrol, S.A.</td>
<td>Colón Unit</td>
<td>CVP (60%) Tecpetrol (17.5%)</td>
</tr>
<tr>
<td>Petrowarao, S.A.</td>
<td>Pedernales Unit and Ambrosio</td>
<td>CVP (60%) Perenco (40%)</td>
</tr>
<tr>
<td>Petrorregional del Lago, S.A.</td>
<td>Urdaneta Oeste Unit</td>
<td>CVP (60%) Shell (40%)</td>
</tr>
<tr>
<td>Petroboscan, S.A.</td>
<td>Boscan</td>
<td>CVP (60%) Chevron Global Technology Services Company (39.2%) IneBoscan INC, SCS (0.8%)</td>
</tr>
<tr>
<td>Petroindependiente, S.A.</td>
<td>LL-652</td>
<td>CVP (74.8%) Chevron Lago Maracaibo (25.2%)</td>
</tr>
<tr>
<td>Petroquirique, S.A.</td>
<td>Quiamare, La Ceiba: Quiriquire, Guárico Occidental; and Mene Grande</td>
<td>CVP (60%) Repsol (40 %)</td>
</tr>
<tr>
<td>Petroven-Bras, S.A.</td>
<td>Acema</td>
<td>CVP (60%) Petrobras Energía S.A. (29.2%) Coroil (10.8%)</td>
</tr>
<tr>
<td>Petrowayu, S.A.</td>
<td>La Concepción</td>
<td>CVP (60%) Petrobras (36%) Williams International Oil &amp; Gas (4%)</td>
</tr>
<tr>
<td>Petroritupano, S.A.</td>
<td>Oritupano Leona</td>
<td>CVP (60%) Petrobras Energía S.A. (18%) APC Venezuela SRL (18%) Corod Producción S.A. (4%)</td>
</tr>
<tr>
<td>Petrocabimas, S.A.</td>
<td>Cabimas</td>
<td>CVP (60%) Suelopetrol Exploration and Production (40%)</td>
</tr>
<tr>
<td>Petronado, S.A.</td>
<td>Onado</td>
<td>CVP (60%) Compañía General de Combustibles (26.004%) Banco Popular de Ecuador (8.356 %) Korea National Oil Corporation (5.640%)</td>
</tr>
<tr>
<td>Petrokariña, S.A. (formerly Petrolera Mata S.A.)</td>
<td>Mata</td>
<td>CVP (60%) Petrobras (29.2%) Inversora Mata (10.8%)</td>
</tr>
<tr>
<td>Petroperijá, S.A.</td>
<td>D.Z.O.</td>
<td>CVP (60%) BP Venezuela Holdings Limited (40%)</td>
</tr>
<tr>
<td>Boquerón, S.A.</td>
<td>Boquerón</td>
<td>CVP (60%) BP Venezuela Holdings Limited (26.666%) PEI Venezuela GmBH (13.334%)</td>
</tr>
<tr>
<td>Petrocuragua, S.A.</td>
<td>Casama Anaco</td>
<td>CVP (60%) OPEN (12%) Cartera de Inversiones Petroleras Venezolanas (28%)</td>
</tr>
</tbody>
</table>

Presidential Transferring Decree No. 5,807 transferring the right to operate in the corresponding area to the jointly owned enterprise Lagopetrol, S.A. published in the Official Gazette No. 38,848, dated January 11, 2008.
The remaining two operating ventures that elected not to convert to the new form of enterprise were those belonging to Jusepin and Dacion fields controlled by Total/BP and ENI, respectively. PDVSA, through CVP, entered into an agreement with the company’s Total Oil and Gas and BP Venezuela Holdings to terminate all rights, shares, or claims related to the terminated operating agreement corresponding to the Jusepin Field in the Monagas State. In contrast, in November 2006, ENI initiated an arbitration proceeding against Venezuela before the International Centre for Settlement of Investment Dispute (“ICSID”) after the unilateral termination by PDVSA of the operating service agreement in the Dacion area. Later in February 2008, ENI reached a settlement with Venezuela. Under the terms of the settlement agreement, ENI will receive compensation in cash, in line with the net book value of the asset.

In December 2008, the companies Petrosiven, Lagopetrol, Petrolindependiente y Petrowarao signed a joint study agreement to analyze the feasibility of merging these joint ventures, which currently operate in the West areas: LL-652, B-2X and Ambrosio, with a total production of twenty-five thousand barrels per day.

<table>
<thead>
<tr>
<th>Company</th>
<th>Field</th>
<th>Partner</th>
</tr>
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<tbody>
<tr>
<td>Petrocumarebo, S.A. (formerly Petromiranda S.A.)</td>
<td>Falcón Este and Falcón Oeste</td>
<td>CVP (60%) Vincler Oil &amp; Gas (40%)</td>
</tr>
<tr>
<td>Petroguárico, S.A.</td>
<td>Guárico Oriental Unit and Sanvi Güere Unit</td>
<td>CVP (70%) Teikoku Oil Venezuela (30%)</td>
</tr>
<tr>
<td>Petrolera Sino-Venezolana S.A. (formerly Petrocacarol, S.A.)</td>
<td>Caracoles and Intacampo Norte</td>
<td>CVP (75%) CNPC Venezuela (25%)</td>
</tr>
<tr>
<td>Petrolera Kaki S.A.</td>
<td>Kaki and Maulpa</td>
<td>CVP (60%) Inemaka Exploration &amp; Production Company (22.667%) Inversiones Polar (17.333%)</td>
</tr>
<tr>
<td>Petróliva, S.A. (formerly Petrollinoco, S.A.)</td>
<td>Monagas Sur Unit</td>
<td>CVP (60%) Harvest Vincler (40%)</td>
</tr>
<tr>
<td>Lagopetrol, S.A.</td>
<td>B2X-68/79 and B2X-70/80</td>
<td>CVP (69%) Hocol Venezuela B.V. (26.35%) Ehcopek Petroleo S.A. (3.10%) Cartera de Inversiones Petroleras II, C.A. (1.55%)</td>
</tr>
</tbody>
</table>

86. See Eni Reaches Settlement with Venezuela over Dacion Field, ENERGY BUSINESS REVIEW, available at http://www.energy-business-review.com/article_news.asp?guid=3A5BD392-6C93-44D7-9DC5-5068901E98B7 (Eni is said to be seeking to improve co-operation through the development of new initiatives, especially in the oil-rich Orinoco Oil Belt region of the country).
H. Conversion of Orinoco Belt Association Agreements and Profit Sharing Agreements to Jointly Owned Enterprises (Empresas Mixtas)

In early 2006, the Venezuelan government announced the mandatory conversion of the Orinoco Belt association agreements and risk profit sharing agreements also entered by PDVSA in the oil liberalization program of the 1990s into jointly owned enterprises.

As was the case for the operating agreements, the association agreements and risk profit sharing agreements were highly criticized by representatives of the government. When the association agreements were entered into, certain conservative economic assumptions and factors, such as expected petroleum price, foreign marketing of upgraded crude, and technological efficiency in production were taken into consideration, and in view of the uncertain economical feasibility of the project, reduced royalty and income tax rates were negotiated. However, in the long-run the economic circumstances that were set forth as reasons for the favorable terms changed so as to favor the projects' profitability and the government ultimately insisted on changes.

In order to reduce the above mentioned negative implications, in September 2004 the MENPET proposed that the royalty applicable to the four association agreements be reinstated from the one percent rate to the 16.67% rate set out in the 1943 Hydrocarbons Law. The royalty payments applicable to the four association agreements were established by the National Executive at the minimum level of one percent in accordance with Article 41 of the 1943 Hydrocarbons Law, which established temporary reductions in royalty rates for active projects, whose degree of maturity called for such a measure. The reinstatement was implemented in accordance with the provisions of the same Article 41 which stated that the National Executive could increase the previously lowered tax up to the original rate when, according to its judgment, the conditions that prompted the reduction no longer applied. The measure was then accepted by the majority of the foreign private companies involved in the associations.

89. The international market's vision regarding synthetic crude was not very clear since there was resistance to the concept and it was believed that the synthetic crude could produce certain rubber material that would affect its use. Therefore, a secure market for this product was not expected. See EMBAVENEZ-US.ORG, supra note 97.
90. Id.
91. Id. Some factors to be taken into consideration were the increase in the oil prices, the market's acceptance of upgraded crude oil, and technological innovations.
92. The reduction in royalties to a one percent rate was initially provided for a maximum nine-year term subject to adjustment.
Later in 2006, the Income Tax Law was reformed to eliminate the exceptions to the applicability of the fifty percent income tax rate (applicable according to the Income Tax Law to companies performing hydrocarbon exploitation and related activities such as refining and transportation; or the purchase or acquisition of hydrocarbon and its derivatives for exportation purposes) to companies formed under association agreements, pursuant to the former Organic Law that Reserves the Industry and Marketing of Hydrocarbons to the State. Until the reform of the Income Tax Law, notwithstanding the company's hydrocarbon related operations of the Orinoco Oil Belt association agreements, the maximum applicable tax rate was thirty-four percent.

With respect to the conversion, pursuant to Presidential Law Decree No. 5,200 for the Conversion of the Orinoco Belt Association Agreements and Oil Risk Profit Sharing Agreements into Jointly Owned Enterprises, the Orinoco Belt Association Agreements (Petrozuata, S.A., Sincrudos de Oriente, S.A., Sincor, S.A., Petrolera Cerro Negro, S.A., and Petrolera Hamaca, C.A.) and the oil risk profit sharing agreements (Golfo de Paria Oeste, Golfo de Paria Este, and La Ceiba blocks) had to be converted into entities in which the CVP or other PDVSA affiliates hold an equity participation of at least sixty percent in order to conform to the Hydrocarbons Organic Law. The company Orifuels Sinovensa, an association agreement company consisting of PDVSA’s affiliate, Bitumenes del Orinoco, S.A. (“Bitor”), China National Petroleum Corporation, and Petrochina Fuel, also had to convert to jointly owned enterprise.

A four-month term was granted to the private companies that participated in the agreements to negotiate the terms and conditions to participate in new jointly owned enterprises, with the Republic, by means of PDVSA, taking over the operations if no agreement was reached at the termination of such term. In addition, the law provides that the infra-

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93. The exception ruled out from the Income Tax Law also included companies formed through the national interest contracts provided for in the Constitution, for the execution of vertically integrated projects oriented to the exploration, refining, industrialization, emulsification, transportation and commercialization of petroleum and extra-heavy crude, such as bitumen; and companies created and domiciled in Venezuela to perform integrated commercial activities related to the production and emulsification of natural bitumen.

94. Tribunal Supremo de Justicia, Decreto con rango, valor y fuerza de Ley de Migración a Empresas Mixtas de los Convenios de Asociación de la Faja Petrolífera del Orinoco; así como de los Convenios de Exploración a Riesgo y Ganancias Compartidas, Decreto No. 5,200, GACETA OFFICIAL DE LA REPUBLICA BOLIVARIANA DE VENEZUELA No. 38,632, Feb. 26, 2007, at 3.

95. The four association agreements for the improvement of extra-heavy crude in the Orinoco Oil Belt produced some 660 mbpd of extra-heavy crude, resulting in a production of almost 600 mbpd of improved crude. See PDVSA es la empresa mas solvente de America Latina, PDVSA, http://www.pdvsa.com.

96. According to the Decree, the process and negotiation for the transfer of activities had to be completed by April 30, 2007 and the process and negotiation for the conversion had to be completed by June 26, 2007. The terms and conditions were subject to the approval of the Venezuelan National Assembly.
structure, transportation and upgrading services belonging to the strategic associations would be of open access and would not otherwise be restricted according to the guidelines to be enacted by the MENPET.

In October 2007, legislation concerning the effects of the conversion from association agreements and risk profit sharing agreements to jointly owned enterprises was enacted. Under the new law, all association and risk profit sharing agreements that converted to the new form of enterprise were terminated at the moment the corresponding transferring presidential decree was published. According to the law, all rights and assets corresponding to such agreements that belonged to private companies that did not reach an agreement to convert to the new form, were transferred to the newly incorporated jointly owned enterprise. In those cases where none of the private parties reached an agreement to convert, all rights and assets corresponding to such agreements were transferred under the reversion principle to the PDVSA affiliate in charge of the negotiation. The agreements that did not convert were terminated as of the publication of this law.

PDVSA took control of three of four Orinoco Belt association agreements and two of three risk profit sharing agreements. The following chart shows the terminated agreements, the new jointly owned enterprises, and its share participation.

97. See Tribunal Supremo de Justicia. Ley sobre los Efectos del Proceso de Migración a Empresas Mixtas de los Convenios de Asociación de la Faja Petrolífera del Orinoco, así como de los Convenios de Exploración a Riesgo y Ganancias Compartidas, GACETA OFICIAL DE LA REPUBLICA BOLIVARIANA DE VENEZUELA No. 38.785. Oct. 08. 2007. at 1.

98. See Decrees No. 5.665: 5.669; and 5.666, authorizing the incorporation of the jointly owned enterprises Petrolera Guiria. S.A., PetroSucre. S.A.; and Petrolera Paria. S.A., respectively, published in the Official Gazette No. 38.801 dated November 01, 2007; Decrees No. 5.664: 5.667; and 5.668, authorizing the incorporation of the jointly owned enterprises PetroCedeño. S.A., PetroMonagas. S.A. and PetroPiar. S.A., respectively, published in the Official Gazette No. 38.807 dated November 09, 2007; Decree No. 5.842 authorizing the incorporation of the jointly owned enterprises Petrolera Sinovenesa. S.A., published in the Official Gazette No. 38.801 dated January 29. 2008; Presidential Transferring Decree No. 5.804 transferring the right to operate in the corresponding area to the jointly owned enterprise PetroPiar. S.A., published in the Official Gazette No. 38.846, dated January 09. 2008; Presidential Transferring Decree No. 5.806 transferring the right to operate in the corresponding area to the jointly owned enterprise PetroCedeño. S.A. published in the Official Gazette No. 38.847. dated January 10. 2008; Presidential Transferring Decrees No. 5.811 and No. 5.812 transferring the right to operate in the corresponding area to the jointly owned enterprises PetroSucre. S.A. and Petrolera Paria. S.A., respectively, published in the Official Gazette No. 38.851. dated January 16. 2008; Presidential Transferring Decrees No. 5.915 and No. 5.916 transferring the right to operate in the corresponding area to the jointly owned enterprises PetroGüiria. S.A. and PetroMonagas. published in the Official Gazette No. 38. 884. dated March 05. 2008; Presidential Transferring Decree No. 5.850 transferring the right to operate in the corresponding area to the jointly owned enterprise Petrolera Sinovenesa. S.A., published in the Official Gazette No. 38.846, dated February 1. 2008

99. The National Assembly published the approval of the constitution and the terms and conditions of the jointly owned enterprises. See Tribunal Supremo de Justicia. Acuerdo mediante el cual se aprueba la constitución de la empresa mixta PetropMonagas. S.A., entre la Corporación Venezolana del Petróleo, S.A., y Veba Oil &
While Chevron, Statoil, Total, ENI, and BP agreed to the handover, ExxonMobil and ConocoPhillips chose to reject the terms of the new joint ventures. ConocoPhillips participated in the Petrozuata (50.1%) Association, the Ameriven (forty percent) Association, the Golfo de Paria Este risk profit sharing agreement, and the Golfo de Paria Oeste risk profit sharing agreement. ConocoPhillips was the only private participant in the Petrozuata Association. ExxonMobil participated in the Cerro Negro association and the La Ceiba risk profit sharing agreement, along with Petro-Canada. By October 2007, ConocoPhillips, ExxonMobil, the Overseas Private Investment Corporation (“OPIC”), and Petro-Canada were unable to reach an agreement with PDVSA’s affiliate, CVP. Consequently, PDVSA officially announced that it was taking over the operations of Petrozuata, later renamed Petroanzoátegui, and La Ceiba field.

In September 2007, ExxonMobil announced that it filed an arbitration claim with the ICSID against the government of Venezuela.101 Although

<table>
<thead>
<tr>
<th>Jointly Owned Enterprise</th>
<th>Orinoco Oil Belt Association/Risk Profit Sharing Agreement/Orimulsion®</th>
<th>Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>PetroMonagas, S.A.</td>
<td>Petrolera Cerro Negro, C.A.</td>
<td>CVP (83.33%) Vebo Oil and Gas Cerro Negro GMBH (16.67%)</td>
</tr>
<tr>
<td>PetroPiar, S.A.</td>
<td>Petrolera Hamaca, C.A. (Ameriven)</td>
<td>CVP (70%) Chevron Orinoco Holdings B.V (30%)</td>
</tr>
<tr>
<td>PetroCedeño, S.A.</td>
<td>Sincrudos de Oriente S.A. (Sincor)</td>
<td>CVP (60%) Total Venezuela S.A. (30.323%)100 Statoil Sincor AS. (9.667%)</td>
</tr>
<tr>
<td>Petrolera Güiria, S.A.</td>
<td>Golfo de Paria Este</td>
<td>CVP (64.25%) Eni Venezuela B.V (19.50%) Ineparia Inc. (16.25%)</td>
</tr>
<tr>
<td>Petrolera Paria, S.A.</td>
<td>Golfo de Paria Este</td>
<td>CVP (60%) Sinopec International Petroleum Exploration and Production Corporation (32%) Ineparia Inc. (8%)</td>
</tr>
<tr>
<td>PetroSucre, S.A.</td>
<td>Golfo de Paria Oeste</td>
<td>CVP (76%) Eni Venezuela B.V (24%)</td>
</tr>
<tr>
<td>Petrolera Sinovensa, S.A.</td>
<td>Orifuels Sinovensa</td>
<td>CVP (60%) CNPC Venezuela, B.V. (40%)</td>
</tr>
</tbody>
</table>

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Exxon later announced its willingness to hold settlement talks, no settlement was reached and the arbitration claim was subsequently filed.

In February 2008, a United States federal court issued temporary injunctive relief sought by ExxonMobil, freezing US$300 million worth of PDVSA's assets. Subsequent court orders in London, the Netherlands, and the Dutch Antilles froze up to US$12 billion of PDVSA's assets in those jurisdictions. ExxonMobil claimed the injunctions were necessary to ensure payment if prevails in the arbitration. The London injunctive measure was reversed in March 2008.

Venezuela's Minister of Energy and Petroleum (who also serves as PDVSA's chairman) characterized Exxon's legal actions as "judicial terrorism," and declared the multi-billion dollar freeze of PDVSA's assets as totally, "outside the parameters of the arbitration." President Chávez, upset with the temporary injunctions, threatened the withholding of oil exports to the United States. Later, Venezuela's Minister of Energy and Petroleum, called for ExxonMobil to drop its hostile judicial actions in the United States, Dutch, and British courts against PDVSA, and return to the framework of international arbitration. Robert Olsen, chairman of ExxonMobil International, affirmed that the company was willing to negotiate. The British judge reversed the temporary injunction in March and ordered Exxon Mobil to pay court costs.

In November 2007, ConocoPhillips announced that it was considering filing a request for international arbitration for compensation for oil operations seized by Venezuela. The arbitration claim was finally registered in December 2007.

I. OTHER JOINTLYOWNED ENTERPRISES

In June 2007, the incorporation of the jointly owned enterprise Petrozumano was announced, whereby PDVSA will hold a sixty percent in-

106. Energy and Petroleum Minister Rafael Ramirez contended that ExxonMobil's former assets in Venezuela were worth less than $1 billion, contrary to the company's multi-billion dollar claim. Id.
interest and CNPC Venezuela B.V. will hold the remaining forty percent. The company was later incorporated in November 2007. The company was assigned the operations of the fields Zumano in the States of Anzoátegui and Monagas.

In addition, the incorporation of the jointly owned enterprise Petrolera Bielovenezolana, S.A. was authorized in December 2007. CVP holds a sixty percent interest and the Association of Producing Companies Belorusneft holds the remaining forty percent. The company was assigned the operations of the fields Guara Este in the Anzoátegui State and Block 10 Lago Medio in the Zulia State.

Later, the incorporation of the jointly owned enterprise Petrolera Indovenezolana, S.A. was authorized in January 2008. CVP holds a sixty percent interest and the Indian Ongc Videsh Ltd. holds the remaining forty percent. The company was assigned the operations of the fields San Cristobal in the States of Anzoátegui and Guárico.

Finally, the incorporation of the jointly owned enterprise between PDVSA and PetroVietnam was authorized in December 2008. CVP holds a sixty percent interest and PetroVietnam holds the remaining forty percent. The company was assigned the operations of the Junín 2 Norte block in the State of Anzoátegui.

J. Supply Agreements

Venezuela has entered into various supply agreements with Argentina, Uruguay, Cuba, and certain other Caribbean nations.

In March 2007, during the First South American Energy Summit, PDVSA and Petroecuador extended an agreement reached between Venezuela and Ecuador earlier in February 2007 by entering into a gasoline purchase-sale agreement. Petroecuador will furnish PDVSA with a monthly gasoline supply during a one-year term, subject to monthly adjustments in volume of a maximum of 100,000 bpd. In return, the Venezuelan state oil company will supply the same amount of refined oil to


113. See Decree No. 39,080 Official Gazette, December 15, 2008 (Venez.) (authorizing the incorporation of the jointly owned enterprise).
Ecuador.\textsuperscript{114}

In November 2007, PDVSA and the China National United Oil Corporation ("Chinaoil") entered into an agreement for the supply of fuel oil to the Chinese market. On that same date, Venezuela entered an agreement to supply China with 500,000 bpd of crude oil and oil-products starting in 2010, increasing to 1 million bpd by 2011 or 2012 (in 2007, Venezuela supplied approximately 350,000 bpd to China).

**K. AMENDMENT OF THE HYDROCARBONS ORGANIC LAW**

In May 2006 (later reprinted in August 2006), the 2001 Hydrocarbons Organic Law was partially amended.\textsuperscript{115} Article 2, which assigned gaseous hydrocarbons regulation to the Gaseous Hydrocarbons Organic Law, now provides that the exploitation of gas reserves associated to crude oil will be governed by the Organic Hydrocarbon Law (this provision was already included in the 1999 Gas Hydrocarbon Law).

As a consequence of the reform, under Article 33, the Venezuelan National Assembly has to approve not only the terms and conditions for the incorporation of the jointly owned enterprises, but also any subsequent modification to those terms and conditions (after hearing the favorable opinion of the MENPET and the Energy and Mines Commission of the Assembly). The new Article 33 adds that the jointly owned enterprises will be governed by the Hydrocarbons Organic Law and in particular by the terms and conditions contained in the accord enacted by the National Assembly authorizing the incorporation of the same.

The option to reduce royalties to 16.67% in the Orinoco Belt bitumen projects was ruled out and two new taxes were implemented: the tax on extraction and the tax on exportation registry. The tax on extraction is equal to one-third of the value of all liquid hydrocarbons extracted from any reservoir (calculated using the same base to calculate the royalty paid in cash),\textsuperscript{116} payable on a monthly basis together with the royalty, by the operating company extracting such hydrocarbons.\textsuperscript{117} The tax on exportation registry is equal to 0.1% of the value of all hydrocarbons exported calculated on the selling price.


\textsuperscript{116} The basis used to calculate the royalties in cash is the price of the corresponding hydrocarbons volumes measured at the production field at the market value or a convened value, or absent such values, at a fiscal value fixed by the liquidator.

\textsuperscript{117} When calculating this tax, the taxpayer has the right to deduct royalty amounts paid, including additional royalties being paid as special advantage. The taxpayer has also the right to deduct from the extraction tax, any amount paid for any special advantage annuity, but only in periods subsequent to the payment of such annuity.
L. Special Contribution on Extraordinary Oil Prices in the International Oil Market

In April 2008, the Law for the Special Contribution on Extraordinary Oil Prices in the International Oil Market was enacted by the National Assembly.118 The special contribution will take effect when the crude oil price rises above US$70 per barrel, according the publishing of the "Cesta Venezolana" based on the Brent crude reference price. The amount of the contribution per barrel will be equal to fifty percent of the difference between the referenced averaged monthly price and the maximum price of US$70 per barrel, and will increase to sixty percent when the price reaches US$100 per barrel or more.

The special contribution is to be paid to the Fondo de Desarrollo Nacional ("National Development Fund"-"FONDEN")119 by those companies which export crude or refined oil or oil products.120 According to the law, these companies will have the right to discount from their total exports the volume of any imports of these products to Venezuela.

III. VENEZUELAN GAS MARKET

A. Introduction

Venezuela has gas reserves totaling 175 tcf,121 of which ninety percent is associated with crude oil. Additional reserves of non-associated gas are estimated at 196 tcf,122 and of that amount fifty percent is estimated to be located offshore. Despite its large domestic gas reserves, Venezuela cur-

119. Back in 2005 the Law of the Venezuelan Central Bank ("BCV") was amended (Official Gazette No. 38,232, dated July 20, 2005) to provide for the incorporation of a national fund (later incorporated as the FONDEN). 38,232 Official Gazette, July 20, 2005, available at http://www.tsj.gov.ve/gaceta/julio/200705/200705-38232-01.html. According to the BCV Law, after discounting operating and investment expenses, PDVSA must transfer any remaining amount to this fund. The Fund will be used to finance education and health programs; to improve the profile and amount of the public debt and to attend strategic situations. The Fund was initially incorporated with a US$ 6,000 contribution from the BCV.
120. In addition any contributions made to the FONDEN under the Venezuelan Central Bank Law will be deductible.
122. See Conapri, supra note 58.
rently suffers from a domestic gas shortage and is importing natural gas from Colombia. Since 1999, natural gas consumption has not grown due to these supply constraints. In fact, there is an ample portfolio of gas consuming projects that have not materialized due to the high level of uncertainties in the natural gas market.

In September 1999, the Gas Hydrocarbons Law was enacted, which opened all aspects of the sector to private investment. As is the case with liquid hydrocarbons, the Gaseous Hydrocarbons Organic Law superseded all prior legislation, created a new legal framework, and increased royalties to a minimum rate of twenty percent for natural gas.

The Venezuelan government expects that its natural gas producing potential will benefit the national economy by meeting the requirements of the oil, electric, and, petrochemical sectors, among others, as well as the growing needs of the international market. Similar to the oil projects, President Hugo Chávez has proposed taking majority stakes in natural gas operations and directing the supplies of natural gas projects to the local market, where the MENPET sets prices.

During the last seven years, the government has granted approximately eighteen licenses for exploration and production of non-associated natural gas. The government’s major initiative is focused on Venezuelan eastern offshore areas, where significant volumes of natural gas reserves have been discovered. Another important initiative is the redevelopment of several high gas-to-oil ratio onshore fields in the south-eastern region of Anaco. Production in this area is supposed to reach 2.4 billion cubic feet per day (bcfd), which represents most of the supply required by the domestic market.

In Venezuela, there are currently several projects for offshore gas extraction: the Plataforma Deltana, Mariscal Sucre, Bonaire-Golfo Triste, Ensenada, Blanquilla, and Rafael Urdaneta.

In addition to the domestic projects, Venezuela has also manifested its intention to participate in the gas business abroad. To this effect, Venezuela signed: (i) in March 2007 a memorandum of understanding for the expansion and development of the Jamaican gas industry, (ii) two memoranda of commitment for the exploration and production of hydrocarbons in North La Paz, (iii) in August 2007 an agreement for a com-

123. Currently, state-owned PDVSA Gas, an affiliate of PDVSA, has more than ninety percent of the natural gas production in Venezuela.
124. See Decreto No. 310 con Rango y Fuerza de Ley Orgánica de Hidrocarburos Gaseosos, 36,793 Official Gazette, Sept. 23, 1999 (Venez.).
125. See CONAPRI, supra note 58.
126. See id.
128. See Resolucion mediante la cual se suscribe el Memorándum de Compromiso entre la República de Bolivia y la República Bolivariana de Venezuela, para la Exploración y Explotación de Hidrocarburos en el Norte de la Paz, en los términos que en
mon future agenda on matters pertaining to energy with Bolivia, (iv) in August 2007 the Tarija agreement for the gas integration with Bolivia, and Argentina,\(^{129}\) and (v) in September 2007 an agreement for the exploration and production of hydrocarbons in the Bolivian regions of Tarija, Chuquisaca, and Santa Cruz.\(^{130}\) All the initiatives and projects mentioned above were to be implemented within the energy cooperation agreements and energy security treaties previously mentioned above.

**B. Delta Caribe Project**

As part of PDVSA’s business plan, the Delta Caribe Project contemplates incorporating natural gas production to the country’s energy supply by focusing on offshore gas development. The objective is the offshore natural development of the Plataforma Deltana area, the Venezuelan Atlantic façade, and the waters north of the Paria Peninsula in western Venezuela. The project assembles various subprojects such as the construction of CIGMA\(^{131}\) (a gas industrialization complex), the development of Plataforma Deltana gas licenses (LNG projects), and the development of the Mariscal Sucre project. PDVSA estimates an investment of US$16 billion will be required for the period 2005-2012 to reach production of 11.5 bcfpd.

In connection with future LNG projects, Venezuela signed a memorandum of understanding with Argentina to design and construct LNG regasification facilities in Argentina.\(^{132}\) LNG regasification plants are also foreseen by the energy security treaties entered into with Argentina and Uruguay.

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\(^{129}\) See *Ley Aprobatoria del Acuerdo de Tarija en materia de integraci6n gasifera entre la Republica Bolivariana de Venezuela, la Republica Argentina y la Republica de Bolivia, en el marco de la Organizaci6n de paises productores y exportadores de gas Suramirica (OPPEGASUR)*, published in the official Gazette No. 38.933, dated May 19, 2008.

\(^{130}\) See *Resolucion mediante la cual se suscribe el Memorandum de Compromiso entre la Republica Argentina y la Republica Bolivariana de Venezuela, para la Exploraci6n y Explotaci6n de Hidrocarburos en Tarija, Chuquisaca y Santa Cruz, en los terminos que en ella se indica*, Official Gazette Notice 38,760, at 6, Sept. 3, 2007 (Venez.), *available at* http://www.tsj.gov.ve/gaceta/septiembre/030907/030907-38760-06.html.

\(^{131}\) CIGMA refers to *Complejo Industrial Gran Mariscal de Ayacucho*.

\(^{132}\) See *Resolucion Mediente la cual se suscribe el Memorandum de Entendimiento entre la Republica Argentina y la Republica Bolivariana de Venezuela, para el dise\n y Construccion de Folicitades para la Regasificaci6n de Gas Natural Liquado (GNL)*, en los terminos que en ella se indica, Official Gazette Notice 38,760, at 4, Sept. 3, 2007 (Venez.), *available at* http://www.tsj.gov.ve/gaceta/septiembre/030907/030907-38760-04.html.
C. **Plataforma Deltana Project**

In the Plataforma Deltana Project, Chevron operates block 2 along with ConocoPhillips (which farmed in with a forty percent share) and block 3,\(^{133}\) and Statoil operates block 4,\(^{134}\) along with Total (which farmed in with a forty-nine percent share in January 2005). Licenses have a term of thirty-five years and included an exploration period of four years, along with a commitment to drill three exploration wells. PDVSA retains the right to take up to a thirty-five percent stake in commercial projects. If the area seems promising, appraisal wells may be drilled prior to a declaration of commerciality. The licenses specify that ninety percent of production will be exported and ten percent set aside for Venezuela. Also, license holders have the right to develop an LNG project.

In 2005, Chevron announced significant natural gas discoveries in Plataforma Deltana. According to statements made by in June 2005 by Ali Moshiri, President of Chevron Latin America Upstream, the project appeared to have the resources required for a detailed evaluation of Venezuela's first LNG train.\(^{135}\)

In November 2007, the MENPET affirmed that participating companies will be required to commercialize its production as a block (preventing them from selling its individual production), and that PDVSA intends to reserve the majority stake in liquefaction trains to be built. He also claimed that the Ministry plans to exercise its right to demand royalties in kind instead of currency to supply the domestic market.

D. **Mariscal Sucre Gas Project**

The Mariscal Sucre project was originally launched during the 1990s under the *Cristobal Colon* name. ExxonMobil had a twenty-nine percent interest until 2002. Royal Dutch Shell and Mitsubishi planned development of the field earlier this decade and Shell considered returning as early as 2005. In 2003, PDVSA said Qatar's state oil company expressed an interest in acquiring a nine percent stake in the project.

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In 2006, PDVSA and Petrobras announced the participation of the latter in the project, which then included plans to send one-half of the field’s output of 1.31 bcfpd through the proposed US$20 billion southern pipeline to Brazil.\textsuperscript{136} In October 2007, PDVSA announced it would develop the field for domestic use and hired Neptune Marine Oil & Gas to drill twenty-one offshore wells for US$785 million.\textsuperscript{137} Shortly thereafter, Petrobras announced that it rejected the plans to help develop the offshore natural gas field. In Venezuela, gas sales are carried out below market prices, which reduce the field’s profitability. In October 2007, Gazprom applied for the rights to develop the field along with Plataforma Deltana and Delta Caribe Oriental.\textsuperscript{138}

In statements made in November 2007, MENPET announced that despite the withdrawal of Petrobras, the Mariscal Sucre Project had not been cancelled. It affirmed that the main problem rests with the low selling price, given that offshore gas exploitation tends to be expensive. To that extent, it is possible that a different market price for domestic use will be implemented.

The project is expected to supply 600 million cfpd to the domestic market\textsuperscript{139} in its first phase, which is planned to begin by the end of 2008.

Actually, PDVSA started drilling operations with the gas drilling vessel “Neptune Discovery” at the first of eight locations at Dragon Field. PDVSA states that by the end of 2010 it will produce 600 mmcfpd at the end of the first stage of development.\textsuperscript{140}

E. Rafael Urdaneta Project

The Rafael Urdaneta Project, a part of the Delta Caribe Project, consists of twenty-nine blocks and total gas deposits estimated at 26 tcf. Of the twenty-nine blocks, eighteen are located in the Gulf of Venezuela and eleven are located in the north-east Falcón State. Together, these blocks cover an area of approximately 30,000 km.\textsuperscript{2}

In 2005, Venezuela tendered the blocks in different stages. The first round was held in September 2005 whereby three out of the six blocks offered were awarded: (i) Cardon III -awarded to Chevron (US$5.6 million bid), (ii) Urumaco I-awarded to Gazprom (US$15.2 million bid), and (iii) Urumaco II-awarded to Gazprom (US$24.8 million bid).\textsuperscript{141} The

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\textsuperscript{137} Id.
\textsuperscript{138} Id.
\textsuperscript{140} See http://www.pdvsa.com.
\textsuperscript{141} Resolución mediante la cual se otorga Licencia a la empresa UrdanetaGazprom-1 S.A para ejercer las actividades de explotación de hidrocarburos gaseosos no asociados en el área de Urumaco Bloque I, Resolución mediante la cual se otorga Licencia a la empresa UrdanetaGazprom-2 S.A para ejercer las actividades de exploración y explotación de hidrocarburos gaseosos no asociados en el área de Urumaco Bloque II, Resolución mediante la cual se otorga Licencia a la empresa
Urumaco III block was not awarded because the bids submitted were “insufficient” and the tender for it was declared void. No offers were submitted for the other two blocks, Moruy III and La Vela Sur. The second round was held in November 2005 whereby three out of the five blocks offered were awarded: (i) Cardon IV awarded to Eni/Repsol (US$34.399 million bid); (ii) Moruy II awarded to Petrobras/Teikoku (US$19.5 million bid); and (iii) Castillete NE II awarded to Vinccler (US$7.388 million bid). According to the Venezuelan Minister of Energy and Petroleum, the winning companies are expected to invest nearly US$200 million over the following four years as part of a minimum exploration program. The licenses have a thirty-year term, and the State will be able to participate through PDVSA, with as much as thirty-five percent interest, once the project is declared commercially viable. The gas produced will be used primarily to meet local demand and its surplus is allocated for export, as set forth in the organic law governing gaseous hydrocarbons.

In November 2008, PDVSA and GAZPROM started works of drilling in the first exploratory well located in Block Urumaco I, 50 km from the coast of Falcon State.

F. DELTA CARIBE PROJECT-BLANQUILLA AND PUNTA PESCADOR AREAS

In August 2006, Venezuela initiated the selection process to grant non-associated gas licenses within the framework of the Delta Caribe Project, Blanquilla, and Punta Pescador Areas, which contemplated the development of offshore non-associated natural gas exploration and exploitation activities in western Venezuela. The project covers four blocks, three of which are located in the Blanquilla area and one is located in Punta Pescador. The MENPET estimated the area’s potential to be 18 bcp (11 bcp in the Blanquilla area and 7 bcp in Punta Pescador). The minimum exploration program called for a total investment of approximately US$172 million during a period of four years. Thirty-six domestic and international oil companies were invited and only thirteen of them expressed interest in participating. The project was suspended for lack of suffi-
cient offers and is not expected to restart anytime soon according to the MENPET.145

G. INTERCONEXIÓN CENTRO OCCIDENTE ("ICO") PROJECT

In Venezuela, all major pipeline systems are currently owned and operated by PDVSA Gas. The ICO project, which involves interconnecting Venezuela's central-eastern (Anaco-Barquisimeto) gas transportation systems with that of the west (Ulé-Amuay), is one of the major developments PDVSA Gas is undertaking to guarantee the supply of gas to the Paraguaná Refining Center, to partially meet demand in the western part of the country, foster economic growth in the pipeline's service areas, to provide liquids for export and, in the long-term, to earmark supplies of gas for Colombia and Central America.

A pipeline, currently under construction, will interconnect the two systems in the short-term. This new pipeline is being built under the assumption that there will be a need of gas flow from east to west. New gas developments offshore eastern Venezuela will interconnect and expand the transportation system in the east. Those developments will also connect the areas of future production with the market in eastern Venezuela and with the existing transportation network.146

H. GAS NATURAL PARA VEHÍCULOS ("GNV") PLAN

According to a joint resolution of the Ministry of Finance and MENPET published in October 2007, as later amended in January 2008,147 beginning on July 1, 2008, all new vehicles, either imported or assembled in Venezuela, regardless of their private or public use, must be adapted to run on both gasoline and natural gas. The MENPET and PDVSA are importing 50,000 conversion kits that will be distributed at no cost. Although manufacturers and importers expect that 300,000 vehicles will be sold in Venezuela in 2008, the government objective is to adapt 100,000 vehicles in the first year. Given the short notice and other considerations, representatives of the automobile industry have expressed their concern about the new measure.

In connection with this plan, in February 2008, the MENPET passed three resolutions. The first resolution provides for the norms for the construction, modification, dismantling and operation of facilities and/or equipments for personal use and/or sale of GNV fuel in the domestic market.\textsuperscript{148} The second one provides for the norms for the manufacture, installation and maintenance of systems for the use of natural gas as fuel for vehicles with internal combustion engines, as well as the establishment of norms for the performing of these activities.\textsuperscript{149} Finally, the third resolution provides for the procedures to import, for marketing or particular use, of equipment and accessories for GNV and liquefied petroleum gas.\textsuperscript{150}

The implementation of the measure requires modifications of the production lines and the evaluation of different factors such as the vehicles’ weight, size, and motor and PDVSA’s supply capacity.

I. \textsc{Antonio Ricaurte Trans-Caribbean Gas Pipeline}

In October 2007, President Ch\'vez of Venezuela and President Uribe of Colombia officially inaugurated the Trans-Caribbean Gas Pipeline Antonio Ricaurte, which will supply gas from Colombia to Venezuela until 2011, and thereafter the pipeline’s flow will be reversed. The project is owned and operated by PDVSA’s affiliate PDVSA Gas, and is its first international structure with a total investment of US$325 million. The two-way gas pipeline is 222 km long (137.4 miles), of which approximately 88 km (54.6 miles) is located in Colombia and the remainder is located in Venezuela. It runs from the Rafael Urdaneta station in Venezuelan Zulia State, to Campo Ballena, Colombia. Initially, it is expected to transport 150 million cfpd.

In July 2006, the Presidents of Venezuela and Colombia had invited Panama to be part of this energy initiative and signed a memorandum for the formation of a negotiation committee.\textsuperscript{151} The committee has to evaluate the extension of the pipeline up to Panama and the gas supply and


\textsuperscript{150} Resoluci\'on mediante la cual se dictan los Tr\'amites para la Importaci\'on, Comercializaci\'on o Uso Particular para el Manejo de los Gases Licuados de Petrol\'eoleo (G.L.P.), Official Gazette Notice 5,873 Extraordinary, at 34, Feb. 6, 2008 (Venez.), available at http://www.tsj.gov.ve/gaceta_ext/febrero/060208/060208-5873-34.html.

\textsuperscript{151} Resolucion por la cual se ordena publicar el texto del Memorando de Constituci\'on de un Comit\'e de Negociaci\'on en Materia de Interconexi\'on Gas\'fica entre la Rep\'ublica Bolivariana de Venezuela, la Rep\'ublica de Colombia y la Rep\'ublica de Panam\'a,
commercialization options. Venezuela and Colombia also entered into a Memorandum of Understanding on gaseous interconnection to assess the potential extension of the project.\textsuperscript{152}

J. SOUTH AMERICAN GAS INTERCONNECTION PROJECT

In 2005, the President of Venezuela proposed the construction of the Gran Gasoducto del Sur ("Great Southern Pipeline"), a 3,108 mile-long network to transport Venezuelan reserves throughout the region. During the Mercosur summit held in Montevideo, Uruguay, the governments of Argentina, Brazil, and Venezuela committed to complete the South American Gas Interconnection Project, as a decisive step for regional integration. Presidents Néstor Kirchner, Luiz Inácio Lula da Silva, and Hugo Chávez signed the Montevideo Declaration instructing their ministers with authority in energy matters to initiate feasibility studies for the South American Gas Interconnection Project. In addition, Venezuela and Argentina entered into a Memorandum of Understanding on gaseous interconnection to assess the potential of the project.\textsuperscript{153}

The gas pipeline would start from Venezuela, pass through a significant part of Brazilian territory, first to Manaus, then the north and northeastern regions, then extend towards the south towards Buenos Aires and, then Montevideo. The estimated cost of the project is approximately US$12 billion. This assessment is focused on three relevant topics: availability of gas in terms of reserves and production; environmental issues; and financial and commercial aspects. Some analysts view the project as not commercially viable. However, it represents an important piece of the energy integration strategy that the Venezuelan government is presently sponsoring.

IV. VENEZUELAN ELECTRICITY MARKET

A. INTRODUCTION

In 2005, Venezuela had 22.1 gigawatts of installed generating capacity.\textsuperscript{154} Interestingly, approximately seventy-five percent of the total electricity generation is derived from hydroelectricity, with the Caroni River serving as the center of the country's hydroelectric production. After the


\textsuperscript{154} See EIA Country Analysis Briefs: Venezuela, ENERGY INFORMATION ADMINISTRATION, http://tonto.eia.doe.gov/country_energy_data.cfm?fips=VE.
nationalization, state owned companies provide most of the country’s electricity. The largest power companies are CVG Electrificación del Caroni C.A. ("Edelca"),155 which supplies approximately three-fourths of Venezuela’s total electricity, CADAFE, and C.A. Energía Electrica de Venezuela ("Enelven"). Together, these three government owned companies provide eighty-five percent of the country’s installed generation capacity.

Since 1999, the Chávez administration has enacted a new legal regulatory framework, consisting of the Organic Electric Service Law, the Electric Service Law’s Regulations,156 the Organic Concession Law,157 and the new Electric Tariff Code.

The new Electricity Service Organic Law, enacted in September 1999 and later amended in December 2001,158 addressed the need to modify, enlarge, and transform the existing regulations to promote competition. It declared the public service character of the generation, transmission, distribution and commercialization activities, implementing two market levels: Electric wholesale market and the controlled tariff market. Pursuant to the law, the market is controlled through the transmission and distributions activities, while it incorporates innovative forms to promote competition in generation and marketing.159 The law also provided for the legal (and accounting) separation of the generation, transmission, distribution, and marketing activities and strengthened the regulations with the goal of providing more security, quality, and prices to the consumers.160

B. NATIONALIZATION OF PRIVATE ENERGY PROVIDERS

As part of its nationalization program, in February 2007, the Venezuelan government bought the largest Venezuelan privately-owned power provider, C.A. Electricidad de Caracas ("Elecar") (which had remained in private ownership since 1885 and currently provides power to the capital city, Caracas).161 The government acquired ninety-three percent of

155. Edelca is a subsidiary of the state-owned mining company Corporacion Venezolana de Guayana ("CVG").
158. See Decreto con Rango y Fuerza de Ley del Servicio Eléctrico, Official Gazette No. 36,791, Sept. 21, 1999 (Venez.); later reformed by Ley de Reforma Parcial del Decreto con Fuerza de Ley del Servicio Eléctrico, Official Gazette No. 5,568 Extraordinario, Dec. 31, 2001 (Venez.).
160. Id.
161. The nationalization involves Elecar affiliates in Yaracuy, C.A. Electricidad de Yaracuy ("Caley"), Vargas C.A. La Electricidad de Vargas ("Calev"). Guarenas-
Elecar through PDVSA for the price of US$837 million. AES Corporation (US) received US$740 million for its eighty-two percent stake in the company. The company’s operations were assigned to Empresa Nacional de Generación, C.A. (“Enagen”), a state-owned generation company formed in October 2006 and owned by PDVSA (forty percent), the MENPET (forty percent), and state power companies Energía Eléctrica de Barquisimto, S.A. (“Enelbar”), (in the State of Lara) (ten percent), and Enelven (in the State of Zulia) (ten percent).

The government’s nationalization plan included the other private power companies in Venezuela: (i) C.A. Electricidad de Valencia (“Eleval”), which serves the State of Carabobo, (ii) Sistema Eléctrico del Estado Nueva Esparta C.A. (“Seneca”), which serves the State of Nueva Esparta, controlled by Michigan-based CMS Energy, (iii) C.A. La Electricidad de Ciudad Bolívar (“Elebol”), which serves Ciudad Bolívar, in the State of Bolivar controlled by Assa Holding C.A. and Arutil N.V., (iv) C.A. Luz y Fuerza Electricas de Puerto Cabello (“Calife”), which serves Puerto Cabello, in the State of Carabobo, and (v) Turbogeneradores de Venezuela, C.A. (“Turboven”) which serves Maracay, in the State of Aragua (some have been acquired as of April 2008 and others are in the process of being acquired).

C. REORGANIZATION OF THE ELECTRICAL SECTOR

In May 2006, President Chávez ordered the merger of CADAFE, with its affiliates C.A. Electricidad de Oriente (“Eleoriente”); C.A. Electricidad del Centro (“Elecentro”); C.A. Electricidad de Occidente (“Eleoccidente”); C.A. Electricidad de Los Andes (“Cadela”) and C.A. Sistema Electrico de Monagas y Delta Amacuro (“Semda”). Following the merger, nine (9) regions were created in order to serve the entire country under a more flexible operation model and offer more efficiency.

In July 2007, a decree with rank, value, and force of a statutory law entitled the “Reorganization of the Electrical Sector” was enacted. This measure was intended to improve the quality of electrical services that operating companies render in Venezuela, through the optimization

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162. AES president and chief executive, Paul Hanrahan defended the sale process. See http://news.bbc.co.uk/2/hi/business/6345211.stm.
163. CADAFE was incorporated in 1958 with the goal of optimizing the administration and operation of national energy companies in Venezuela.
164. See Decreto No. 4.492, mediante el cual se ordena la fusión de las sociedades que en él se mencionan, todas filiales de la Compañía Anónima de Administración y Fomento Eléctrico (CADAFE) published in the Official Gazette No. 38,441, dated May 22, 2006 (Venez.).
166. Decreto con rango, valor y fuerza de Ley Orgánica de Reorganización del Sector Eléctrico, Official Gazette No. 38,736, July 31, 2007 (Venez.).
of generation, transmission, distribution, and marketing activities. It also established the creation of a joint stock company, Corporación Eléctrica Nacional ("National Electrical Corporation"), that is controlled by the MENPET (seventy-five percent of the share capital will be contributed by the national government and the remainder by PDVSA).

In addition, this legislation established that Enelven, Enagen, CADAFE, Edelca, Seneca, Enelbar, and Energía Eléctrica de la Costa Oriental del Lago, C.A. ("Enelco"), as well as all other branches of the National Electrical Corporation, will have to merge into a single legal entity, within three years. Private companies in the industry, which are in process of being acquired by the State, will have to sell their shares to the new National Electrical Corporation.

The MENPET, per Resolution No. 190,167 reorganized the power and energy sector in Venezuela. The country is currently divided into six regions (north-east, north central, west, central, Andean and south). The Ministry assigned the operation and maintenance of the electric distribution facilities of the States of Yaracuy and Carabobo to Enelbar. It also assigned the operation and maintenance of the electric distribution facilities of the State of Falcón to Enelven. Elecar received control of the electric distribution facilities of Aragua, Miranda, and Nueva Esparta States. The Ministry assigned the control of the electric facilities in the south region to Eldeca. It also assigned control over the construction, operation, and maintenance of all hydroelectric plants in the country. Furthermore, Eldeca is in charge of developing the investment and development plans with its own funding and the funding assigned to CADAFE for such purposes. Edelca entirely assumed the hydroelectric operations and maintenance that were in the hands of CADAFE, including the Uribante Caparo project. PDVSA took control of the operations and maintenance of Planta Centro, a thermoelectric generation plant located in Carabobo State in the proximity of El Palito refinery.168

D. The Hundred Days Plan

By the end of 2007, the MENPET launched the "Hundred Days Plan" (also referred to as the "Early Victories Plan"), with the intention of resolving immediate problems in the electric sector. The plan includes one hundred seventy-six projects with a cost of approximately US$45 million. Among those projects, thirty-two are designed to expand the distribution system in order to increase the service coverage by installing 1,063km of electric circuits, fifteen power switches, and 73,000 public illumination lamps. The "Hundred Days Plan" also involves the closing of

167. Published in the Official Gazette No. 38,785, Oct. 8, 2007 (Venez.).
168. The operative responsibilities assigned are transitory for so long as the National Electric Corporation so determines.
facilities requiring financial support in the amount of US$1.6 billion.\textsuperscript{169}

There were twelve recurrent blackouts between January and April 2006. By April 2007, the number of recurrent blackouts had increased to thirty-six. During 2008, thirteen generation centrals and plants are expected to enter into service, which will provide more than 3,000 Mw (among others Fabricio Ojeda, Termozulia, Alberto Lovera, and Ezequiel Zamora plants). There are also plans for the expansion of the Costa Oriental del Lago transmission lines, the La Pastora substation, and La Arenosa-Yaracuy, Ezequiel Zamora-San Juan de Los Morros, El Furrial, Calabozo-San Fernando de Apure, Guanta-Cumaná-Casanay and Coro-Punto Fijo lines.

The Ministry explained that the National Energy Corporation will promote the participation of the private sector by means of forming jointly owned and social production enterprises.

E. HYDROELECTRIC AND THERMAL PROJECTS

The Venezuelan Government plans by 2011 to increase its generating capacity to approximately 28,000 Mw, mainly by boosting the hydroelectric share of total capacity.\textsuperscript{170} It will be concentrated mainly on both Caruachi and Tocoma dam projects, in order to develop the hydroelectric potential of the Caroni River in southeastern Venezuela. Together with investment in transmission lines, enhancements would result in investment of up to USD 4,900 million for the next ten years. Lack of financial resources may delay implementation of some of these projects, but U.S. companies could capitalize on at least fifty percent of the total import market generated by the initiatives.

Edelca operates the 8,900 Mw Guri (Raul Leoni), the 2,900 Mw Macagua, and the 2,200Mw Caruachi facilities,\textsuperscript{171} all on the Caroni River. Edelca is currently building a fourth plant on the Caroni River, which is the 2,200Mw Tocoma dam, scheduled to be completed in 2010. Edelca is also developing the Masparro (25 Mw) and Fabricio Ojeda (514 Mw) projects.

There are numerous thermal power generation projects underway in Venezuela, including Termozulia I (150 Mw), Termozulia II (450 Mw), Barrancas (300 Mw), Pedro Camejo (300 Mw), Argimiro Galbaldón (120 Mw), Punto Fijo (450 Mw), Puerto La Cruz (300 Mw) Cabrutica (150 Mw), La Raiza (180 Mw), Cumaná (450 Mw), and Ezequiel Zamora (150 Mw).


\textsuperscript{171} The Caruachi Hydroelectric Central was inaugurated in March 2006. The construction took seven years with a cost of more than 2.5 billion U.S. dollars.
F. Alternative Energy Projects

Currently, Venezuela is developing wind energy projects in its Caribbean Sea shores. The two most significant projects, the Paraguaná peninsula Jurijurebo wind farm (with a capacity of 100 Mw) and the La Guajira peninsula wind farm (with a capacity of 24 Mw in its first phase), are located in western Venezuela. Other facilities are being developed in the Coche Island (by Edelca) and the Araya peninsula in eastern Venezuela.

In November 2006, after three years of certified studies, PDVSA announced that the construction of a fifty turbine farm had started. Each turbine will generate 2 Mw, totaling 100 Mw interconnected by a substation to the Josefa Camejo power plant, which will have an installed capacity of 450MW, comprising three generating units of 150Mw.

The Fundación para el desarrollo del Servicio Eléctrico ("FUNDELEC") is implementing a government program for the installation of photovoltaic plants in rural zones of the country. The program named Sembrando Luz ("Sowing Light") is divided into three phases. The first is designed to reach schools, health facilities and communal rooms, the second is designed to reach households and commerce; and the third is designed to reach new applications. By September 2007, 455 plants had been installed in 322 communities. There is also a plan to develop a national industry of solar panels to supply domestic and foreign demand.

As per resolution of the MENPET, in May 2005, the National Renewable Energies Registry was created. The registry will function as a data base over the activities and projects for solar, wind, hydraulic, biomass, and hydrogen power generation.

V. CONCLUSION

Venezuela has leveraged its large hydrocarbons sector to assert a stronger economic and geopolitical role in Latin America and the Caribbean than many US observers even a few years ago thought possible. The sheer volume of Energy Cooperation and Integration Agreements entered into with countries in Latin America and the Caribbean speaks to this development. Such agreements are one indication that although the United States remains Venezuela’s large export market, Venezuela is working to diversify its dependence on any single market. However, notwithstanding the heated rhetoric exchanged between Washington and Ca-

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173. See Resolución por la cual se autoriza la construcción, establecimiento y conexión de la Planta Termoeléctrica Josefa Camejo, No. 39,024 Official Gazette, Sept. 25, 2007 (Venez.).

the countries still have an economic relationship of mutual dependence and it is not clear that this fundamental reality has changed. Nevertheless, both private investors and Venezuela face important challenges. For private investors, Venezuela has some of the richest reserves in the Western hemisphere and in this era of declining supplies and reserves, its potential and allure cannot be easily ignored. However, as evidenced by recent unilateral changes to drilling contracts, such opportunities also present greater risks in the form of juridical instability. Investors have reacted in different manners to this difficult environment—many, perhaps mindful of the long-term implications, have elected to accept their inferior, subordinated role and less attractive commercial terms, thereby selecting the pragmatic route, while others have decided to fight and withdraw from the country, rather than accept the new, unilaterally imposed terms. However, while many private investors have elected to stay, they are not in general making new investments in the country, a development that could have profound implications for Venezuela, particularly if the price of oil drops to lower levels.

By the same token, Venezuela too faces challenges. Arguably, a more polarized society than before, Venezuela has benefited from the dramatic rise in oil prices, thereby offsetting inefficiencies. However, some analysts contend that production still has not returned to pre-strike levels. In addition, Venezuela has courted national oil companies, particularly from countries that enjoy good relations with Caracas, to effectively replace some of the diminished private investment, but it is unclear whether these companies possess the technical, financial, and operating acumen to function outside their home markets (with the possible exception of Petrobras). Moreover, its national oil company, PDVSA is carrying out more non-energy roles, such as housing and food distribution, and it runs the risk of distraction from its core competency and managerial overload. Finally, PDVSA once enjoyed the reputation within Latin America as the finest national oil company in terms of managerial and technical competency, and it is not clear that it has been able to fully replace its dismissed personnel. In short, like many emerging markets, Venezuela poses that classic risk-reward conundrum and yet neither private investors nor Washington can afford to ignore it.
