2007

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SUMMARY OF OIL AND GAS DEVELOPMENTS IN SOUTH AMERICA (2006)

Larry B. Pascal*

I. INTRODUCTION

This article provides an overview of 2006 developments in the oil and gas sector in South America.

A. ARGENTINA

In Argentina, the government continues to fight high demand for oil products and shortages in the local market, prompted by robust economic growth of approximately 8 percent and governmental restrictions on the export of these products. The government has also responded to declining production with the adoption of Law 26154, which grants certain tax incentives to exploration and production companies who sign association agreements with the national oil company ENARSA.

B. BRAZIL

In 2006, Brazil re-elected Workers’ Party candidate Luiz Inácio da Silva (Lula) to a second term, bringing certainty to the power sector where Lula’s policies will be continued. With respect to gas, Petrobras is reviewing the development plans of the gas-rich Santos Basin in light of the nationalization of the Bolivian gas sector (some Brazilians criticized Lula for not more vigorously challenging the nationalization of Brazilian commercial interests in Bolivia). Petrobras, in addition to the other foreign investors, ultimately reached new accords with Bolivia, contemplating significantly higher tax rates and less advantageous terms and

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conditions. Brazil is also considering a new gas law to bring greater certainty to the sector and encourage further development.

C. Bolivia

In May 2006, the government of President Evo Morales issued a decree, finalizing the nationalization of the oil and gas sector. Bolivia’s decision reflects the third time it has opened the sector to private investment, only to subsequently nationalize it, symbolizing the powerful forces of petro-nationalism in the region. In November 2006, applying the above-mentioned decree, the government, through the state-owned company YPFB, signed new operational agreements with the private oil and gas producers. In addition, Bolivia signed a new twenty-year agreement to supply gas to Argentina.

D. Peru

In 2006, Peruvians elected Alan Garcia as its next president, replacing President Alejandro Toledo. Garcia has supported the U.S.-Peru Free Trade Agreement, which is pending ratification before the U.S. Congress. Garcia had previously served as president in an era of high inflation and market intervention policies, but he vowed to learn from his mistakes and narrowly defeated a left-of-center candidate supported by Hugo Chavez.

E. Colombia

Colombia, in contrast to the general trend in the region, carried out the privatization of its largest gas company, Ecogas. In addition, President Alvaro Uribe has proposed privatizing 10 percent of Ecopetrol, the country’s national oil company. In May 2006, President Alvaro Uribe was re-elected for the 2006-2010 term, receiving over 60 percent of the vote (in 2005, the Congress approved the constitutional amendment to permit re-election). In November 2006, Colombia and the United States signed a free trade agreement, which is pending ratification.

II. ARGENTINE GAS MARKET

A. POST ARGENTINE ECONOMIC CRISIS - THE EMERGENCY LAW OF 2001

As mentioned above, in December 2001, Argentina passed the Emergency Law, revoking its currency board/convertibility policy and officially ending Argentina’s experiment with neo-liberal economic policies.

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3. Law No. 25561, July 1, 2002, B.O.
Argentina's economic crisis, felt in all sectors of the economy, affected the successful oil and gas industry in a particularly severe way. The devaluation of the Argentine peso and subsequent measures to control the price of gas resulted in an abrupt and significant reduction in new investment in the gas sector and an increased demand for gas in the domestic market. Due to the implementation of the electronic gas market (see discussion below), gas exports are now more limited, and the situation has been aggravated due to the fact that the artificially low price of gas drove many Argentine industries to convert from fuel oil to gas.

B. The Second Generation Reforms

In February 2004, the Argentine government passed a series of amendments to this legal framework, issuing Executive Decree Numbers 180/04 and 181/04, in an attempt to solve the critical situation described above and to encourage gas producers to make new investments in the upstream gas sector. The so-called second generation reforms introduced important changes to the legal framework, such as abandoning the principle of uniform prices for all gas customers, resulting in a market price distinction between consumers and large industrial concerns for these two market segments.

In March 2004, the government issued additional regulations, including the energy secretariat's Resolution Number 265, which authorized the national authorities to ration natural gas exports in order to ensure domestic supply.\(^4\) The measure damaged relations with Chile, as Argentine gas suppliers were not permitted to supply gas to Chilean power companies, causing disruptions in the Chilean economy. In May 2004, the Argentine government also levied a 20 percent withholding tax on gas exports, which was later increased to 45 percent.\(^5\) This tax was also applied to other fuels, such as butane and other gas products. In May 2005, the Energy Secretariat issued Resolution Number 752, which supplemented Decrees Number 180/04 and Number 181/04 and modified but did not eliminate price controls on gas. In fact, Resolution Number 752 established a mechanism for bypassing distributors by which certain categories of large consumers (i.e. those averaging a monthly consumption of more than 9,000 cubic meters) could purchase natural gas at the injection point of the transportation system directly from the producers. As of January 2006, large industries have been purchasing natural gas from producers with prices in U.S. dollars, and most of the major producers are developing oil and gas exploration activities, which are positive signs for the sector. A great deal of the expansion has taken place during 2006 and is expected to continue during 2007 and 2008 with an expected investment

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\(^4\) With low hydrocarbon reserves of its own, Chile became the largest purchaser of Argentine natural gas in the late 1990s, depending on Argentine natural gas for 40 percent of its electricity. As a consequence of the implementation of measures to mitigate the impact on the domestic gas market, some observers are expecting arbitration claims to be filed against the Argentine government.

\(^5\) The increase was adopted after the gas supply agreement with Bolivia was signed.
of approximately of U.S. $1.1 billion. The allocation of the expansion for such infrastructure is taking place by open public bids and has been financed through tariffs, loans, and contributions by direct beneficiaries.

C. **Electronic Gas Market (EGM)**

As part of the Second Generation Reforms, Decree Number 180/04 created the Electronic Gas Market (EGM), by which all spot gas supply and its respective transportation capacity are marketed. The EGM was subsequently launched in September 2005. Via a standardized irrevocable offer mechanism, direct customers that do not have gas supply agreements with producers may directly purchase natural gas on a term basis on the EGM. Under the EGM, customers purchase gas by filing a standardized irrevocable offer to purchase the requested quantity of natural gas. If ten days elapse without acceptance of the offer, then the Energy Secretariat is required to assign the offer to a producer.

D. **Bilateral Investment Treaty Claims**

As a result of the *Pesification* reforms, several foreign investors (including several gas companies) filed claims against Argentina with the International Center for Settlement of Investment Disputes (ICSID) under their respective bilateral investment treaties (BIT). In general, the petitioning foreign investors argued that the substantial reduction of tariffs (on an inflation adjusted basis) after *Pesification* violated their concession agreements, impeded their ability to pay off U.S. dollar denominated debts incurred in reliance on their concession contracts, and resulted in significant economic losses. As of December 2006, approximately forty claims had been filed with ICSID against Argentina, making it the government with the most complaints of this nature filed against it.

A large number of claims remain unresolved. Some companies have received large awards, which still remain unsatisfied. Other companies have settled their cases in order to pursue new or existing opportunities in the Argentine market. For example, in June 2005, CMS Gas Transmission Company (CMS), a minority shareholder in the gas transmission company Transportadora de Gas del Norte, obtained an award against the Argentine government for approximately U.S. $130 million. Recently, Argentina altered its position towards the ICSID arbitration tribunal by acknowledging the award obtained by CMS and electing not to challenge it in the local courts. Camuzzi International, which had sought damages of approximately U.S. $250 million, announced its decision in

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6. Argentina has bilateral investment treaties with several of its major trading partners, including the United States, the United Kingdom, and Spain.


8. Camuzzi International holds Camuzzi Gas Pampeana and Camuzzi Gas del Sur, two important gas distributors.
December 2005 to abandon the case in an attempt to improve its relationship with the government. The Italian group has several other important investments in Argentina.9

E. RETURN OF AN ARGENTINE NOC-ENARSA

Since 1995, Argentina has seen significant consolidation in the oil and gas market with foreign energy companies purchasing their smaller Argentine counterparts. Such consolidation included: (1) the BP-Amoco-Bridas transaction forming Pan American Energy, (2) the acquisition of YPF by Repsol of Spain (which substantially reduced the total liquidity of the Buenos Aires stock exchange), and (3) the acquisition by Petrobras of Brazil of a majority stake in Argentina’s remaining large independent oil company, Pecom Energía. Perhaps in response to this growing foreign control of the oil and gas sector, in late 2004, the government formed a new state-owned national oil and gas company, Energía Argentina Sociedad Anónima (ENARSA), with the goal of the state playing a greater role in the sector and stimulating exploration and production activities in off-shore basins, particularly by possibly associating with other national oil companies from the region.

Although many Argentine energy observers expected ENARSA to sign off-shore exploration contracts with PDVSA, ENARSA has surprised some observers by executing several agreements with Repsol YPF, Petrobras, and Petrouruguay10 to explore and exploit offshore blocks. The project has an exploration budget of approximately U.S. $40 million, and the marine seismic stages have already commenced. In addition, ENARSA is already involved in several on-shore exploration, wind energy, and gas transportation projects.

Notwithstanding the implementation of the EGM, exporting Argentine gas continued to be difficult, as the government imposed measures to force the sale of gas to the domestic market.11 In fact, the increase in the price of gas in 2006 actually permitted gas producers to commence a new round of investments. The development of new gas fields (such as Karina and Aries), off-shore blocks being developed in the southern part of the

9. Its investments in Argentina include Empresa Distribuidora de Energía Atlántica (EDEA), a concessionaire serving the Province of Buenos Aires, Empresa de Energía de Río Negro Sociedad Anónima (EDERSA), an energy distributor in the Río Negro Province, and Empresa de Transporte de Energía Eléctrica por Distribución Troncal de la Patagonia Sociedad Anónima (TRANSPA), a unique transport company of the Patagonian System.
10. Petrouruguay is an affiliate of the state-owned Uruguayan ANCAP.
11. In October 2006, Argentina’s Energy Secretariat issued a decree tightening controls on the export of diesel fuel, gasoline, fuel oil, and other petroleum products in an effort to assure its domestic supply. Under the new rules, companies must register for authorization with the Departament of Fuels before exporting these products, and the department will authorize the export if the supply of the product is deemed sufficient to meet domestic demand. Domestic controls have kept the price of gasoline and other products at approximately 40-50 percent below foreign market prices since 2003. See Charles Newbery, Argentina Tightens Hold on Oil Products Exports, PLATTS OILGRAM NEWS, Oct. 3, 2006, at 7.
country by a consortium led by Total, Wintershall, and Panamerican Energy, and other on-shore fields (such as Makueta, a gas field operated by Panamerican Energy in the northern part of the country) cannot yet satisfy the increasingly large demand from the industrial domestic market.

In 2006, in response to the tight domestic gas market, Argentina and Bolivia executed a long-term supply agreement that contemplates Bolivia selling gas to Argentina at two and a half times the local gas price in Argentina. In addition, in October 2006, the two countries signed an energy integration agreement that contemplates the construction of a new northeast gas pipeline—Gasoducto del Noroeste—to be commenced in June 2007. The Gasoducto del Noroeste will allow for transportation of the Bolivian natural gas contemplated under the long-term supply agreement.

### F. Promoting Exploration and Production Activities

In an additional attempt to expand the horizons of oil and gas reserves, in November 2006, the Argentine Congress passed a law creating the promotional system for hydrocarbon exploration and exploitation. This law creates a series of tax benefits for interested companies, such as: (1) the advance refund of value added tax (VAT) levied on investments in capital goods and infrastructure projects, (2) the accelerated depreciation of income tax, (3) the exemption of property used in such activities from the tax basis of the minimum presumed income tax, and (4) the exemption from payment of import duties and any other charges for the import of capital goods, spare parts, or components of said goods that are not manufactured in Argentina but are used to carry out exploration and exploitation activities. To obtain these benefits, oil and gas companies must enter into association agreements with ENARSA, giving this once virtual national oil company more influence. Although the rules governing the association agreement are still pending, the new norm could prove attractive to small and medium energy companies. As evidence of the increased activity in the exploration and production area, seismic services and rig equipment were not readily available until June 2007. Moreover, provincial governments are calling for new international bidding processes on new exploration fields during 2007, and it is believed that

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12. By 2010 and at a beginning price of U.S. $5 per million BTUs, Argentina will acquire 27.7 cubic meters per day. The term of the agreement is twenty years.

13. The Gasoducto del Noreste will require an investment of approximately U.S. $1.4 billion and will be operated by ENARSA. This pipeline will link Yacuiba, a Bolivian city, to guaranty a supply of several provinces in Argentina, such as Salta, Formosa, Chaco, Corrientes, Entre Ríos, and Santa Fe.

14. Law Number 26154, adopted as of November 9, 2006, will govern all national exploration licenses awarded under Hydrocarbon Law Number 17319 or by the provinces, provided such licenses explicitly adhere to this system. Law No. 26154, Nov. 11, 2006, B.O.
the new tax incentives regime may attract interested companies.\textsuperscript{15}

III. BRAZILIAN NATURAL GAS MARKET

A. INTRODUCTION

The exploitation of natural gas in Brazil and its importance in the national energy matrix have historically been a secondary concern. But given the global trend of increased demand for gas and fearful of the consequences of over-dependence on hydroelectric energy, the Brazilian government has recently begun to place more importance on natural gas. To this effect, recent surveys show that natural gas represents 8.8 percent of the national energy matrix,\textsuperscript{16} and the government's stated goal is to increase it gradually so that it may become more commensurate with international levels. Furthermore, the discovery of new natural gas reserves in Brazil, the rapid rise of crude oil prices in the international market (and the related search for substitutes), and the recent nationalization of gas reserves and changes in the political situation in neighboring Bolivia (and its impact on Brazil's plans to expand the Brazil-Bolivia pipeline) have prompted Brazil to support policies encouraging the domestic exploitation and consumption of natural gas.\textsuperscript{17}

B. ANP'S 7TH AND 8TH ROUND OF BIDS

Given these developments, natural gas played an enhanced and arguably unprecedented role in the National Petroleum Agency's (ANP) seventh round of bids for the exploitation of oilfields and natural gas reserves held in October 2005 and the eighth round held in November 2006.\textsuperscript{18}

C. CURRENT SITUATION – PROPOSED GAS LAW

The gas industry's major concerns derive from the fact that even though the upstream activities (exploration and production) for both oil and natural gas are very similar, the midstream activities (i.e. refining, processing, transportation, and storage) and downstream activities (i.e. distribution and reselling) of natural gas are substantially different from those of the oil industry, and hence require market specific legal norms. In response to such concerns and in aiming to create a more legally-se-
cure environment for national and foreign investors in natural gas in Brazil, the Ministry of Mines and Energy has announced its intention to propose a new and comprehensive gas sector law. Based on the initial announcements, this proposed law would regulate all areas of the gas chain (i.e. production, transportation, and marketing). Although the enactment of a more detailed regulatory framework for the gas sector is necessary in order to stimulate private investment in this sector, the states may oppose on jurisdic- tional grounds the enactment of the aforementioned proposals on the basis that article 25(2) of the Federal Constitution provides that the states have the sole jurisdiction to organize and provide gas distribution services.

D. New Projects

As noted above, due to the Bolivian crisis, the Brazilian government was forced to review its policies and plans for the natural gas sector. The main change was the government’s decision to be less dependent on Bolivian gas, to invest in the exploration of national reserves, and to suspend the expansion plans for the Brazil-Bolivia pipeline. The external situation has also prompted Brazil to put on hold a project regarding the feasibility of the construction of a South American natural gas pipeline to integrate the South American countries’ pipeline networks. Finally, another consequence may be that Brazilian government will redirect its efforts toward other domestic projects, such as the construction of the Amazon Forest Pipeline (linking the Urucu basin to Manaus). This facility will support the construction of a large thermal power plant to supply all the power needs for the city of Manaus.

IV. Bolivian Gas Sector

A. Introduction

In July 2004, Bolivia held a binding referendum in which a majority approved the nationalization of the oil and gas sector. Subsequently, the new Law of Hydrocarbons Number 3058 of May 17, 2005 was passed. Although this law sets the foundation for the nationalization of hydrocarbons, on May 1, 2006, the government under President Evo Morales issued the Nationalization Supreme Decree Number 28701, through which the State effectively took control of the entire commercial and production chain of the oil and gas sector. In November 2006, applying the above-mentioned decree, the government, through the state-owned company YPFB, signed new operational agreements with all private oil and gas producers currently operating in Bolivia.19

B. Bolivian Constitution

The Bolivian Constitution provides that all hydrocarbons, including natural gas, located in Bolivian territory are the original property of the Bolivian State. The rights to explore and exploit such resources must be granted by the Bolivian State. YPFB acts on behalf of the Bolivian State, the Ministry of Hydrocarbons represents the government, and the Superintendency of Hydrocarbons serves as the regulatory authority for the distribution of oil and gas. The Bolivian Constitution also requires that Congress approve all agreements involving the production or marketing of natural resources. The forty-four operational agreements recently signed between YPFB and private producers are currently being reviewed by Congress. Given the favorable terms recently renegotiated, the Congress is expected to approve the agreements.20

C. Hydrocarbons Law

Although the Hydrocarbons Law Number 3058 of May 17, 2005 has been duly enacted and is in effect, some of the corresponding regulations are still being drafted. The main aspects of this law are as follows:

(i) Article 5 (paragraph one) provides the basic new mandate that all hydrocarbons recovered at the wellhead are for the benefit of the Bolivian State. Article 5 (paragraph two) of the Hydrocarbons Law provides that parties to joint venture agreements entered into with YPFB under the former Law of Hydrocarbons Number 1689 must convert their agreements into new forms of agreements within 180 days of enactment of the new law. As mentioned above, as of this date, all private producers have entered into new operational agreements with YPFB.

(ii) Article 16 of the Hydrocarbons Law reaffirms the claim of the Bolivian State to original ownership of the hydrocarbons by providing that “hydrocarbon deposits in whatever state or form they may lie, are of the direct, perpetual, and inalienable domain of the State.” No contract may confer ownership of the hydrocarbon deposits, over hydrocarbons at the wellhead, or over hydrocarbons at the point of measurement. Furthermore, under article 16, any party to a shared production agreement, operational agreement, or association agreement must deliver to the State all of the hydrocarbons produced within the established contractual term.

(iii) Articles 53 through 57 of the Hydrocarbons Law create and regulate the Direct Tax on Hydrocarbons (DTH) applicable to the production of hydrocarbons at wellhead, measured at the point of measurement. The obligation to pay the DTH is generated at

20. The Bolivian Congress has approved new upstream contracts signed with ten foreign oil companies. See 2007 Economist Intelligence Unit, Bolivia: Oil Contracts Advance, April 9, 2007.
the point of measurement, and the taxpayer shall be any individual or entity that has produced the hydrocarbons that are being measured.

(iv) The DTH rate is 32 percent of the total production of hydrocarbons measured at the point of measurement. The DTH applies in a non-progressive and direct manner, allowing no deductions or credit offsets. The DTH applies equally to the existing 18 percent royalty rate. Hence, both measures in effect create a combined royalty rate of 50 percent.

(v) According to the Hydrocarbons Law, the export of gas to worldwide spot markets is not subject to any special restrictions. As long as the gas export commitments are duly complied with, producers are free to sell (or not) their gas to any willing national or international buyer.

D. NATIONALIZATION SUPREME DECREE NUMBER 28701 OF MAY 1, 2006

The Nationalization Supreme Decree Number 28701 of May 1, 2006 provides that YPFB must market all of the oil and natural gas by defining prices, volumes, and conditions for sale and also places this entity in control of the entire production chain.

The decree created a new tax/royalty or participation for YPFB by which private producers operating in the major fields of San Antonio and San Alberto would have to relinquish an additional 32 percent of production at the wellhead. Only three private producers (Petrobras Bolivia, Andina S.A., and Total Bolivia) would have been directly affected by this measure that would have increased participation by the national oil company YPFB from 50 percent to 82 percent. But presently, the additional 32 percent tax has been eliminated, and all producers are contributing 50 percent of production to the State.

Although the rest of the private producers that operate in fields producing less that 100 million cubic feet per day will continue to contribute 50 percent of production and not 82 percent as described above, the decree permits an increase in the tax rate if a subsequent audit proves that the company has surpassed 100 million cubic feet per day. This norm also imposes a mandatory sale of shares, so that YPFB will control 51 percent of the companies Andina S.A. (Repsol YPF), Chaco S.A. (BP), Transredes S.A. (Shell), Petrobras Bolivia Refinación S.A., and C.L.H.B. S.A.

E. NEW TAX AND ROYALTY STRUCTURE

As a result of the above-mentioned Hydrocarbons Law and Nationalization Supreme Decree, the Bolivian tax structure for hydrocarbons has changed dramatically. The taxes are now as follows: royalties (18 percent), DTH (32 percent), income tax (25 percent), and withholding tax (12.5 percent).
F. Operational Agreements

Supreme Decree Number 28701 of May 1, 2006 was the first step of the so-called nationalization process through which Bolivia exerts control over all the commercial and production chain in an attempt to industrialize its hydrocarbon resources in the near future. According to this decree, private oil and gas producers had a 180-day term to enter into new forms of agreements with YPFB. This term expired on October 28, 2006, but on November 1, 2006, the government executed forty-four operating contracts with all of the private oil and gas companies currently operating in Bolivia. In 2006, no company filed an arbitration claim or suspended its operations.

The following summary describes the most important clauses of the operational agreements, which are now being reviewed by Congress:

(i) Private producers who have executed to the operational agreements (producers) must cover all costs, personnel, technology, facilities, materials, and capital necessary for the execution of oil operations. YPFB shall not assume any responsibility regarding operations or their results. Producers shall be entitled to compensation from YPFB in exchange for their activities (compensation).

(ii) Title to the hydrocarbons in whatever form they may exist will in no way be conferred to the producers and will remain throughout the property of YPFB.

(iii) The term of the contract is thirty years, as of the effective date, but shall come into effect after its approval by Congress.

(iv) Once the producer has made a commercial discovery, it must submit a development plan to YPFB for approval. The producer must commence upstream activities according to the development plan within 180 days of its approval.

(v) The volume and amount of net hydrocarbons must be measured and determined constantly at the monitoring points. YPFB must also verify all volumes and quality of the net hydrocarbons at the monitoring point for further certification to the Ministry of Hydrocarbons. Such measurements shall be the basis for the payment of (1) departmental royalties, (2) national compensatory royalties, (3) participation for the Treasury, and (4) the direct tax on hydrocarbons.

(vi) Compensation to the producer shall consist of (1) sums for the reimbursement of costs and expenses and (2) direct profit, both as previously approved by YPFB. Compensation shall be paid in U.S. dollars. If a conflict between the parties arises with regards to the amount of compensation, then the parties shall first try to resolve the dispute through mediation; and if this fails, then the parties may invoke binding arbitration.

(vii) The producer is required to conduct the operations on a continuous basis and in conformity with applicable laws, prudent indus-
try practices, development plans, work programs, and budgets approved by YPFB, and other terms and conditions. YPFB must provide all necessary data that the holder does not possess.

(viii) When hiring its own personnel or subcontractors, the producer must give preference to qualified Bolivian citizens with experience in the required position. Foreign personnel may not surpass 15 percent of the company payroll. The producer must include national personnel at all hierarchical levels, whether technical or managerial. Subcontractors must be chosen via public tenders.

(ix) In order to cover risks related to the performance of the operations, the producer must obtain and maintain in full force and effect all insurance policies required in conformity with prudent industry practices. These policies must cover loss or damage to goods, materials, equipment, and facilities; personal and third-party damage; contamination risks, oil well blow-out, and others.

(x) Within twenty days of approval by Congress of the agreements, producers must present a compliance guarantee to YPFB. YPFB shall have the right to terminate the agreement if the producer does not obtain the bank guarantees contemplated in the contract within five days of the commencement of each phase of the initial exploration period. YPFB may also terminate the contract if the holder refuses to produce the necessary volumes for supplying the internal market.

(xi) The agreement shall be subject to Bolivian law. The agreement must be executed and interpreted in Spanish. Any translation shall be made solely for convenience purposes and shall not be considered for purposes of interpretation.

(xii) Conflicts arising between the producer and YPFB must first be brought before the control and monitoring unit. If the disagreement is not resolved before this body, then the matter shall be submitted to the executives of the involved parties, who shall have a maximum term of ninety days to reach an agreement. If no agreement is reached, then the parties may resort to an arbitration process to be held in the city of La Paz, Bolivia, in accordance with ICC rules. An arbitration panel of three arbitrators shall be chosen, and the proceeding shall be conducted in Spanish.

(xiii) The parties renounce invoking any type of diplomatic intervention for dispute resolution.

G. Economic Prospects for 2007 as a Result of Nationalization

Prior to the nationalization of the oil and gas sector, the Bolivian State received approximately U.S. $250 million per year in the form of taxes and royalties from the oil and gas sector. With the passage of the new law and with the issuance of the nationalization decree, some observers are
estimating that Bolivia could receive U.S. $1.3 billion per year in taxes and royalties.\textsuperscript{21}

With these new funds, Bolivia hopes to continue to develop its hydrocarbons infrastructure. Projects such as gas to liquids,\textsuperscript{22} liquid natural gas (LNG),\textsuperscript{23} petrochemicals,\textsuperscript{24} and new investments for exploration and production for new markets are expected to require large investments of up to collectively U.S. $4 billion per year. In addition, rising gas prices and new gas supply agreements with neighboring countries, such as the contract recently signed with Argentina to export up to 27 million cubic feet of gas per day until 2025, may increase this annual investment figure.\textsuperscript{25}

V. CHILEAN GAS SECTOR

A. Introduction

Chile imports approximately 70 percent of its primary energy in the form of oil and gas and coal. This strong dependence, coupled with increasing fuel supply difficulties encountered in today's market, has made Chile particularly vulnerable to the volatility of international fuel prices and to supply interruptions and shortages.\textsuperscript{26} In 1995, Chile and Argentina signed a bilateral protocol whereby Argentina committed to supply natural gas to Chile and not to impose restrictions or other negative measures, including specific tax burdens on Argentine producers who exported gas to Chile. In 1997, the first Argentine-Chile gas pipeline started operations, and since then natural gas has become a fast-growing source of energy, allowing Chile to add an alternative fuel source for power generation in the country, diversify its energy sources which until then depended mostly on hydro electrical power, obtain a much cheaper and more secure electricity supply, and provide cleaner air in its larger

\begin{thebibliography}{99}
\bibitem{21} La Razón, Oct. 31, 2006, available at http://www.larazon.es. Of course, some analysts may question whether the decision to re-nationalize the industry will really benefit the country in the long-run, given the possible loss of investor confidence.
\bibitem{22} Foreign companies have expressed an interest in deploying gas-to-liquid technologies to produce synthetic diesel fuel. Proposals range from a 10,000 barrel per day (bpd) plant to serve domestic demand to 50,000-100,000 bpd plants for export. Bolivian gas is well-suited to GTL applications due to its extremely low sulfur content. \textit{See U.S. Commercial Service, U.S. Department of Commerce} (2006).
\bibitem{23} A number of companies have investigated the possibility of exporting LNG via a Pacific port to southern California and/or Mexico. But the U.S. $5 billion project was stopped due to social concerns about an export route through Bolivia’s historical rival Chile. As of December 2004, the Bolivian government has been pursuing the development of gas export projects through Peru, although higher transportation costs and political instability pose important obstacles. \textit{Id}.
\bibitem{24} Petrobras has been studying the possibility of a U.S. $1.4 billion petrochemicals plant in Bolivia. If built, the plant would have the capacity to produce 100,000 tons of polyethylene for the Bolivian market and 500,000 tons for export to Brazil. \textit{Id}.
\bibitem{25} Investment for the pipeline may reach U.S. $1.9 billion. \textit{See Acuerdo con Bolivia por el gas, La Gaceta Tucumán, March 27, 2007, available at} http://www.lagaceta.com/vernotae.asp?id nota=199582.
\end{thebibliography}
cities, especially Santiago. To this effect, approximately U.S. $4 billion was invested in gas pipelines in the northern, central, and southern regions of the country, gas distribution networks, and gas-fired power plants.

But in the last three years, Chile has been caught in the throes of Argentina's energy crisis, which started in 2002, at the time of the country's economic and financial collapse, and which adversely impacted the Argentine oil and gas industry. Hit by such energy shortage, Argentina started to impose restrictions and to curtail gas exports to Chile in April 2004 and, moreover, levied a 20 percent withholding tax on gas exports, which was increased in July 2006 to 45 percent. Effectively, in July 2006, Argentina more than doubled its tax on natural gas exports to neighboring countries, increasing Chile’s cost for fuel by as much as 92 percent. As a result, in 2006, Chile's natural gas bill increased U.S. $130 million. Pursuant to its agreement reached with Bolivia, Argentina was charged U.S. $5 for every million British Thermal Unit (BTU), which made a significant difference with its domestic market value of U.S. $1.50 per million BTU. As a result, Chile was hit with a 45 percent tax rate, compared to the 20 percent tax rate it had been paying since May 2004. Price distortions in Argentina have discouraged investment in exploration and production, while at subsidized prices demand has rocketed both for home consumption and electricity generation, leaving the system overstretched with limited volumes to honor export contracts. Argentina has been importing gas from Bolivia since 2004 to help meet local demand and fulfill part of its export commitments with Chile. Even with the agreement reached with Bolivia, Argentina still had to continue reducing the volume of gas that Argentina exports to Chile. The average gas supply to Chile in 2004 was 18.4 million cubic meters per day. In year 2005, exports were reduced to 16.7 million cubic meters, and in year 2006, to 15.6 million cubic meters—this last figure representing less than one-half of the 34 million cubic meters per day agreed to in the protocol between the two countries. Depending on the purchase price that each Argentina natural gas generator or distributor agreed upon, the new price of gas for Chile will range between U.S. $4 to U.S. $5 for every million BTU plus the cost of transport (U.S. $1 to U.S. $2 per million BTU), which means that the cost of importing natural gas in Chile is approximately U.S. $6 per million BTU.

Chile’s government has recognized that the restrictions on the supply of gas from Argentina are likely to persist. This is due in part to Argentina’s soaring domestic consumption demand, aggravated by the conversion of many Argentine industries from fuel oil to gas in recent years, a lack of investments in the sector experienced for some years, a lack of

sufficient production capacity for supplying its domestic demand, its vulnerability to weather conditions, and the expanded pessimism about the prospects of finding more gas reserves in Argentina's three main basins, particularly Neuquén, which supplies central and southern Chile. Furthermore, planned increases in the capacity of the pipelines that connect Argentina's gas basins to Buenos Aires will also probably lead to less gas available for export.  

29 This situation has caused a severe disruption in the Chilean economy, as Argentina is its sole supplier of natural gas. Many industries in Chile that had switched to natural gas, attracted by its lower cost and the need to comply with stricter clean air requirements, have been forced to switch back, wherever possible, to more expensive fuels, such as fuel oil.  

30 In dealing with the bilateral protocol with Argentina and the gas supply difficulties and shortages faced in recent years with its neighboring country, Chile's government has adopted a conciliatory approach, designed to ensure a minimum supply from Argentina, securing at the very least Chile's home consumption, while power generators and industries switch to or incorporate alternative fuels. Chile's government has pursued the maintenance of good political relations with President Kirchner's government, resisting the pressures of imposing compensatory safeguard tariffs on Argentina's imports and, more importantly, refusing to take the case to the World Trade Organization or another international forum. Any such actions, as President Kirchner pointed out in a visit to the Chilean Senate in 2005, would cause Argentina to immediately suspend all its gas supplies to Chile until the dispute becomes resolved, which would take years.  

31 Confirming the difficult energy scenario that Chile faces, Mining and Energy Secretary of State Poniachik issued a statement in early January 2007, whereby she warned that the prospects of Argentina's gas supplies for year 2007 look quite poor due to the above factors, with experts estimating that gas shortages will increase and that Argentina's supplies will not reach 14 million cubic meters per day.  

B. CHILEAN GENERATORS BRING ARBITRATION CASES AGAINST CLIENTS AND GAS SUPPLIERS

Power generators Colbún, ENDESA, AES Genor, and Electroandina, among others, have brought arbitration cases against some of their industrial clients and Argentine gas suppliers. On an international level, these measures seek for the Argentine producers to compensate the Chilean generators for damages resulting from gas restrictions. On a local level, the objective is to make clear the higher costs of energy production due

30. Id.  
31. Id.  
to the gas supply restrictions from Argentina. AES Genor has estimated its actual contractual damages at approximately U.S. $7.3 million, whereas ENDESA estimated its actual damages to be U.S. $31.4 million and future damages to be U.S. $322 million.\textsuperscript{33}

C. CHILE'S ENERGY SECURITY POLICY

In November 2006, Chile's energy security policy prepared by Chile's Energy Commission acknowledged that "energy security has emerged as one of the main challenges facing virtually all countries which, like Chile, depend on imports of different fuels to produce the energy they require for transport, electricity generation, industrial uses, home heating and all the other needs of a growing and developing economy."\textsuperscript{34} It further states that "today, the issue of 'energy security' is part of the political, diplomatic, economic and commercial agenda of most countries around the world. In fact, it was the main topic addressed by leaders of the G8 nations at their St. Petersburg summit in July (2006) when they signed a Plan of Action for Global Energy Security that includes measures to increase the transparency, predictability and stability of global energy markets, improve the investment climate in the energy sector, enhance energy efficiency and saving, diversify energy mix; ensure the physical security of energy infrastructure, and address issues relating to sustainability and climate change."\textsuperscript{35}

The Chilean government has prepared an ambitious, but realistic, energy security policy under which it is implementing short and medium-term measures that seek to 1) diversify the country's energy matrix (in terms of both fuels and suppliers); 2) achieve greater energy autonomy; and 3) encourage the efficient and intelligent use of energy.

The government has stated that it is aware that Chile faces an important challenge and that is why it is actively promoting investment in conventional and non-conventional energy sources, taking into special consideration hydrological and environmental variables, as well as logistical and technical challenges that need be addressed to guarantee the system's security, particularly in the Northern Interconnected System (SING), which serves the north of the country. The new regulatory framework for Chile's electricity sector (First Fast-Track Law of 2004 and the Second Fast-Track Law of 2005), was designed precisely to provide adequate incentives for private investment in new electricity projects. The first law regulated transmission and was aimed at creating incentives in this segment of the industry, while the second law provided regulatory and economic incentives for new investment in power generation capacity, including conventional projects (hydroelectric and thermoelectric) and alternative renewable energy (ARE) sources. In order to minimize its dependence on particular fuels and suppliers, there is no doubt that


\textsuperscript{34} CNE, supra note 25.

\textsuperscript{35} Id.
Chile requires an energy matrix providing a good mix of domestic inputs—hydro, wind, geothermal, biomass, and solar sources—and imported fuels, such as coal and LNG.36

Due to these energy constraints that Chile is facing, Senator Prokurica, a member of a Chilean opposition party, submitted to Congress a constitutional reform that would allow private companies to explore, exploit, and operate liquid or gaseous hydrocarbons in Chile. This initiative seeks to modify article 19, number 24 of Chile’s Constitution that reserves the exploration, exploitation, and operation of all hydrocarbons to the State or its companies. Special operation agreements, however, which do not affect the State’s ownership and control, do not constitute concessions, and do not bestow any rights over the hydrocarbon deposits, may be awarded to private contractors. The proposed reform, which is supported by various senators of the Senate’s Commission on Mining and Energy, will be presented to the Mining and Energy Secretary of State, for obtaining government support.37

D. NEW EXPLORATION AND PROJECT DEVELOPMENTS

Empresa Nacional del Petróleo (ENAP), the Chilean state-owned oil company and the Mining and Energy Secretary of State are promoting hydrocarbons exploration in the extreme south of the country. ENAP is carrying out exploration for natural gas in Lago Mercedes, Tierra del Fuego. By the end of 2006, ENAP was scheduled to release a tender for three blocks in the Magallanes Region basin to incorporate private entities in its hydrocarbons E&P in the extreme south of Chile. Ten companies, including Apache, British Gas, Chevron, Petrobras, and Marathon Oil, have already expressed interest in the three blocks in the far south of the country, dubbed Coirón, Caupolicán, and Lenga. The three blocks are among the eleven blocks in the basin that ENAP has defined along geologic parameters. ENAP plans to explore the remaining eight blocks on its own. ENAP began exploration and production on the Lago Mercedes block in 2005, and Bermuda’s energy firm Geopark holds a special operating agreement awarded by the State for the Fell block in the Magallanes Region.38

ENAP has also been sponsoring a project to build a re-gasification terminal in the port of Quinteros, located in Chile’s central region, with a capacity of 10mm3/day (expandable to 20m m3/day), and has announced plans to award a contract for the import of LNG.39 This LNG plant would provide the supply needed to meet restrictions on the export of Argentine gas.

36. Id.
In September 2006, a consortium of Chilean companies participating in this LNG project in Quintero—ENAP, Endesa Chile, and Metrogas, and GNL Chile—signed a project development agreement with BG Group that establishes the business structure of the project, identifies and regulates the activities to be carried out, and defines the LNG supply terms and the storage and re-gasification services. The agreement addresses the basic terms of the gas sale contracts and the development of the engineering procurement construction (EPC), including the option for early supply in order to advance the start-up of the LNG complex. GNL Chile announced that the preliminary activities being carried out in Quintero—soundings, earth movement, topographical studies, oceanographic readings, etc.—would be completed in the coming months, as well as negotiations of the final commercial agreements. GNL Chile also announced that it was negotiating with Chicago Bridge and Iron (CB&I) the preparation of the project’s EPC turnkey contract containing a firm price and the terms for the design, construction, assembly, and start-up of the complete terminal, including the implementation of a fast-track option. Although it was originally planned for the project to start gas deliveries in 2009, the pool of Chilean companies expects to commence the project in a year. Fully operational, the project is expected to be able to meet approximately 40 percent of Chile's demand for natural gas, primarily in the central region. Endesa, Metrogas, and ENAP—who will also supply Enagas and GasValpo—have committed to firm demand for more than 6 million cubic meters per day. The project also includes the construction of a 1,600 meter long mooring, unloading arms, two LNG storage tanks of approximately 160,000 cubic meters each, a 10,000 cubic meter tank as part of the fast-track option, and a vaporization station.

In November 2006, French energy giant Suez signed a memorandum of understanding with Chilean utility GasAtacama formalizing their alliance for the study and development of a reception, storage, and re-gasification terminal for LNG that they plan to build in Mejillones. The goal of the LNG terminal will be to offer a secure natural gas supply to all the electricity generators and users in the north of Chile. Suez and GasAtacama's LNG terminal project includes a fast-track phase that will be operational by the end of 2008 and will consist of an offloading dock and an onshore re-gasification plant, which will inject natural gas into the northern grid of the country and be used for industrial consumption. During the fast-track phase, LNG will be offloaded as and when the regasified natural gas is needed at the gas-fired power stations. The LNG carrier will, therefore, act as a storage tank. The final design of the project includes the construction of an onshore LNG storage tank, to which an LNG carrier can transfer its entire load in less than twenty-four hours. The storage tank could be operational by the end of 2010. Estimated


Upon instructions received from the government in August 2006, Chile’s state copper company Codelco announced that it will lead a consortium of northern Chile’s energy users to develop a LNG re-gasification terminal project in the north of the country to supply the SING’s needs. The government aims to attract other unregulated clients in mineral-rich northern Chile to the consortium, particularly large mining companies such as Minera Escondida and Minera Collahuasi, as well as the northern electricity generators. Codelco will play the same role in the consortium as state oil company ENAP in the LNG project being developed in Quintero. Technical and economic feasibility studies are being developed for this project.\footnote{See Codelco to Lead Consortium for Northern Gas Plant, \textit{Business News Americas}, Aug. 4, 2006, available at http://www.bnamericas.com; CNE supra note 22.}

Methanex of Canada is working on a new project in Chile that involves the construction of a new plant in Magallanes or another place in the country that will not produce methanol but rather Demethyl Ether (DME), a fuel similar to liquefied petroleum gas (LPG). The fuel could supply Chile’s central region because it is easily transportable. The plant would produce 600 thousand tons annually and would imply an investment of between $40 million and $50 million. Methanex is currently in search of partners for the initiative and has already held meetings with ENAP and with Chilean and foreign private investors to promote natural gas exploration in Magallanes.\footnote{\textit{Diario Financiero}, Oct. 2, 2006, available at http://www.diariofinanciero.cl.}

\section*{VI. COLOMBIAN GAS MARKET}

\subsection*{A. Introduction}

Colombia’s gas industry has four important actors: 1) the National Agency of Hydrocarbons (\textit{Agencia Nacional de Hidrocarburos} or ANH), a governmental agency that manages the country’s hydrocarbons reserves; 2) a group of private companies, including Ecopetrol, Texaco, BP, and Triton,\footnote{These companies carry out 95 percent of the gas production in Colombia.} which currently carry out the vast majority of the exploration and development of natural gas reserves; 3) the Energy and Gas Regulatory Commission (CREG), a governmental agency which oversees regulation in this downstream area; and 4) Ecogás, which, together with a group of other private companies,\footnote{The other companies responsible for gas transportation are (1) Promigas S.A., (2) Transorient S.A., (3) Transmetano, and (4) Fegasur.} manages Colombia’s transmission...
system and operates gas transportation pipelines in the country. The CREG has segmented the industry into production, transmission, distribution, and marketing sectors; and regulates the system via resolutions covering matters such as production, transportation, distribution, marketing, and tariffs.

B. Ecogás Privatization

In 2002, the Consejo Nacional de Política Económica y Social (Conpes), pursuant to Conpes document number 3190/2002, recommended the adoption of a stable price policy and the adoption of measures to preserve the financial viability of Ecogás. Conpes followed-up this report with a new report one year later that analyzed the need to consolidate the natural gas industry in Colombia. Conpes’ recommendation was to privatize Ecogás. Ecogás operates approximately 3,644 kilometers of natural gas trunk pipelines in Colombia. In 2004, measured by gross revenue, Ecogás was the second largest state-owned company (after Ecopetrol). These financial results reflect the 2002 reforms, which granted greater autonomy to the company to be managed with a more market oriented approach. Pursuant to Decree 1404, the government issued the rules to govern the Ecogás privatization process. In December 2006, the Empresa de Energía de Bogotá (EEB) purchased Empresa Colombiana de Gas (ECOGAS) for approximately U.S. $1.44 billion, exceeding the expectations of the government.

C. Acquisition of 42.97 Percent of the Shares of Promigas, S.A. E.S.P.

The main activity of Promigas S.A. E.S.P. is the transportation of natural gas, transporting approximately 50 percent of the natural gas in Colombia. Promigas also has investments in gas distribution. With Terpel, Promigas has operations in the vehicular gas sectors of Ecuador, Peru, and Mexico. In December 2006, Ashmore Investments, an English investment fund, through its subsidiary Prisma Energy, purchased approximately a one-third interest of Promigas from EMHC, a former Enron subsidiary. Then, in December 2006, Prisma Energy acquired an approx 10 percent of Promigas from Corporación Financiera de Colombia (Corficolombia), an entity controlled by Organización Sarmiento Angulo.

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46. Ecogas and Promigas S.A. manage 95 percent of Colombia’s gas transmission system. Ecogas operates gas transportation pipelines in central and southern Colombia and Promigas S.A. does so in the north of the country.


48. Ecogas’ total gas transportation network represents approximately 70 percent of Colombia’s transportation pipeline system.
VII. PARAGUAY

A. INTRODUCTION TO PARAGUAYAN ENERGY SECTOR

The Paraguayan energy sector is made up almost exclusively of renewable energy sources with approximately 68.6 percent of the gross internal supply coming from hydroelectricity, 30.9 percent coming from biomass (firewood, vegetable residues, and other biomasses), and 0.5 percent coming from oil and mineral carbons. Paraguay is one of the largest hydroelectric producers in the world, and, given the small internal demand, it is able to export a relatively large amount. But approximately 98 percent of Paraguay's electricity exports are sold to Brazil and Argentina under the terms and conditions agreed to under the Itaipú and Yacyretá treaties, respectively, at prices significantly below international market levels.

The Vice Ministry of Mines and Energy, a branch of the Ministry of Public Works and Communications (MOPC), is the regulatory authority for the national energy sector. The Paraguayan government plays a key role in the energy sector, both as regulator and as a commercial actor. The state-owned companies acting in the energy sector are the national power company (Administracióon Nacional de Electricidad or ANDE), which holds a legal monopoly in the power sector, and Petróleos Paraguayos (PETROPAR), which holds the authority to industrialize oil and the legal monopoly in the importation of crude oil and diesel oil. As Paraguay does not yet produce oil or gas, the government is providing incentives for national and international investment in hydrocarbon exploration and exploitation activities.

B. PARAGUAYAN OIL AND GAS MARKET

The Paraguayan Constitution of 1992 provides that all hydrocarbons and solid, liquid, and gas minerals in their natural state found in the country are owned by the State. The government, however, may grant concessions for prospecting, exploration, and exploitation activities, for a limited time, to public, private, or mixed companies, whether national or foreign owned. The MOPC is the public entity in charge of administering the State's hydrocarbon resources.

Prospecting permits are granted for areas of up to 2,400,000 hectares for a term of one year, which may be renewed for up to one additional term. Exploration and exploitation concessions are granted by means of a contract signed with the Paraguayan State. The contract is first negotiated with the MOPC, upon whose recommendation it is approved by decree of the executive branch, and finally must be passed as law by


50. Constitución de la República del Paraguay art. 112.
Congress in order to enter into force. Exploration concessions are granted for a term of four years, renewable for a term of two additional years in batches of 40,000 hectares in a maximum area of 800,000 hectares. Finally, when the concessionaire enters the exploitation phase, the extension and location of the chosen areas must be communicated to the MOPC. Exploitation concessions are granted for a term of twenty years, renewable for a term of ten additional years. Exploitation is limited to an area not less than twenty hectares nor greater than five thousand hectares.

The current Hydrocarbons Law (Law Number 779/95) had a special tax regime with fiscal exemptions for prospecting and exploration activities and a special tax regime for exploitation activities made up of an initial and an annual exploitation tax, according to the amount of hectares under exploitation and depending on the number of years of the activity. But this special regime was repealed by Law Number 2421/04 titled the Administrative Reordering and Fiscal Adjustment Law. The executive branch has submitted to Congress a draft of a law that would reinstate the aforementioned tax regime and clarify its scope. The law has been approved by the House of Representatives and is pending approval in the Senate.

The recent oil and gas discoveries and activities in neighboring countries (e.g. Bolivia) create interest in the oil and natural gas potential of Paraguay. The Paraguayan territory is made up of an extensive region of sedimentary basins (94.8 percent) with a favorable hydrocarbon potential, which is not yet productive, due in part to the government’s historic focus on hydroelectric power and the lack of continuity in exploration activities. The government has expressed its goal of encouraging national and international investment in this sector.

Paraguay has recently signed an agreement with the Venezuelan government, whereby PDVSA will provide technical assistance in analyzing existing information regarding the possible existence of hydrocarbons in Paraguay.

PETROPAR has exclusivity in the importation of crude oil and diesel oil, but all other petroleum derivatives are freely imported with no other restrictions other than those imposed by legal norms based on technical standards. PETROPAR owns one refinery that produces part of the petroleum derivates needed to meet the internal demand of the country, and the rest is imported by various multinationals that operate in the market. PETROPAR does not participate directly in the marketing of fuels derived from petroleum to the end consumer. Naphtha prices have been deregulated since 1994.

The construction of various regional gas pipelines is being negotiated, and one of the main objectives of the MOPC for the 2003-2008 term is to conclude the feasibility study for the transportation of gas from the Department of Tarija in Bolivia to Mariscal Estigarribia in the western region of the country known as the Chaco Paraguayo, with connections through the Paraguayan River. Alternative sources of energy such as alcohol and biodiesel production are also being explored and encouraged by the government.

VIII. PERUVIAN GAS MARKET

A. Introduction

The 1993 Peruvian Constitution provides that all natural resources, such as hydrocarbons, are owned by the State. But oil and gas exploration and exploitation activities are carried out by private entities, which must enter into license or service agreements with Perupetro, the state-owned oil and gas company that holds the mineral reserves. Under the license agreement model, the government, acting via Perupetro, transfers the right to extract hydrocarbons in exchange for royalties. By contrast, under the service agreement model, Perupetro pays a service fee that is not contingent on the success of the activities. Exploration agreements have a seven-year term (under exceptional circumstances, the term may be extended up to three additional years), and exploitation agreements have a thirty-year term for oil and a forty-year term for natural gas.

Holders of licenses have the ability to use the hydrocarbons as they see fit, and the licenses may export the oil and gas free of taxes. License holders have access to expedited importation proceedings for the import of goods and raw materials to carry out their activities in Peru.

In 2003, Peru adopted Law 28109 designed to promote exploration and production activities for marginal oil and gas reserves. Under this law, royalties due under license agreements were reduced and payments to contractors under service agreements were increased.

Two governmental authorities regulate the oil and gas industry in Peru. The Ministry of Energy and Mining adopts high-level regulations, while OSINERG is responsible for the more operational and technical aspects of the sector.

B. Camisea Gas Project

The most important project of the Peruvian oil and gas industry is undoubtedly the Camisea gas project (Block 88). This designated area holds one of the largest gas reserves in South America. The proven vol-

ume of gas for these fields "in situ" is 8.7 trillions of cubic feet (TCF), and these fields represent an estimated recovery of 6.8 TCF of natural gas and 411 million barrels of associated natural gas liquids.\(^5\) For this project, Peru awarded the following through public bids: 1) the license agreement\(^5\) for the production of Block 88; 2) the concession for the transportation of gas and natural gas liquids;\(^5\) and 3) the concession for the distribution of the gas for the urban areas of Lima and Callao.\(^5\) In August 2004, the production of the Camisea gas fields began, as well as the operation of the transportation and distribution systems.

In response to the Camisea Project, Peru has adopted numerous laws and regulations to develop the natural gas industry. For example, Law 27133 set several conditions for fostering investment in production and development of a gas transportation and distribution pipelines, as well as for the creation of a gas market.

Among the measures issued for fostering the natural gas industry, the Peruvian government has granted the operators of the transportation and distribution system a guarantee for securing the operators' annual income that adequately compensates the costs of the operation of the pipelines considering a minimum required transportation and distribution capacity. The funding for this guarantee, known as the Main Grid Guarantee, is obtained from electricity generators, who in turn pass on this cost to the electricity end-users.

In addition, in order to secure the supply of natural gas to the gas market to be created, the producers of the Camisea gas fields (Block 88) have the obligation of supplying gas to the local market. Their ability to export gas is subject to the requirement of guaranteeing the provision of gas for the local market for a twenty-year period, based on the demand forecasts and the level of reserves of the country.

Notwithstanding the above, given that the local market for gas is not large enough for the anticipated production of the Camisea gas fields, the project also contemplates the exportation of LNG. In fact, Peru LNG, a company formed by some of the members participating in the upstream stream (lead by Hunt Oil), have a project for building a LNG plant with the intention of exporting LNG to possibly Mexico and/or the United States.

With respect to LNG plants, the Peruvian government has adopted a law designed to provide certain incentives for the building, operation, and maintenance of natural gas processing plants, which include LNG plants as well as rules. The benefits available for natural gas processing plants

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57. The license agreement was originally awarded to a consortium lead by Pluspetrol (operator), Hunt Oil, SK Group, Sonatrach, and Techint.
58. The concession for the transportation of gas and natural gas liquids was awarded to Transportadora de Gas del Peru (Pluspetrol, Hunt Oil, Techint, Sonatrach, SK Corporation, Graña & Montero, and Tractebel).
59. The concession for the distribution of gas in Lima and Callao was awarded to Tractebel.
include, among other things, the stability of the income tax regime and tax free exportation of the production of the processing plant. These benefits may be obtained through the execution of specific agreements with the Peruvian government.

In connection with this LNG project, in 2004 the consortium of the Camisea Project was awarded a second license agreement for the exploration and production of Block 56. This license does not contain restrictions on the exportation of the gas that could be produced.

IX. CONCLUSION

The 2006 year highlighted the continued return of petro-nationalism to Latin America. Among other countries, Ecuador, Venezuela, and Nicaragua elected or re-elected left-of-center populist governments, and other candidates with similar views ran strong presidential campaigns in Peru and Mexico. These figures are calling for an enhanced role of the State and national oil companies in an effort to recoup additional revenues and address national anxiety for the failure to keep pace with countries in other parts of the world (notably Asia and Eastern Europe) who have enjoyed more robust economic growth. Although these nationalistic trends are visible in other parts of the world, they have become particularly visible in Venezuela, Bolivia, Ecuador, and Argentina. Often times, the victims are enhanced regional collaboration and integration, the rule of law (as evidenced by recent state disputes between Brazil and Bolivia, Argentina and Chile, and Bolivia and Chile), and oil and gas production and efficiency. At the same time, Venezuela is using its enhanced purchasing power to develop its own regional energy initiative entitled PetroAmerica, which contemplates ambitious projects (frequently with other national oil companies) such as the construction of a gas pipeline to Argentina, a refinery in northeast Brazil with Petrobras, and a refinery in Cienfuegos, Cuba with Cupet. Whether these projects, among others, are commercially viable or more politically-motivated efforts, the trend highlights some of the challenges to economic growth in the region and

61. President Nestor Kirchner announced that he would not run for re-election for the presidency and rather would support his wife Cristina Kirchner, an influential senator, for the highest office. See Campaigning for Cristina, Newsweek, July 9, 2007.
62. Id. at 21.
63. Per an October 2000 accord between Venezuela and Cuba, Venezuela also sells Cuba up to 100,000 barrels of oil per day at a discount of up to 40 percent, with U.S. $5 billion of oil having been delivered to Cuba since 2003. PDVSA is also building a U.S. $20 million electricity grid in a rural part of the island. Cuba now produces 80,000 barrels per day of oil, although the country consumes more than twice as much of what it produces, with the difference being made up by Venezuela. Cuba has signed exploration agreements with Oil & Natural Gas Corp. (India), Petrolam Nasional Bhd. (Malaysia), Repsol (Spain), and Sherritt International (Canada). See Guillermo Parra-Bernal, Comrades in Oil, Bloomberg Markets, Dec. 2006.
the regional tendency to swing from one ideological extreme to another, a trend identified by Andres Oppenheimer in his book *Cuentos Chinos*.

Nevertheless, as Brazil and its national oil company Petrobras demonstrate, it is possible to have a strong national oil company using leading technology (e.g. deep offshore exploration), while still enjoying the benefits of foreign investment and competition. Moreover, Mexico may soon have to reevaluate its historic policy and the role of its national oil company as Pemex struggles with declining investment and production. Perhaps what the region needs is a serious social democratic movement in the respective countries in the region (akin to Chile and Brazil) which can participate in peaceful transitions of power and govern in a manner that meets the needs of its constituents and still attracts needed foreign investment. Such a development could be pivotal in transforming the region from one that exports natural resources to one that exports intellectual capital.