Case Study: URUGUAY

PROJECT:

Regulatory Frameworks and The Role Of State– Owned Oil & Gas Companies

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The consultant who authored this document: Rossana Gaudioso

The project is under OLADE's coordination: Byron Chiliquinga, Planning and Projects Director (e)

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Acronyms

- ANCAP: Administración Nacional de Combustibles, Alcohol y Pórtland
- CND: Corporación Nacional para el Desarrollo
- DINAMA: National Department of Environment
- DNE: National Department of Energy
- MEF: Ministry of Economy and Finance
- MIEM: Ministry of Industry, Energy, and Mining
- OPP: Office of Planning and Budget
- PE: Executive Branch
- URSEA: Unidad Reguladora de Servicios de Energía y Agua

Executive Summary

The Uruguayan energy sector is characterized by a strong dependency on imported oil and products, which constitute 60-65% of the supply of primary energy.

This situation is particularly important in the present context of high international oil prices and the prospect of a continuation of the scenario of increasing energy prices in the long term.

There has been increasing pressure on the external accounts of the national economy, and oil and petroleum product imports are currently 25% of the total value of imports, with a negative impact on the level of economic activity and the evolution of internal prices.

Given the lack of its own energy resources, the energy strategy adopted is oriented toward guaranteeing the supply of energy under suitable economic conditions by improving the conditions of access to and supply of fossil energy resources, as evidenced by the long term Vision of the energy sector described in the document, **"Energy Policy Guidelines - Uruguay 2006"** of the Ministry of Industry, Energy and Mining (August 2006), that contains the sectoral policy of the Government:

The energy system will help to ensure the internal supply through better use of the resources that are available locally and regionally, and contribute to the sustainable (economic, social, environmental and political) development of the country under the direction of the State. Particular attention will therefore be given to energy efficiency and the search for greater diversification of the energy matrix by incorporating autochthonous renewable resources, making greater use of labor and a greater impact on productive activity, while seeking to preserve the environment and promote regional integration. At the same time, legal and institutional instruments will be optimized for the development of an energy system based on specific national characteristics.

Based on this document, a policy statement was expressly developed on maintaining the "policy role of the State" in the energy sector. A policy decision exists for maintaining ANCAP as a strong state company, according to ANCAP's Strategic Plan 2007-2011:

"To be an integrated state-owned energy company, a leader in the Uruguayan fuel and lubricant, and Portland cement market, and in the development of biofuels; with a regional orientation..."

The general principles of the National Policy on Hydrocarbons regarding the objectives of the regulatory framework of the hydrocarbon sector are as follows (Decree 584/993 of 23/12/1993):

- Diversifying available energy sources and minimizing costs.
- Encouraging competition in the energy market.
- Promoting investments and efficient development in the energy sector.

- Providing incentives for greater competition among companies of the sector, compatible with the economic efficiency of regulated activities. Especially promoting competition and open markets in the distribution and sale of petroleum-based fuels to the public.
- Avoidance of the formation of *de facto* oligopolies or monopolies, or acts of collusion by the intervening economic agents.
- Ensuring consumers' free choice, ensuring their access to information.
- Ensuring consumers a continual supply of hydrocarbon-based fuels.
- Promoting technological development of the supply.

In the law establishing ANCAP (Law 8764 of October 1931), ANCAP was given a legal monopoly over the activities of importing, refining, and exporting crude oil and petroleum products. According to the Hydrocarbons Law (Law 14.181), "The Administración Nacional de Combustibles, Alcohol y Pórtland (ANCAP) will be the competent agency for carrying out all activities, businesses and operations of the hydrocarbon industry, in accordance with its Organization Charter, the regulations of this law, and regulations and acts of the Executive Branch through its constitutional powers"

ANCAP is a vertically integrated state-owned company that participates at the different stages of the oil and natural gas industry. From a legal standpoint, ANCAP is an autonomous entity and is independent in terms of company management.

Private participation in the products sector is limited to E&P activities domestically, and partnership with ANCAP initiatives in other countries, depending on the level of investment and risk involved in upstream activities.

In refining, an alternative is being studied for the construction of a heavy crude processing module that could be implemented under a public-private partnership scheme.

No changes in the market structure of the distribution and marketing segment are expected.

With respect to natural gas transportation and distribution by means of networks, a public concession system is being operated by private companies, although ANCAP has a share of the different activities of the natural gas industry:

- <u>Production:</u> through the participation of Petrouruguay S.A. in several areas in Argentina and Venezuela, in partnership with regional companies.
- <u>Importation of natural gas (legal monopoly, according to Law 8.764 that established</u> ANCAP)
- <u>Natural gas transportation</u>: it owns Gasoducto del Litoral and 20% of Gasoducto Cruz del Sur.

- <u>Natural gas distribution</u>: ANCAP holds 45% of the capital stock of CONECTA SA, that distributes natural gas by means of networks in the Interior of the country) in partnership with Petrobras Energía SA (55%).

The management of ANCAP is under a Board of Directors consisting of three members appointed directly by the Executive Branch. Although these are political positions, with the current administration, upper management of the company has tended towards professionalization, making these positions political-technical.

With regard to managerial positions in the company, these are held by career officers that pertain to the company's functional structure.

Regarding monitoring and control of the management of the company, the Annual Operating Plan and a Five-Year Budget and the Investment Budget of the company must be approved by the Executive Branch though the Office of Planning and Budget.

ANCAP is responsible for defining the company's strategic plan. Once defined, it is submitted for consideration by the Ministry of Industry, Energy, and Mining (MIEM) to ensure that it is aligned with energy policy goals and strategies of MIEM.

Fuel prices are set directly by the Executive Branch, as proposed by the Board of Directors of ANCAP, after agreement with the authorities of the Ministry of Economy and Finance (MEF) and the Office of Planning and Budget.

Control of the management of the company takes place through the comptroller agencies of the Central Administration.

Purchasing, hiring, investment and all other types of contracting procedures must take place according to the purchasing and contracting system that governs the Central Administration. The Accounts Court is the comptroller agency in charge of this entire process and it ensures that the contracting process is carried out according to central administration rules.

Each year ANCAP contracts an independent external auditor to evaluate the economic and financial management of the company. The economic and financial results and the balance sheets of the company are disseminated publicly.

The Executive Branch has established no regulatory frameworks for petroleum product distribution and marketing. In practice, to date the regulatory framework has been determined by ANCAP contracts with the distribution companies. Through these contracts, ANCAP defines the distribution company's marketing margin, the service station's margin, the technical specifications, product quality ranges, and the safety regulations governing transportation and storage.

In the natural gas sector, the model of development and regulation that was promoted throughout the country during the nineties was essentially based on the regulatory model of the Argentinean market.

The development of the natural gas market, given the level of investment required to develop the transportation and distribution infrastructure, is promoted through private sector participation by means of public concession contracts.

Without prejudice to the above, infrastructure development was made possible through the participation of State-owned companies, ANCAP's financing of the Gasoducto del Litoral, and the firm transportation contract entered into by the UTE (power company), and made viable the construction of the Gasoducto del Sur and the entrance of natural gas.

With regard to natural gas market development, the lack of a prior legal framework, particularly a regulatory framework law for the sector, is considered a serious restriction insofar as the criteria for sector development were established through concession contracts and company business activity.

As for the overall evaluation of the hydrocarbons sector, one aspect to highlight relates to the institutional weakness that characterizes the Ministry of Industry, Energy and Mining (MIEM) and the regulatory body (URSEA) vis-à-vis the companies of the sector (both public and private).

Added to this is the lack of a regulatory and institutional framework to determine precisely the functions and jurisdiction of each energy sector institution, resulting in a lack of clarity and confusion regarding policy, regulatory and business functions.

From an economic standpoint, the economic situation of ANCAP is good, with average profits of US\$ 50 MM/year. It does not require financial assistance from the State.

The shortcomings associated with the participation of a state-owned company relate to the fact that company management has traditionally been political, not technical, causing a lack of policy continuity and switching company directions due to changes in administration.

The problems perceived in the performance of ANCAP are associated with limitations in managing business factors such as investments, purchasing procedures, and Public Sector contracting, that have resulted in overpricing and processing delays, and considerations relating to the size of ANCAP's Refinery.

One aspect that should be highlighted is the participation of ANCAP in businesses that currently operate at a deficit, in some cases unrelated to the principal business of the company, which have a negative impact on the financial situation of the company.

The natural gas industry still has no general framework contained in a single law that establishes the regulatory framework of the sector; what it has is a set of laws and partial decrees that regulate the different activities of the industry, and this has led to the existence of legal vacuums.

As a result of the regional energy crisis and the restrictions placed by Argentina on natural gas exports, there is uncertainty about the availability of natural gas in the regional market and the cost of supply for Uruguay; as a result there is no clarity among

the authorities of the sector regarding the role of natural gas in the future development of the national energy system.

Based on these considerations, the following general recommendations can be made:

- ☑ Developing a long-term energy plan by the Ministry of Industry, Energy and Mining, making explicit the energy policy goals and strategies for the natural gas and petroleum product sector.
- ☑ Revisiting and establishing a hierarchy for MIEM's policy-making and long-term planning role in coordination with the sectoral policies of State-owned companies.
- ☑ Strengthening the regulatory and institutional framework of the hydrocarbons sector (oil and natural gas):

From an institutional standpoint, it is considered necessary to strengthen policy formulation and national energy planning activities of the National Department of Energy of MIEM, and URSEA, in its role as the regulatory agency.

From a regulatory point of view, it is recommended that work continue on the definition of a regulatory framework for the distribution and marketing of hydrocarbons and liquid fuels.

This implies a need to review current distribution contracts, determine mechanisms for setting distribution margins and maximum selling prices in the different stages of marketing (regulated), and laws and control procedures for controlling product quality.

Developing a regulatory framework law for the natural gas sector

Chapter 1: Significant background information

This chapter offers a general description of the principal characteristics of Uruguay's energy sector and the main aspects of the legal and institutional framework of the sector.

1.1 Legal and institutional framework

The Uruguayan energy sector is characterized by the monopolistic predominance of state companies, such as UTE in electricity¹ and ANCAP in oil, under the Executive Branch and the Ministry of Industry, Energy and Mining (MIEM). The planning and implementation of energy policy is under the National Department of Energy in the Office of Planning and Budget that supervises and acts decisively regarding levels of investment, rates, and the indebtedness of public companies.

Private participation in the energy sector traditionally was restricted to the distribution and marketing of petroleum products and liquefied petroleum gas (supergás) and the distribution of gas by pipeline in Montevideo beginning in 1994, when the former Gas Company (state-owned company) was privatized.

Following the approval in 1997 of the Regulatory Framework Law of the Electrical Sector (Law 16.832), a process of reform began in the electrical sector, and changes were made in the institutional structure of the electrical sector.

With the approval of Law 17.598 (December 2002), Unidad Reguladora de Servicios de Energía y Agua (URSEA) was created; it is in charge of regulating and controlling the activities of the sectors of electricity, hydrocarbons (oil and gas), and water and sewage services.

In the petroleum subsector, ANCAP has been implementing a policy of partnerships with private entities in diverse exploration and production activities abroad, and in the natural gas transportation and distribution sector, and more recently, in the liquefied petroleum gas (LPG) market.

From a legal standpoint, the Law for Demonopolizing the importation, exportation and refining of crude oil (Law 17.448) is the legal framework that promotes reform in the hydrocarbon sector. The law annulled ANCAP's monopoly on crude oil importation and refining, and petroleum products, and permitted partnerships between ANCAP and private companies.

In November 2003, the Law was submitted to a plebiscite, and was defeated. Following the annulment of the Law, the deregulation of the sector was "frozen," in particular that relating to the management of ANCAP.

¹ In the electrical sector, only transmission and distribution activities are a monopoly (UTE). There are other agents in the generation market, one of the most important being the state-owned Comisión Técnica Mixta de Salto Grande (CTM).

Regarding the regulation of the petroleum products sector, following the approval of Decree 556/0032 (December 31, 2003), policies and guidelines were defined for regulating the petroleum products market, and URSEA was given the task of developing a draft regulation for the sector that includes these definitions. However, to date fuel distribution has not been regulated, so it is regulated by contract (ANCAP and the distributors).

The transportation and distribution of natural gas takes place under a concession system involving private companies.

1.2. General characteristics of the energy sector

Uruguay has no fossil fuel reserves, so the primary energy supply involves crude oil importation (55% - 60% of the supply).



Source: National Energy Balance 2005, DNE.

The energy supply is poorly diversified, and has a strong dependence on oil and hydroelectric energy. The large proportion of hydroelectricity in the national energy matrix (about 25-30%, depending on the annual water conditions) is particularly important given that most involves hydroelectric projects with little reservoir capacity, and therefore little margin for regulation, making energy production strongly dependent on the annual hydrological conditions.

The possibility of building large-scale hydroelectric projects has practically been exhausted, severely limiting the possibility of the expansion of the electrical generation system to an increase in local thermal generation capacity based on natural gas and/or other fuels (dual power plant), and the importation of electrical energy from Argentina and Brazil (regional electrical integration).

The share of natural gas in the national energy matrix is marginal (2% of the energy supply). The entry of natural gas became a reality in late 1998, when the Gasoducto del Litoral (Paysandú-Entre Ríos) and the Gasoducto del Sur (Buenos Aires-Montevideo), in operation since 2002, began operating.

Although it was hoped that the introduction of natural gas would lead to a robust process for replacing consumption from other sources, particularly at the residential and

industrial levels, the degree of penetration of this source in the market is limited. This is fundamentally due to the relative cost of natural gas, which is not competitive with its substitutes. Likewise, since the energy crisis of 2004, Argentina has imposed restrictions on gas exports, particularly in the case of interruptible users (industrial sector), and therefore a policy of gas market development has not been promoted.

The energy supply breakdown for Uruguay indicates a high degree of dependency on external supply (oil, natural gas, and electrical energy, depending on the annual water conditions).

Since the country has no energy resources, the increase in energy demand has to be satisfied by increasing imports; thus, an increasing degree of external dependence can be expected in the medium term.

Final energy consumption

Uruguay's <u>final energy consumption</u> (CFE) was 2,315 Ktep in 2005, which represents per capita consumption of 717 kep/capita (Kilograms of oil equivalent/capita).

The evolution of energy consumption during recent years shows a sustained increase, a cumulative growth rate of 2.6% annually during the 1990-2000 period, and a growth in the level of economic activity, measured by the GDP, of 3% per year. In 2001, there was a significant drop in energy consumption due to the impact of the economic crisis (during the 2001-2003 period, energy consumption fell by 7.4%).

Since 2004, with the end of the crisis and the recovery of the economy, final energy consumption has experienced continual growth, although it has not returned to pre-crisis levels.



Source: National Energy Balance 2005, DNE.

<u>Final energy consumption per capita</u> is low compared to regional and world levels. Per capita energy consumption in 2004 was 713 kep/cap, which is lower than Brazil (898 kep/cap.), Argentina (1138 kep/cap), and Chile (1309 kep/cap).

This result can be explained, in part, by the low proportion of industrial consumption in the final energy consumption (about 20%), the limited presence of energy-intensive industries, the low energy intensity of industry, and the importance of the services sector in the productive structure of the national economy.

In addition to that consideration, this shows the growth potential of the final energy consumption per capita, so in the absence of specific policies for improving energy efficiency, it is possible to expect an increase in final energy consumption over the coming years, depending on the evolution of income and the rate of growth of the economy.

Factors explaining the increase in final energy consumption up to the year 2000 included the increase in electrical energy demand (5.4% per annum during the 1990-2000 period), and the consumption of petroleum products (3.5% per annum); the latter was associated with the development of the transportation sector and increased residential consumption of supergas (LPG). In 2001, there was a large drop in energy consumption (-7.4%) because of the decrease in economic activity (-8.8% of GDP in the 2001-2003 period), and higher priced petroleum products.

Structure of final energy consumption by source

Regarding the share of final demand of the different energy sources, petroleum products are the main source of energy (53% of final energy consumption).

Energy source	1990	2000	2005
Firewood	25.2%	15.7%	17.3%
Biomass	3.1%	1.4%	1.8%
Coal and coal products	0.0%	0.0%	0.1%
Petroleum products (incl. distributed			
gas)	54.3%	59.0%	53.3%
Natural gas		1.2%	3.5%
Electricity	17.4%	22.6%	24.0%
TOTAL	100.0%	100.0%	100.0%

Structure of consumption by source:

Source: National Energy Balance 2005, DNE.

Structure of final energy consumption by sector

The evolution of final energy consumption by sector during the 1990-2000 period is characterized by a strong dependence on the participation of the transportation sector and a decrease in the participation of the industrial sector (as a result of the process of opening the economy), and significant growth in the vehicle fleet (among other factors such as the exchange rate policy that was adopted), which explain the evolution of energy consumption.

As the data for the 2001-2003 period demonstrate, the drop in consumption affected all sectors, especially the transportation sector, because of the decrease in income and the strong increase in fuel prices.

Sector	1990	2005	Growth rate	Growth rate
			p.a.	p.a.
			1990-2000	2001-2003
Residential	31.7%	28.8%	2.0%	-2.9%
Services	5.9%	9.0%	6.0%	-1.1%
Transportation	26.8%	32.2%	5.1%	-7.0%
Industry	28.2%	21.3%	-1.0%	-1.6%
Agriculture-fisheries	7.2%	8.5%	4.0%	-1.5%
Others not identified	0.3%	0.1%	-5.9%	-17.4%
TOTAL	100.0%	100.0%	2.6%	-3.8%

Structure of final consumption by sector:

Source: National Energy Balance 2005, DNE.



1.3 Principal National Energy Policy guidelines during the decade of the 90's

Within the general context of the process of energy sector reform that occurred in the region during the 90's, certain energy policy definitions were adopted in order to open up the energy sector.

Unlike other countries of the region, this process did not involve a privatization. A law permitting the privatization of state companies was defeated in 1992.

The following is an analysis of the energy policy objectives and strategic guidelines that were adopted in the particular case of Uruguay during the 90's.

Energy policy objectives

The energy policy objectives adopted were as follows:

- □ To ensure a supply of energy with appropriate security and quality conditions at the lowest possible cost (security of supply).
- □ To modify the national energy matrix by diversifying the energy resources used and by incorporating energy sources that permit the development of more efficient processes with a lower environmental impact (natural gas, renewable energy, etc.).
- **D** To separate the roles of the State as a policy-maker, regulator and entrepreneur.
- □ To promote the participation of the private sector in energy sector activities, and introduce competition in activities where it is appropriate from an economic point of view, and regulate monopolistic activities.
- □ To bring down energy rates (economic efficiency) and match Uruguayan energy prices with those of the region; to introduce greater transparency in the price setting process and eliminate crossed subsidies.

The principal objective of energy policy is to ensure a secure and efficient energy supply. According to the theoretical model that was the basis for the reform process of the national energy sector, in order to guarantee the supply of energy with economic efficiency, and thus at the lowest cost given the available resources, it is necessary to introduce competition into the market (introduce conditions that allow markets to compete), which results in improved efficiency and lower final energy prices.

From a theoretical standpoint, this was the orientation of the energy policy promoted by the government during the 90's and the first years of the decade of 2000^2 . As a result, energy policy definitions were oriented toward opening up the electrical market, the entry of new participants in the hydrocarbon sector, and the creation of a regulatory framework like that of Argentina to allow greater integration with that market.

Based on these objectives, the following strategic guidelines were adopted:

☑ **Opening of the electrical market**

The market was opened up to generate conditions for the entry of new participants into the market (private capital) and to create a competitive market.

The opening of the electrical market embodied the design of a new regulatory framework (Law of the Regulatory Framework of the Electrical Sector, 1997) whose fundamental aspects were: opening up electrical generation (free activity), creating a wholesale market, introducing competition mechanisms between generators for supplying distributors and large consumers, establishing the principle of free, non-discriminatory access to transportation and distribution networks, a system of free contracting for large consumers and a gradual reduction in the limits for being considered a "large consumer" (liberalization of the market); vertical disintegration of the state electric company into independent business units.

At the same time, flexibility was encouraged in regional trade by allowing spot or opportunity importation and trade contracts (local and foreign generators could participate in the supply, allowing large users to access the Argentine market), in electricity and natural gas.

☑ <u>Incorporation of natural gas into the energy matrix</u>

The introduction of natural gas helped to secure the energy supply by diversifying the sources of supply, and reducing dependence on oil.

The arrival of natural gas helped to create the conditions for new generators to participate (availability of natural gas for generation), and an increase in competition in supplying the demand: competition between electricity and gas.

With the arrival of natural gas, it was hoped to significantly reduce generating costs and achieve a general reduction in rates for the different sources of energy. This assumed a

 $^{^2}$ In 2005 with the change in the national government, there was a change in the orientation of the energy policy. The change in the regional scenario due to the energy crisis of 2004, also demonstrated the limited sustainability of the model that was promoted during the 90's and the impossibility of guaranteeing a secure supply.

gas price on the competitive market with nearby substitutes (the current relative price structure indicates that this objective was not achieved).

☑ <u>Regional energy integration (electricity and natural gas)</u>

Regional energy integration is one of the principal strategic guidelines.

The following objectives were to be achieved through energy integration: secure supply and lower rates.

From a conceptual standpoint, integration is understood to be "free movement of energy products and services." Based on that definition, it was considered necessary to eliminate trade barriers between the countries, which resulted in the design of a regulatory framework that was compatible with this objective.

The liberalization of the energy market is a functional part of integration strategy. The objective is to eliminate barriers to regional trade (opening the market to new actors). The strategy for developing the sector at the national level, i.e. opening the national market, depended on the regional integration strategy.

The priority is regional integration, and the opening of the national market was proposed as a requirement in order to ensure free trade.

It was also found that increased opening of the economy to regional trade required the maintenance of internal prices that were in line with those of the region (convergence of regional prices-theoretical framework).

This highlighted the importance of regional integration to Uruguay as a mechanism for increasing competition (imports could play the role of potential competition, and the availability of gas, competition in generation) and reduce the supply risks.

☑ <u>Entry of new actors into the market</u>

It was considered essential that private capital participate in the construction and operation of the new infrastructure in the sector that required large amounts of financial resources (promotion of long-term investment through the introduction of proper incentives to private investment).

No specific mention is made of an energy efficiency policy.

In the particular case of the fuels sector, the liberalization of the sector sought to open up the petroleum products market (freedom to import) through a scheme for associating the state company (ANCAP) with private capital.

In the particular case of Uruguay, the gas subsector was developed from the beginning based on private capital. The general guidelines defined for organizing the sector were <u>as follows:</u>

- Competition in all segments of the industry and a reduction in artificial barriers.

- Efficiency in the sector.
- Security, regularity, and reliability in the supply of gas.
- Establishment of fair and suitable rates that permit the efficient and sustainable development of regulated activities.
- Non-discriminatory treatment of applicants and users of the services.
- Protection of the environment.

Regarding the role of the State, the functions of policy setting, regulation, and business are separated.

Another important aspect is the lack of planning that characterized the sector during this period.

Chapter 2: General sectoral policy

2.1 Government energy policy guidelines in 2005

Following the energy crisis of 2004, the weakness of the development model for the sector that had been promoted in the 90's was evident, as well as the insufficiency of market mechanisms to guarantee a secure supply. This resulted in a need for the State to resume an active role in the energy sector and in long term energy planning.

In this new context, a new energy policy scenario was proposed. The sectoral policy of the Government is found in the following document: "Energy Policy Guidelines – Uruguay 2006" of the Ministry of Industry, Energy, and Mining (August 2006).

Goal: To guarantee a secure supply at the lowest possible cost in the medium and long term.

The available energy options for achieving this objective depend on the regional context with respect to the availability of resources, the structure of regional markets, the availability of interconnection infrastructure, etc.

The document defines the following long-term vision for the energy sector:

"The energy system will strive to ensure the internal supply at the lowest possible price and with acceptable quality under the directive role of the State, with the participation of public and private actors, through the best use of resources available locally, regionally and internationally, contributing to the sustainable development (economic, social, environmental and political) of the country.

On that basis, special attention will be given to energy efficiency and the search for greater diversification of the energy matrix by incorporating autochthonous, especially renewable, resources with greater use of labor, an impact on productive activities, while seeking to preserve the environment and activate regional integration.

At the same time, legal instruments for the development of the energy system will be adapted according to specific national characteristics."

2.2 Strategic objectives and policies

☑ Establishment of a robust electrical energy supply system that meets supply needs at the lowest possible cost:

- Installation of local backup capabilities to allow the use of diverse technologies and sources.
- Search for new methods of international trade and expansion of the interconnection with Brazil.
- Formulation of a Reference Plan for the expanding electrical generation.

☑ Improvement of forms of access and supply of fossil energy resources, reducing the impact of the importation of fuels on the national economy:

- Promotion of hydrocarbon prospecting and exploration within the country and on the continental shelf.
- Evaluation of the potential of installing local natural gas reservoirs.
- Development of hydrocarbon production in foreign countries.
- Expansion of the crude processing options of the refinery.
- Updating of the analysis of new energy sources such as reserves of tar sands, coal, etc.
- Establishment of lines of action that allow an improvement in the consumption matrix of petroleum products (for example, promoting actions to correct the imbalance in the structure of product production and demand).
- Analysis of the possibility of incorporating coal into the energy matrix.

☑ <u>Decision regarding the participation of Natural Gas in the energy matrix:</u>

- To negotiate and implement the existing gas contract with Argentina for generating electricity and possible alternative uses.
- To participate in the construction and/or expansion of multilateral gas pipelines as a strategy for accessing gas reserves and transportation capabilities in the region.
- To evaluate alternative natural gas supply options: installation of an LNG gasification plant.

☑ <u>Significant progress with the incorporation of alternative energy sources</u> (especially biofuels, wind generation and biomass):

- To generate specific funds for financing the implementation of policies for developing these sources.
- To systematize and complete the evaluation of the potential of these resources.
- To develop pilot projects.
- To formulate a legal framework to allow the development of new and renewable sources to be encouraged in the energy system.
- To promote, in particular, the formation of productive chains based on renewable energy sources.
- To consolidate the establishment of interinstitutional groups in the government and exchanges with private and academic sectors.

☑ <u>Consolidation of an Energy Efficiency Policy:</u>

- To promote actions in electrical energy that are part of the current Energy Efficiency Program. To extend these actions to the hydrocarbons sector.
- To propose and support programs for efficient use by sectors such as transportation, housing, etc., as well as a plan for reducing distribution system losses.
- To develop an Energy Efficiency Law as a general framework for long-term action.

☑ **Optimization of the regulatory framework of the energy sector:**

- Approval of a Regulatory Framework Law for the gas sector.
- Establishment of quality control for hydrocarbons and biofuels.

• Optimization of the regulatory framework of the electrical sector and consolidation of the roles of URSEA and the Administradora del Mercado Eléctrico (ADME) to develop the potential and efficiency of the public company and prepare mechanisms for developing private participation in generation, with strong emphasis on distributed, renewable and backup generation.

☑ <u>Increased access by sectors in situations of extreme poverty to the supply of</u> <u>diverse sources of energy:</u>

- To create a basic energy basket in coordination with the other social policies.
- To promote and disseminate energy security and efficient use.
- To facilitate access to energy through a rate policy.

☑ Articulation and coordination among energy stakeholders and institutions based on a global vision to support the formulation of policies and plans:

- Strengthening of the human and material capabilities of MIEM-DNETN.
- Systematization of the coordination between national and international stakeholders and institutions in the sector.
- Adoption of decisions in a consistent manner that consider the short, medium, and long term in parallel.
- Implementation of actions oriented toward the preparation of a National Energy Plan.

Chapter 3: Legal framework of the hydrocarbon sector

3.1 Principal characteristics of the petroleum and liquid products sector

3.1.1 Institutional aspects and regulatory framework of the liquid fuels sector

The Administración Nacional de Combustibles Alcohol y Portland (ANCAP) holds a monopoly on the importation and refining of crude oil and the production, exportation and importation of petroleum products (Law 8.764 that established ANCAP, 15/10/31).

From an institutional standpoint, ANCAP is a state corporation under the Ministry of Industry, Energy, and Mining (MIEM), while the Office of Planning and Budget (OPP) acts as a comptroller for matters involving rate levels and investments.

The Unidad Reguladora de Servicios de Energía y Agua (URSEA) was created through the passage of Law 17.598 (December 2002); it is responsible for regulating and controlling activities of the electrical, hydrocarbon (oil and gas) sectors, and water and sewage services.

In late 2001, a Law was passed to eliminate the monopoly on the importation, exportation, and refining of crude oil, and the exportation of petroleum products that had been established in favor of ANCAP; this instrument sought to promote reform in the hydrocarbon sector (Law 17.448).

Law 17.448 gradually annulled ANCAP's monopoly on crude oil importation, refining and products, and permitted partnerships between ANCAP and private partners. It also specified that the maximum selling price of fuels at the "refinery gate" (without taxes) should be at a similar to the import parity price. However, the demonopolization process did not take place, because the law was defeated in a plebiscite in November 2003.

The current regulatory framework of the petroleum products sector is contained in the following laws:

- Law 8.764 creating the Administración Nacional de Combustibles, Alcohol y Portland (ANCAP) (10/14/1931) gives the company the task of "exploring and managing the monopoly on national alcohol and fuel and importing, refining and selling petroleum and its products."
- Law 14.181 of 29/3/1974, called the Law of Hydrocarbons provides regulations for hydrocarbon exploration and production.
- Law 15.312: Specifies that selling prices of products monopolized by ANCAP shall be established with the approval of the Executive Branch (8/20/1982)
- Decree 584/993 of 23/12/1993, specifies that the Ministry of Industry, Energy and Mining will set energy policy for hydrocarbons and provide general rules for regulating that activity.

In particular, it establishes the following general principles of national hydrocarbon policy:

- Diversification of available energy sources and minimization of costs.
- Stimulation of competition in the energy market.
- Promotion of investments and efficient development in the energy sector.
- Provision of incentives for greater competition among companies of the sector, compatible with the economic efficiency of regulated activities, especially the promotion of competition and open markets in the distribution and sale of oil-based fuels to the public.
- Avoidance of the formation of *de facto* oligopolies or monopolies or acts of collusion by the intervening economic agents.
- Ensuring that consumers have free choice, and access to information.
- Ensuring that consumers have a continual supply of hydrocarbon-based fuels.
- Promotion of the technological development of the supply.
- Decree 514/003 (3/12/2003), that temporarily authorizes distributors that had contracts with ANCAP (that expired in late 2003) to continue distributing liquid fuels until new authorizations were issued by the Executive Branch. The distribution of liquid fuels is thus currently regulated through the contracts ANCAP makes with each of the distributors.
- Through Decree 556/003 (31/12/2003), the policies and guidelines for regulating the market for the distribution of liquid petroleum products were defined, and URSEA was given the task of preparing a "draft regulation of the market for distributing liquid oil-based fuels" in accordance with policies set by the Executive Branch.

Notwithstanding the foregoing, to date the draft regulation of the liquid fuel market has not been prepared, so the distributors' contracts are renewed through successive Decrees of the Executive Branch.

Still in effect is Decree 169/006 of 8/6/2006 that extended for 180 days the authorizations granted to DUCSA, ESSO, SHELL, and TEXACO to distribute liquid fuels, from 11/7/2006 until the Executive Branch issues the corresponding regulations.

- The legal framework that regulates the activity of <u>hydrocarbon prospecting</u>, <u>exploration and production</u> is included in the following laws:
 - Law of Hydrocarbons (Law 14.181)

- <u>Decree 930/93</u> by which the Executive Branch permits petroleum contracting "upstream" using diverse methods of contracting.
- <u>Law 15.242</u> of the Mining Code
- <u>Law 16.213</u> that provides fiscal incentives for hydrocarbon exploration and production contracting companies.
- <u>Decree 454/006</u> that defines the system for submitting bids for hydrocarbon prospecting, exploration and production contracts.

The <u>basic principles</u> of a review of the legal framework are as follows:

- Hydrocarbon resources belong to the State.
- ANCAP is the competent agency for carrying out the activities, business, and operations of the hydrocarbon industry, on its own behalf, or through contracts with third parties, in the latter case with the authorization of the Executive Branch.
- National legislation authorizes risk contracts for hydrocarbon activities for a maximum of 30 years, of which not more than 7 are for the exploration period.
- The contractor can receive payment in kind or in cash. If the payment is in kind, it can dispose of it without restrictions.
- This remuneration considers first that the contractor can have part of the production in order to recover its expenses, costs, and investments; the remainder of the production will be shared with ANCAP according to the terms of the contract.
- The contractor is legally authorized by the Uruguayan Government to dispose freely of foreign currency it obtains from its exports or the sale of hydrocarbons to the State.
- Exploration, production, transportation and marketing activities are tax-exempt, except for Income Tax (30% of net income), and social security contributions.

With respect to the <u>organization of the industry</u>, ANCAP holds a monopoly on the importation of crude oil and petroleum products, oil refining, and the exportation of petroleum products.

Liquid petroleum products are distributed through four distributing companies: DUCSA, ESSO, TEXACO, and SHELL that are wholesalers. The capital stock of DUCSA is mostly owned by ANCAP (99%).

The structure of the distribution market changed last year when the network of SHELL stations was purchased by Petrobras SA, and the network of TEXACO stations, by ANCAP.

DIKAMSA is involved in the distribution of kerosene.

At the retail level, there is an ample network of stations under the following brands: DUCSA (207 Service Stations), ESSO (110), SHELL (90), and TEXACO (91).

By purchasing the Texaco network of stations, ANCAP sought to increase the coverage of its stations throughout the country.

Liquefied petroleum gas (supergas) is distributed through three private wholesalers: Acodike Supergás S.A., Riogás S.A., and Gas Uruguay SA (Gasur SA), and the latter distributes in bulk. MEGAL operates at the retail level and distributes 3 kg. bottles. After the LPG market was opened up, ANCAP got involved in retail distribution through DUCSA. In the area of bulk distribution, ANCAP owns 40% of the capital stock of GASUR.

3.1.2 Legal framework of the liquefied petroleum gas subsector

The monopoly on the production, importation, and exportation of LPG pertains to ANCAP according to Law 8764 that established ANCAP (1931). The other activities of the marketing chain (bottling and distribution) are open activities (competitive market).

Bottling and distribution is regulated by means of contracts between ANCAP and companies such as Acodike S.A and Riogas S.A.

Under those contracts, both companies carry out bottling activities, operate bottling plants owned by ANCAP, and distribute bottles and cylinders (up to 45 kg.), and supergas in bulk for filling stationary tanks throughout the country.

Over the years, a network of centers for filling small bottles was established throughout the country; some of them formed a cooperative and later, a company, Megal S.A., which built its own bottling plant.

Propano Granel began operations in 1996, and separated from Propano Redes in 1999 for commercial reasons; the two products share the same composition and characteristics. Gas Uruguay S.A. (Gasur) was then established to distribute Bulk Propane to large users; (ANCAP owns 40% of the capital stock.)

Before the creation of Unidad Reguladora de Servicios de Energía y Agua (URSEA), ANCAP was responsible for establishing the conditions and monitoring the operation of the market though contracts with companies in the sector. After URSEA was created, it took over the regulation and monitoring of the sector under the following regulations (in effect since May 2004):

- "Technical and safety regulation of liquefied petroleum gas (LPG) handling facilities and equipment."
- "Regulation of authorizations for the LPG market"

- "Regulation of the Wholesale Marketing, Transportation, Bottling, Refilling Activities, and the Distribution of liquefied petroleum gas"; it defines and regulates the structure of the sector, and the conditions to be fulfilled by agents in order to carry out each activity. However, several aspects of the regulations of the industry have not been implemented.

According to current regulations, the authorization of MIEM is necessary in order to operate in the industry.

Regarding the market structure, in 2003 ANCAP decided that its direct or indirect participation in the bottling and distribution stages was appropriate.

Thus, in August 2005, contracts were signed by ANCAP, Acodike SA and Riogas SA; the essential aspects are as follows:

- ANCAP again took legal possession of its bottling plants
- URSEA declared ANCAP to be the authorized bottler and allowed it to have its own distribution (DUCSA).
- Acodike and Riogas continue as bottlers for their own distribution networks, and must pay ANCAP a fee for the use of the bottling plants (owned by ANCAP).

This constitutes a change in the structure of the market; as of 2005, DUCSA S.A. (ANCAP) entered the distribution market.

After the market was opened, the <u>LPG market distribution chain</u> was organized according to the following structure:

- Production and imports: ANCAP
- Fractionator: Acodike S.A., Riogas S.A. Megal (bottling)
- Wholesale distribution: Acodike S.A., Riogas S.A., DUCSA, MEGAL, GASUR
- Sub-distributors
- Retail businesses
- End customer

The current regulatory framework requires the liberalization of bottling activities (fractioning) as far as the retail business, and maintains the monopoly on the production and importation of LPG by ANCAP.

Notwithstanding the opening of the market that was encouraged with the new regulations, the distribution market is for all practical purposes divided in two by the 2 main distributors (Acodike SA y Riogas SA).

Retail businesses must operate under a seal; the authorization of these agents is the seal itself.

Regarding the use of liquefied petroleum gas as fuel for vehicles, there is an Executive Branch Decree (Decree 532/974) that prohibits its use as fuel for motor vehicles.

The selling price to the public is set by ANCAP and homologized by the Executive Branch.

Marketing margins are set in the distribution contracts that are in effect between the distribution companies and ANCAP.

3.1.3 Price and tax system

The pricing policy is set by ANCAP with the authorization of the Executive Branch and the approval of the Office of Planning and Budget.

All the values of the chain that form the final price to the consumer are regulated.

The system that is used is based on total operating costs. The largest component is the cost of oil (approximately 60% of the cost), which is set by the international market. The evolution in product prices on the internal market follows the evolution of the international oil price.

Distribution margins of distributors are set in the distribution contracts, and are adjusted according to the cost parameters defined in the contract.

When analyzing the structure of selling prices to final consumers of petroleum fuel products, it is necessary to consider that the cost of obtaining each of them is the same. So final price differences originate almost exclusively from the different levels of taxation that are applied, which are generally determined according to the destination of each product.

Fuel	Tax
Regular gasoline	IMESI
High Octane Gasoline	IMESI
Ecosupra Gasoline	IMESI
Diesel oil	VAT (22%)
Kerosene	IMESI
Fuel oil	VAT (22%)
LPG	VAT (22%)

The tax rate on the price of petroleum products is as follows:

Note:

IMESI: Specific Internal Tax

The value of the Specific Internal Tax (IMESI) is set by the Executive Branch each semester according to variations in the Consumer Price Index.

In the case of diesel oil, a modification was made this year in the tax rate that resulted in the elimination of the IMESI in exchange for an increase in the Value Added Tax (VAT) to 22%. The reform was to reduce the cost of diesel oil consumption by productive sectors, since these sectors are allowed to deduct the fuel VAT from their sales VAT.

Pricing structure of petroleum products

Petroleum product	ANCAP price	IMESI	VAT	Consumer price
Regular gasoline (\$/l)	17.24	13.16		30.40
High octane gasoline (\$/1)	15.51	15.61		31.13
Ecosupra gasoline (\$/1)	16.11	16.25		32.37
Diesel oil (\$/lt.)	21.59		4.75	26.34
Supergas (\$/kg.)	20.66		4.54	25.21
Fuel oil $(\$/m^3)$	8894.53		1956.79	10851.33
Kerosene (\$/lt.)	19.60	2.87		22.47

Final consumer price (prices current to September 2007)

Source: National Department of Energy, MIEM.



3.2 Principal characteristics of the natural gas sector

3.2.1 Institutional aspects and regulatory framework

The gas industry is currently regulated by means of concession contracts for transportation (Gasoducto Cruz del Sur) and distribution (Gaseba Uruguay, for the city of Montevideo, and CONECTA in the Interior of the country), and a set of Executive Branch Decrees that regulate the importation, transportation, storage and distribution of natural gas.

As yet, the sector has no general framework contained in a single Regulatory Framework Law for the sector, and there is only a set of partial laws and decrees that regulate different activities of the industry.

The <u>principal laws that regulate the sector</u> are as follows:

- <u>Law 14.181</u> (Law of Hydrocarbons) that determines that ANCAP is the competent agency for implementing all activities in the hydrocarbon industry.
- <u>Decree 78/999</u>: Approves the regulations of the national service for importing, transporting, storing and distributing natural gas (3/22/1999)
- <u>Decree 324/97.</u> Regulates the activities of importing, transporting, storing, and distributing natural gas.

The following principles and objectives are defined for regulating importation, transportation, storage, and distribution through this decree: the creation of competitive conditions in the sector, the principle of equality and non-discrimination, the principle of free access to transportation and distribution networks, the setting of fair rates that are appropriate for the national energy policy and economic efficiency.

<u>Decree 428/97</u>. Regulates the distribution of natural gas by means of networks and establishes the following objectives for gas distribution:

- To ensure the creation of a competitive market and encourage investment in the sector.
- To ensure the best operation, reliability, free access, non discrimination and generalized use of gas distribution facilities
- To set fair and suitable rates
- To encourage efficiency and the rational use of gas.
- To ensure that the price is equivalent to the one that is in effect internationally in countries with similar conditions.
- Decree 435/996: Regulations of the Gas Supply System (11/19/1996)

The following policy objectives are established for the supply of gas:

- To promote the diversification of energy sources and a cost reduction by encouraging the distribution of fuel gases in urban centers by means of pipes or fixed networks.
- To create adequate competition in the energy market in general and in the gas market in particular.
- To promote equality in the sector and ensure free access to the product.
- To stimulate private investment that will ensure adequate competition in the market.
- To protect the rights of gas consumers.

- <u>Concession contract for the distribution of gas by means of networks by</u> <u>CONECTA SA</u> (12/22/1999), and Addendum to the concession contract for the distribution of gas by means of networks - CONECTA SA (29/11/2002)
- <u>Concession contract for the distribution of gas by means of networks in Montevideo</u>
 <u>GASEBA SA</u> (15/12/1994) and Addendum to the concession contract for the distribution of gas by means of networks in Montevideo GASEBA SA (2/6/2002)
- <u>Concession contract for natural gas transportation system Gasoducto Cruz del Sur</u> (GCDS) (3/22/1999)
- The "Regulations for the supply and motor vehicle use of CNG" took effect in December 2003, and the "Regulations for the bulk transportation of CNG" took effect in April 2005; they were prepared by the Unidad Reguladora de Servicios de Energía y Agua.

However, after the change in the availability of natural gas at the regional level, particularly in the case of exports from Argentina, no progress was made in developing the CNG market for motor vehicle use; however, to date no CNG stations exist.

The regulatory authority of the sector is the Unidad Reguladora de Servicios de Energía y Agua (URSEA).

For concession contracts, the authority in charge of controlling and monitoring the fulfillment of contracts is the Ministry of Industry, Energy, and Mining (MIEM).

Transportation and distribution activities have the characteristics of a natural monopoly, so these activities are regulated by means of concession contracts.

The law permits corporations or private persons to transport and distribute natural gas under a concession for a period not greater than 30 years.

Transporters and distributors should guarantee free access to transportation capacity that is not committed to supplying contracted demand, and non-discriminatory access by each type of customer. Transportation prices are the result of a bidding process that leads to concession contracts. Distribution rates are set by the Executive Branch at the request of the distributor.

Users whose average annual (consumption) exceeds $5.000 \text{ m}^3/\text{day}$ can freely choose their natural gas supplier from among the authorized national and foreign agents, and negotiate the transaction conditions directly.

The regulations prohibit a natural gas transporter from buying and selling gas, except for the purpose of performing transportation operations, although with the prior authorization of the regulator, it can own a share of corporations that buy and sell natural gas.

3.2.2 Organization of the natural gas industry

i) <u>Supply and transportation of natural gas</u>

Uruguay has no proven reserves of natural gas.

Natural gas enters our country through importation from the Argentine market by means of two gas pipelines.

The first entry point is the <u>Buenos Aires-Montevideo Gas Pipeline</u> ("Gasoducto Cruz del Sur") that supplies the southern area and the capital of the country. The trunk gas pipeline is 215 km long and it has 200 km of lateral gas pipelines. The maximum transportation capacity is 5 million m³/day, and it could be expanded to 6 million m³ per day by increasing the compression capacity.

The gas pipeline was built and is operated by a consortium that includes British Gas (40%), Pan-American Energy (30%), ANCAP (20%), and Wintershall (10%), under a public work concession regime with a 15-year term, renewable for up to 3 periods of 5 years each. When the concession period end, ownership of the gas pipeline passes to the State. The gas pipeline began operation in late 2002.

The gas pipeline route supplies locations in the departments of Colonia, San José, Canelones, and Montevideo, and any other locality or extension inside or outside of Uruguay.

The gas pipeline was designed to take into account a possible extension to southern Brazil (Porto Alegre). The change in the availability of reserves of natural gas in the region and the evolution of the market in southern Brazil meant that the project never came to fruition. In principle, the project competes with the Uruguay-Porto Alegre gas pipeline, so it is currently suspended.

At the national level, there is a strategic project for connecting Gasoducto Cruz del Sur to Gasoducto del Litoral, which would allow Uruguay to access gas reserves in the Northeastern Argentina basin and reduce imports from the Neuquen basin, since the latter is the most affected in terms of the reserves/production ratio. The realization of this project is subject to the establishment of Gasoducto del Noreste Argentina (GNEA) and access to gas reserves in Bolivia.



When GCDS began operating this led to the conversion of the Montevideo gas distribution network that was completed in January 2005. Up to that time, it had distributed manufactured gas that is obtained by cracking light gasoline, and later during the conversion period, it is used in cracking natural gas.

According to the contract, the concessionaire (GCDS) should operate the gas pipeline as "free access" and cannot acquire gas for sale.

The concessionaire is required to expand the transportation capacity when requested by a dispatcher that requires firm transportation and is willing to make a long-term contract (10 to 15 years). The obligation to expand transportation is limited by the maximum flow obligation, which is 5 MM m3/day in Montevideo.

The transportation service rate was specified in the concession contract, and a mechanism is included for half-yearly adjustment according to the variation in the PPI.

The second point of entry for natural gas is the <u>Gasoducto del Litoral</u> that joins the cities of Entre Ríos (Argentina) and Paysandú, and is 15 km. long. This gas pipeline was built under an agreement between the Province of Entre Rios, UTE, and ANCAP, and is operated by ANCAP, as the transporter. The gas pipeline has been in operation since 1998.

This gas pipeline supplies the interior of the country, and has a transportation capacity of 900 to 1200 M m^3 /day (source: ANCAP).

This gas pipeline has two branches. The first, which is currently in operation, supplies the industrial area of Paysandu, and the gas distribution company of the department (Conecta SA). The second branch is an extension toward the Casablanca area that is under the responsibility of UTE. It was built to supply a gas power plant that was to be constructed in the area. In the end, this project was not finalized, so this branch is not operational.

The maximum rate for natural gas transportation service by Gasoducto del Litoral is set by the Executive Branch. It includes two components:

- A charge for firm reserved transportation capacity per m³ of reserved capacity
- A charge per unit of gas transported, set at 15% of the reserved capacity charge.

The interruptible rate is determined by ANCAP.

According to the current regulatory framework, natural gas transportation includes the transportation of the gas from the reception point of the transporter's facilities, to the delivery points of the dispatchers (distributors, marketers, storers, large consumers) and the marketing of transportation capacity.

The <u>system for carrying out transportation activity</u> involves a public works concession, and a bidding process, or a permit issued by MIEM for a term of 30 years that is extendable.

The <u>scope of the activity</u> includes:

- Transferring (moving operationally) gas from the reception and delivery points of its facilities.
- Construction, operation, and maintenance of the transportation system.
- Marketing of transportation capacity.
- Expansion of the transportation system.
- Other activities: in this case, subject to MIEM authorization.

The Cruz del Sur concession contract grants the transporter the right to the first option for expansion or extension projects on its system inside the country (regional exclusivity).

Regarding the <u>limitations on transportation activity</u>, the regulatory framework establishes the following restrictions:

- Vertical integration is permitted in the ownership of economic groups in the gas chain (reporting obligations).
- Obligation to maintain Separate Accounting.

- Transporters cannot buy or sell gas for marketing purposes.
- They may have a majority share in companies that market gas, or through their partners or economic group.
- Contracts with companies linked to the group or to members of the group must be registered with the regulatory authority.

There is an option to contract firm and uninterruptible transportation services.

Regarding the <u>access regime to the transportation system</u>, the regulations specify that it must be governed by the following principles: transparency and publicity, non-discrimination, promptness in responding to requests for service.

Two types of access are established:

- Regulated contractual open access to uncommitted capacity in the transportation system
- negotiated contractual open access

In the particular case of the Concession Contract of Gasoducto Cruz del Sur, there is open access to uncommitted available capacity up to the initial obligatory capacity of $5.0 \text{ MM m}^3/\text{day}$, and maximum regulated rates up to that same capacity; once the available capacity of the transporter has been exhausted, the dispatcher marketer must grant access insofar as capacity is available, to third parties that are holders of gas distribution concessions in Uruguay, or to other gas users for their own consumption.

The Concession Contract of Cruz del Sur defines negotiated open access for Transportation that originates from the expansion of obligatory capacity that is contracted by external dispatchers, and with negotiated rates.

Regarding the procedures for <u>Expanding and Extending the transportation system</u>:

- The transporter will be authorized to expand or extend its transportation system within the country (regional monopoly).
- This must always take place through an Open Access (Open Season) Procedure.
- All expansion and/or extension projects must be approved by the regulatory authority.
- Expansion will be obligatory if the regional monopoly persists and the project is economically viable.
- In all cases of refusal to provide service, the uneconomical nature and/or technical unfeasibility of providing the service must be demonstrated:

The Concession Contract of Cruz del Sur defines the obligation to expand transportation up to a maximum capacity of 5.0 MM m³/day at the maximum initial rate permitted. After that capacity threshold is exceeded, the transporter is not obligated to expand its capacity or extend the gas pipeline to other additional points of delivery. There are requirements such as minimum contract durations (15 years), guarantees, rate surcharges if the project is uneconomical, to ensure that the investment is recovered and reasonable profitability is obtained, an increase in the duration of the concession; the concessionaire is required to supply the demand in Uruguay up to 500,000 m3/day. The regulatory authority will establish assignment criteria when internal requirements exceed the minimum capacity specified in the concession contract of 500,000 m3/day.

The transporter cannot refuse to connect a third party to its system in the following cases:

- It is required by the regulatory authority
- The transporter had the option of expanding and/or extending the system and refused to do so
- The third party assumes the entire cost
- The construction or operation of the new facilities are not uneconomical, and do not render uneconomical other existing transporter facilities.
 The cost of the connection for providing access to the transporter's facilities must be covered by whoever demands it.

ii) <u>Gas distribution by means of networks</u>

Distribution activity is carried out by an agent responsible for receiving gas at its point of entry into the distribution system and supplying it to consumers through its distribution network up to the user's consumption meter. This includes the right to build facilities for that purpose, their physical operation, and measurement and marketing the services to customers.

<u>The regime for carrying out the distributing activity</u> involves a Public Service Concession granted by MIEM through a public bidding competition for a maximum period of 30 years that can be extended.

Subdistribution requires a Concession/Authorization from MIEM.

The <u>scope of the activity</u> includes:

- Transferring gas from reception points and delivering it through its facilities up to the user's meter.
- Construction, operation, and maintenance of the distribution network.
- Marketing of access to the distribution system.
- Expanding the distribution network.
- Other activities: subject to MIEM authorization.

The distributor has regional priority in providing service in the geographic area specified in the contract and priority for carrying out expansions and extensions of the distribution network within the distribution zone.

<u>Market Exclusivity</u>: marketing to smaller consumers (residential, commercial and industrial with an average annual consumption less than $5,000 \text{ m}^3/\text{day}$).

Regarding the <u>system for accessing the distribution system</u>, the regulatory framework defines the following basic principles: transparency and publicity, non-discrimination, quick response to requests for service.

In particular, it specified open Access by third parties to capacity on the network that is not committed to firm and uninterruptible demand (residential R, General Service P,

Subdistributor SDB and GNC, and other services that have General Service G, FD, FT contracted capacity).

The distributor will give priority to extending the distribution system in its concession area (regional monopoly).

Extensions that are not included in the obligatory investments specified in concession contracts will require the authorization of the regulatory authority, if financing by third parties is required.

According to concession contracts, there are initial obligatory investments for the first 5 years. These commitments were modified through the approval of the Addendum to the distributors' Contract (2002).

The distributor must inform the applicant about the details of the calculation, and the amount of the investment the applicant has to provide in order for the supply to be economically feasible.

The distributor cannot refuse to connect a third party to its system in the following cases:

- When required by the regulatory authority
- The distributor had the option of building the system and refused to do so
- The third party assumes the entire cost
- The construction or operation of new facilities are not uneconomical, and do not make other existing distributor facilities uneconomical.

Economic contributions by third parties will not give them ownership rights to assets that are built, and they should be recorded in the books of the providers at their business value, excluding the contribution made by third parties.

The cost of the connection that is required to access the facilities of the distribution system must be covered by whoever demands it.

Regarding the security of the supply, Decree 469/02 expressly stipulates that on March 31, gas network distributors and subdistributors must submit three-year demand forecasts to the regulatory authority. They should also submit contracts for gas and reserve transportation capacity (security of supply).

Regarding the <u>market structure</u>, gas distribution is under the responsibility of the private sector through concession contracts, as described below:

Gas distribution in Montevideo:

Gas distribution in Montevideo is provided by Gaseba Uruguay under a concession contract with a 30-year duration that will be in effect until 2024.

Initially the capital of the company belonged to the Gaz de France group. In May 2006, the Ministry of Industry, Energy and Mining, authorized Petrobras Energía SA to become the technical operator of the piped gas distribution service in Montevideo,
replacing Gaseba Uruguay, under the name "Distribuidora de Gas de Montevideo SA-Grupo Petrobras".

The concession contract indicates that the State will not grant new concessions while it is in effect. The company is granted a monopoly over the service in the area of influence of the Gaseba networks.

The development of the natural gas distribution network is relatively limited, currently 400 km of 20 mbar lines and 200 km of 4 bar lines.

Regarding the proportion of natural gas in final energy consumption, traditionally distributed natural gas consumption had a marginal share of energy consumption, fundamentally due to its cost and the limited extension of the network.

Currently, the proportion of natural gas in the energy matrix is marginal (3.5% of final energy consumption), a market penetration rate that is considerably smaller than was initially forecast.

One of the factors for the limited degree of development of the gas market at the national level is the relative price of gas for the final consumer. It is not competitive in residential or industrial sectors (with the exception of large users) compared to energy substitutes (particularly LPG in the residential case). Although there was a specific definition in energy policy that recognized the importance of promoting natural gas consumption, the pricing policy that was applied was not in line with that objective.

The energy crisis in Argentina in 2004, and restrictions that were imposed on exports of natural gas toward the region, together with the regional panorama of availability of natural gas reserves, in particular access to gas reserves of Bolivia, the push toward developing the natural gas market was restrained at the national level.

Gas distribution in the Interior of the country:

Gas distribution in the interior was awarded initially to a consortium, (CONECTA SA) that included Pacific Enterprises International (United States), with a 25% share of the capital stock, Unión Fenosa (Spain), with a 30% share, and ANCAP (45%), as a public works concession for 20 years, extendible for 10 years more. Under the concession contract, the State agreed not to grant other concessions in the service area during that period.

Soon after the consortium was formed, Sempra sold its share to Union Fenosa. In December 2004, Union Fenosa left the country and ceded its share to Petrobras Energía SA, thus the current ownership of the company is 55% Petrobras and 45% ANCAP.

According to the concession contract, gas distribution in localities in the interior (except for Montevideo) is included. Localities in areas near the gas pipeline would be supplied with natural gas, while in areas that are distant from the gas pipeline, local distribution networks supplied by propane air plants will be installed.

Gas distribution networks are currently in operation in the localities of Paysandú and Ciudad de la Costa (Canelones). In the city of Paysandu, the network has an extension of 140 km., and in Ciudad de la Costa, it is 160 km. long

The regulatory framework of the sector permits subdistributors of gas on networks (Decree 469/002).

In order to ensure the security of the supply, gas distributors and subdistributors must submit their demand forecasts for the next three years to URSEA, together with gas purchase and reserve transportation capacity contracts to supply the estimated demand.

Contracts between captive market customers (those that are not in the category of large users) and Distributors will always be based on firm supply and the maximum service rates set by the Executive Branch based on the provisions of the Concession Contracts.

Distributors can offer lower or promotional rates (the rates set by the Executive Branch are the maximum rates).

Rates are composed of gas costs at the importing country's border (wellhead gas price, transportation within Argentina and Uruguay, taxes, etc.) and the VADEG (standard gas distribution value added), including all company operating expenses (network operation and maintenance, mandatory investments, etc.), and the investment rate, calculated based on a hypothetical company with an acceptable level of efficiency. For residential rates, the standard gas distribution value added is approximately 60 to 65% of all variable costs.

There are residential distribution networks in Montevideo, Cuidad de la Costa and Paysandú. Distribution recently began in the city of Colonia del Sacramento with several hotels being supplied. The determination of the area that will be covered in the geographical extension of distribution networks is at the discretion of the respective Distributors, who will take into account market studies and the accessibility of gas from the transportation system, subject to the fulfillment of the contractual commitment undertaken with the Government in the concession contracts. In one case the length of pipe laid is measured (Gaseba), and in the other (Conecta), it is the number of potential customers that are committed.

iii) <u>Storage</u>

This involves the activity of an agent that stores gas for a period of time in natural facilities or at plants built for that purpose that injects, stores and removes the gas, and if appropriate, liquefies and gasifies it.

<u>Regime for carrying out the activities</u>: this is a free activity, so only the authorization of MIEM is required.

Although several technical and economic feasibility studies of the natural reservoir at Cuenca del Río Santa Lucía have been carried out, to date no initiatives have been finalized for storing natural gas.

iv) <u>Marketing</u>

The regulations specify that marketing is the activity carried out by an agent that purchases gas and/or transportation, as well as the importation and/or exportation and/or reexportation of the fluid.

In the particular case of the Concession Contract of Gasoducto Cruz del Sur, the dispatcher marketer is defined as the agent that can buy and sell gas and contract transportation on the gas pipeline.

This is a free activity so only the authorization of MIEM is required in order to operate as a marketer. Authorizations are for an indefinite period.

It includes the following activities:

- Intermediation.
- Buying and selling gas to users and dispatchers.
- Buying and selling transportation capacity to users and dispatchers.

Marketing activity has no temporary or regional exclusivity.

Regarding the price of the service, the price of the service can be freely structured.

Vertical integration is permitted in the ownership of economic groups in the gas chain, although there is a reporting obligation.

Regarding the basic principles that govern transactions, the law includes the obligation to inform the regulatory authority (URSEA).

There is a registry of gas purchase-sale contracts and/or transport capacity contracts, and contracts by exporters and reexporters require authorization, and contracts for importations and gas in transit must be reported.

In the particular case of the concession contract of Gasoducto Cruz del Sur, it states that transportation contracts must be approved by the regulatory authority.

There are currently four marketers in the market: ANCAP, Gaseba Uruguay S.A., Conecta S.A., and Dinarel S.A.

v) <u>Large users</u>

The regulatory framework defines large users as those whose annual average consumption is not less than 5000 m³/day (Law 17.292, Art. 63) or 1,500,000 m³/year, and the Executive Branch is authorized to reduce the specified consumption limit.

The law states that large consumers can negotiate a gas purchase with any of the national or foreign marketers that are authorized, or import it directly, and can choose interruptible or firm supply contracts at their own discretion. Consequently, they can

choose a supplier other than the distributor, and can also make a direct connection to the transporter at their own expense.

The gas price will be freely negotiated by the agents.

There is a system of free access to gas transportation and distribution networks (physical and commercial bypass), although it is not regulated.

Large consumers can have a physical bypass of distribution networks. At first the large consumer market developed with offers of supply from the distributors and ANCAP; however, competition was reduced substantially by the withdrawal of ANCAP as a marketer and the purchase of two distribution companies by Petrobras S.A. In any event, the demand of large consumers has exceeded block sales to distributing companies.

Consumers that choose to purchase gas directly from third parties must inform URSEA about the option to purchase gas freely, and it will inform the distributor of the area.

A large consumer may choose to build its own branch line, and must submit a preliminary plan to URSEA for approval.

Once the preliminary plan is approved, URSEA grants a 120 day period for the distributor of the area to express interest in building the respective branch line at its own expense, or otherwise to allow the large consumer to build and operate it according to the conditions of the approved preliminary project.

The system presently has 18 large users and their consumption represents 62% of the internal natural gas market. The interruptible nature of their contracts and the restrictions on natural gas exportation imposed by Argentina following the energy crisis in 2004, have resulted in a reduction in the proportion of large users in the internal market.

3.2.3 System of Prices and Rates

Maximum gas prices to the final consumer are set by the Executive Branch at the request of distributors, through the Ministry of Industry, Energy and Mining.

The regulatory framework specified that <u>rates for transportation and distribution</u> <u>services</u> should comply with the following general principles. They should:

- **Be Reasonable**, and allow the provider to recover prudent costs of the supply, including capital costs, production costs (operation, maintenance, administration and marketing), including taxes, as necessary for the efficient provision of the service.
- **Properly reflect the costs and method of providing** the different types of service, to ensure a minimum cost of supply and a maximum quality of service.
- Not be discriminatory.
- Not contain crossed subsidies.
- **Promote efficiency in the supply,** that is, optimum use of resources to allow the services to be expanded in the long term.

<u>Distribution rates to the final consumer</u> must include the price of natural gas at the entry point of the transportation system, and the corresponding transportation and distribution rates and taxes. Transportation and distribution rates should cover operating costs and allow a reasonable profit (regulated rates).

The price of imported gas that is included in the final rate is the sum of the gas price at the point of entry into the transportation system and the transportation rate recognized by the regulatory Authority of the country from which the gas was imported (ENARGAS, in this case).

Concession contracts include regulated maximum initial rates and procedures for adjustment and review.

In the particular case of the Concession Contract of the Gasoducto Cruz del Sur, maximum Rates are defined up to the maximum capacity of obligatory expansion of 5.0 MM m³/day, and a half-yearly adjustment procedure according to the variation in the PPI. Negotiated Rates are also established for expansions or increases in capacity. All cases will be submitted to the regulatory authority if the transportation is for smaller consumers: residential, commercial or industrial with a consumption of less than 5,000 m³/day.

Transportation rates allow discounts and can be negotiated for extensions or increases in capacity, as specified in the contracts.

For large consumers and foreign dispatchers, rates will be freely agreed and negotiated by the agents.

Whether regulated or negotiated, rates must be the result of a structure of charges and the assignment of costs and accounting criteria as specified in the Contract, and also as ordered by the regulatory authority.

For distribution Rates, concession contracts include regulated maximum initial rates and procedures for their adjustment and review.

Distribution rates will be subject to half-yearly adjustments for the PPI, adjustments due to variations in the purchase price of gas, and variations in transportation costs in the country of origin, variations in the transportation cost in Uruguay (due to the load factor), variations in taxes, and a quinquennial review of variations in the level of efficiency and investment (X and K factors).

The distribution rate for users connected to the distribution network will include the price of the gas, the transportation cost, the value added of standard gas distribution (VADEG), and the corresponding taxes.

The Distribution Value Added (VADEG) will be regulated and maximum depending on the type of service.

The VADEG will include remuneration for network transportation service and for marketing activity (measurement, billing and collection).

Regulated maximum rates will permit discounts (negotiated rates) for certain users or categories of users.

A profitability rate will be determined for transportation and distribution services that is comparable to international risk factors for these activities, and adjusted to the supply characteristics of these services on the internal market.

Current laws stipulate that rates that are applied to distributors must take into account that this profitability should be similar to that of other activities that involve an equivalent or comparable risk, and be related to the degree of efficiency and satisfactory provision of the services.

In the case of the CNG rate for use in motor vehicles, the final price at which CNG could reach the public has not yet been set by the Executive Branch, although there is a basis for determining the tax. Law 17.453 of 2002 specifies that natural gas for use as a fuel for motor vehicles must pay the IMESI under the same conditions as diesel fuel (while taking into account the equivalence in performance) and authorizes the Executive Branch to exempt the VAT on this supply, a measure for promoting this energy source.

However to date Uruguay has no CNG stations.

Considering the investment necessary to install a CNG station for vehicles, it would seem reasonable to expect that this market will not develop as long as there is uncertainty about the long-term supply of natural gas to our country from Argentina or from other countries of the region, and price stability.

Chapter 4: Institutions and organizations: organization, functions and interrelations

The Ministry of Industry, Energy and Mining (MIEM) is responsible for defining energy policy through the National Department of Energy (DNE), according to the provisions of Law 14.416 that established the DNE.

According to the provision of the Law, the DNE is responsible for "formulating, regulating, executing and controlling energy policy," guaranteeing the security of the supply and planning in the sector, setting rates for public services, and granting, monitoring and auditing concession contracts.

The function of regulating and controlling the corresponding activities in the electrical, hydrocarbon, and water and sewage sectors pertains to the Unidad Reguladora de Servicios de Energía y Agua (URSEA) that was established through the passage of Law 17.598 in 2002.

From an institutional standpoint, URSEA is directly under the Executive Branch.

According to the Law that established URSEA, its objective is "to protect the rights of consumers, monitor compliance with current laws, and ensure that regulated services have an adequate level of quality and security at a reasonable price." Likewise, "to promote competition in areas of the industry where permitted by Law, and to regulate monopolies, establish minimum levels of quality, and propose prices that are based on efficient costs."

According to the Law, the principal functions of URSEA are:

- <u>Control and inspection</u>: to monitor compliance with current regulations and fulfillment of concession contracts.
- <u>To assist the Executive Branch</u>: to propose technical rates to the Executive Branch for regulated services, decide procedures for selecting concessionaires, propose modifications in market regulations and advise the Executive Branch regarding international agreements.
- To establish the requirements to be fulfilled by those who carry out activities within its area of jurisdiction.
- <u>To regulate the technical and quality standards of service and security</u>
- To determine the rules in <u>procedures for selecting concessionaires</u> to provide services in its area of jurisdiction.
- <u>Consumer defense</u>: to resolve user complaints and claims, protect the rights of users and consumers, and prevent anticompetitive behavior and abuse of power.

URSEA functions as a decentralized agency with technical autonomy. It is governed by a Board of Directors that consists of three members appointed directly for a period of 6 years by the President of the Republic acting in the Council of Ministers.

The members of the Board of Directors cannot perform professional activities or serve as representatives in a public or private arena that is linked to the area of jurisdiction of the agency, and cannot be candidates for any elected post until after one term of government has transpired since their cessation.

The Office of Planning and Budget (OPP) of the Executive Branch has jurisdiction over the approval of the Quinquennial Budgets of State corporations, and the approval of investments and the level of indebtedness of the companies. It also has jurisdiction over the approval of rates for public services, in coordination with MIEM and the Ministry of Economy and Finance.

In the particular case of the hydrocarbons sector, the Office of Planning and Budget approves ANCAP's Annual Operating Plan, and the Quinquennial Budget and Investment Budget of the company.

From a corporate standpoint, the Law establishing ANCAP (Law 8764), grants ANCAP a legal monopoly over the importation, refining and exportation of crude oil and petroleum products. According to the Law de Hidrocarburos (Law 14.181), "the Administración Nacional de Combustibles, Alcohol y Portland (ANCAP) will be the competent agency for carrying out all activities and businesses and operations of the hydrocarbon industry, according to its Organization Charter, the provisions of this Law, and the regulations and acts of the Executive Branch that are issued in accordance with its constitutional powers"

ANCAP is a vertically integrated state-owned company that participates at the different stages of the oil and natural gas industry. From a legal standpoint, ANCAP is an autonomous entity and is independent in terms of company management.

Notwithstanding the foregoing, as was indicated previously, the Annual Operating Plan, the Quinquennial Budget, and the Investment Budget of the company must be approved by the Executive Branch through the Office of Planning and Budget.

ANCAP is responsible for defining the company's strategic plan. Once defined, it is submitted for consideration to the Ministry of Industry, Energy and Mining (MIEM), to ensure that it is in line with energy policy goals and strategies established by the MIEM.

Fuel prices are set directly by the Executive Branch at the suggestion of the Board of Directors of ANCAP, and after acceptance by the authorities of the Ministry of Economy and Finance (MEF) and the Office of Planning and Budget.

The management of the company is monitored by the comptrollership agencies of the Central Administration.

Purchasing procedures, contracting of personnel, investments and any type of contracting must take place according to the system of purchasing and contracting that governs the Central Administration. The Tribunal de Cuentas is the comptrollership

agency that intervenes throughout this process and ensures that the contracting process is carried out according to the regulations of the central administration.

Each year, ANCAP must contract an independent external auditor to evaluate the economic and financial management of the company. The economic and financial results and balance sheets of the company are disseminated publicly.

The Executive Branch has established no regulatory frameworks for petroleum product distribution and marketing. To date the regulatory framework has been decided, in practice, by ANCAP contracts with distribution companies. In these contracts, ANCAP defines the distribution company's marketing margin , the service station's margin, technical specifications, product quality ranges, and safety regulations governing transportation and storage.

No concrete advances have been made in the petroleum sector regarding regulatory reform.

This means that there is no clear separation among policy, regulatory, and business functions of the Government.

A chart shown below summarizes the institutional organization of the energy sector:



Regarding the environmental impact of activities relating to the hydrocarbon sector, the National Department of Environment (DINAMA) is the agency responsible for evaluating the environmental impact of energy projects (Law 16.466, Law of the Environment).

Chapter 5: Contracts, agreements and oil concessions: competent agencies, characteristics.

5.1 Liquid fuels subsector

ANCAP holds a legal monopoly over the importation, refining and exportation of hydrocarbons.

Notwithstanding the foregoing, the Law de Hidrocarburos (Law 14.181), expressly states, "ANCAP can implement one, several, or all phases of the petroleum operation by means of third parties on behalf of the agency, and contract national or foreign natural persons, or public or private corporations, or international organizations for that purpose."

"Those phases can be carried out by means of any of the contracting methods that are permissible under national law, and in any event with or without transferring mining risk, and in particular through the modality of "Area Exploration and Production Contracts" under which, according to the conditions of the agreement, the contractor, with its own means and at its own risk, but on behalf of the state agency, carries out the respective operations of the exploration and production phases within the area specified in the contract, under the system of remuneration that is referred to in this Law, when it begins the production phase."

It also specifies that all contracts, and in general, acts that involve state property or hydrocarbons policy, require the authorization of the Executive Branch.

5.1.1 Exploration and Production

Regarding <u>Exploration and Production (E&P)</u> activities, the current legal framework establishes the following general conditions and principles:

- The State is the owner of the hydrocarbons
- ANCAP is the authorized agent for carrying out all the activities according to guidelines established by the Executive Branch, and can act on its own behalf or through third parties; in the latter case, contracts must be authorized by the Executive Branch.
- When E&P activities are carried out through third parties, the contractor can freely export hydrocarbons that pertain to it according to the conditions specified in the contract (free disposal of the crude oil). However, the contract can include a right of preference by the State to purchase the crude oil from the contractor for the internal market.
- The contractor's remuneration can be entirely or partially paid in kind or in cash, in local, or in foreign currency.

• Contractors will enjoy a guarantee from the State that the hard currency obtained from their export income will be freely available; the State also guarantees the convertibility and free availability of their income.

An E&P contract is currently in effect for producing 2D seismic on Uruguay's continental shelf, made by ANCAP and the company WAVEFIELD INSEIS (April 2007).

The objective of the contract is to obtain a regional 2D seismic survey to allow an evaluation of the potential of the continental shelf, and to generate information that can increase the interest of exploration companies.

The study is financed by ANCAP.

The **general characteristics of the contract** are indicated below:

INSEIS will have the exclusive right to sell the Survey Data and the report under license to third parties in the international oil and gas industry during a period of exclusivity of 6 years.

Notwithstanding the exclusive right ANCAP has granted to INSEIS to promote and license the data obtained, ANCAP will receive, at no cost, a complete license to all survey data, and ANCAP can use that information exclusively for its own use, either directly or through contractors or subcontractors with confidentiality agreements. ANCAP will retain the title and legal ownership of the survey data that is acquired in the survey area.

The project involves approximately 7500 km of 2D reflection survey lines, gravimetry and magnetometry, of which approximately 7000 km are profiles of a regional nature and up to 500 km are semi-detailed or detailed profiles, made at depths of 20 to 2500 meters of water.

The work zone includes the Punta del Este and Pelotas Basins, the exclusive offshore economic zone of Uruguay.

ANCAP will receive a share of the income from the sale under license of the survey data.

5.1.2 Refining

Refining activity is carried out exclusively by ANCAP (legal monopoly), so other companies do not participate in this activity.

5.1.3 Distribution and marketing of liquid fuels

Regarding distribution, in practice, the regulatory framework is determined by ANCAP's contracts with the distributing companies.

The <u>current distribution structure for liquid products</u> is as follows:

- Wholesale distribution involves three distributors: ESSO, PETROBRAS ENERGIA SA, and Distribuidora ANCAP SA (DUCSA).
- Retail distribution involves a network of approximately 500 service stations.
- Direct sales to large consumers by ANCAP (those averaging more than 500 $\,m^3/month).$

The distributors are linked to ANCAP by means of long-term contracts that establish distributors' marketing margins, agents' bonuses (service station owners), and fees for product transportation.

ANCAP's contractual conditions with DUCSA are similar to those in effect for other distributors.

ANCAP's contract with DUCSA has a particularity that allows the latter to use the ANCAP brand at the stations it supplies. DUCSA is also required to maintain a group of stations called "socio-geographic" at places in the interior of the country where margins and bonuses would make it unprofitable to maintain them.

There is a single selling price to the public in effect throughout the country for each product. There can be discounts on sales by distributors to medium-sized consumers.

The Executive Branch has expressed a desire to establish a regulatory framework for the fuel market. Decree 169/006 of 8/6/2006, allows an extension of 180 days, until the Executive Branch issues the corresponding regulations for granting authorizations to DUCSA, ESSO, and Petrobras SA for the distribution of liquid fuels (regulations for distributing liquid fuels). To date, no progress has been made on the preparation of regulations for the sector.

The **general characteristics of distribution contracts** are presented below:

They establish a single margin for a distributor for purchases and sales involving fuel distribution, and for investments and maintenance of gas pumps and underground tanks, that is called the marketing margin.

A single amount is established as the marketing margin that is paid to the distributor (in pesos/l). The margin is per unit, and is specified according to the product that is received in bulk from ANCAP plants.

ANCAP can sell fuel to large customers with price conditions and payment periods that are no more favorable than those granted to a distributor.

The marketing margin is adjusted monthly according to a parametric formula, variations in the exchange rate, the consumer price index, and the average salary index of the private sector. Parametric formulas are reviewed by mutual agreement or at the request of either of the contracting parties. When fuel is sold through the consumption intakes of large customers, the distributor is paid approximately 40% of the marketing margin.

The margins ("bonuses") received by service station owners for fuel sales are fixed and regulated by ANCAP.

Shipping fees are set by ANCAP.

The selling price of fuels is uniform throughout the country.

"Large customers" (consumers with an average consumption greater than 500 m3/month) and "private intakes" (consumption > 15 m3/month, authorized by ANCAP) are supplied by distributors under a system of free competition.

5.2 Liquefied Petroleum Gas Subsector

Since the new regulatory framework took effect (2004), the LPG market is organized according to the following structure:

- Production and imports: ANCAP
- Fractionator: Acodike S.A., Riogas S.A.-Megal (bottling)
- Wholesale distribution: Acodike S.A., Riogas S.A., DUCSA, MEGAL, GASUR
- Sub-distributors
- Retail businesses
- End customer

Bottling activities are regulated though ANCAP contracts with Acodike SA y Riogas SA, as operators of the bottling plants.

LPG distribution involves long-term contracts between ANCAP and Acodike SA, Riogas SA, DUCSA, MEGAL, and GASUR for wholesale gas distribution.

It was not possible to obtain information on the characteristics of the contracts between ANCAP and the distributing companies.

5.3 Natural Gas Subsector

5.3.1 Natural Gas Transportation

A natural gas transportation contract with the company "Gasoducto Cruz del Sur" is currently in effect.

The principal characteristics of the contract are shown below	The	principal	characteristics	of the contract	are shown below
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Characteristics	Natural Gas Transportation Contract		
Term	15 years, extendible for up to 3 periods of 5		
	years		
Granting of the concession	Competitive public bidding		
Exclusivity	Exclusivity in the area of influence of the gas		
	pipeline (regional monopoly)		
Rates	Bidding competition bid; half-yearly		
	adjustment according to the variation in the		
	PPI (approved by the Executive Branch)		
	Freely-negotiated rates for large users		
Expansion and extension of transportation	Obligation to expand up to maximum gas		
system	pipeline capacity (5 MM m3/day);		
	profitability of the project.		
Concession termination	Expiration of the concession period		
	Contract default		
Concession assets at end of concession period	State owned		
Concession expiration	Non-compliance with contractual conditions		
Open access	Open access to uncommitted capacity (free		
	non-discriminatory access)		
Service modality Firm and interruptible service			
Response to service requests Within 30 days of receipt			
Use of public and third-party assets	Right of use and right of way		

5.3.2 Natural gas distribution by means of networks

At the present time, the following concession contracts for gas distribution by means of networks are in effect:

- ☑ Natural gas distribution contract in the city of Montevideo under the responsibility of Gaseba S.A. Since 2006, Petrobras Energía SA holds the concession, and it is now called Montevideo Gas SA.
- ☑ Natural gas distribution contract in the Interior of the country under the responsibility of the company CONECTA SA, owned by Petrobrás Energía SA (55% of the capital stock) and ANCAP (45%).

The principal characteristics of contract for the distribution of gas by means of <u>networks</u> are summarized below:

Characteristics	Natural Gas Distribution Contracts
Term	30 years
Granting the concession	Competitive public bidding
Exclusivity	Exclusivity in the area of influence of each
	distributor (regional monopoly: Montevideo
	and the Interior)
Rates	Maximum rate regulated by the Executive
	Branch; includes the cost of gas, cost of
	transportation, and the value added of the
	distributor.
	Freely-negotiated rates for large users
Expansion and extension of the distribution	Obligation to expand according to the
network	profitability of the project in the area of the
	concession.
Concession termination	Expiration of the concession period
	Contract default
Concession assets at end of concession period	State owned
Concession expiration	Non-compliance with contractual conditions
Open access	Open access to uncommitted capacity (free
	non-discriminatory access)
Service modality	Firm and interruptible service contracts
Response to service requests	Within 30 days of receipt
Use of public and third-party assets	Right of use and right of way

Chapter 6: State-owned companies: organization and functions; performance review and evaluation

6.1 Organization, Functions and Regulations

The Administración Nacional de Combustibles, Alcohol y Portland (ANCAP) was established in 1931, with the "task of exploiting and managing the national alcohol and fuel monopoly, and importing, refining and selling petroleum and its products, and manufacturing Portland cement."

Regarding its organization, ANCAP is a State-owned company and is vertically integrated.

From a juridical standpoint, ANCAP is an Autonomous Entity.

The company is managed by a Board of Directors consisting of five members who are appointed directly by the Executive Branch.

The members of the Board of Directors are political appointees. Traditionally, the Board of Directors has included one or two directors who represent unofficial political sectors, as a mechanism for monitoring the management of the company.

During the current government administration, opposition sectors refused to participate on the Board of Directors of the company, so these positions were left vacant, and the company is being managed by 3 directors.

The members of the Board of Directors serve for 5 years, and they are replaced at the end of the government's term of office when the administration changes.

Although these are political positions, beginning with the current administration, company upper management has tended to be professional, making these positions political-technical.

With regard to managerial positions in the company, these are held by career officers that pertain to the company's functional structure.

ANCAP participates in several oil and gas industry activities.

The objectives of the company are defined in the "Strategic Plan 2007-2011" that was recently approved by the Board of Directors of ANCAP. It defines the strategy of the company for each of the business areas in which it is involved.

Notwithstanding ANCAP's competence as an Autonomous Entity for defining its Strategic Plan, it must be framed within the "Energy Policy Guidelines" of MIEM for the hydrocarbon sector.

From an industrial standpoint, ANCAP is the largest company in the country in terms of sales and employees (2200 persons).



The following table shows the <u>organizational structure of the company:</u>

ANCAP is organized into 3 business areas: Energy, Alcohol, and Portland Cement:



Regarding hydrocarbon activities, ANCAP has a monopoly over the importation, production and exportation of hydrocarbons.

Since the approval of the new regulatory framework for the LPG market 2004, bottling and distribution activities are open to competition.

The production and marketing of Portland cement and alcohol are open to competition.

ANCAP participates in the following businesses in the energy area:

- Hydrocarbon exploration and production (E&P)
- Refining
- Distribution and marketing of liquid fuels and LPG
- Natural gas: E&P, importation, transportation, distribution and marketing

- Biofuels
- Industrialization and marketing of lubricants

ANCAP participates in the following non-energy businesses:

- Sugar
- Portland cement
- Petrochemicals
- Alcoholic beverages
- Industrial alcohols and solvents

ANCAP participates directly in each of these activities or through subsidiary companies, or by means of a share of capital stock:



As shown in the above table	. ANCAP	participates in	the following	companies:
	,			

Companies linked to	Direct share	Companies with	Companies with direct links to ANCAP		
ANCAP	by ANCAP	Company	Location	%	by ANCAP
ALCOHOLES DEL	90%				
URUGUAY SA					
ANCSOL SAFI	100%	CARBOCLOR SA	Argentina	74.26%	74.26%
		PETROLERA DEL			
		CONO SUR S.A.	Argentina	83.40%	92.19%
CABA SA	100%				
CEMENTOS DEL	55%	PAMACOR S.A.	Uruguay	1.0%	0.55%
PLATA SA					
CONECTA SA	45%				
DUCSA	99%	ABANSOL SA	Uruguay	100.0%	99.0%
		CELEMYR SA	Uruguay	100.0%	99.0%
GASODUCTO CRUZ	20%				
DEL SUR SA					
GAS URUGUAY SA	40%				
PAMACOR S.A.	99%				
PETROURUGUAY SA	99.74%	DUCSA	Uruguay	1.0%	0.9974%
		PETROLERA DEL	Argentina	0.0377%	0.03765%
		CONO SUR S.A.			
		GASODUCTO			
		CRUZ DEL SUR	Brazil	20.0%	19.959%
		DO BRASIL SA			

Note: With the exception of Petrouruguay SA, in Argentina, all are located in Uruguay. Source: ANCAP, Annual Report 2005.

6.2 Activities and infrastructure by business area

6.2.1 Oil and petroleum products subsector

6.2.1.1 Exploration and production (E&P)

ANCAP has participated in several exploration activities in Uruguay, in the region (Argentina), and in other South American countries (Ecuador, Venezuela).

In Uruguay, onshore exploration was carried out at ANCAP's own risk, while offshore, due to the level of investment and the lack of know how, it chose risk contracts.

An E&P contract is presently in effect with the company WAVEFIELD INSEIS for prospecting on the Uruguayan continental shelf in the Punta del Este basin.

In the E&P business abroad, ANCAP participated through its subsidiary, Petrouruguay S.A., that was established in 1991, in order to "carry out the following activities on its own behalf or through third parties, within the country or abroad: prospecting, exploration, drilling, exploitation, development, production, marketing, importation and exportation of liquid and gaseous hydrocarbons and their products, and to this end, it can carry out all the activities involved in the petroleum industry, from drilling to

obtaining the direct refined products and byproducts, as well as their storage, transportation and distribution."

The majority of the capital stock of the company belongs to ANCAP, which has a 96.74% share, ANCSOL SA (SAFI) 3%, and the Corporación Nacional para el Desarrollo (CND) 0.26% (current values for September 2007).

In Argentina, Petrouruguay SA participates in the production of gas and oil in partnership with other oil companies, forming what are known as Consortiums, which hold concessions granted by the Government of Argentina.

The contracts of the Consortiums specify that the Operator executes the programs based on resolutions and budgets approved by the Operations Committee that is formed by the partners according to their share.

The hydrocarbons produced are owned by each partner according to its share, and they can establish marketing agreements among all or part of them.

In the Consortiums in which Petrouruguay SA participates, the operator is the majority shareholder.

Petrouruguay SA, it does not have its own organizational structure, so its functions are carried out through the following ANCAP areas:

- Planning and Development Division: general administration and technical management of the company.
- Natural Gas Division: operation and maintenance of the coastal gas pipeline and the exportation of gas from Argentina to Uruguay.
- External auditor of ANCAP

Currently ANCAP participates in Argentina in the following areas:

- Amarga Chica Bajada del Palo area (Petrouruguay 20%; operator, Petrobras Energía SA); the production of existing oilfields continues in these areas. Petroleum production was 13,735 m3 (2005).
- <u>Aguada de la Arena area</u> (Petrouruguay 20%; operator, Petrobras Energía SA) The average gas production was 623,185 m3/day (2005). Most of the production that pertained to Petrouruguay was exported to Uruguay.
- <u>Tres Nidos El Caracol Norte area (Petrouruguay 35%; operator, Tecpetrol SA)</u> In El Caracol Norte, a review of the background information suggests that there is a potential unexplored remnant. Given the current trend in oil prices, the profitable exploitation of small prospects is possible.
 In Tres Nidos, the possibility of an economically profitable remnant is significantly less.
- ☑ <u>CCM-2, CAA-7 Y CAA-44 Blocks (Petrouruguay 10%; operator, Repsol YPF SA)</u>

An extension was arranged in the exploration period for the Cuenca de Colorado Marina blocks, (block CCM-2). The remaining blocks were awarded to the company ENARSA.

Colorado Marina is a high-risk zone (oil prospecting).

In Venezuela, ANCAP has a share, through Petrouruguay, in the Ayacucho Area in the Faja Petrolífera del Orinoco (heavy crude). Activities currently involve the evaluation and certification of reserves. ANCAP participates in this activity in partnership with PDVSA (majority partner), and ENARSA from Argentina. ANCAP's share of the business (10%) would allow it to supply our internal market, either through crude oil processing at the La Teja Refinery, which would first require converting the plant to heavy crude processing, or through exportation.

The E&P strategy of the company involves a search for opportunities to access hydrocarbon reserves, and oil and gas production in order to guarantee and/or improve the crude supply conditions of the internal market (availability and price).

The level of investment required for E&P activities exceeds the economic and financial capacity of ANCAP, given the level of investment and mining risk inherent in E&P activities, so the company's strategy has been to take advantage of opportunities to associate with other companies of the region.

The proposed strategy in Uruguay is to encourage private investment in exploration on the Uruguayan continental shelf through contracts with third parties.

6.2.1.2 Refining

The first fuel plant was inaugurated in 1934. In 1935, the construction of the La Teja Refinery began, and it was inaugurated in 1937 with a refining capacity of 5000 bbl/day.

The processing capacity was expanded in the 60's, and the next upgrade took place in the early 90's, when refining capacity was increased to 37,000 bbl/day.

An expansion process and a new upgrade project were initiated at the refinery in 2001, to permit the production of higher quality fuels, expand the refinery's production capacity, improve the competitiveness of production, and reduce the environmental impact of the refinery.

The refinery upgrade project that was completed in early 2003, increased the refining capacity from 37,000 to 50,000 barrels per day, and allowed the production of unleaded gasoline, in order to meet quality requirements of international markets, reduce the sulfur content of gasoline, modify the production structure to increase the production of diesel oil, and reduce the production of heavy products such as fuel oil and asphalt. The upgrade allows it to refine heavier crude oil, which has a lower price on the international market.

Activity	Infrastructure

Oil buoy	José Ignacio (Terminal del Este)		
Oil transportation	Pipeline 166 km (Terminal del Este – La Teja Refinery)		
_	Fleet		
Oil refining	La Teja Refinery		
Storage plants	José Ignacio		
Product distribution plants	La Tablada		
	Juan Lacaze		
	Paysandú		
	Durazno		
	Treinta y Tres		
Marketing of petroleum	Plant for its own sales		
products	Storage capacity at terminals		
	Service station network under the brand ANCAP (DUCSA)		

Installed	canacity	of the	refinerv	bv	unit:
instancu	capacity	or the	rennery	v y	umu.

Unit	Product	Capacity
Topping	LPG – Gasoline feed to Isomerization and Reforming	50,000 bpd
	- Kerosene – Diesel Oil – Vacuum feed	
Vacuum	Diesel oil –FCCU feed –Visbreaking feed – Asphalt	21,000 bpd
		-
FCCU	LPG – Intermediate Gasoline – Diesel oil – Diluent	13,000 bpd
	fuel oil	-
Visbreaking	Diesel oil – Fuel oil	7,000 bpd
C		· •
Gasoline hydrator		18,000 bpd
Reforming	LPG – High octane gasoline	12,000 bpd
C C		
Isomerization	Low octane gasoline	6,000 bpd
		Ĩ
Medium distillate		5,000 bpd
desulfurizer		Ĩ

Source: ANCAP

The processing capacity of the refinery is around 40,000-45,000 bbl/day, which represents the utilization of approximately 90% of the installed capacity of the refinery.

<u>Refinery production</u> followed an increasing trend until 1998. In 1999, the economy entered a recession, and in 2003, the impact of the economic crisis was felt, and was reflected in a drop in the internal consumption of products and in the level of activity of the refinery.

During the 2002-2003 period, a refinery upgrade took place, so the refinery was inactive during part of this period.



By 2004, the economy had begun to recover, and this is reflected in an increase in production by the refinery, although the level of product sales in the internal market has not yet achieved the level prior to the crisis.



Source: DNETN.

The level of production of the refinery is determined by the demand for diesel oil. Following the latest upgrade of the refinery, the production of diesel oil was increased in order to align the production of the refinery with the structure of the market, which was characterized by significant shift to diesel by the motor vehicle fleet.

Although the government has promoted several measures oriented toward reducing diesel consumption by private vehicles, the trend is an increase in diesel demand due to increased productive activity.

There is a deficit in diesel oil production in the region.

Based on this, it can be concluded that ANCAP's fuels policy will be oriented in the coming years toward the production of medium products (diesel oil) to supply the internal market and, possibly, the diesel oil deficit in the region.

There is also a project for increasing refining capacity and adapting it to heavy crude processing. The Energy Agreement signed recently with the government of Venezuela (August 2007)³, specifically includes in the lines of action of the petroleum sector, the "expansion and adaptation of the La Teja Refinery by constructing a deep conversion module of 60 thousand bbl/day." This project will be carried out in association with PDVSA, within the framework of the strategy for creating Poles of Refining in the region.

This strategy is consistent with ANCAP participation in E&P in the Faja del Orinoco, in association with PDVSA and ENARSA, and the world trend toward heavy crude processing due to supply difficulties with light crude oil.

In the long term, ANCAP's strategy is oriented toward increasing the capacity of the La Teja Refinery in order to achieve larger scale refining and improve crude oil conversion capacity.

For a country like Uruguay that has no oil reserves, it is essential to guarantee the security of the supply and price of crude oil, so the strategy of the sector should be oriented toward improving access to crude oil reserves, agreements for financing crude oil purchases, and improvements in the size and conversion capacity of the refinery.

Regarding fuel quality, a project for installing medium distillate and gasoline desulfurizing units currently in process will reduce the sulfur content of diesel oil and gasoline, and reduce emission levels that originate from fuel consumption.

The project involves the installation of an 18000 bpd diesel oil desulfurizing plant, that will lower the sulfur content of the product to 50 ppm, a 6000 bpd cracked gasoline desulfurizing plant that will permit a sulfur level of 30 ppm in general gasoline production, and a 30 tpd sulfur recovery plant. The plant is expected to be completed by mid 2009.

³ "Energy Security Treaty between the Bolivarian Republic of Venezuela and the Oriental Republic of Uruguay," August 6, 2007.

6.2.1.3 Distribution and Marketing of products



The liquid fuel distribution market involves three companies: Petrobras Energía SA, ESSO, and DUCSA:

Source: ANCAP

ANCAP participates directly in the wholesale distribution and marketing of liquid fuels in the internal market through the company DUCSA (Distribuidora Uruguay de Combustibles SA). ANCAP owns 99% of DUCSA's capital stock. DUCSA operates as a private company.

ANCAP also operates in the segment of direct sales to large consumers and private connections, either directly as ANCAP, or through DUCSA.

Like the other distributors, ANCAP has a long-term contract with DUCSA setting the distribution conditions. ANCAP's contractual arrangements with DUCSA are similar to those governing the other fuel distributors.

In retail distribution, DUCSA has a majority share of the distribution market, with a network of approximately 300 service stations that use the ANCAP brand, out of a total of approximately 500 service stations in the country. The network of stations operates through contracts with agents (service station owners).

After purchasing the TEXACO network of stations (89 EESS), DUCSA became the dominant player in the liquid fuel distribution segment. The purchase of the TEXACO stations network fulfilled a strategic objective, because it permitted ANCAP to maintain a dominant position in the fuels market while improving the overall profitability of the business associated with the vertical integration of the chain, and optimized the scale and the logistics of distribution.

The entry of Petrobras Energía SA into the distribution market occurred last year with the purchase of SHELL's network of stations.

The distributor ESSO has expressed interest in withdrawing from the fuel distribution market in Uruguay and in the region. The government is interested in arranging its sale to a third actor, and negotiations are currently taking place with PDVSA of Venezuela.

Although Petrobras Energía SA is interested in ESSO's network of stations (107 stations), the strategy of the government is oriented toward the entry of a third actor (PDVSA), to avoid increasing the concentration of the distribution market.

The current structure of the liquid fuel distribution market is shown below:

	Service S	Market Share	
ANCAP (DUCSA)	207	42.1%	38.0%
ESSO	107	21.7%	19.4%
PETROBRAS	89	18.1%	22.4%
TEXACO (DUCSA)	89	18.1%	20.2%

Service station sales (Year 2004)

Source: ANCAP.

Note: percent share of fuel sales in service stations.

Share of service station sales by product (Year 2004)

	Gasoline	Diesel Oil	Total
ANCAP (DUCSA)	40.7%	36.9%	38.0%
ESSO	22.6%	18.2%	19.4%
PETROBRAS	19.3%	23.7%	22.4%
TEXACO (DUCSA)	17.4%	21.2%	20.2%

Source: ANCAP

As the above table shows, ANCAP has a dominant position in the distribution and sales market in Uruguay, with a more than 50% share of service station sales.

<u>At the regional level</u>, ANCAP entered the fuel distribution business in Argentina in 1998, through the Sol Petroleo network of service stations. It established the company Petrolera del Conosur S.A. (PCSA) in 1999, to be in charge of the network of Sol Petróleo service stations.

6.2.1.4 Liquefied Petroleum Gas Subsector

The LPG business is monopolistic in the primary supply stage (LPG production and importation) under ANCAP. In 2004, the regulatory framework for LPG^4 activities was changed, and bottling and distribution activities were liberalized (opened to competition).

With the new regulatory framework, the <u>market structure</u> is as follows:

Category	Companies
LPG production and imports	ANCAP
LPG bottling plants	Acodike-Riogas-Megal
LPG distribution companies (agents)	Acodike – Riogas –
	DUCSA – Megal
Bulk LPG distribution company	Gasur
Local LPG sales	Retailers with a brand



Source: ANCAP

ANCAP participates in the LPG market by producing and importing LPG (a legal monopoly according to Law 8764 that established ANCAP).

Under the current regulatory framework, ANCAP can participate in the LPG bottling and distribution market through its own distributor (DUCSA).

Bottling plants that are operated by Riogas and Acodike are owned by ANCAP. The bottling plants are operated by Riogas and Acodike within the framework of operating contracts that were signed with ANCAP, which obligate them to pay a fee to ANCAP for the use of the plants to supply their own networks.

There is a third bottling plant owned by Megal.

In 2005, ANCAP entered the distribution segment, and distributes LPG through DUCSA.

⁴ "Regulations for wholesale marketing, transportation, bottling, refilling and distribution of liquefied petroleum gas (LPG)", URSEA, February 2004.

ANCAP participates in the distribution of bulk propane to industrial customers through the company Gas Uruguay SA (Gasur). ANCAP owns 40% of the capital stock and the rest belongs to Acodike and Riogas.

Company	Market st	Distribution		
	In tons	In tons %		
			No. of agents	
RIOGAS	34,018 ton.	38%	124	
ACODIKE	36,229 ton.	41%	72	
DUCSA	12,460 ton.	14%	33	
MEGAL	3,927 ton.	4%	273	
GASUR	2,464 ton.	3%	Bulk distrib.	
TOTAL	89,098 ton.	100%		

Characterization of the LPG business – 2005 figures

Source: ANCAP

Notes: GASUR is involved in bulk propane distribution to industrial customers.

The entry of ANCAP into LPG distribution allowed it to capture the margin of the LPG business (distribution and marketing), and improve ANCAP's profitability through the economies associated with the vertical integration of the LPG chain.

In November 2007, a new bottling system will begin operation, and the ANCAP-owned plants will be operated directly by Gasur.

6.2.1.5 Biofuels

ANCAP participates through the company Alcoholes del Uruguay (ALUR) (ANCAP 90% of the capital stock and 10% of the CND) in the following activities: production, industrialization, distilling, marketing, distribution, importation and exportation of alcohols, sugar, molasses, products and byproducts.

"Proyecto sucroalcoholero" that is being developed through ALUR, is for producing biodiesel and ethanol to supply the internal market. ANCAP participates in this undertaking in partnership with PDVSA (Venezuela).

Under agreements signed with Venezuela⁵, ANCAP is developing an ethanol production project based on sugar cane for which it purchased the facilities of an agricultural cooperative. The project involves increasing the cultivation of sugar cane from 3 million to 10 million hectares, increasing the yield of cane per hectare and the sugar content of the cane, and upgrading the sugar factory to obtain anhydrous ethanol with an investment of 7 million dollars that was provided by Venezuela. The project could be in operation by 2008.

⁵ "Energy Security Treaty bertween the Bolivaran Republic of Venezuela and the Oriental Republic of Uruguay", August 6, 2007.

6.2.1.6 Bunkers

The bunkers market is a competitive market.

The market is segmented into the following products: diesel oil, fuel oil, and jet fuel.

The following companies are involved in marine fuel distribution: ANCAP, ESSO, Petrobrás Energía SA, Christophersen, Estimar, Acler, Repsol-YPF.

The following companies participate in aviation fuel distribution: ANCAP, ESSO, Petrobrás Energía SA, Air Total.



6.2.1.7 Lubricants

The lubricants market is a competitive market. There is freedom to import, and numerous companies operate in the market.

ANCAP participates in the industrialization and marketing stages.

Industrial infrastructure:

- Blending plant at the La Teja Refinery
- Production capacity: 16,000 m3/year

ANCAP participates in lubricants marketing in Uruguay through DUCSA, and is the leader in the internal lubricants market:

Product	Market share
Motor vehicle lubricants	38%
Industrial lubricants	36%
Greases	43%
Marine	10%

Share of ANCAP in the internal market:

Source: ANCAP, Annual report 2005.

At the regional level, it participates in the distribution of lubricants in Argentina through its subsidiary, Petrolera del Cono Sur SA (PCSA).

The company's strategy in the lubricants market involves commercial expansion in Argentina through its subsidiary, Petrolera del Cono Sur SA.

6.2.1.8 Asphalt

In 2001, ANCAP's legal monopoly on the production and distribution of asphalt was eliminated, and the activity is presently open to competition.

Prices are set by ANCAP.

6.2.2 Natural Gas Sector

ANCAP participates in various activities in the natural gas industry:

- ☑ <u>Production</u>: Through Petrouruguay S.A., it participates in several areas of Argentina and Venezuela in partnership with regional companies.
- ☑ <u>Importation of natural gas (legal monopoly</u>, according to Law 8.764 that established ANCAP)
- ☑ <u>Transportation of natural gas</u>:
 - ANCAP owns Gasoducto del Litoral (that is owned by Petrouruguay SA). The technical operator of the gas pipeline in Uruguay is ANCAP, and in the Argentine section, Transportadora de Gas del Norte (TGN).
 - Firm and interruptible transportation rights without paying fees for 40 years on the Gasoducto Entrerriano owned by the company Entrerriana de Gas.
 - ANCAP owns a 20% share of Gasoducto Cruz del Sur.
 - Reserved firm transportation capacity on GCDS of 1.5 MM m3/day until 2017.
 - Exclusivity for the sale of transportation on GCDS to the two distributors:
 - Gaseba, up to 500 thousand m3/day firm, plus 200 thousand m3/day interruptible
 - Unlimited connection
- ☑ <u>Natural gas marketing</u>: ANCAP has supply and transportation contracts in the industrial segment for more than 5,000 m3/day
- ☑ <u>Natural gas distribution</u>:

ANCAP has a 45% share of the capital stock of CONECTA SA (natural gas distributor by means of networks in the Interior of the country), in partnership with Petrobras Energía SA (55%). The operator of the distributor is Petrobras.

A summary of ANCAP investments in the natural gas sector is shown below:

Investment	Amount
	(US\$)

Entrerriano Gas Pipeline	10,000,000
Gasoducto del Litoral	8,000,000
Conecta S.A.	17,000,000
Cruz del Sur Gas Pipeline	30,000,000
TOTAL (US\$)	65,000,000
Source: ANCAP	

<u>At the regional level</u>, ANCAP participates in the production of natural gas in Argentina through Petrouruguay SA.

In production, it participates with Petrobras Energía SA in Aguada de La Arena, Cuenca Neuquina, Argentina (Petrouruguay 20%, operator Petrobras, 80%), which gives it ownership over approximately 120 thousand m³/day of current natural gas production.

In transportation, it has firm and interruptible transportation contracts on Argentine trunk gas pipelines (Center-West and Neuba-II)

ANCAP has an export permit for 200 thousand m³/day of natural gas from Aguada de La Arena that expires in September 2008 (holder Petrouruguay SA).

Following the energy crisis in Argentina in 2004, the restrictions imposed on natural gas exports, and difficulties accessing natural gas reserves in Bolivia, it had difficulty guaranteeing the supply of the internal market and developing the natural gas market.

In this context, ANCAP's objective is to ensure the supply of natural gas in such a way that its downstream businesses are not jeopardized (transportation, distribution, and marketing).

Regarding the development of the market, this depends on the availability of natural gas and on the conditions of access to natural gas in the region.

The following strategies are currently being considered to ensure the supply of natural gas:

• Participation in a project for installing an LNG gasification plant in Uruguay to supply the internal market, and, depending on the minimum scale required for the project to be viable, the Argentine market.

The project is being studied.

ANCAP is participating in this project together with UTE (electrical energy) and ENARSA of Argentina. PDVSA, Repsol YPF, and Petrobras Energía SA. are interested in participating in the project

- Participation in the Gasoducto del Noreste Argentino (GNEA), and possible other regional projects (Energy Ring, etc.)
- Access to the gas reserves of Bolivia, and possibly Venezuela.

6.2.3 Non-energy businesses

6.2.3.1 Portland cement business:

ANCAP's Portland cement business includes two production plants, and a storage and shipment facility near the main centers of consumption.

General characteristics of ANCAP's Portland cement production:

- Clinker capacity: 511 Ktons/year
- Production: 360 Ktons/year (year 2006)
- Percent utilization: 70% of installed capacity.

ANCAP's Portland cement business currently operates at a loss. The small size of the internal market and the scale of production of the business underscore the importance of making regional agreements to access the regional market, which would allow exports and overcome the limitations of the internal market and improve the utilization factor of the installed capacity.

6.2.3.2 Petrochemicals

ANCAP participates in this business through its subsidiary, Carboclor SA, in Argentina, which involves the production of solvents. It is currently taking steps to sell this company, because it is a losing proposition for ANCAP.

6.2.3.3 Alcoholic beverages

ANCAP operates the alcoholic beverages business through the company CABA S.A.

It has a distillery in Paysandu, and an aging, production, and packing plant in Montevideo.

6.2.3.4 Industrial alcohols and solvents

ANCAP, through ALUR S.A., participates in the marketing of industrial alcohols and solvents with its own and third party production.

The objective of the company is to strengthen the presence of ALUR in industrial alcohol and solvent sales on the internal market.

6.3 Evaluation of performance, operational, and financial indicators of ANCAP.

6.3.1 Operational indicators

∘Year	Refining (thousands of bbl/year)
1996	12,200
1997	10,700

1998	13,400
1999	11,700
2000	13,200
2001	12,400
2002	9,100
2003	11,500
2004	15,475

Source: DNETN

In 1999, refinery production fell due to the economic crisis (1999-2003).

During 2002-2003, remodeling activities were carried out at the refinery.

In 2004, the economy began to recover, and this resulted in an increase in activity at the refinery.

The percentage utilization of installed capacity at the refinery has followed the production trend at the refinery. The highest level of utilization of the refinery was recorded in 2005, and it is now 82%.



Source: ANCAP

Net refining margin (US\$/bbl):

	Latin	ANCAP		
	America	2002	2004	
Net margin (US\$/bbl)	1.51	-0.40	2.57	

Source: ANCAP

The improvement in the net refining margin of the ANCAP Refinery is related to the increase in capacity of the refinery in 2003 (from 37,000 a 50,000 bbl/day) and the upgrade of the production structure to the refinery to align it with internal demand.

Crude oil is purchased through bidding competitions. In 2005, an agreement was signed with Venezuela, by which crude oil is purchased at the international price, and up to 15% of the value can be financed over a 25-year period.

Regarding fuel quality, in 2003 production of unleaded gasoline began, which allowed the company to comply with international quality standards.

Regarding the sulfur content of gasoline and diesel oil, a project is under way to install a desulfurizing plant that will permit sulfur levels to reach the level required internationally. It is expected that the plant will be operational in 2009.

∘Year	LPG	Gasoline and naphtha	Kerosene and Turbo	Diesel oil	Fuel oil	Others	Total
2000	217.7	442.0	27.1	803.2	223.5	67.7	1781.2
2001	208.5	380.2	20.7	792.9	201.6	61.7	1665.6
2002	201.2	322.5	17.2	758.5	190.6	39.0	1529.0
2003	170.9	279.3	14.6	767.8	174.3	49.9	1456.8
2004	155.4	283.9	12.0	792.2	153.2	58.8	1455.5
2005	164.9	291.0	10.7	800.4	150.9	38.7	1456.6
2006	165.8	305.2	9.3	818.7	122.9	39.1	1461.0

Sales of products on the internal market (in thousands of m3):

Source: DNETN

Note: Does not include diesel oil and fuel oil sales for thermal generation by UTE



In 1999, fuel sales on the internal market fell as a consequence of the impact of the economic crisis (1999-2003). In 2004, a slight recovery began in product sales linked to the evolution of the GDP. However, product sales are still 23% below the levels of consumption prior to the crisis.

			Growth
Fuel market			rate
(in thousands of m3)	2004	2005	2004-2005
Domestic market	1,450.7	1,444.8	-0.4%
Bunkers	477.7	483.8	1.3%
UTE (power plants)	321.0	273.8	-14.7%
Exports	441.5	467.4	5.9%
TOTAL	2,690.9	2,669.8	-0.8%

Source: ANCAP

ANCAP's exports are basically gasoline, involving the contract for payment of the refinery upgrade in 2002-2003.

Natural	gas	sales	to	the	internal	market:
1 acui ai	gas	saits	ω	unu	munai	mai Ku.

			Growth
			rate
Natural gas (thousands of m3)	2004	2005	2004-2005
Domestic market	76,684	61,858	-19.3%

Source: ANCAP, Annual Report 2005

The drop in natural gas sales is associated with the Argentine energy crisis, and the restrictions imposed by Argentina on natural gas exports under interruptible contracts (industrial sector). This, together with a natural gas price increase, led many industrial users to replace their natural gas consumption with firewood and fuel oil.

6.3.2 Economic-financial indicators



Source: Yearly profit & loss statement, ANCAP.


Source: Yearly profit & loss statement, ANCAP.



Profit and loss statements for the period 2003-2006 In millions of dollars:

Category / year	2003	2004	2005	2006
Operating income	903.0	1,284.7	1,550.2	1,797.4
Local	821.9	1,153.5	1,382.2	1,663.1
Exports	81.2	131.3	168.1	134.3
Discounts, bonuses	-89.7	-103.2	-114.4	-134.8
IMESI	-165.5	-180.8	-213.0	-233.7
Contrib. to passenger transport trust	0.0	0.0	0.0	-6.3
Net Operating Income	647.9	1,000.7	1,222.9	1,422.6
Cost of sold assets	-540.4	-815.9	-1,028.9	-1,205.1
Gross income	107.5	184.8	194.0	217.5
Administration and sales expenditures	0.0	0.0	0.0	0.0
Staff payments and bonuses	-17.9	-20.7	-22.5	-26.0
Amortizations	-3.2	-3.7	-3.9	-3.4

Direct sales costs	-11.8	-15.9	-17.8	-19.7
Taxes. Fees and contributions	-20.5	-29.7	-32.3	-32.2
Other expenses	-14.2	-13.5	-15.1	-18.3
	-67.7	-83.5	-91.6	-99.7
Miscellaneous income	0.0	0.0	0.0	0.0
Income on investments	-2.5	-27.4	-7.5	-35.1
Other Income	4.3	8.7	5.4	3.5
Other expenditures	-5.5	-3.4	-35.9	-15.2
Operating income	36.1	79.1	64.4	71.0
Financial income	1.1	21.9	28.5	-38.7
Extraordinary income	-1.1	-0.8	-0.3	0.0
Income tax	-16.3	-51.0	-35.1	-36.5
Net earnings	19.8	49.2	57.5	-4.2

Notes:

The amounts are expressed in currency purchasing power values for December 31 of each year.

IMESI (Specific Internal Tax); fuel tax Source: ANCAP.

Company profits in 2005 were 57.5 MM US\$, while in 2006, it recorded a loss of 4.2 MM US\$.

Operating income increased in 2006 by 16% compared to 2005, due to the increase in the prices of products as they sought to align themselves with the evolution of crude oil prices.

The increase in the cost of goods sold is fundamentally due to the increase in the price of crude oil (12% compared to 2005).

Considering the operational earnings of the company (71 MM US\$), it can be concluded that although in 2006, ANCAP incurred a net loss of 4.2 MM US\$, this is explained by the impact of the company's financial costs.

As was indicated above, ANCAP also has a share in losing businesses that have a negative impact on the economic-financial situation of the company.

In millions of dollars				
Budget Item	2003	2004	2005	2006
Current assets	224.2	320.8	424.2	545.5
Non-current assets	404.4	409.4	445.6	459.7
Total assets	628.6	730.3	869.8	1,005.2
Current liabilities	217.4	247.4	243.7	205.1
Non-current liabilities	63.2	25.7	79.9	220.7
Total liabilities	280.6	273.1	323.6	425.8
Capital	348.0	457.2	546.2	579.4
Total Liabilities and Capital	628.6	730.3	869.8	1,005.2
Source: ANCAP	· · · · ·			

Equity situation at the close of each fiscal year

Economic indicators:	2003	2004	2005	2006
Profits / Assets	3.2%	6.7%	6.6%	-0.4%
Profits / Equity	5.7%	10.8%	10.5%	-0.7%

Based on the above results, it can be concluded that ANCAP is well managed and that the positive economic revenues will result in a transfer to the central government of approximately 50 MM US\$/year.

The company does not require financial assistance from the Government for its operations.

From a fiscal standpoint, ANCAP transfers to the State an average of approximately 200 MM US\$/year in collections of IMESI⁶ fuel price taxes on sales made on the internal market.

Regarding the performance evaluation of the company by business area, it is felt that the strategic guidelines defined in the "Strategic Plan 2007-2011" are suitable for the international and regional context of the hydrocarbon sector, and the characteristics of the national energy sector.

It is felt that the most appropriate strategy for a country like Uruguay, with no hydrocarbon reserves, is to improve the conditions of crude oil supply by participating directly in E&P activities, or in association with third parties, at the national level (offshore) and abroad, and seek opportunities to access crude oil reserves in foreign countries.

In the E&P area, it is important to evaluate the level of investment ANCAP has committed to these activities versus the mining risk of the area in which it participates.

Regarding the supply of natural gas, ANCAP's participation in projects to guarantee the security of the supply on the internal market are considered adequate.

With respect to the fuel policy, ANCAP's strategy for entering the LPG distribution market is considered appropriate, particularly considering that the investment in infrastructure was made by the company. That decision allowed ANCAP to participate in the profits of the business (with an average profitability rate of 20-30%) and obtain the economies of scale associated with the vertical integration of the chain.

Regarding the refining area, it is felt that the scale of refining results in a greater impact by operating costs, and causes a negative impact on the refining margin.

Finally, it is important to note that ANCAP continues to participate in businesses that are currently loss making, which affects the overall earnings of the company.

⁶ Specific Domestic Tax

6.4 Advantages and disadvantages of the participation of State companies (ANCAP) in the hydrocarbon sector

First, it is important to note that refining activity is a natural monopoly, particularly in a country the size of Uruguay. Thus, from an economic standpoint, it is more convenient for a single company to participate. Consequently, it is felt that having a state monopoly in the refining sector is advantageous because of the characteristics of the industry.

If energy is considered to be a strategic asset, the presence of a State company in a monopolistic or oligopolistic sector is essential, since it guarantees State control over a strategic resource.

This is particularly important in the current context of the international petroleum market and the scenario of increasing energy prices.

These conclusions are reconfirmed given the impact of the sector on the economy, the impact of the importation of crude oil and petroleum products on the Uruguayan balance of payments (23% of the total value of imports), the impact of the fuel pricing policy on economic activity, and the evolution of internal prices.

The presence of State-owned companies ensures that the State will have an instrument of energy policy.

In a market the size of Uruguay's, distribution is an oligopoly, so it is considered appropriate that a State-owned company should participate in order to prevent the concentration of the market, and situations of market power and the abuse of a dominant position.

The hydrocarbon sector is also a profitable sector, so the presence of a State-owned company ensures the participation of the State in the process of appropriating and distributing the profits of the business.

Disadvantages:

Regarding the regulatory framework of the petroleum sector and the operation of the sector, there is no clear separation between energy policy, regulatory, and business functions.

This situation is the result of the traditional institutional weakness of the Ministry of Industry and Energy, and the regulatory agency (URSEA), compared to the size and economic importance of energy industry stakeholders and ANCAP in particular.

In addition to this, there is the absence of a regulatory framework in the liquid fuel sector to regulate distribution and marketing activities, meaning that the operation of the sector is in fact regulated by contracts between ANCAP and the distributors.

This means that ANCAP sets the marketing margins of the distributors and retailers (or station operators), as well as shipping costs, product quality, and the conditions for opening new service stations, among others.

The definition of margins for distribution and marketing activities is a fundamental aspect of fuel pricing policy and competition policy, so it is clearly an area for decisions by the Executive Branch.

Regarding the regulation of the sector, presently the quality control of products sold is under ANCAP, though this would clearly be a competency of URSEA.

With respect to the management of the company, ANCAP is a commercial company so its management requires management autonomy. However, this would in fact signify a loss of control by the State over sectoral policy and the management of the company.

Current regulations impose certain surcharges on public companies such as the Tax on the purchase of foreign currency (ICOME) that only apply to public companies. That tax was recently eliminated through the Tax Reform Law (1/7/2007).

Added to this is the extra costs of purchasing and contracting procedures, and bidding competitions that State companies must carry out. Though the objective is to ensure that the procedure is transparent and guarantee State control over company purchasing, in practice it means lengthy processing periods and higher bids from suppliers.

It should be noted is that State companies have traditionally been used as instruments of economic policy, in particular, as instruments for internal price control by setting public rates, employment, and regional development (local development).

This has induced ANCAP to participate in businesses that are foreign to the hydrocarbon sector and the energy business, in some cases incurring losses, where its decision to participate was based on socioeconomic, and in some cases, political considerations.

This has resulted in a load of loss-making enterprises and internal subsidies to other business units of the company that distort the general evaluation of the economic and financial performance of the company.

In synthesis, it is felt that company decisions should be based on the energy policy guidelines of the Executive Branch, combining the necessary autonomy required to manage a commercial company with the policy objectives that guide the management of a State company.

Chapter 7: Private sector companies: functions and performance analysis

7.1 Oil and petroleum products sub-sector

7.1.1 <u>Exploration and Production:</u>

No private companies in Uruguay participate in exploration and production (E&P) activities.

As noted in the previous chapter, E&P activities have been carried out by ANCAP according to the conditions specified in the Law of Hydrocarbons (Law 14.181).

It specifies that E&P activities pertain to ANCAP, and that it can carry them out directly or through contracts with third parties authorized by the Executive Branch.

Current regulations permit mechanisms of private participation upstream, directly or in partnership with the State, and define a series of incentives for private investment.

An exploration and/or production contract is currently in effect with the company WAVEFIELD INSEIS for carrying out prospecting activities on the Uruguayan continental shelf in the Punta del Este basin over a period of 6 years.

7.1.2 <u>Refining:</u>

There is no private participation in the refining activity.

A project to expand the La Teja Refinery to convert heavy crude is under consideration, and it could be carried out under a partnership scheme with the company PDVSA of Venezuela.

7.1.3 **Distribution and Marketing:**

Two companies with private capital participate in the distribution and marketing of liquid fuel: ESSO and Petrobras Energía SA.



The participation of the private sector in this market involves 40% of the network of service stations of the country and 41.8% of the total sales of liquid fuel by stations (2004 data).

Petrobras Energía SA entered the distribution market in 2006 following the purchase of the network of SHELL stations (89 stations).

PDVSA is currently negotiating the purchase of the ESSO network of stations (107 stations), as part of a strategy to participate in distribution in Uruguay and the region. This initiative is related to the project to expand the La Teja refinery in partnership with PDVSA, since that would provide a distribution network.

From the standpoint of Uruguay, it is considered important for a third participant to become involved in order to avoid an increase in market concentration in favor of Petrobras Energía SA.

No information was available from the Balance Sheets of private distributing companies.

7.1.4 <u>Liquefied Petroleum Gas:</u>

According to Law 8764, ANCAP has a monopoly over the production, importation, and exportation of LPG. The other activities of the LPG chain are included in the area of free competition.

LPG market structure:

Activity	Companies
LPG production and importation	ANCAP
LPG bottling plants	Acodike-Riogas-
	Megal
LPG distribution companies (agents)	Acodike –
	Riogas –
	DUCSA – Megal
Bulk LPG distributor (propane)	Gasur
Local LPG sales (retailers)	502 agents

Acodike Supergás SA:

The company has operated as an LPG bottler and distributor since the early 60's under a contract with ANCAP.

<u>Riogas SA</u>:

It entered the market during the 70's. The company operates as an LPG bottler and distributor under a contract with ANCAP.

<u>Megal</u>: This is a cooperative that has a network of centers for refilling small bottles. It currently participates in bottling and distribution activities with its own plant.

Gas Uruguay SA (GASUR SA):

The company was established in 1997. ANCAP owns 40% of the stock of the company, while 60% belongs to the private sector (Acodike Supergás S.A. and Riogas S.A.).

The activity of the company consists of marketing and distributing bulk propane (bottles > 45 kg). The propane supplier is ANCAP under a contract signed in 1998 that is extendible automatically for periods of ten years, unless one of the parties informs the other of its desire not to extend it.

In November 2007, GASUR began managing LPG bottling plants owned by ANCAP that are currently operated by Acodike and Riogas. Thus, Gasur would be a bottler, and the companies Acodike y Riogas would act as technical operators of bottling plants.

ANCAP would thus participate in LPG bottling through GASUR, and would obtain part of the profits of the LPG business that are associated with cost savings derived from the vertical integration of the LPG chain.

Retail businesses have to operate under a brand (DUCSA, ACODIKE, RIOGAS or MEGAL). Each business is authorized by its own brand.

according to sales volume (2005 data).				
Company	Market share			
Acodike	41%			
Riogas	38%			
DUCSA	14%			
Megal	4%			
Gasur	3%			

Market structure of LPG distribution by company, according to sales volume (2005 data):

Income from LPG sales to the internal market(before taxes): 80 MM US\$ (2006).

Profitability rate: 20-30%

LPG that is marketed in the country complies with the quality standards of ANCAP.

7.2 Natural Gas Subsector

7.2.1 <u>Natural gas transportation:</u>

The company Gasoducto Cruz del Sur (GCDS) holds the concession for natural gas transportation in the southern area of the country, and in the capital of the country.

The gas pipeline was built and is operated by the consortium British Gas (40%), Pan-American Energy (30%), ANCAP (20%), and Wintershall (10%) under a public works concession regime with a 15-year duration, renewable for up to 3 periods of 5 years each. Upon termination of the concession period, ownership of the gas pipeline passes to the State. The gas pipeline began operation in late 2002.

The gas pipeline route includes sites in the departments of Colonia, San José, Canelones, and Montevideo, as well as any other locality or section inside or outside of Uruguay.

The company began operating in 2002 with a 15-year duration, renewable for up to 3 periods of 5 years each.

The technical operator is Transportadora de Gas del Uruguay (TGU), owned by Transportadora de Gas del Sur (TGS) of Argentina.

The company is required to pay a fee of US\$ 300,000/year that is adjusted twice a year according to variations in the PPI.

The transportation rate is set by a bid in a bidding competition, and is adjusted twice a year according to variations in the PPI.

The administration of GCDS has fulfilled the conditions specified in the contract, in particular, the investment specified in the concession contract.

From an operational point of view, the performance indicators are good.

It was not possible to obtain economic or financial information about the company.

7.2.2 Natural Gas Distribution by means of networks:

Natural gas is distributed under a Public Concession granted by the State following the corresponding bidding competition processes.

Two distributing companies are in charge of the distribution market:

- <u>Montevideo Gas SA (former Gaseba Uruguay SA)</u>, in charge of distributing gas by means of networks in Montevideo (capital of the country).
- Conecta SA, in charge of distributing natural gas in the Interior of the country

The natural gas distributors have a 38% share of natural gas sales.

Several indicators showing the performance of each of the distributing companies are described below.

Evaluation of the performance of the private sector. Operational and financial indicators:

• Montevideo Gas SA (formerly Gaseba Uruguay):

The distribution of natural gas by means of networks in Montevideo was awarded through a concession contract to the company GASEBA SA, of the Gaz de France group in 1994 for a period of 30 years, and is in effect until 2024.

In 2002, an addenda to the concession contract was signed, specifying the geographical scope of the concession zone, the conversion of the manufactured gas network to natural gas, and the rate schedule.

In May 2006, the Ministry of Industry, Energy and Mining, authorized Petrobrás Energía SA to assume the role of technical operator of the gas distribution service by pipeline in Montevideo, and replace Gaseba Uruguay under the name "Distribuidora de Gas de Montevideo SA- Grupo Petrobras" (commercial name "Montevideo Gas SA").

Several indicators on the development of the distribution network are shown below.

Distribution piping	4 bar	401.7 km
	20 mb	312.87 km

Distribution network development:

Source: DNETN

At the time the concession was awarded, there was a manufactured gas distribution network of 400 km. Under the contract, the company agreed to convert the existing network to natural gas. The conversion process was completed in 2005.

Considering the extension of the network that existed at the time the concession was awarded, and the development of the present network, it can be seen that the company has practically not developed the distribution network at all, which helps to explain the limited development of the natural gas market.

Regarding the evolution in the number of customers, the process of converting the old manufactured gas network to natural gas began in 2003 and was completed in 2005. The evolution in the number of customers shown below only refers to natural gas customers, so it implicitly reflects the evolution of the conversion of the network.

Number of customers by rate category				
∘Year	Residential	General	TOTAL	
2001				
2002				
2003	11,149	367	11,516	
2004	38,274	942	39,216	
2005	43,070	1,203	44,273	
2006	42,573	1,207	43,780	

Number of customers by rate category

Source: DNETN

Note: Includes natural gas users; it does not include large users.

The general rate is for businesses and industries that consume less than 500 m3/day; it does not include large users.

At the time the concession of the old Cia. del Gas, was awarded to Gaseba Uruguay in 1994, the company served a total of 45,144 users that were connected to the manufactured gas distribution network. Based on the results of the above table, it can be seen that there has been no real growth in the number of connections/customers of the company. With the exception of a few areas of Montevideo where new development of the network has taken place, what has occurred in the remaining cases, has been an attempt to reconvert the old manufactured gas network.

The share of Montevideo Gas of the natural gas market is 35% of natural gas sales.

Billing has demonstrated a tendency to increase during the period considered (2003-2007), essentially in the residential sector:



Source: DNETN

The evolution of billing shows a certain seasonality associated with the heating.

Distribution losses: 26% of the "gas is not accounted for" (source: URSEA)

The high percentage of distribution losses can be explained by the large proportion of old distribution network. There is currently a proposal to replace 300 km of old network with new lines that would help reduce gas losses.

The maximum rates for the distribution service are set by the Executive Branch based on the conditions specified in the concession contract.

Rates are composed of gas costs at the importing country's border (wellhead gas price, transportation within Argentina and Uruguay, taxes, etc.) and the VADEG (standard gas distribution value added), including all company operating expenses (network operation and maintenance, mandatory investments, etc.), and the investment rate, calculated based on a hypothetical company with an adequate level of efficiency. For residential rates, the standard gas distribution value added is approximately 60 to 65% of the variable costs.

The company is required to pay a fee of US\$ 400,000/year that is adjustable according to the variable cost of a m3 of residential gas.

Regarding the general evaluation of the performance of the company and the fulfillment of the concession contract, according to the results it can be concluded that the development of the network (km of distribution network) and the number of connections (customers) is considerably less than what was specified in the concession contact. To evaluate the economic-financial performance of the company, the <u>financial results</u> <u>of the company</u> for the 2002-2006 period are presented.

in Oruguayan pesos					
Category	2002	2003	2004	2005	2006
Current assets	85,165,328	135,796,946	71,515,163	64,012,040	127,194,987
Non-current assets	592,329,429	748,600,520	773,242,660	774,282,452	802,987,579
TOTAL ASSETS	677,494,757	884,397,466	844,757,823	838,294,492	930,182,566
Current liabilities	606,176,858	501,886,058	214,243,223	270,663,947	237,180,145
Non-current liabilities	0	0	278,230,653	241,251,466	270,386,257
TOTAL LIABILITIES	606,176,858	501,886,058	492,473,876	511,915,413	507,566,402
EQUITY	71,317,899	382,411,408	352,283,947	326,379,079	422,616,164
TOTAL LIABILITIES &	677,494,757	884,297,466	844,757,823	838,294,492	930,182,566
1 III JUII I					

Gaseba Uruguay S.A. Equity situation at the close of each fiscal year In Uruguayan pesos

Gaseba Uruguay S.A. Profit and Loss Statement at the close of each fiscal year In Uruguayan pesos

Category	Year 2002	Year 2003	Year 2004	Year 2005	Year 2006
Operational income	276,577,345	333,157,322	336,507,201	324,272,327	430,219,387
Local	276,577,345	333,157,322	336,507,201	324,272,327	430,219,387
Discounts, bonuses and taxes	-555,261	-3,940,923	-2,782,024	-18,325,910	-12,573,724
NET OPERATIONAL INCOME	276,022,084	329,216,399	333,725,177	305,946,417	417,645,663
Cost of assets sold	-185,311,347	-192,215,471	-214,192,727	-189,698,321	-323,623,379
GROSS INCOME	90,710,737	137,000,928	119,532,450	116,248,096	94,022,284
		100 00 - 444	125 00 1 000	124.050.015	101050 151
Administration and sales	-113,717,419	-129,025,666	-135,204,088	-134,959,017	-124,052,451
Miscellaneous income					
Other Income	5,840,032	9,578,245	8,720,869	4,897,071	4,704,893
Other expenditures	0	0	-1,268,000	-1,537,853	-1,836,288
*					
OPERATIONAL INCOME	-17,166,650	17,553,507	-8,218,769	-15,351,703	-27,161,562
FINANCIAL INCOME	-248,692,119	-75,939,639	10,641,109	-4,987,941	-13,656,255
EXTRAORDINARY INCOME	-976,983	0	-4,129,361	-3,593,443	0
INCOME TAX	-29,400	-42,280	-52,776	-4,506,354	-3,637,257
NET EARNINGS	-266,865,152	-58,428,412	-1,759,797	-28,439,441	-44,455,074

During the administrative period under consideration (2002-2006), the company incurred a loss.

Although the net profit of the company is negative, the gross income (Operating income – cost of goods sold) is positive during the entire period. The negative result is fundamentally due to the high level of administrative and sales costs (fundamentally salaries), that represent 30% - 40% of operating income, and the impact of financial costs. However, during the period a reduction in the impact of financial costs is noted.

In the particular case of 2006, there was a significant increase in the cost of goods sold (70%) that involves the increase in the price of gas, which was greater than the increase in income of the company (44%); this helps to explain the negative results of the company.







Economic-financial indicators	2002	2003	2004	2005	2006
Profits / Assets	-39.4%	-6.6%	-0.2%	-3.4%	-4.8%
Profits / Equity	-374.2%	-15.3%	-0.5%	-8.7%	-10.5%

<u>Conecta SA:</u>

The distribution of natural gas by means of networks in the Interior of the country was awarded initially to a consortium established by the companies Pacific Enterprises International (United States), with a 25% share of the capital stock, Unión Fenosa (Spain), with a 30% share, and ANCAP (45%), in a public works concession for 20 years, extendable for 10 additional years.

Under the concession contract, the State agreed not to grant other concessions in the service area during the concession period.

In 2002, an Addendum to the concession contract was signed, making a substantial reduction in the investment plan and in the number of obligatory connections specified in the initial contract.

Soon after the consortium was established, Sempra sold its share to Union Fenosa. In December 2004, Union Fenosa left the country, and transferred its share to Petrobrás Energía SA. The current distribution of the capital stock is 55% Petrobras and 45% ANCAP.

According to the concession contract, the company is obliged to pay a fee of US\$ 200,000/year, adjustable annually according to the Producers' Price Index (PPI) of United States.

The development of the natural gas market in the distribution area of the company has been considerably lower than what was specified in the Concession Contract regarding the obligatory investments.

Distribution network development:

Distribution piping	4 bar	341.9 km – PE		
	20 mbar			
Odorization plants	3 (Colonia, Pando, Capitán Artigas)			

Source: DNETN

According to the above table, there has been little development in the distribution network (342 km). In the interior of the country, the distribution network has only been developed in two localities: Ciudad de la Costa and Paysandú, the capital.

The 2006 investment plan of the company includes an investment plan in infrastructure for the development of industrial customers at a cost of US\$ 440,000.

The investment plan that is proposed reflects the commercial policy of the company in that it is oriented toward the industrial market.

Based on the above, it can be seen that in the short term no expansion plan is visualized for the natural gas market, in particular for the residential market.

An additional indicator of the weak development of the gas distribution market is the limited number of connections (customers) the company has:

rumber of customers by rate category.						
∘Year	Residential	General	TOTAL			
2001	2,408	58	2,466			
2002	3,688	106	3,794			
2003	4,100	98	4,198			
2004	4,173	107	4,280			
2005	4,236	112	4,348			
2006	3,301	86	3,387			

Number of customers by rate category:

Source: DNETN

Note: Does not include large users

According to the above table, in the past year the company experienced a significant drop in the number of customers, particularly in the residential sector. This is linked to the relationship between the relative prices of natural gas and substitutes, which demonstrated that it was not competitive.

With regard to billing by the company, Conecta represents only 3% of natural gas sales.



Source: DNETN



The financial results of the company for the 2002-2005 period are presented below to evaluate the economic and financial performance of the company.

in Uruguayan pesos				
Category	2002	2003	2004	2005
Current assets	72,101,080	40,900,996	51,291,956	51,541,451
Non-current assets	501,592,744	553,674,076	450,375,668	483,421,328
TOTAL ASSETS	573,693,824	594,575,072	501,667,624	534,962,779
Current liabilities	33,463,091	77,121,189	202,361,686	35,440,900
Non-current liabilities	208,259,925	197,174,532	171,470,000	361,293,189
TOTAL LIABILITIES	241,723,016	274,295,721	373,831,686	396,734,089
EQUITY	331,970,808	320,279,351	127,835,938	138,228,690

Conecta S.A. Equity	situation	at the	close	of each	fiscal	year
In Uruguavan nesos						

TOTAL LIABILITIES &	573,693,824	594,575,072	501,667,624	534,962,779
EQUITY				

Conecta S.A. Profit and Loss Statement at the close of each fiscal year In Uruguayan pesos

Category	Year 2002	Year 2003	Year 2004	Year 2005
Operational income	34,284,976	42,079,598	77,818,185	73,700,240
Local	34,284,976	42,079,598	77,818,185	73,700,240
NET OPERATIONAL INCOME	34,284,976	42,079,598	77,818,185	73,700,240
Cost of assets sold	-37,232,962	-41,867,050	-163,328,155	-71,307,674
GROSS EARNINGS	-2,947,986	212,548	-85,509,970	2,392,566
Administration and sales				
expenditures				
Staff salaries and social security	-8,244,418	-7,241,831	-7,375,904	-13,030,114
Operating contract fees	-16,469,797	-15,804,158	-7,451,668	-17,501,966
Depreciation of goods in use	-12,832,885	-15,881,249	-44,756,292	-19,334,151
Amortization of intangibles				-2,044,892
Publicity and marketing	-2,668,203	-1,402,900	-204,107	-5,891,648
Leases	-2,935,557	-2,880,280	-2,986,737	-3,176,627
Professional fees	-2,650,211	-2,294,893	-2,664,540	-2,422,600
Personnel under contract	-3,028,481	-3,234,465	-3,094,198	-2,342,828
Taxes	-1,957,816	-2,672,515	-2,050,624	-1,280,024
Travel and transportation	-1,175,359	-974,111	-1,175,090	-1,688,361
Bad debts	-880,082	-1,835,744	-1,619,132	-1,163,577
Other expenses	-9,810,324	-8,723,411	-12,468,281	-11,545,349
	-62,653,133	-62,945,557	-85,846,573	-81,422,137
Miscellaneous income				
Other income	154,447	1,585,178	35,947	10,547
Other expenditures	-127,050		-801,013	-1,927,870
OPERATING INCOME	-65,573,722	-61,147,831	-172,121,609	-80,946,894
FINANCIAL INCOME	-46,959,214	-43,570,941	-39,055,430	23,358,100
EXTRAORDINARY INCOME	-3,226,470	0	0	32,874,334
INCOME TAX	-13.200	-70.680	0	0
	10,200	/ 0,000	0	Ū
NET EARNINGS	-115,772,606	-104,789,452	-211,177,039	-24,714,460

According to the financial results of the company, there was an operating and net loss during the entire period considered (2002-2005), which reflects the precarious economic and financial situation of the company. The company is currently operating at a level of sales that is below the economic break-even point.

This is of particular importance because in recent years the company has not been able to develop the residential or industrial gas market in the Interior.







Conecta S.A.

Economic and financial indicators	2002	2003	2004	2005
Profits / Assets	-20.2%	-17.6%	-42.1%	-4.6%
Profits / Equity	-34.9%	-32.7%	-165.2%	-17.9%

7.3 General evaluation of private sector performance in the natural gas sector

Based on the results shown, it can be concluded that the development of the natural gas market has been relatively weak. According to 2006 data, natural gas represented only 4% of final energy consumption.



Source: DNETN

Neer		Montevideo	Large	
0 y ear	Conecta	Gas	Users	TOTAL
1998	0	0	2,072	2,072
1999	0	0	23,334	23,334
2000	592	0	35,752	36,344
2001	1,673	0	32,218	33,892
2002	1,952	0	19,053	21,005
2003	3,382	19,137	41,961	64,480
2004	3,816	30,924	76,729	111,470
2005	4,209	37,692	64,775	106,675
2006	3,896	42,326	76,187	122,408
	UN T			

Volume of natural gas billed (thousands of m3):

Source: DNETN



Number of customers by distributor: (2006)

	Residential	General	Total
Montevideo Gas SA	42,573	1,207	43,780
Conecta S.A.	3,301	86	3,387
TOTAL	45,874	1,293	47,167

Source: DNETN

The natural gas market has developed in the residential area of Montevideo (capital of the country). In the interior of the country, the distribution network has developed in only two localities.

The factors for the lack of development of the gas market include the fact that the final price to consumers was not competitive with the price of energy substitutes.

Although Uruguay was able to import gas at a competitive price, the surcharge for the value added that was given to the distributor (VADEG) when setting the maximum rates for natural gas meant that the final price to the consumer was not competitive. It is felt that the rate policy applied by the Executive Branch was definitely not suitable because it did not foster the development of the market.

Notwithstanding the foregoing, it is felt that the commercial policies promoted by distributors did not help the development of the market.

The restrictions Argentina placed on gas exports and the uncertainty regarding access to the gas reserves of Bolivia hampered the development of the natural gas market, given the lack of a clear picture at the regional level of the supply conditions (availability and price of natural gas).

Financial indicators:

Financial indicators Gaseba Uruguay SA

(in MINI Uruguayan pesos)					
Economic and financial indicators	2002	2003	2004	2005	2006
Net operating income	276.0	329.2	333.7	305.9	417.6
Gross income (Inc. – sales cost)	90.7	137.0	119.5	116.2	94.0
Net income	-266.9	-58.4	-1.7	-28.4	-44.4
Profits / Assets	-39.4%	-6.6%	-0.2%	-3.4%	-4.8%
Profits / Equity	-374.2%	-15.3%	-0.5%	-8.7%	-10.5%

Financial indicators Conecta SA (in MM Uruguayan nesos)

Economic and financial indicators	2002	2003	2004	2005
Net operating income	34.3	42.1	77.8	73.7
Gross income (Inc. – sales cost)	-2.9	0.2	-85.5	2.3
Net income	-115.8	-104.8	-211.2	-24.7
Profits / Assets	-20.2%	-17.6%	-42.1%	-4.6%
Profits / Equity	-34.9%	-32.7%	-165.2%	-17.9%

Advantages and disadvantages of the participation of private companies in 7.4 the hydrocarbon sector

Regarding the participation of the private sector in the sector, its participation in the development of the market is considered to be advantageous, given the high level of investment that is required to develop infrastructure for transporting and distributing natural gas, particularly considering the size of the network of distributed gas that existed prior to the granting of private concession contracts.

However, in the case of natural gas distributors, when the addenda to the contracts were signed the initial bid that resulted in the concessions being awarded was modified with respect to the obligatory investment plan and the number of connections, resulting in a significantly lower number than initially planned.

For this reason, the development of infrastructure has been significantly less than planned.

The concessions were granted prior to the existence of a regulatory framework. To date there is still no Regulatory Framework Law for the natural gas sector, and as a result, there are legal vacuums that hamper the development of the market.

There is also the institutional weakness of MIEM in relation to the principal actors in the sector, and the lack of instruments for ensuring the fulfillment of concession contracts.

Regarding control and auditing by the regulatory authority and MIEM, there has been a lack of control and auditing.

When developing a new market, such as natural gas in the case of Uruguay, it is important to ensure good performance by the companies, because this ensures the future development of the market. It is felt that the management problems that characterized the operation of the distributors has affected the future development of the gas market.

Chapter 8: Statistics on hydrocarbons activities

8.1 Statistics from the petroleum and products subsector

Uruguay has no reserves of fossil fuel so the supply is imported. Crude oil imports represent an average of 55% to 60% of the primary supply of energy⁷, which signifies future dependence on the conditions of supply in the external market.



Source: DNETN

In 2006, oil constituted 67% of the supply of energy.

Petroleum's share of the energy matrix is heavily dependent on annual water conditions. As the graph shows, 2002 was a good year for water, so hydroelectricity played a great role in supplying energy demands.

Notwithstanding the foregoing, recent years have seen an increase in the consumption of petroleum products for transportation; this, together with a reduction in the ability of hydroelectric generation to satisfy the increasing demand for electrical energy, has placed increasing pressure on the demand for oil and petroleum products.

The <u>consumption of petroleum products</u> is the principal source of energy in the country; consumption is 1249 Ktep, and its share of final energy consumption is 53% (2006)

Imported crude oil is processed at the ANCAP refinery, where current capacity is 50,000 barrels per day of oil.

In 2006, crude oil imports totaled 2.15 million m^3 , with 70% coming from Venezuela, 15% from Iran and 14% from Equatorial Guinea. An analysis of the evolution of crude oil imports by origin shows that beginning in 2005, the share of imports from Venezuela increased as Energy Agreements signed with Venezuela took effect.

Crude oil imports by origin:

⁷ "National Energy Balance 2006," National Department of Energy (MIEM), 2006.

	Thousands of	Thousands of	
Origin	m3	US\$	US\$/bbl
Equatorial Guinea	310	141,986	73
Iran	331	129,401	62
Venezuela	1,509	591,440	62
TOTAL	2,150	862,828	64

Source: DNETN

In 2006, 23% of the total dollar value of the country's imports involved the importation highlights the vulnerability of the economy to fluctuations in the international petroleum market, and the increase in the price of crude oil ("cost of external dependence").

∘Year	Crude oil	Petroleum products	
		Imports	Exports
2000	2,013,308	431,418	123,660
2001	1,869,723	313,573	186,060
2002	1,239,950	530,547	67,070
2003	1,910,043	414,836	201,780
2004	2,560,492	272,864	438,430
2005	2,357,292	335,657	420,848
2006	2,150,280	711,183	301,210

Imports and exports of petroleum and petroleum products (in m³)

Source: "National Energy Balance," DNE, 2006.



During the 1999-2003 period, there was a drop in imports of crude oil and petroleum products due to the negative impact of the economic crisis and the drop in fuel consumption.

Additionally, remodeling work was carried out at the refinery in 2003.

A process of economic recovery began in 2004, and as a result, internal consumption recovered. Since then crude oil imports have remained stable. The reduction that is observed in 2006 is due to the method used to measure imports.

Imports of petroleum products mainly involved diesel oil and fuel oil, and some LPG. Current imports of other products are insignificant and involve contextual readjustments.

Importations of diesel oil increased up to 2002, since the production of diesel oil by the refinery was insufficient. The completion of the upgrade of the refinery in early 2003 permitted an increase in diesel petroleum production and significantly reduced imports. At present, diesel oil is only imported to supply the thermal generation plants of the electric company (UTE) during years when there is a shortage of water.



Source: DNETN

Note: Does not include imports of petroleum products for thermal generation by UTE.

The imported products are from the region (Argentina and Brazil).

<u>Exports of petroleum products</u> are the result of contextual adjustments in the production structure of the refinery, as well as delays that occur between the production of products and internal consumption.

Since the upgrade of 2003, the refinery produces an excess of gasoline. Internal gasoline consumption was $305,200 \text{ m}^3$ in 2006, while gasoline exports were 291,000 m³ (97% of product exports are gasoline).



Gasoline exports mainly involve export contracts that were signed in 2002 as payment of the contract for the refinery upgrade. The gasoline is exported outside the region.

From the standpoint of the economy, oil and petroleum product imports constitute 23% of the total value of imports and 28% of the value of exports. Their share increased in 2005 as a result of the impact of the increase in international petroleum prices.

Millions of US\$	2000	2001	2002	2003	2004	2005	2006
Imports CIF	3,465.8	3,060.8	1,964.3	2,190.4	3,113.6	3,878.9	4,774.9
Exports FOB	2,299.5	2,057.6	1,861.0	2,205.9	2,930.8	3,416.9	3,952.3
Balance of trade balance	-1,166.3	-1,003.2	-103.3	15.5	-182.8	-462.0	-822.6
Crude oil imports	381.9	298.8	183.0	370.1	594.3	796.1	864.6
Petroleum product imports	86.7	55.5	92.6	89.3	62.6	68.6	242.6
TOTAL	468.6	354.3	275.6	459.4	656.9	864.7	1,107.2
% oil and prod. Imp. / total Imp.	14%	12%	14%	21%	21%	22%	23%
% oil and prod. Exp. / total Exp.	20%	17%	15%	21%	22%	25%	28%

Balance of trade: imports of crude oil and petroleum products (in MM US\$)



<u>Refinery production</u> was 2.233 million m³ in 2006.

Total production of petroleum products (1996-2006)



Structure of refinery production by product (in thousands of m³):

Petroleum products	2000	2006
Gasoline and naphtha	470	591
Diesel oil	745	900
LPG	149	140
Fuel oil	596	491
Kerosene and turbo	126	78
Others non-energy	95	32
TOTAL	2.180	2.233

Source: National Energy Balance 2006, DNE.

According to the above table, the refinery upgrade of 2003 permitted an increase in the production of light and medium fuels, mainly diesel oil, and a reduction in the proportion of heavy fuels (fuel oil).

The current production structure of the refinery is as follows: (2006 data)

- ☑ Light: 32% (gasoline, LPG, gas fuel, solvents)
- ☑ Medium: 44% (gas oil, diesel oil, kerosene, turbo fuels)
- ☑ Heavy: 23% (fuel oil, petroleum residue, asphalt)



Source: DNETN.

After the upgrade of 2003 the refinery began to produce unleaded gasoline.

Internal fuel consumption was 2.027 million m^3 (2006).

∘Year	Light fuels	Medium fuels	Heavy fuels	Total
2000	654,9	854,6	406,7	1.916,2
2001	589,9	817,1	258,6	1.665,6
2002	523,5	780,4	225,1	1.529,0
2003	451,2	785,4	220,2	1.456,8
2004	439.3	904.2	433.1	1,776.6
2005	455.9	911.1	348.4	1,715.4
2006	471.0	976.1	579.8	2,026.9
Rate of increase				
2000-2006	-5.3%	2.2%	6.1%	0.9%

Structure of internal consumption of petroleum products (in thousands of m³)

Source: "National Energy Balance," DNE, 2006.

Note: Includes fuel oil and diesel oil consumption for electrical generation

The internal consumption of petroleum products involved 23% for the consumption of light fuels (gasoline and LPG), 48% for medium fuels (kerosene, gas oil and diesel oil) and 29% for the remainder, the consumption of heavy fuels (fuel oil and asphalt):

∘Year	Light fuels	Medium fuels	Heavy fuels	Total
2000	34.2%	44.6%	21.2%	100.0%
2001	35.4%	49.1%	15.5%	100.0%
2002	34.2%	51.0%	14.7%	100.0%
2003	31.0%	53.9%	15.1%	100.0%
2004	24.7%	50.9%	24.4%	100.0%
2005	26.6%	53.1%	20.3%	100.0%

Structure of internal consumption of petroleum products:

2006	23.2%	48.2%	28,6%	100.0%
Source: "National End	ergy Balance," D			



The evolution of the internal consumption of petroleum products is presented below:

Source: DNETN

The proportion of diesel oil in the internal consumption of petroleum products increased as a result of the increasing switch to diesel by the motor vehicle fleet, and the replacement of gasoline by diesel oil. While in 1990, diesel oil consumption constituted 59% of final energy consumption by the transport sector, by 2005 it represented 71% of the energy consumed by this sector.

During the 1999-2003 period, internal consumption fell due to the drop in economic activity, and pre-crisis levels have not yet been recovered.

Note: Does not include fuel oil and diesel oil consumption for electrical generation at UTE

Petroleum products	1990	2000	2006
Gasoline	22.1%	23.0%	15.1%
Diesel oil	33.9%	42.0%	47.7%
Fuel oil	29.2%	18.0%	26.7%
LPG	7.7%	11.0	8.2%
Kerosene	4.5%	1.0%	0.5%
Others, energy and non-energy	2.7%	4.0%	1.9%
TOTAL	100.0%	100.0%	100.0%

Structure of the internal market for petroleum products:

Source: National Energy Balance 2006, DNE.

In recent years, there has been a significant increase in diesel oil consumption at the expense of a considerable drop in gasoline consumption, a result, among other factors, of the pricing policy that is applied to the liquid fuel sector. The pricing policy applied over the past two decades created a price differential between the price of gasoline and diesel, which resulted in a strong stimulus for the incorporation of diesel vehicles ("switch to diesel by the motor vehicle fleet"). This is evidenced by the change in the diesel consumption/gasoline consumption ratio; while in 1990 the diesel oil consumption/gasoline consumption ratio was 1.5, that is, for each liter of gasoline 1.5 liters of diesel oil was consumed, by 2004 this ratio had practically doubled (2.81), that is, for each liter of gasoline, approximately 3 liters of diesel oil are consumed.

In 2007, several policies were introduced to discourage diesel oil consumption: an increase in the IMESI⁸ rate that taxes purchases by private diesel vehicles, the creation of a collective passenger transport trust, and changes in the tax structure of the price of diesel oil to permit an increase in the Value Added Tax to replace the IMESI, which allows productive sectors to deduct the tax.

Evolution of the LPG market

∘Year	Supergás	Industrial propane	Propane networks	Supergás bulk
2000	182.2	13.5	17.3	4.7
2001	170.9	13.1	17.6	6.9
2002	166.2	10.0	18.4	6.6
2003	157.0	0.8	6.1	7.0
2004	144.4	2.4	0.6	8.0
2005	151.6	4.6	0.0	8.7
2006	152.9	3.4	0.0	9.5

LPG sales on the internal market (in thousands of m3):

Source: DNETN

Bunkers

⁸ Specific Domestic Tax

∘Year	Gasoline and naphtha	Kerosene and Turbo	Gas oil and diesel	Fuel oil	Total
2000	30	55	165	195	444
2001	0	58	169	249	475
2002	0	25	156	261	442
2003	0	40	175	223	438
2004	0	54	185	239	478
2005	0	51	169	262	482
2006	0	68	170	156	394

Fuel sales to bunkers (in thousands of m3):

Source: DNETN

Forecasts of energy demand 2005-2020:

To obtain a forecast of energy demand with a long-term horizon, the results of energy demand forecasts prepared within the framework of the Strategic Plan 2007-2010 of ANCAP were studied.

The principal hypotheses used to construct the long-term scenario are indicated below:

- ☑ A cumulative growth rate in total energy demand of 2.1% per year for the 2005-2020 period.
- \square No significant changes in the structure of energy demand per sector.
- \square Regarding the structure of demand by source, petroleum products will continue to have a dominant share in the national energy matrix.

Based on these assumptions, a forecast was prepared of the demand for the fuels marketed by ANCAP, as shown in the following table:

			Annual rate of
Product	2005	2020	growth
LPG	97	79	-1.4%
Gasoline	224	317	2.3%
Diesel oil	876	1.189	2.1%
Fuel oil	389	412	0.4%
JP1	42	57	2.1%
Kerosene	8	5	-3.1%
Coke	1	2	4.7%
Natural gas	80	394	11.2%
Ethanol	0	17	n/c
Biodiesel	0	63	n/c
Demand for ANCAP fuels	1,717	2,535	2.6%
Total Energy Demand (In ktep)	2,717	3,705	2.1%

Fuel demand - Years 2005 and 2020 Products marketed by ANCAP (In Ktep)

Source: Strategic Plan 2007-2010 of ANCAP

Note: Includes internal market demand, and national and foreign flag bunkers; does not include UTE demand.

As the table shows, an increase is assumed in the proportion of natural gas in the energy matrix, linked to the development of gas reserves in the region (Venezuela and Bolivia), the implementation of new gas pipelines (GNEA, Argentina), and the entry of LNG.

An increase is assumed in the proportion of diesel oil, and the entry of biodiesel and ethanol. In this case, it assumed that the levels of obligatory incorporation defined in the Law of Biofuels would be achieved (2% by 2009 and 5% by 2011 in the case of biodiesel, and 5% by 2015 in the case of ethanol).



Forecast evolution in the demand for fuels marketed by ANCAP by product (in Ktep):

Source: ANCAP

Petroleum product prices and taxes

The evolution of fuel prices, with taxes, the price at the pump, is shown below:



Source: DNETN.

Note: The price includes taxes

Consumer fuel prices are set according to a system of total operating costs. Since the cost of crude oil is the largest component of the cost, internal fuel prices follow the evolution of the international price of crude oil.

In the particular case of diesel fuel, in recent years a policy has been implemented to reduce the gap between the price of gasoline and the price of diesel oil in order to correct relative price distortions and slow the switch to diesel by the motor vehicle fleet. This measure has been accompanied by the implementation of price rebate policies on collective passenger transportation, and tax reimbursements on diesel oil, in order not to affect the productive sector.

Product	Price ex- refinery	Wholesale margin	Retail margin	IMESI	VAT	Consumer price
Regular gasoline	14.11	0.55	2.58	13.16		30.41
High octane						
gasoline	12.38	0.55	2.58	15.62		31.13
Diesel oil	19.23	0.55	1.82		4.75	26.35
Kerosene (\$/1)	17.81	1.79		2.87		22.48
Heavy Fuel oil (\$/l)	8.72	0.18			1.96	10.85
Supergás (\$/kg.)	13.42	7.25			4.55	25.21

Fuel price structure (according to current prices in September 2007):

Source: DNETN

Average fu	el price at the	pump in the	region ((US\$/I):
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Product	Uruguay	Argentina	Brazil	Paraguay	Chile
Regular gasoline	1.26	0.55	1.30	0.83	1.23
High octane					
gasoline	1.30	0.62		1.14	1.30
Diesel oil	1.12	0.51	0.97	0.76	0.91
Fuel oil	0.46	0.51			
LPG (US\$/kg)	1.05		1.32	0.81	1.46



Note: Current prices for 14/09/2007 in the case of Uruguay and Brazil; 31/08/2007 in the case of Chile; 31/07/2007 in the case of Argentina.

The tax rate is one of the factors that helps to explain the difference in fuel prices between Uruguay and the region.





Calculation of the import parity price:

Product	Maximum price set by Executive Branch (for 12/7/2007)	Import parity price	
		w/IM	wo/IM
High octane gasoline			35.78
(\$/1)	31.40	36.40	
Diesel oil (\$/l)	25.00	24.27	23.37
Fuel oil (\$/l)	10.30	13.39	12.79
LPG (\$/kg)	24.69	32.87	31.81

Note: Import parity price with and without an importation margin (IM). Source: URSEA, DNETN

According to the import parity calculation, the maximum selling price of hydrocarbons that is published regularly by URSEA, with the exception of diesel oil, is below the import parity price.

8.2 Statistics of the natural gas subsector

The energy matrix for 2006 indicates a low proportion of natural gas in the structure for supplying energy demand (3%).

∘Year	Gasoducto	Gasoducto	TOTAL
	del Litoral	Cruz del Sur	TOTAL
1998	2,127.1		2,127.1
1999	23,567.2		23,567.2
2000	36,863.6		36,863.6
2001	34,309.6		34,309.6
2002	20,673.2	2,515.9	23,189.1
2003	26,494.3	38,553.0	65,047.4
2004	31,326.8	81,659.2	112,986.0
2005	26,737.6	80,890.1	107,627.7
2006	26,349.7	97,023.1	123,372.8

Natural gas imported by Gas Pipeline (in thousands of m3)
Source: DNETN

79% of natural gas imports occur through the GCDS (southern part of the country).



Evolution of the internal natural gas market (thousands of m3/month)

Voor			Large	
0 Year	Conecta	Gaseba	Users	TOTAL
1998	0	0	2,072	2,072
1999	0	0	23,334	23,334
2000	592	0	35,752	36,344
2001	1,673	0	32,218	33,892
2002	1,952	0	19,053	21,005
2003	3,382	19,137	41,961	64,480
2004	3,816	30,924	76,729	111,470
2005	4,209	37,692	64,775	106,675
2006	3,896	42,326	76,187	122,408

Volume of natural gas delivered (in thousands of m3):

Source: DNETN

62% of the volume of gas delivered involves large users, while the distributors' share is 38% (3% Conecta y 35% Gaseba).



Chapter 9: Lessons learned, comments and suggestions

Based on the report, it can be concluded that the process of energy sector reform that was promoted in the region during the 90's has differences in the case of Uruguay that distinguish it from the other countries of the region.

In the particular case of the <u>petroleum products sector</u>, the process that sought to promote the opening of the sector to private initiative is found in the "Law for Demonopolizing Petroleum Importation, Exportation and Refining" (Law 17.448), of January 2002.

The principal aspects of the Law and a summary of the scope of the reform that was promoted in the hydrocarbon sector are as follows:

- ☑ Annulment of the monopoly on crude oil importation, exportation and refining, and on petroleum product exportation, that was established in favor of the State and administered by ANCAP according to Law 8764 that established ANCAP.
- ☑ The option for partnerships between ANCAP and private partners was authorized. Although ANCAP maintains the majority ownership of the company, the company would be managed by the partner.
- ☑ The company is authorized for a maximum period of 30 years to carry out petroleum importation, exportation, and refining activities, distribution, exploration and marketing of refined products, and importation of the latter as of January 1, 2006.
- ☑ The annulment as of January 1, 2006, of the monopoly on the importation of refined petroleum products.
- \square The maximum selling prices of fuels at the refinery gate, before taxes, must be set according to the import parity price.

The law demonopolizing the petroleum products sector was submitted to a referendum in 2003, and was defeated. This reflects the tradition of Uruguay and the importance the people place on the participation of State companies in the sector, and the maintenance of the state monopoly in favor of ANCAP.

In the case of Uruguay, State companies do not create management and performance problems, or negative financial results, and/or situations of indebtedness that would justify their privatization, and society places a positive value on the role and importance of public companies.

After the law for demonopolizing the sector was defeated, no progress was made in defining the regulatory framework for the petroleum products sector.

An analysis of the characteristics of the industry shows that refining, due to the minimum scale required and the size of the Uruguayan market, constitutes a natural monopoly, while the distribution of products is an oligopolistic market.

The reform process that was promoted in the sector demonstrated that the attempt to create competitive conditions in a market that is monopolistic or oligopolistic in nature was unwise from an economic standpoint.

Consequently, it is felt that if the reform process foreseen in the law for demonopolizing the sector is realized, there is a risk that a state monopoly will be exchanged for a private monopoly, and that control over the management of a resource that is strategic to the economy because of its impact, will be lost.

Changes in the regional and world context, and the present scenario of high oil prices, have given rise to a more generalized perception of the strategic nature of energy, and the importance of State participation in ownership.

Regarding the energy policy guidelines of the present government administration, there is a political decision to maintain ANCAP as a strong state-owned company.

Notwithstanding the foregoing, there is interest in developing public-private partnership schemes for carrying out upstream activities and businesses abroad that can ensure access to oil and gas reserves, and improve the conditions of crude oil supply.

Regarding refining activity, a partnership between ANCAP and PDVSA is under consideration for the construction of a deep conversion module (heavy crude processing), within the framework of the Energy Security Agreement signed by the governments of Uruguay and Venezuela in August 2007.

Following a review of the results of the experiences with the reform that was promoted in the region, from an economic and strategic standpoint, it is considered appropriate that a state company participate in order to avoid market concentration and situations of abuse by a dominant position.

<u>In the natural gas sector</u>, the development and regulation model that was promoted throughout the country during the 90's was essentially based on the regulatory model of the Argentine market.

The principal energy policy guidelines defined by the Executive Branch for natural gas, that are found in the concession contracts and decrees regulating the operation of the industry are as follows:

- \square To foster competition in all segments of the industry and eliminate barriers that hamper it, and when that is not possible due to the existence of natural monopolies, to establish guarantees that will ensure that it is controlled;
- \square To promote efficiency in the sector;
- \square To ensure the regularity, reliability and security of the supply of gas;
- \square To establish equitable and suitable rates to ensure the efficient and sustainable development of the activities of the industry;

☑ To guarantee non-discriminatory treatment of all parties that intervene in any of the activities or operations included in this Law, including users.

The transportation and distribution of natural gas are considered to be natural monopolies, so they are regulated activities, whereas the importation and marketing of natural gas are considered to be competitive activities, and therefore are open to competition.

The development of a natural gas market, as a function of the level of investment required for the transportation and distribution infrastructure, is promoted through private sector participation in public concession contracting.

Without prejudice to the foregoing, infrastructure development was made possible through the participation of State-owned companies, ANCAP's financing of the Gasoducto del Litoral, and the firm transportation contract entered into by UTE (power company), making it viable to build the Gasoducto del Sur and bring in natural gas.

With regard to natural gas market development, the lack of a prior legal framework, particularly a regulatory framework law for the sector, is believed to be a serious restriction insofar as the criteria for sector development were established through concession contracts and company business performance.

As for the overall hydrocarbons sector assessment, one aspect to highlight relates to the institutional weakness characterizing the Ministry of Industry, Energy and Mining (MIEM) and the regulatory body (URSEA) vis-à-vis the companies of the sector (both public and private).

Added to this is the lack of a regulatory and institutional framework to determine precisely the functions and jurisdiction of each energy sector institution, which results in a lack of clarity and confusion regarding policy, regulatory, and business functions.

In the particular case of the petroleum products sector, the absence of a regulatory framework for the distribution and marketing of products is highlighted. In practice, a regulatory framework has existed in the contracts between ANCAP and the distributing companies that established the margins to be received by distributors, the bonuses of agents (station owners), and charter fees for the transportation of products. ANCAP also dictates the technical specifications of the quality ranges of products and safety regulations that govern transportation and storage

General evaluation of the performance of companies in the hydrocarbon sector:

In the petroleum products sector, based on the indicators selected, it can be concluded that ANCAP provides good economic returns and an average profit of US\$ 50 MM/year.

It does not require financial assistance from the State.

Consequently, the state nature of the company allows the Government to appropriate the monopolistic income of the sector.

The shortcomings associated with the participation of State-owned companies involve the fact that company management has traditionally been political, and not technical, causing a lack of policy continuity and switching company directions due to changes in the administration. Recently, with the current government, the President of the Board of Directors of the company is a political-technical position.

An additional factor is linked to the use of State companies as instruments of short term economic policy, in particular, as instruments for controlling the evolution of internal prices (inflation).

The problems seen in the corporate management of ANCAP are associated with the limitations on managing business factors such as investments, purchasing procedures, and contracting by the Public Administration, which give rise to higher costs and delays in processing times, and matters relating to the scale of the ANCAP Refinery.

An aspect to be noted is the participation of ANCAP in money-losing businesses, in some cases foreign to the principal business of the company due to economic policy, regional development, social or other objectives, which have a negative impact on the financial situation of the company.

Regarding the performance of the <u>companies of the natural gas sector</u>, an important aspect is the institutional weakness of the State and the regulator, as well as the absence of instruments and mechanisms that would ensure the effective fulfillment of concession contracts, in particular natural gas distribution contracts.

In the case of the natural gas transportation contract, based on an analysis of selected indicators, it is felt that the company performed well.

Regarding gas distribution by means of networks, the level of investment, the extension of the network and the number of connections, the achievements have been considerably fewer than expected, resulting in poor development of the natural gas market.

From a regulatory standpoint, the sector still does not have a general framework contained in a single law that establishes the regulatory framework of the sector; there are several partial laws and decrees regulating different activities of the industry that give rise to legal vacuums.

As a result of the regional energy crisis and the restrictions established by Argentina on the exportation of natural gas, there is uncertainty regarding the availability of natural gas in the regional market and supply costs for Uruguay, which has led to a lack of clarity by the authorities of the sector about the role of natural gas in the future development of the national energy system.

An additional aspect of interest is the rate policy. It is felt that the pricing policy of natural gas compared to the prices of substitutes has hampered the penetration of natural gas, so it would be appropriate to review the current rate policy.

Based on the above considerations, the following general recommendations are made:

- ☑ The Ministry of Industry, Energy and Mining should develop a long-term energy plan to clarify the energy policy goals and strategies for the natural gas and petroleum product sector.
- ☑ A hierarchy should be revisited and established for MIEM's policy-making and long-term planning role in coordination with the sectoral policies of State-owned companies.
- ☑ The regulatory and institutional framework of the hydrocarbons sector (oil and natural gas) should be strengthened:

From an institutional standpoint, it is considered necessary to strengthen policy formulation and national energy planning activities by the National Department of Energy of MIEM, and URSEA, as the regulatory agency.

The roles and functions of the various energy sector institutions, in particular, policy formulation, regulatory and business functions should be clearly established.

From the regulatory standpoint, it is recommended that efforts be made toward defining the regulatory framework for the distribution and marketing of hydrocarbons and liquid fuels.

This implies the consideration of current distribution contracts, the determination of mechanisms for setting distribution margins and setting maximum selling prices for the different stages of marketing (regulated), and standards and procedures for controlling product quality.

A Regulatory Framework Law should be developed for the natural gas sector.

 \square The pricing policy of energy products and the tax treatment of the different products should be reviewed.

Currently, the establishment of the pricing structure of products is strongly linked to fiscal criteria. It is thus considered necessary to review the tax structure of fuels and evaluate the competitiveness of substitute products such as CNG-LPG, diesel oil-gasoline-biodiesel / natural gas-LPG-heavy fuel oil; natural gas and electrical energy.

☑ Energy efficiency should be promoted in the demand

According to the conditions of the regional and international market, in particular the evolution of energy prices, it is considered a high priority to define lines of action that will allow the consumption (demand) of products to be influenced, and to define a policy for promoting the efficient use of energy for transportation. It would be appropriate to create a planning agency for transportation policy and energy policy. Finally, it is felt that these definitions should be implemented through a regulatory framework and/or the establishment of regulations that will encourage the development of projects for the efficient use of energy in transportation.

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