PDVSA EXPLORATION AND PRODUCTION 'APERTURA' BUSINESS PORTFOLIO

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ABSTRACT

The objective of this work was to consolidate and analyze the Pdvsa Exploration and Production 'Apertura´ Business Portfolio developed since 1992, when the first mature fields operating agreements were awarded, up to the end of 1998. The mentioned portfolio contains a total of 57 businesses in which 58 international companies and 16 national private companies are engaged in all the oil business activities from exploration to production and marketing.

BACKGROUND

Pdvsa's 'Apertura' process started back in the early 80's with the internationalization strategy, in order to consolidate its position in the global markets by directly accessing final consumers. Still today the global market potential is expected to grow significantly as a result of economic expansion and demographic growth even though moderated by technological breakthroughs and energy conservation policies.
The 'Apertura' process has been based, among many reasons, on Venezuela's huge oil and gas reserves, extra-heavy oil to a great extent, priorities for development of light and medium crude, availability of mature fields, investment requirements, as well as introduction of competition to foster increased efficiency, to establish a beach head in the financial and technological markets, and management evolution and competitive reasons to concentrate on core activities. All this has generated, in this decade, an 'Apertura' business portfolio to be discussed next.

INTRODUCTION

To satisfy global market requirements, Pdvsa E&P has prompted 57 businesses, 46 of which are accomplished businesses whereas the remaining 11 are well advanced into the materialization phases. Such businesses are supported by the energy policy and legal frame available. Four business schemes have been used: Operating Agreements, Profit-Sharing Agreements, Strategic Associations and Outsourcing.
A total of 74 national and international private companies are now engaged in the 'Apertura' business portfolio, which would result in around 30000 millions US dollars investment during the current business plan and in a projected 2.3 millions oil production share in the year 2008. 16 are local companies participating in the business from exploration and drilling activities to production and marketing. Another government company and 3 public universities have also established business relations with Pdvsa E&P. The above mentioned local participation is being promoted today by a Pdvsa and private sector industrial chambers alliance, including the maximum use of national goods and services, which at the same time contributes to the integration of the oil sector with the national economy.

ORGANIZATION

On January 1st, 1998 Pdvsa's transformation strategy took place officially. This allowed the business units which integrate the Exploration and Production Division(Exploration, Production, CVP, Orinoco Belt and Bitor/Carbozulia. See Figure 1) to handle exploration activities, oil and gas production, 'Orimulsión' manufacturing and coal production. These business units include within their activities the administration, surveillance or direct participation in the different projects of the 'Apertura' business portfolio.

BUSINESSES

57 businesses make up the 'Apertura' portfolio today, 46 of which are accomplished businesses whereas the remaining 11 are well advanced into the materialization phases(Figure 2).

33 of those businesses are service contracts for exploration and production in mature fields, 8 are agreements for exploration in new areas, production and marketing of light and medium crude, 4 strategic associations for field development in the Orinoco Belt, production and transportation of extra-heavy oil, oil upgrading and refining, as well as marketing of upgraded crude and refined products. Regarding the Orinoco Belt, one project has also been approved for field development, bitumen production and 'Orimulsión' manufacturing and marketing.

One is a gas project offshore north of 'Sucre' State for natural gas production and transmission, liquefaction, shipping and commercialization of liquefied natural gas(LNG). To this project belongs the first strategic association approved by the Venezuelan government in 1993.

2 projects for development of mines 'Paso Diablo','Socuy', 'Norte' and 'Cachirí' north of 'Zulia' State, production, transportation and coal commercialization. Finally, 8 contracts have been awarded for transferring activities to third parties(outsourcing) related to electricity generation and transmission, water injection, gas compression and injection
to reservoirs, electrosubmergible pumping and pipeline crude transportation, storage and shipping services.

'APERTURA' PROJECTION IN BUSINESS PLAN

Based on the approvals obtained from Government to date, the 'Apertura' oil, 'Orimulsión' and coal production levels projections in the business plan period(1999-2008) are shown in Figure 3. Gas production from these projects is expected to rise to 2200 MMSCFD including the 'Cristóbal Colón' project at the end of year 2008.

LEGAL FRAMEWORK

Following current law, private companies can participate in businesses with PDVSA, considering that the Government, through its holding Pdvsa, must have control on the businesses in which it may have majority or minority shares. Government representatives participate in the making of fundamental decisions through statutory, functional or organizational mechanisms included in the contracts.

Profit-sharing agreements and strategic associations as stated above are to be approved by executive and legislative powers. On the other hand, Pdvsa E&P affiliates are authorized to independently pursue and celebrate operating agreements for the development of mature fields and contracts for the outsourcing of activities that are not considered medullar to the business.

According to the existing law, the royalty, income tax, municipal tax, value added tax('impuesto al consumo suntuario y ventas al por mayor'), customs on materials and services and the asset tax comprise the tax burden applicable to the oil sector in Venezuela. See Table 1 for the degrees of applicability for each of the business schemes mentioned above.

Through this legal framework, the Government has been able to attract private investment both locally and abroad, to secure control over the nation's resources, to have management control on the different businesses taking place and obtain profits. The bidding and environmental laws are also to be followed by PDVSA for partners and service providers selection and in all situations including partners and service providers when performing exploration and production activities.

BUSINESS SCHEMES

Pdvsa has so far used 4 business schemes to manage opportunities within the 'Apertura' context, which are referred to as operating agreements, profit-sharing agreements, strategic associations and outsourcing.

Low profitability, mature fields are being developed using the operating agreement scheme to handle activities that range from exploration to transportation of hydrocarbons to Pdvsa tank farms.

Hydrocarbons produced belong to Pdvsa which commercializes them. Private companies or consortiums make the necessary investment and provide an integral production service for which are compensated with capital and operating fees. Service contracts are 20 years long. This business scheme has allowed Pdvsa to obtain production from mature fields that would hardly be exploited otherwise, given the large list of priorities available.

Profit-sharing agreements are being used to explore and hopefully produce new areas where light and medium crude might be encountered, being the finance and exploration risks assumed by the private companies. Pdvsa participation in the businesses could range from a maximum of 35% to a minimum of 1% depending on the profitability of commercial discoveries, capital availability, etc.. Unlike the operating agreements, consortiums included Pdvsa own and independently commercialize the hydrocarbons produced, while the partners have pro rata rights to lift crude and may bid between them for periodic sales. Other characteristics of this scheme are the following:

. Exploration time frame: Phase I 3-5 years, with probable extension Phase II 2-4 years to allow for completion of geological studies
. Development time frame: 20 years, with possible extension to 30 years to take into account major reasons like low profitability, not recovered investments,
production constraints, etc.
. For the 8 agreements in place, in addition to the tax burden shown above in the **'Apertura´ Legal Framework**, Pdvsa gets a participation in profits before
income tax that ranges from 29% to 50%.
. Pdvsa purchase price rights to become partner in businesses is a function of exploration costs
. Pdvsa participates by means of deemed loans for purchase price rights

Among the main advantages of this scheme we have Government exploration risk avoidance, possibility to reduce participation in businesses to a minimum of 1%, so that capital requirements are minimized, and attraction of new investments and new technologies to the country.

A third business scheme, strategic associations, allow private companies to make investments and manage businesses in association with Pdvsa in the Orinoco Belt, offshore north of 'Sucre' State('Cristóbal Colón' project), and north of 'Zulia' State for syncrude, 'Orimulsión', liquefied natural gas(LNG), and coal production. To date 5 associations have been approved by Government for the Orinoco Belt area, of which 4 are designed to produce syncrude, and 1 for 'Orimulsión' manufacturing. The 'Cristóbal Colón' project has also been approved by this means. Coal businesses even though are considered strategic associations do not require Government approval.

Pdvsa participation in syncrude projects varies from 30% in the Hamaca project to 49.9% in the Petrozuata project, whereas the equivalent figures for our partners are 15% of Statoil in the Sincor project and 51.1% of Conoco in the Petrozuata project. The 'Orimulsión' manufacturing strategic association business shares are not defined yet.

Regarding the 'Cristóbal Colón' and coal projects PDVSA participation is 33% in the first one, and 36% and 47.64% in the latter
.
Maximum oil recovery, use of new technologies, cost reductions due to synergies, and investment leverage are the main strategic associations advantages.

The last business scheme being used is outsourcing which allows Pdvsa to concentrate in its medullar activities while transferring services to third parties. This scheme is justified on value creation to Pdvsa through economies of scale, medullar business to service providers and significant cost reductions. Investments are made by service providers. See above in **Businesses** activities transferred so far.

PARTNERS AND SERVICE PROVIDERS SELECTION PROCESSES

Next are shown the global procedures followed as part of the partners and service providers selection processes for each of the four business schemes addressed above:

Operating agreements and profit-sharing bidding processes:
. Identification of areas to be offered

. Data package consolidation
. Bidding document and draft contract preparation
. Invitation to bid(Process advertisement and road show, etc.)
. Participants' interest(1)
. Participants' pre-qualification
. Data package delivery
. Technical, financial and legal maters seminar and site visits
. Public auction(2)
. Contract signing
(1) Participants in the operating agreements paid a bonus to obtain right to bid
(2) In profit-sharing agreements, offers with 50% Pdvsa participation in profits were untied with a bonus

Strategic associations partners selection process:
. Internal decision to proceed
. Business criteria definition
. Potential partners long and short lists definition
. Signing of letter of understanding with potential partner
. Business evaluation
. Congress approval
. Signing of association agreement
. Final development decision making

Outsourcing bidding process:
. Contracting strategy internal approval
. Data package consolidation
. Invitation to bid
. Technical, financial and legal matters meetings and site visits
. Public tenders opening
. Technical and commercial tenders evaluation
. Contract signing
In all cases contracts are reviewed by Government previously to signing.

PARTNERS AND SERVICE PROVIDERS

Regarding the 'Apertura' process, Pdvsa E&P is doing business today with a total of 74 partners and service providers companies, of which 58 are international and 16 local companies.

International companies are from north and south America, Europe, the Far East, Australia, and the Middle East.

The 16 local private companies are engaged in 13 operating agreements, 1 profit-sharing agreement, 1 'Orimulsión' manufacturing project and in 2 outsourcing projects as indicated next:

Company	**Business**
Servicios Corod de Vzla	Operating agreement Oritupano Leona
Vinccler	Operating agreements Monagas Sur and Falcón Este
Inelectra	Operating agreements Boscán, Kaki and Maulpa, and profit-sharing agreement Golfo de Paria Este
Polar	Operating agreements Kaki and Maulpa
Inversora Mata	Operating agreement Mata
Corporación Corepli de Vzla	Operating agreement Acema
Cosa Ingenieros Consultores	Operating agreement Casma-Anaco
Phoenix International, C.A.	Operating agreement Casma-Anaco
Cartera Invers. Venezolanas,C.A	Operating agreement Casma-Anaco
Suelopetrol	Operating agreement Cabimas
Banco Caracas	Operating agreement Onado

Cartera Invers. Petroleras II,C.A	Operating agreement B-2X.68/79
Ehcopek Petróleo, S.A.	Operating agreement B-2X.68/79
Vepica	Water injection outsourcing project
Jantesa	'Orimulsión' manufacturing project

In addition, Pdvsa E&P has established business relations with another public company, 'Edelca', for the supply of electricity service in the eastern area and with the public universities 'Universidad Central de Venezuela', 'Universidad del Zulia' and 'Universidad de Oriente' for the handling of operating agreements 'Socororo', 'Mara Este', and 'Jobo 2', respectively. The main purpose of these agreements is to improve interchange between the oil industry and the academic sector as well as being an alternate revenue source for these public universities.

'APERTURA' INVESTMENT LEVELS

The 'Apertura' accumulated investment during the 1992-1998 period amounted 7400 millions US dollars whereas the estimated similar amount in the period 2009-2008(actual business plan) is around 30000 millions US dollars comprised of Pdvsa E&P, partners, project finance and service providers contributions. See Figure 3 for a comparison between Pdvsa E&P and other parties investments levels.

OIL SECTOR INTEGRATION WITH NATIONAL ECONOMY

As part of Pdvsa corporate orientation a significant effort is being continued today to promote the maximum use of local goods and services. The local content in businesses related to the operating agreements, profit-sharing agreements, strategic associations and outsourcing are around 70%, 80%, 55% and 50%, respectively.

On the other hand, as indicated above, currently 16 local private companies are engaged in hydrocarbon production projects including outsourcing services. To pursue these projects local companies have formed joint ventures with international companies which is seen as desirable and of mutual benefit. Both ways of local participation show the increasing level of integration of the oil sector with the national economy for optimum value creation to the nation.

To further improve the above local participation, Pdvsa and local industry chambers created on July 20, 1998 the so called 'Alianza Empresarial' with the purpose of developing the local private sector based on Pdvsa business plan and the 'Apertura' process. The main objectives of this alliance are the following:

.To promote local private companies to attain a significant oil sector goods and services market share.
.To promote local private companies development in their technical and financial capabilities to participate in outsourcing projects, production, manufacture, commercialization and transport opportunities in the oil, petrochemical and coal sectors being competitive on quality, timing and pricing.
.To promote competitive international standards achievements between the local companies.
.To promote public and private policies formulation and applicability to diminish business uncertainty.
.To design and put into effect strategies and organizations to eliminate or minimize conditions or barriers that avoid or oppose the sustainable development of the local oil sector .

Besides other actions, joint work has been initiated to develop a goods and services demand and supply information system and an enterprise and competitively cooperation program following this alliance objectives.

It is believed that this alliance is an effective mechanism to improve integration between the oil sector and the national economy in the years to come strengthening the local private companies, improving their productivity and generating increasing support to the oil sector business plan.

Finally, Pdvsa created the 'Sociedad Financiera de Inversión Petrolera'(SOFIP), which through its affiliate 'Exploración y Producción Inversión Colectiva'(EPIC) is to systematically promote and align national investment in this E&P division. Projects in which EPIC might participate once oil prices improve and the local stock exchange market recovers are operating agreements 'Kaki', 'Maulpa','Boquerón', 'Ambrosio', 'LL-652', 'B-2X.68/79', 'La Vela Costa Afuera', Petrozuata project and a 5% maximum possible share in the 8 profit-sharing agreements mentioned above.

LESSONS LEARNED

Complete and accurate information data packages were crucial for potential partners and service providers to prepare the desired and appropriate tenders. Bidding strategies were recognized by interested parties worldwide namely on the transparency of the bidding processes. It is extremely important to have complete and deep business knowledge on the businesses being considered as a way to secure good businesses for the company. To have a clear picture on the service minimum requirements during long periods of time is critical when defining the takes or pays for minimum payment purposes. Flexibility to adjust to varying degrees of oil production is also very important. Finally, consulting firms can make a significant contribution when assembling this type of projects.

CONCLUSIONS

The level of hydrocarbon reserves, market evolution, investment requirements, internal development priorities, introduction of competition to foster increased efficiency and management evolution and competitive reasons were the main driving forces that gave birth to the actual 'Apertura' business portfolio. Among the most significant achievements to date are: 46 accomplished businesses, 11 well advanced businesses that would hopefully materialize in the short term, 30000 millions US dollars investment level in the business plan that includes Pdvsa E&P, partners, project finance and service providers aliquots, and an estimated overall production of 2.3 millions barrels in year 2008.

There is a legal frame to support the private sector participation through the operating agreements, profit-sharing agreements, strategic associations and outsourcing business schemes used in the 'Apertura ' process. Our partners and service providers have recognized the adequate and transparent bidding and partners selection processes used.

Pdvsa E&P has today a total of 73 private partners and service providers, of which 58 are international companies, 16 local private companies. In addition, Pdvsa E&P has established business relations with another government company and 3 public national universities.

Local companies are participating in the whole chain of oil business from exploration and drilling activities to hydrocarbon production, handling and marketing. Maximum use of local goods and services has been promoted based on competitive quality, timing and pricing. The Petrozuata project with 55% local consumption which is expected to get higher during the operating phase, is a real example of local participation. The Pdvsa and private sector industrial chambers alliance is the newly established mechanism to improve local participation in all phases of the business.

Some lessons have been learned to improve this type of task in the future. It is believed that through the business portfolio described, a greater integration of the oil sector with the national economy is occurring. It is also believed that Pdvsa is in a better position to satisfy variable market requirements that could arise in the future.

Tax burden (percentage)	Operating agreements	Profit-sharing agreements	Strategic associations	Outsourcing
Royalty	16 2/3	16 2/3	16 2/3	
Income tax	34	67 2/3	34	34
Municipal tax	1 - 4			
"ICSVM"	16.5	16.5	16.5	16.5
Customs on materials and services	10 - 40	5	5	10 - 40
Asset tax	1	1	1	1

Notes:
- Fulfillment of enviromental law
- Maximum use of national products and services

Table N° 1: Legal Frame

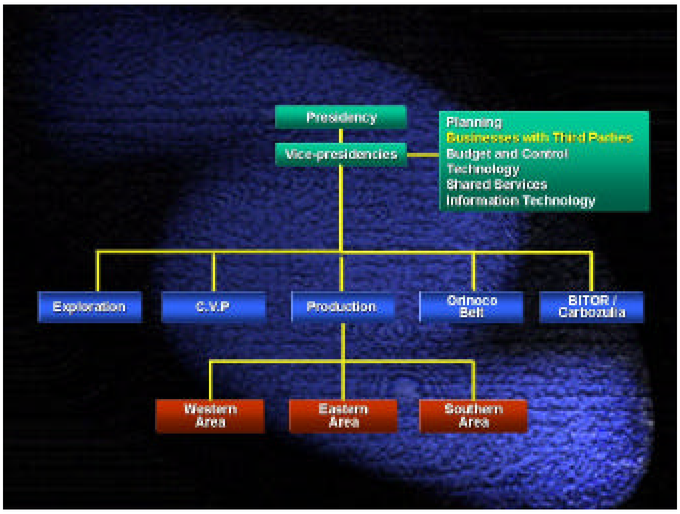

Figure N° 1: Pdvsa E & P Organization

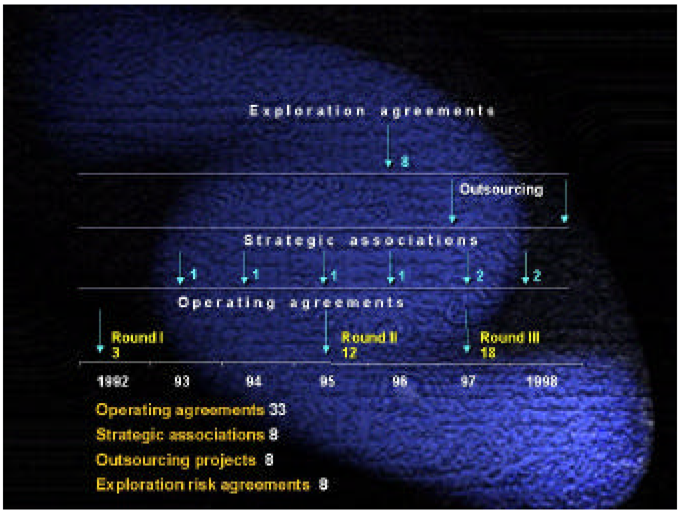

Figure N° 2: "Apertura´s" Chronology

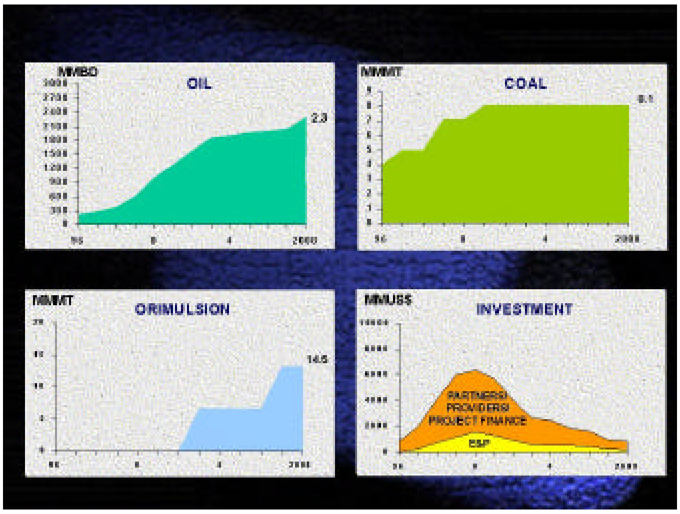

Figure N° 3 Projection in Business Plan