IESA

Venezuela: Energy in figures 2013

Oil and gas sector

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OIL
SECTOR

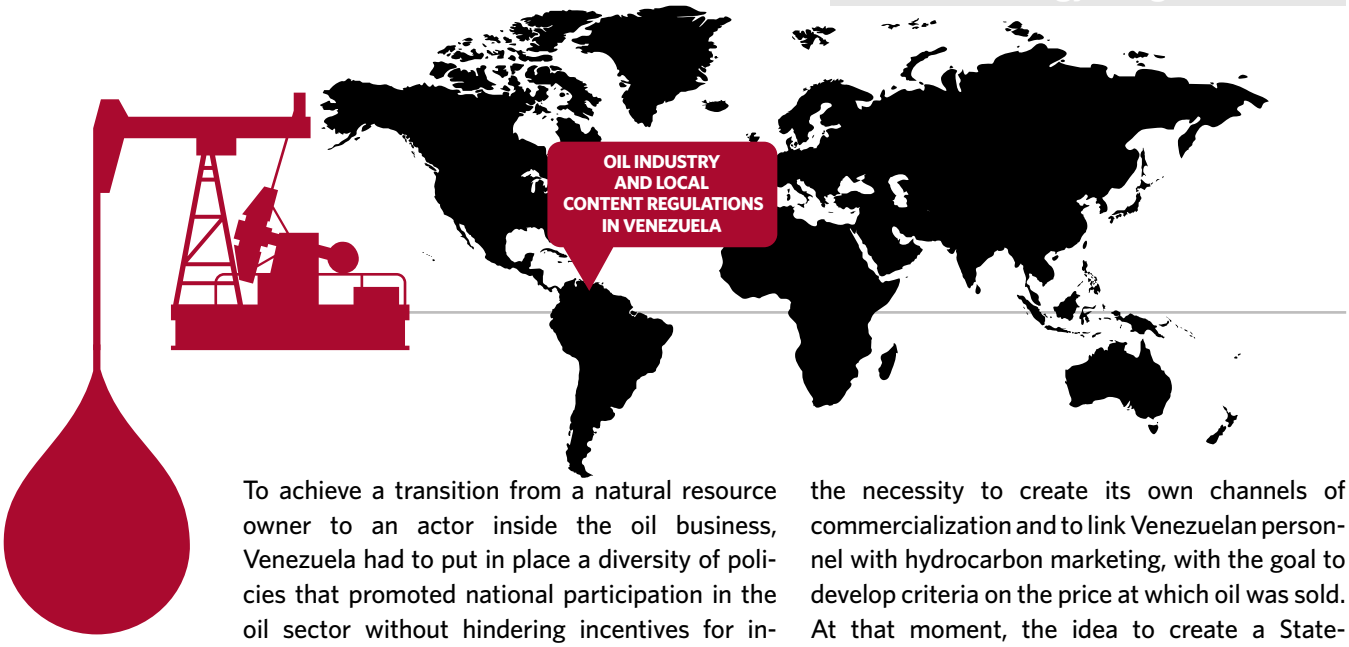
Oil Figures 2013

- **Conventional oil reserves (light and medium):** 40.054 billion barrels.
- **Heavy and extra-heavy crude reserves:** 258.299 billion barrels.
- **Production:** 2.899 million barrels a day on average[1].
- **Global refining capacity of Petróleos de Venezuela, SA (PDVSA):** 2.8 million barrels per day.
- **Internal consumption:** 703 thousand barrels a day (tbd)[2].

OIL OUTLOOK 2013		RESERVES (BILLIONS OF BARRELS)	PRODUCTION (BILLIONS OF BARRELS)	CONSUMPTION (BILLIONS OF BARRELS)
WORLD		1687,9	86,8	91331
NORTH & SOUTH AMERICA		559	24,1	30,066
VENEZUELA	CONVENTIONAL CRUDES	40,054	2,6-2,899	703-777
	HEAVY & EXTRA-HEAVY WEIGHT CRUDES	258,299		
	TOTAL	298,353		
AS % OF TOTAL RESERVES			AS % OF TOTAL PRODUCTION	AS % OF TOTAL CONSUMPTION
VENEZUELA / NORTH & SOUTH AMERICA		53%	10,8%-12,02%	2,3% - 2,58%
VENEZUELA / WORLD		18%	2,99% - 3,4%	0,77% - 0,85%
AS % OF CONVENTIONAL RESERVES				
VENEZUELA / NORTH & SOUTH AMERICA		30%		
VENEZUELA / WORLD		3%		

Source: *Informe de Gestión Anual de PDVSA (2013), OPEC, BP Statistical Review of World Energy 2013 and own calculations.*

[1] International sources reported a production of 2.6 million barrels per day.
[2] According to the International Energy Agency (IEA) domestic consumption now stands at 777 thousand barrels per day.



To achieve a transition from a natural resource owner to an actor inside the oil business, Venezuela had to put in place a diversity of policies that promoted national participation in the oil sector without hindering incentives for investments. Throughout its history, Venezuela's government has implemented key policies with different levels of success; what follows is a small summary of the measures that had more impact. At the beginning of the XX Century, capital, labor and oil production technologies belonged to foreign firms that operated in Venezuelan land and the major source of income the State received came from the figure of royalties. The "Reventón" of the Barrozos-2 well that showed the country's petroleum potential, generated interest to invest from several international oil companies. In order to channel investment efforts, they developed high level technical studies, and production plans. On the other hand, the Venezuelan State moved to acquire more regulation skills and designed mechanisms that took advantage of this external investment potential.

The introduction of the 1943's Ley de Hidrocarburos unified the fiscal regime for all the existing and new concessions to foreign oil companies. This regime increased the State's participation on oil revenues and established new requirements of oil refined inside the country by the concessioners. These requirements led to the construction of oil refineries that processed over 250 thousand barrels a day (tbd) in 1950. During the 1940's, particularly during the government of the Revolutionary Junta (1945-1948), the State emphasized on the necessity to create its own channels of commercialization and to link Venezuelan personnel with hydrocarbon marketing, with the goal to develop criteria on the price at which oil was sold. At that moment, the idea to create a State-owned oil company was born. That company would take advantage of all the fields with oil potential that had not been granted to foreign firms. That idea fell apart doing the 1950s, when the government granted new concessions.

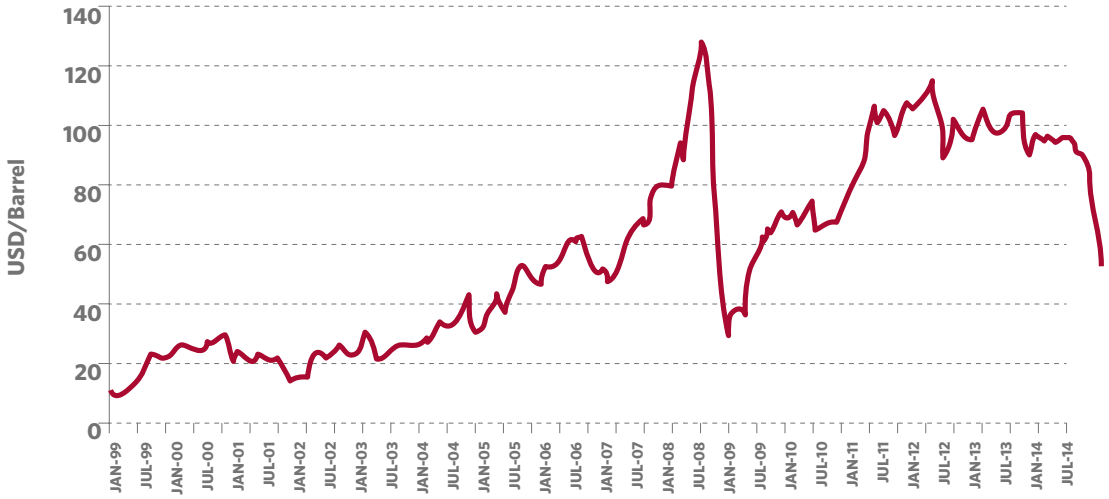
However, during that decade took place a personnel substitution process where foreign employees gave way to Venezuelans to work in the oil industry. This process was carried out either by foreign corporations' own initiatives – as in the case of the Royal Dutch Shell, that faced the cost of moving human capital between its headquarters – as well as by new regulations, such as the Architecture and Engineering Practice Law. These initiatives reduced the proportion of foreign personnel in the oil sector from 13.3 % in 1952 to 2.2 % in 1975. When, at the end of the 1950s, the new democratic government took power, interest for the creation of a national petroleum company grew again. In 1960, the Venezuelan Petroleum Corporation (CVP) was created. It was a vertically integrated company that looked, among its objectives, to strengthen the links between national personnel and the industry. However, the CVP was less profitable than its foreign competition. Some of the possible causes for its low profitability were: low initial capital, difficulties to attract talented employees (with wages 40 % lower than in the foreign companies), the quality of oil fields that were assigned

to it, price obstacles set by the International oil companies and the lack of a clear training strategy. Afterwards, those reasons shaped the way the nationalization was planned, in response to critics that were not sure that the CVP would be able to assume all the operations in the oil sector. Looking to maintain stable cash flows and to prevent operation interruptions, the Venezuelan State created Petróleos de Venezuela, Sociedad Anónima (PDVSA) as a holding company for all the enterprises that operated the country's oil industry, including the CVP and the foreign concessionaries. Therefore, a progressive transfer of operations and projects was established, counting with cooperation from the parent companies of the concessionaries within a range of aspects that covered operations, technical services, special projects and human resources and training. At the moment of the nationalization in 1976, a significant technological breach (i.e. 37 % in the refining area) between the foreign and national industries shaped the way the transfer took place: technological links with the foreign companies for at least 70 % of the industry, according to studies by INVEPET (now INTEVEP). This institution also stressed on the need to create a data processing and services center that supported exploration and production activities that would be able to adapt secondary recovery techniques to Venezuelan conditions while also developing technological advancements for heavy-crude production during the first years of the nationalized industry. In order to achieve those goals, Technical Association Agreements -- Convenios de Asociación Estratégica in Spanish – were established. They later evolved into the exploration of the Orinoco's Oil Belt and of offshore reserves, a modification of refining canons and to the introduction of better practices for international marketing. These agreements were seen as an option that eased the pathway for new technologies while keeping traditional markets for Venezuelan products. On the other hand, they were considered as a kind of compensation towards the old concessionaries affected by the nationalization. Additionally, Technological Cooperation Agreements were created with the goal of developing joint research, working under collaborative standards and oriented on the study for the enhancement of heavy and extra heavy crude oil, horizontal and deep water perforations, gas and wells engineering among other subjects that were directly linked with PDVSA's operations. During that period, several regulations were put in place in order to increase the number of Venezuelan professionals hired and to raise the share of nationally-manufactured goods inside the industry. The most important were the N° 1234 decree in 1981 and the "Compra Venezolano" decree. At the same time, the State granted incentives for the development of technologies that produced Venezuelan value and limited the level of dependence on foreign products. Additionally, it set evaluation mechanisms for national suppliers to the industry, achieving significant progress. With the implementation of the Apertura Petrolera during the 1990s, new operative agreements were established for the reactivation of several production fields; strategic partnerships were created to raise production in the complex Orinoco Oil Belt and several contracts for off-shore gas exploitation were signed. Regarding other related areas such as the nationally patented Orimulsion technology, the national petrochemical industry and the services sector the Apertura also managed to bring significant foreign investment and partnerships. The participation of national private equity was expected and promoted in order to accomplish integration gains in the ser-

vices sector. For that reason, all the contracts formally included conditions that prioritized locally produced goods and services. However, expansion from the oil industry to the Venezuelan productive sector was limited by certain constrains like lack of financing, overvaluation of foreign currency exchange rates and the country's fiscal structure. All of these conditions reduced the profitability of these venture for local suppliers. Other cases that harnessed the national potential were the forced integration with foreign industries that were included in the contracts. Nonetheless, some industries did succeed in these ventures, especially in the engineering and consulting sectors. At the start of the aughts decade, PDVSA's change of roll and labor conflicts within the company that cut its high-skilled workforce, led to the entrance of new actors and the creation of new partnerships. These new agreements work in a context where the fiscal participation of the Venezuelan State has risen exponentially from the last decade and PDVSA's participation in every operation also grew. As a consequence of PDVSA's position as a majority shareholder in the Joint Ventures, (Empresas Mixtas in Spanish) foreign companies limited investments now that PDVSA had the power to decide on personnel hiring and the procurement of goods and services. For suppliers, PDVSA required, in some cases, that part of their employees had to be recruited from social education programs (e.g. Misión Ribas) through the Job Democratization System. However, external factors were more detrimental for the local industry's growth than the mentioned government policies. Among those external factors are included an unstable macroeconomic an inflationary economic context, currency exchange distortions, raw materials scarcity and few incentives to invest. As a result, the share of local production in the country's oil industry went from 58.7 % in 1999 to 21.6 % in 2010. According to PDVSA's official 2008 plans, its goals were to increase the share of national local content from 39 % to 70 % in a 5 year period. In spite of that, PDVSA's 2012 data stated that it only 38 % of the products it used were local. Recently, the company showed in its Plan Siembra Petrolera 2013-2019 a commitment to raise the local share to 80 %, but its capacity to accomplish that goal will demand a revision of the country's general economic context and the operative conditions inside the industry. The process of development of the national oil industry stimulated the acquisition of abilities in the regulatory aspects of the sector, as well as the operational management. The relation with the foreign operating companies was greatly influenced by the political regime in place. Later, the agreements before nationalization of the industry allowed PDVSA a certain degree of autonomy that provided an opportunity to develop their own initiatives and strengthen the national suppliers, a process that unfortunately could not be further amplified.

PRECIOS DEL PETRÓLEO

Venezuelan Basket Nominal Price 1999-2014



During 2013, the average price of the Venezuelan oil basket was 99.9 United States Dollars (USD).
The basket was above 100 USD per barrel during the first and third quarters (102.70 USD and 101.60 USD respectively) and dipped below that threshold in the second and fourth quarters (97.03 USD and 95.71 USD, respectively).

Average Oil Prices 2007-2013 (USD)

YEAR	WTI	OPEC BASKET	VENEZUELAN BASKET
2007	72,24	69,08	64,74
2008	99,90	94,45	86,49
2009	61,82	61,06	57,08
2010	79,52	77,45	71,97
2011	95,12	107,47	101,06
2012	94,23	109,53	103,42
2013	97,96	105,90	99,9
2014	93,06	96,30	88,42

Source: *Ministerio del Poder Popular de Petróleo y Minería 2014.*

Exploration and production

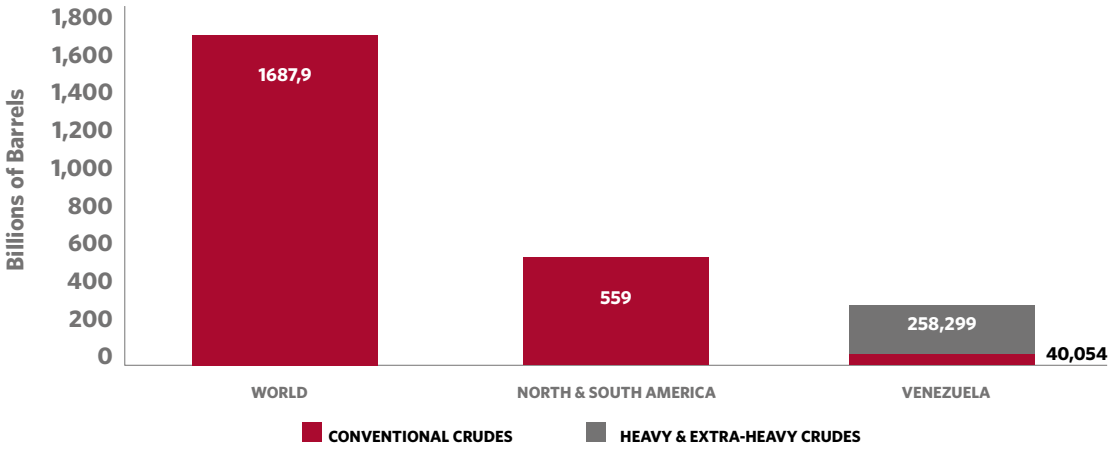
RESERVES 2013

According to official statements, Venezuela's oil reserves are the largest both in the American continents and worldwide. According to PDVSA's Management Report 2013 – in Spanish called Informe de Gestión 2013 -, the country's proven oil reserves stood at 298.35[3] billion barrels , a 600 million increase from 2012 based on new discoveries on the Orinoco Oil Belt. This amount represents 53% of the oil reserves in the Americas and 18 % of the world's.

The following chart shows the distribution of Venezuela's oil reserves:

BASIN	RESERVES (MMB)
Maracaibo-Falcón	19,602
Barinas-Apure	1,183
Oriental	227,225[4]
Carúpano	343

Oil Reserves, 2013 (Billions of Barrels)



On the other hand, exploration costs were reduced by 64% in 2013. Representing mainly geophysical expenses, the figure was of 316 million USD.

[3] *Estimations are based on a recovery factor of 20%.*

[4] *258,809 MMB correspond to the reserves of the Orinoco Oil Belt, of which 3,935 are of heavy crude and 254,874 MMB are of extra heavy crude.*

Sources: *Informe de Gestión Anual PDVSA, 2013; BP Statistical Review of World Energy 2013..*
Note 1: *Total world reserves figures are based on BP Statistical Review of World Energy 2013; they include extra heavy oil reserves from Orinoco's Oil Belt in Venezuela according to Informe de Gestión Anual de PDVSA, 2013*
Note 2: *Pdvsa assumes a minimum 20% recovery factor.*

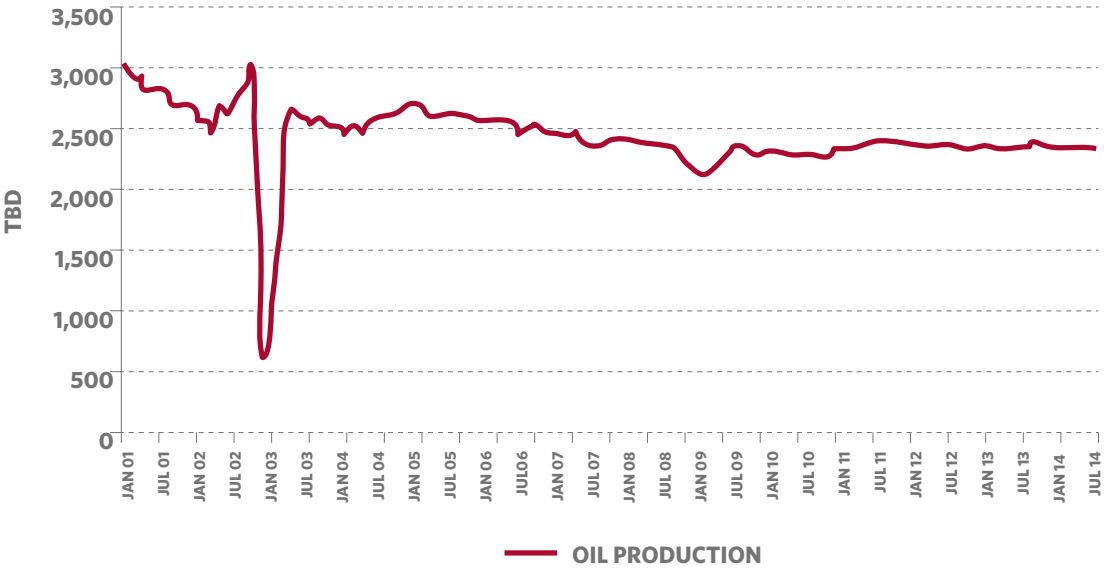
PRODUCTION IN 2013
INTERNATIONAL SORCES

According the Organization of Petroleum Exporting Countries (OPEC)'s July 2014 Monthly Report, Venezuela´s oil production in 2013 was of 2.356 million barrels per day. This level of production, takes into account the production of conventional crude oil and extra-heavy crude from the Orinoco Belt, once upgraded. This figure does not include condensed liquids or natural gas liquids, explaining part of OPEC's difference with other international sources such as BP, both of which consolidate all production into one figure.

According to BP's Statistical Yearbook 2014, Venezuela's oil production was 2.623 million barrrels per day in 2013; including associated liquids besides crude oil and natural gas. That level represents approximately 11 % of the continent's production and 3 % of the total world's production.

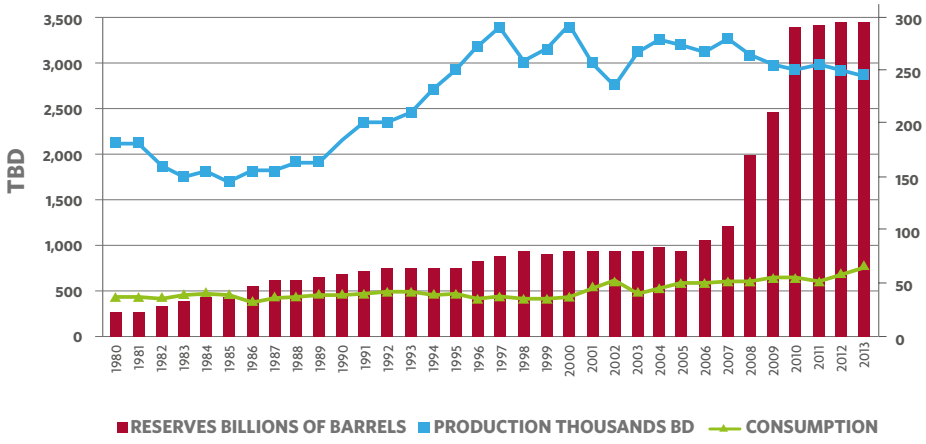
Relative to the magnitudes reached towards the end of the last decade, there has been a downward trend in the last nine years. Production has fallen by about 16 % from its value in the year 1999 compared with 2013.

Oil production 2001-2014- OPEC

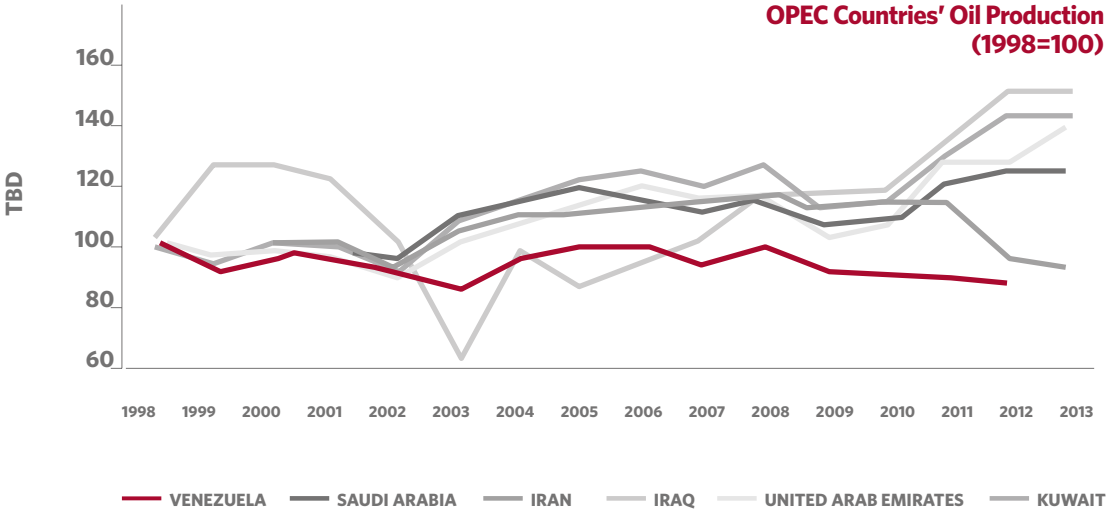


Source: *OPEC Monthly Oil Market Report.*

Venezuelan Oil production, Consumption and Reserves 1980-2013

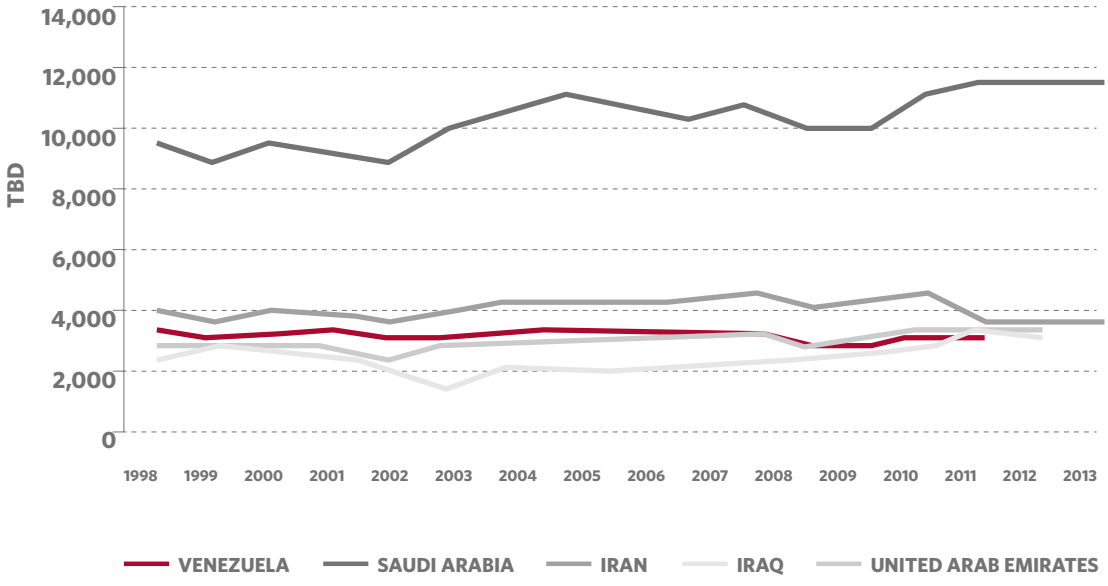


OPEC Countries' Oil Production (1998=100)



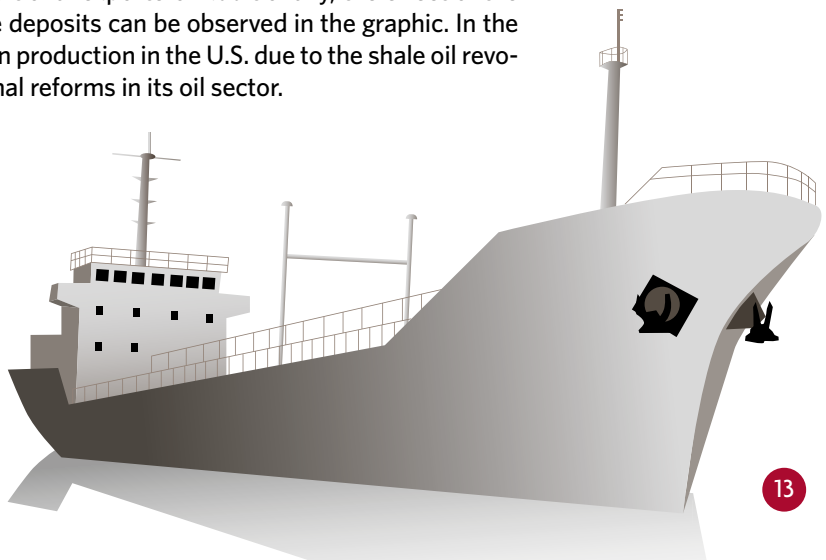
Source: *BP Statistical Review of World Energy 2013.*

Venezuela Vs. OPEC

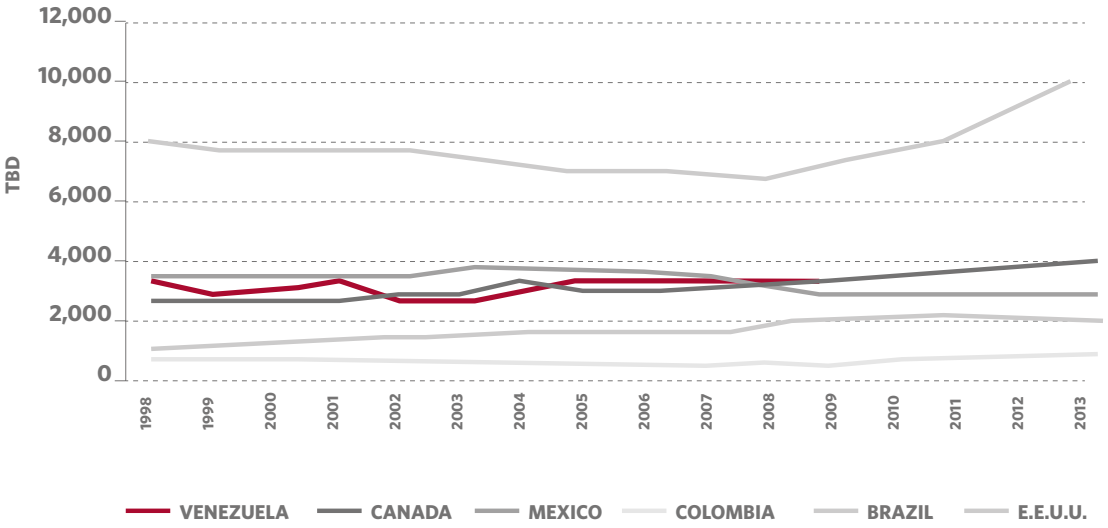


The chart shows the difference between Venezuela's production and the rest of OPEC in the past 15 years. Iraq's production break in 2003 was caused by the Second Gulf War.

Comparing the behavior of Venezuela related with other oil producers in the region, there are evident similarities between Venezuela and Mexico, both traditional exporters. Additionally, the effect of the discovery of the oil sands in Canada and Brazil's large deposits can be observed in the graphic. In the last 5 years there has also been a significant increase in production in the U.S. due to the shale oil revolution and in Colombia, following important institutional reforms in its oil sector.

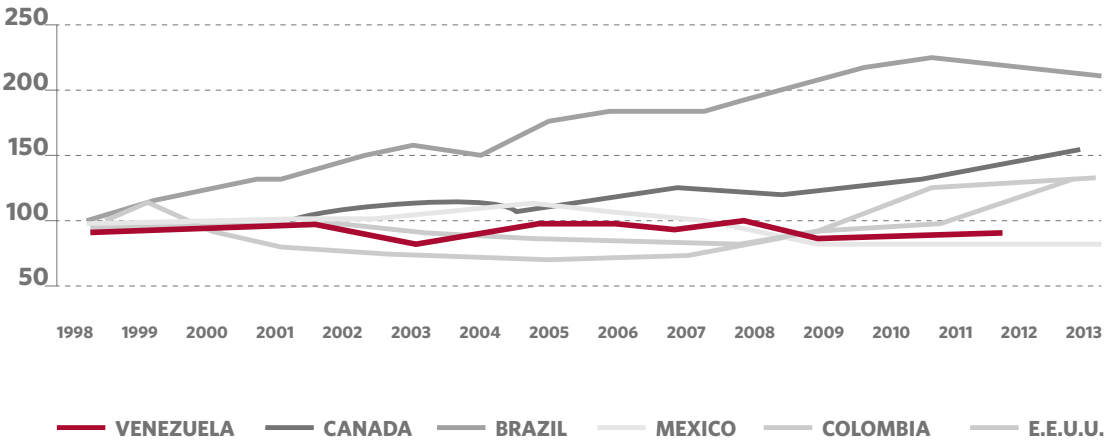


Venezuela Vs. Américas



Source: *BP Statistical Review of World Energy 2013*

Venezuela Vs. Américas (1998=100)

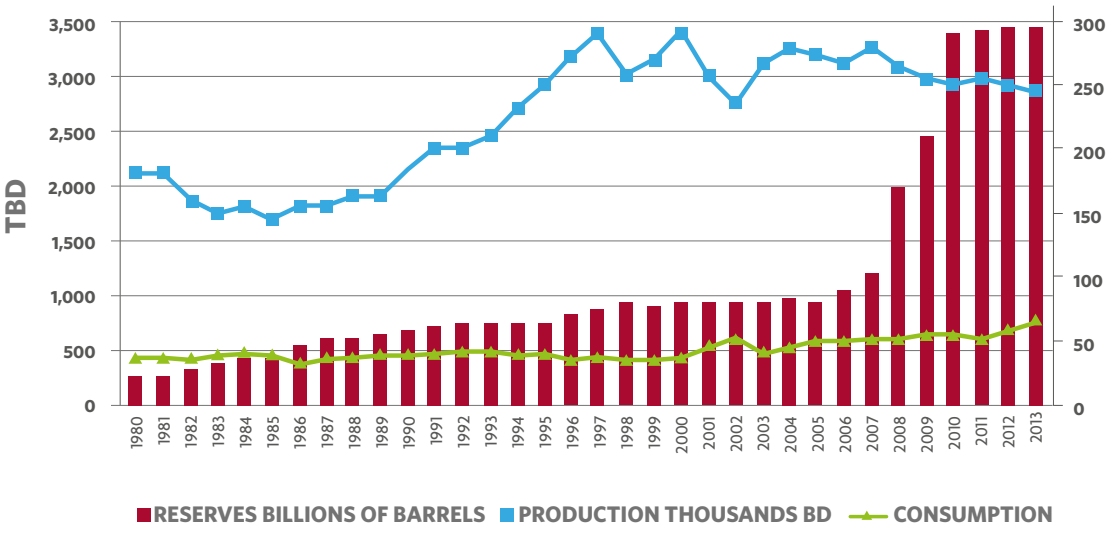


PDVSA: PRODUCTION, CONSUMPTION AND OIL RESERVES IN VENEZUELA, 1980-2013

According to official figures, production was 2.899 million barrels per day in 2013, representing a 1.4 % decrease percent from 2012, when it was 2.91 million barrels per day.
Total consumption, according to PDVSA, represented in 2013 a total of 703 tbd.

As a result of a devaluation of Venezuela's official exchange rate from 4.3Bs/USD to 6.3 Bs/USD, PDVSA's operating expenses decreased 1.3 % from 2012 to 2013. The expense went from 23,104 million USD in 2012 to 22,270 million USD in 2013.

Oil Production, reserves and domestic consumption 1980-2013-PDVSA



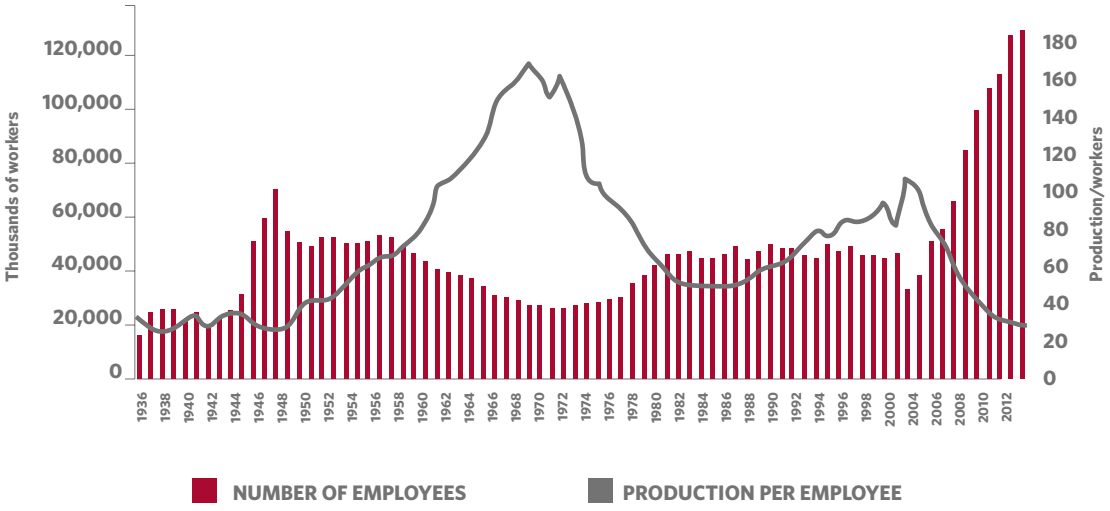
Source: *PODE until 2008. "Informe Operacional y Financiero" PDVSA 2009, 2010, 2011, 2012 and 2013*

LABOR FORCE

PDVSA's Production per employee indicator has had two stages of growth. The first stage was between 1954 and 1973 as a result of significant staff reduction; the second stage began in 1990 as a result of the apertura petrolera[6] and accelerated in the start of the 2000's in the Orinoco's Belt projects.

Since 2004, production has shown a declining trend while the number of workers has escalated. By the year 2013, PDVSA had on payroll a total of 140,626 workers.

Workers on Payroll and production per worker



Source: *PODE e Informe de Gestión de PDVSA 2011, 2012 y 2013.*

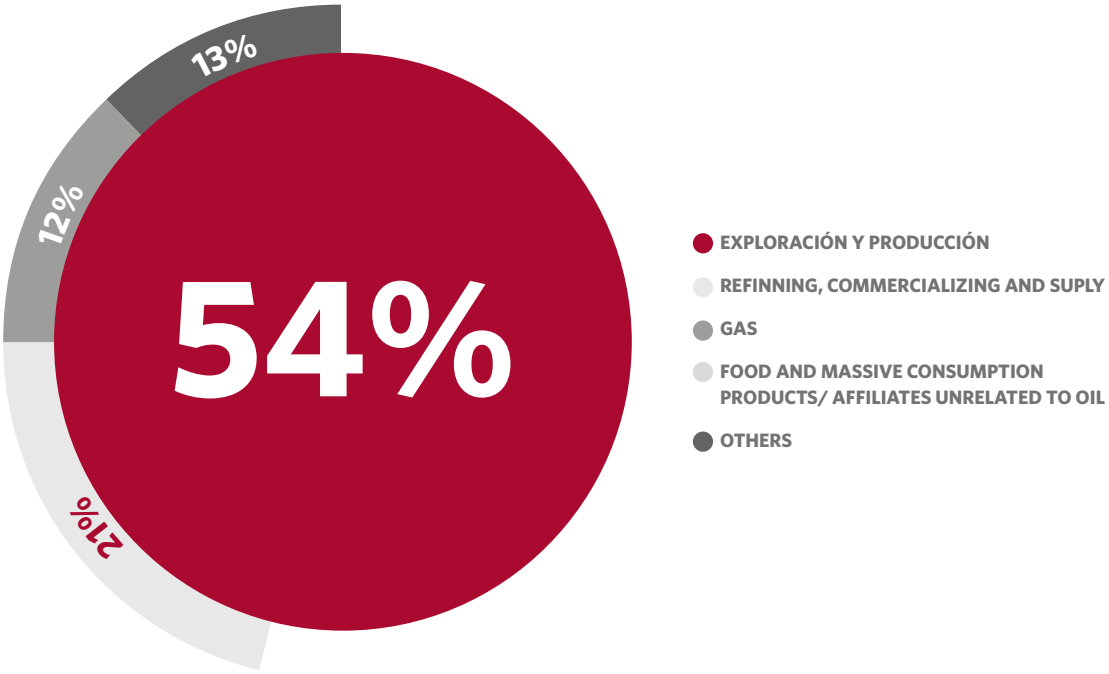
[6] *An official company policy designed to attract foreign investment by developing strategic partnerships with international firms selected by public biding processes in order to exploit Venezuela's oil potential by increasing production.*

INVESTMENT

Investments in the country's Oil industry in 2013 were of 23,530 million USD, a 4 % reduction from 2012.

The largest share of the investment funds focused on Exploration and Production, approximately 12,750 million USD. The "Others" category had a 55% increase from 2010, growing from 2,943 million USD to 6,613 million USD.

Investments by sector 2013

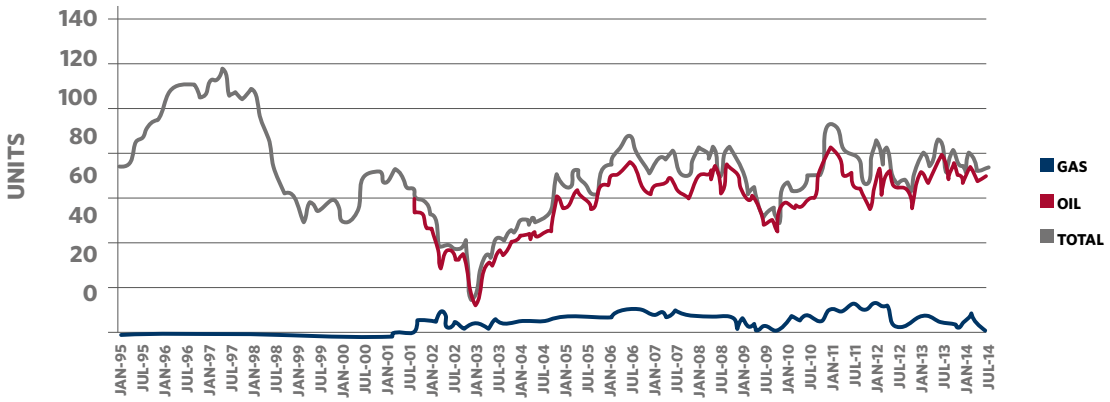


Source: *Informe de Gestión Anual PDVSA 2013*

An indicator that illustrates the approximate size of the investment in exploration and production of hydrocarbons is the number of active rigs. The number of rigs and the amount of production generally move in the same direction: when the number increases or decreases, production tends to increase or decrease accordingly, albeit more slowly.

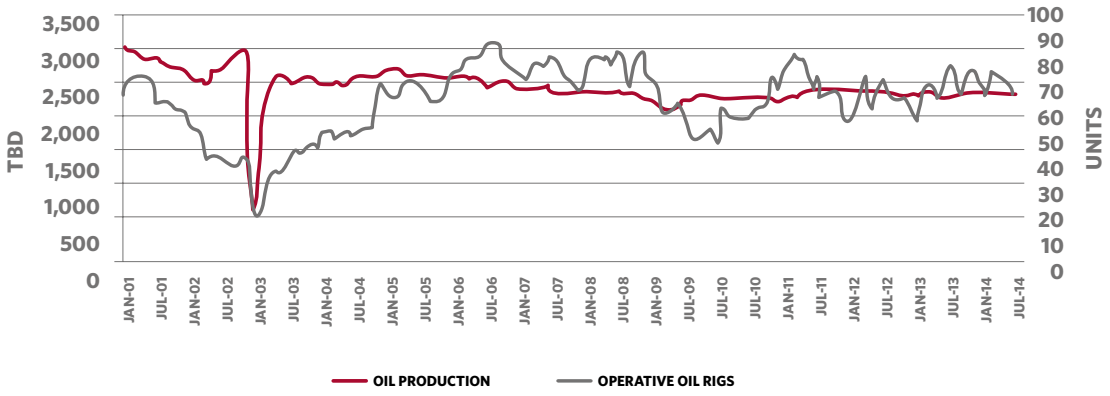
Between 2005 and 2008, activation and removal of this equipment was relatively volatile: the number of rigs in operation ranged from 63 to 84. By December 2009 that number was reduced to 49. However, in the course of 2010, drilling activity recovered, closing in December 2010 with 83 active rigs, to decrease again during the last quarter of 2011 with 69 operating in December. Between January 2013 and July 2014, the total number of operative rigs ranged from 62 to 81.

Operative Rigs, January 1995-July 2013



Source: *Baker Hughes International Rig Count.*

Operative Rigs and Oil production 2001-2014



Source: *OPEC Monthly Oil Market Report and Baker Hughes International Rig Count*

PRODUCTION BY TYPE OF SCHEME

According to PDVSA's Informe de Gestión 2013, the total audited production of crude oil in Venezuela was 2.899 million barrels per day. Venezuela's daily production, including 124 tbd of natural gas, was of 3.015 million barrels a day. PDVSA's own effort summed 1.775 million bpd oil in the following areas of the country:

- **East:** 881 tbd
- **West:** 485 tbd
- **Belt:** 495 tbd
- **PDVSA Gas:** 24 tbd

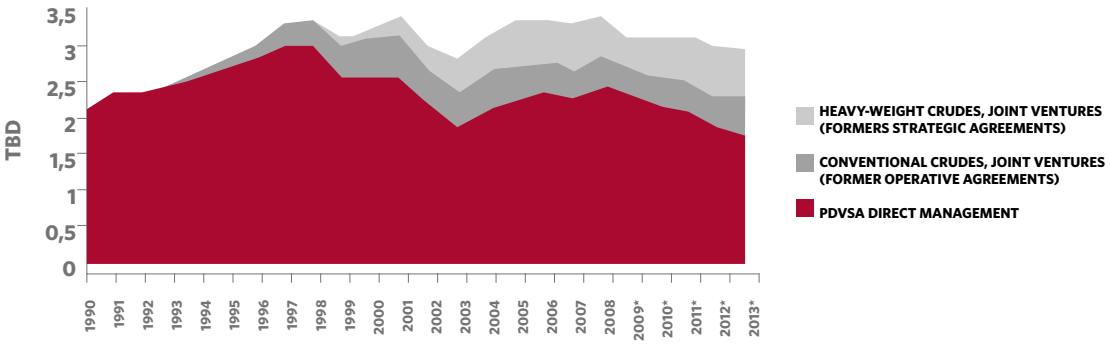
The remaining production came from projects in which PDVSA participates jointly with third parties (Empresas Mixtas):

- **Joint ventures of conventional oil:** 459 tbd
- **Joint ventures of extra heavy oil:** 665 tbd

According to official figures, production of wells solely operated by PDVSA reached a record high in 1997 at 2.92 million barrels per day. However, from 1992 to 2005 sole production by PDVSA as a percentage of total production tended to decrease while there were progressive gains on wells operated by private enterprises in the former operating agreements and strategic partnerships.

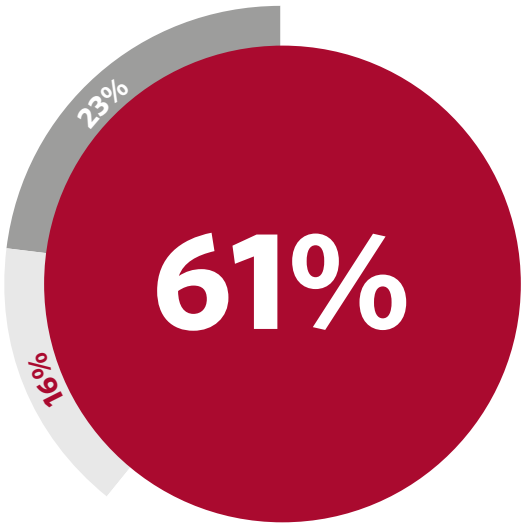
This trend reversed after 2006 due to contractual changes giving PDVSA greater participation in all projects. However, as of 2008, a decrease can be observed again in PDVSA's own efforts as a percentage of total production.

Oil production classified by contract conditions, Venezuela 1990-2013



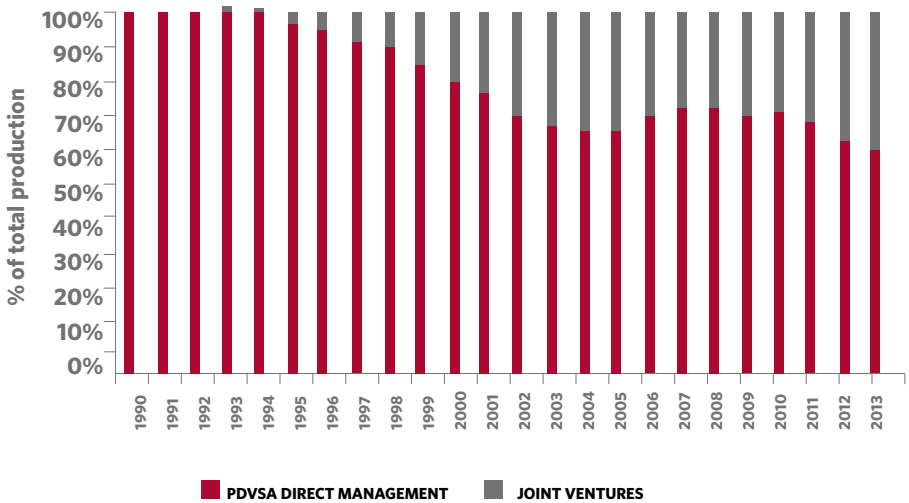
Source: *Ministerio de Energía y Petróleo (PODE 2007-2008); Informe de la Gestión y resultados de Pdvsa, 2009, 2010, 2011 & 2013.*
Note 1: *Since 2006 the conventional crude operative agreements transformed into Joint Ventures*
Note 2: *Since 2007, the heavy oil strategic agreements transformed into Joint Ventures.*
Note 3: *Production data does not include Natural Gas Liquids.*

Oil production by contract conditions, 2013



Source: *Informe de Gestión Anual de PDVSA de 2013*

PDVSA direct managment and joint ventures production 1990-2013



Source: *Ministerio de Energía y Petróleo (PODE 2007-2008); Informe de la Gestión y resultados de Pdvsa, 2009, 2010, 2011, 2012 and 2013*
Note 1: *Since 2006 the conventional crude operative agreements transformed into Joint Ventures*
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Note 3: *Production data doesn´t include Natural Gas Liquids*

PROJECTS WITH THIRD PARTIES

Exploration projects and conventional and extra heavy oil production in Venezuela are developed under two schemes:

A) PDVSA's own effort
B) Joint ventures between PDVSA and third parties

1. Conventional oil projects

Since 2006, projects in conventional oil fields have been developed by 21 joint ventures which were previously linked to the figure of the operating agreements. These operations are aimed primarily at maintaining production levels because they operate in mature fields with a natural tendency of decline in production.

Joint ventures are formed between the Venezuelan Petroleum Corporation (CVP), a subsidiary of PDVSA, with a minimum stake of 60 %, and private companies (mostly foreign), with a maximum of 40 %.

2. Heavy crude projects

Orinoco Belt -- in Spanish Faja Petrolífera del Orinoco (FPO):

- **Location:** south of the states Guárico, Anzoátegui and Monagas.
- **Geographical Area:** approximately 55 thousand square kilometers.
- **Area exploitation:** about 12 thousand square kilometers.
- **Petroleum in site[7] :** approximately between 914 billion and 1.36 trillion barrels, besides the 37 billion barrels made official in 2005.
- **Reserves 2013:** 259,460 million barrels[8] .
  -Petroleum heavy: 3,795 million barrels.
  -Petroleum extra-heavy: 255,664 million barrels.
- **Average API:** 8.6 degrees API.

PDVSA and BP, Chevron, ConocoPhillips, ExxonMobil, Statoil and Total, started in the late nineties, the exploitation of extra-heavy crude with the establishment of strategic partnerships. These agreements represent an investment of about 17 billion dollars, making possible to reach an average production in 2006 of 560 thousand barrels per day. Strategic partnerships were developed with the aim of vertically integrating the business of heavy oil from the Orinoco Belt including, beyond mining activities, upgrading plants to produce synthetic crude with higher API gravity, better traded in international markets. According to this scheme, the participation of PDVSA averaged forty percent and a majority stake was in the hands of private partners. Since 2007, these strategic partnerships migrated to a mixed enterprise scheme, which consisted of increasing PDVSA's share to at least 60 percent as well as the demarcation of areas for operation. The size of exploration areas was reduced to stimulate recovery factor of at least 20%.

3. Exploration projects

Since 2007, the exploration activities projects, former exploration, risk and profit sharing agreements are operating under the new contractual scheme of joint ventures (empresas mixtas in Spanish).

[7] The Orinoco Belt also has a large volume of original gas in place, which is a potential source of supply for future development projects that will eventually need large amounts of gas.

[8] According to the United States Geological Survey Service (USGS) Orinoco Belt's reserves could be estimated at 380 – 650 billion barrels based on recovery factor of 45 percent (this rate takes into account technological advances that have not been made yet).

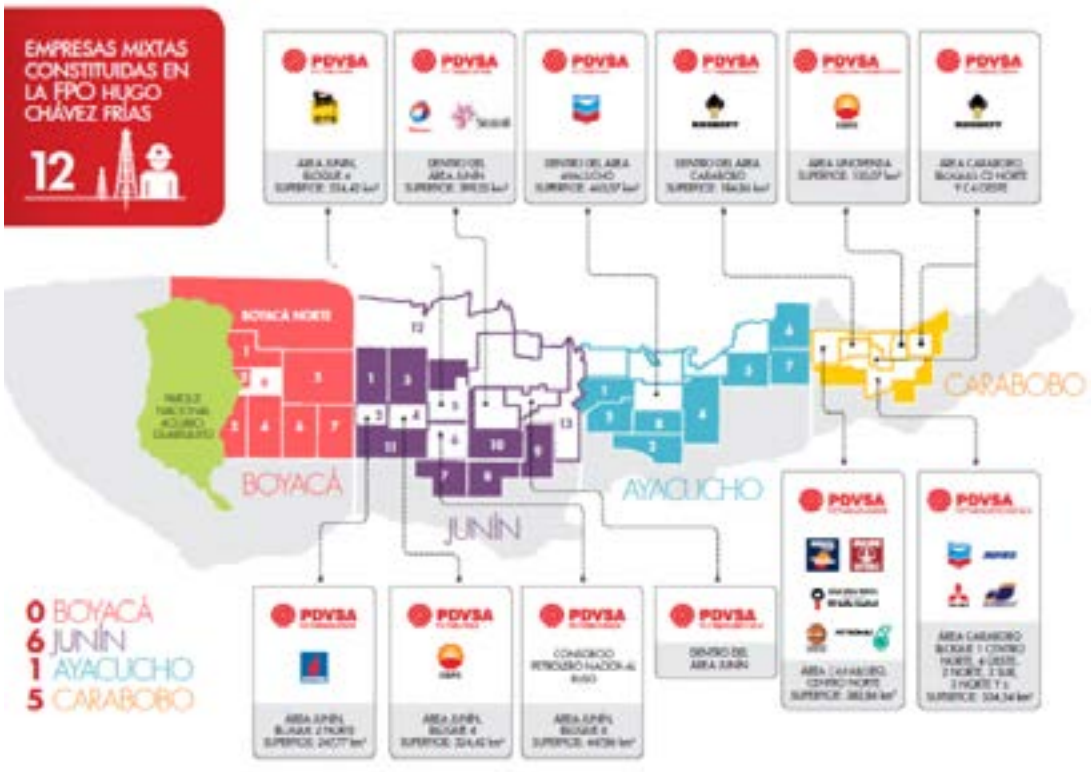
Reserves certification projects

Orinoco Magna Reserve Project (In Spanish Proyecto Orinoco Magna Reserva) is part of the Plan Siembra Petrolera 2005-2030 and is intended to quantify and certify the hydrocarbon reserves in the Orinoco Oil Belt.

- The FPO has been divided into 30 blocks, nested according to their technical and strategic conditions in four areas:
  - -Boyacá, Junín, Ayacucho and Carabobo (excludes firms assigned area Petrocedeño, SA, Petromonagas, SA, Petrozuata, CA and Oil Sinovensa, SA).

From these blocks:

- 22 will be quantified in a joint effort between the CVP and 28 foreign companies, mainly National Oil Companies.
- The rest of the blocks will be quantified with PDVSA's own effort.



Source: *Informe de Gestión Anual de PDVSA de 2013.*

Comprehensive Exploration Project

This project aims at the discovery and incorporation of hydrocarbon reserves up to 8,045 MMB and 40,001 million cubic feet of gas.

The project comprehends the following subprojects:

PROJECT	ESTIMATED OIL RESERVES (MBD)	ESTIMATED GAS RESERVES (MMMPC)	EXPECTED OIL WELLS	ESTIMATED INVESTMENT (MMUSD)	PROJECT COMPLETION (%)	PERIOD
PIEX Fachada-Caribe	1,798	15,349	49	1,343	4,40	2008-2021
PIEX Golfo de Venezuela Falcón	1,813	11,187	18	541	26,12	2010-2021
PIEX Anzoátegui Monagas Central Pantano	1,136	3,379	22	611	4,40	2007-2021
PIEX Norte Monagas Serranía	1,242	4,938	20	558	24,57	2007-2021
PIEX Trend Anaco Guárico	195	1,286	7	349	2,05	2009-2019
PIEX Zulia Oriental Falcón	1,075	1,380	20	653	25,2	2007-2021
PIEX Centro Sur	376	347	12	264	26,6	2007-2020
PIEX Centro Sur Norte	410	2,135	25	478	18,4	2007-2018
TOTAL	**8,045**	**40,001**	**173**	**4,797**		

Source: *Informe de Gestión Anual de PDVSA de 2013.*

Joint Ventures 2013

EAST	JOINT VENTURE	DATE	(%) PDVSA´S SHARE	(%) ASSOCIATED FIRM SHARE	MINORITY SHAREHOLDER	FORMERLY KNOWN AS
Furial division	Petroquiriquire	August 21, 2006	60	40	Repsol	Operating agreement Quiriquire
	Boquerón	October 11, 2006	60	26,67	Boquerón Holdings	Operating agreement Boquerón
				13,33	Pei	
Costa Afuera division	Petrowarao	August 9, 2006	60	40	Perenco	Operating agreement Pedernales
	Petrosucre	December 19, 2007	74	26	ENI	Agreement operating shared risk and profits Golfo de Paria Oeste (CoroCoro)
	Petrolera Paria	December 19, 2007	60	32	SINOPEC	Agreement operating shared risk and profits Golfo de Paria Este (Posa)
				8		
	Petrolera Güiria	January 10, 2008	64,25	19,5	ENI	Agreement operating shared risk and profits Golfo de Paria Central
				16,25	INE Oil & Gas Inc.	

WEST	JOINT VENTURE	DATE	(%) PDVSA´S SHARE	(%) ASSOCIATED FIRM SHARE	MINORITY SHAREHOLDER	FORMERLY KNOWN AS
Lago division	Petroregional del Lago	August 11, 2006	60	40	Shell	Operating agreement Urdaneta
	Petro independiente	August 11, 2006	74,8	25,2	Chevron	Operating agreement LL-652
	Lagopetrol	December 5, 2007	69	26,35	Hocol	Operating agreement B2X.70/80
				3,1	Ehcopek	
				1,55	CIP	
	Petrowarao	August 9, 2006	60	40	Perenco	Operating agreement Ambrosio
	Petrolera Sino Venezolana	November 28, 2006	75	25	CNPC	Operating agreement Intercampo Norte
	Petrolera Bielove-nezolana	December 14, 2007	60	40	Unión de Empresas Productoras Belorusneft	Operating agreement Bloque X
Costa Occidental del Lago division	Petroboscán	August 11, 2006	60	39,2	Chevron	Operating agreement Boscán
				0,8	INEMAKA	
	Baripetrol	August 9, 2006	60	17,5	Suizum	Operating agreement Colón
				17,5	PERENCO	
				5	PFC	
	Petroperijá	September 21, 2006	60	40	DZO	Operating agreement DZO
	Petrowayu	September 4, 2006	60	36	PETROBRAS	Operating agreement La Concepción
				4	Williams International Oil & Gas	
	Petro urdaneta**	April 3, 2012	60	40	Odebrecht E & P	
Costa Oriental del Lago division	Petrocabimas	October 2, 2006	60	40	SEPCA	Operating agreement Cabimas
	Petrocu-marebo	October 24, 2006	60	40	PFC	Operating agreement Falcón Este y Falcón Oeste
	Petrozamora**	May 4, 2012	60	40	Gazprom-ban	
Sur del Lago division	Petroquiriquire	August 21, 2006	60	40	REPSOL	Operating agreement Mene Grande

BELT	JOINT VENTURE	DATE	(%) PDVSA´S SHARE	(%) ASSOCIATED FIRM SHARE	MINORITY SHAREHOLDER	FORMERLY KNOWN AS
Junín division	Petrolera Indo-venezolana	April 8, 2008	60	40	ONGC	Operating agreement San Cristóbal
	Petrocedeño	December 11, 2007	60	30,32	Total	Partnership strategic Sincor
				9,677	StatoilHydro	
	Petroanzo-átegui	February 21, 2008	100			
	Petromiranda*	April 20, 2010	60	40	Consorcio Nacional Petrolero	
	Petromacareo*	September 17, 2010	60	40	Petro-vietnam	
	Petrourica*	December 14, 2010	60	40	CNPC	
	Petrojunín*	December 14, 2010	60	40	ENI	
Carabobo division	Petrodelta	October 3, 2007	60	40	HRN	Operating agreement Monagas Sur
	Petrolera Sinovensa	February 1, 2008	64,25	35,75	CNPC	
	Petromonagas	February 21, 2008	83,33	16,67	BP	Partnership strategic Cerro Negro
	Petro carabobo*	June 25, 2010	60	11	REPSOL	
				11	PC Venezuela	
				11	Petro carabobo Ganga	
				7	Indoil Netherlands B. V.	
	Petroinde-pendencia*	June 25, 2010	60	34	Chevron	
				5	Japan CaraboboUk	
				1	Suelopetrol	

BELT	JOINT VENTURE	DATE	(%) PDVSA´S SHARE	(%) ASSOCIATED FIRM SHARE	MINORITY SHAREHOLDER	FORMERLY KNOWN AS
Ayacucho division	Petrokariña	August 31, 2006	60	29,2 10,8	PETROBRAS Inversora Mata	Operating agreement-Mata
	Petroven-Bras	September 4, 2006	60	40	PETROBRAS	Operating agreement Acema
	Petroritupano	September 4, 2006	60	22 18	PETROBRAS Venezuela US	Operating agreement Oritupano-Leona
	Petronado	September 15, 2006	60	26 8,36 5,64	CGB BPE KNOC	Operating agreement Onado
	Petrocuragua	October 18, 2006	60	28 12	CIP OPEN	Operating agreement Casma-Anaco
	Petrozumano	November 6, 2007	60	40	CNPC	Operating agreement Zumano
	Petrolera Kaki	November 28, 2006	60	40	INEMAKA	Operating agreement Kaki
	Petrolera Vencupet*	December 3, 2010	60	40	CUPET	
	Petrolera Sino-Venezolana	November 28, 2006	75	25	CNPC	Operating agreement Caracoles
	Petrolera Bielo-venezolana	December 14, 2007	60	40	Unión de Empresas Productoras Belorusneft	Operating agreement Guara Este
	Petropiar	December 19, 2007	70	30	Chevron	Strategic partnership Ameriven
	Petrolera Venango cupet**	November 26, 2012	60	40	Comercial Cupet, S. A. y Sonangol (46) Pesquisa & Producao, S. A.	

BOYACÁ	JOINT VENTURE	DATE	(%) PDVSA´S SHARE	(%) ASSOCIATED FIRM SHARE	MINORITY SHAREHOLDER	FORMERLY KNOWN AS
Boyacá division	Petroguárico	October 25, 2006	70	30	Teikoku	Operating agreement Guárico Oriental

Source: *Informe de Gestión Anual de PDVSA de 2013.*
**Detalles del Proyecto en Energía en Cifras 2009-2011*
***New Joint Venture at Campo Maduro.*

REFINING

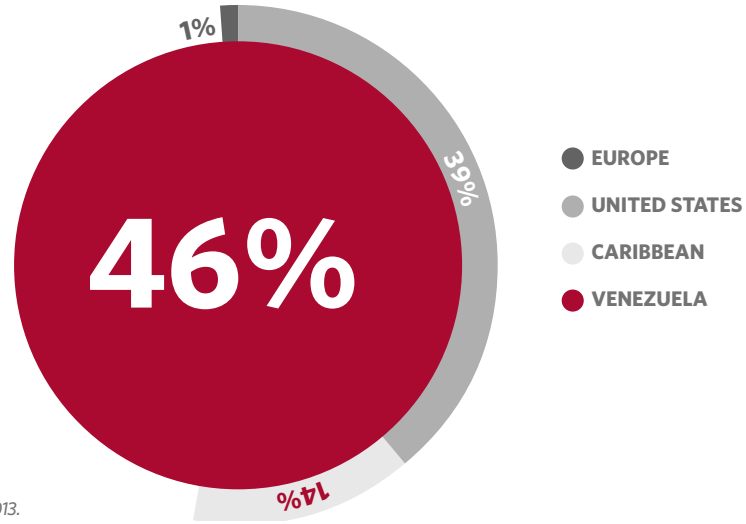
Venezuela´s global refining capacity (domestic and offshore) at the end of 2013 was 2.822 million barrels per day.

Of this amount, the refineries located in the country have the capacity to process 1.3 million barrels per day. The remaining refining capacity is located in the Caribbean, Europe and the United States, with a total of 401 tbd, 29 and 1.089 million barrels per day, respectively.

	REFINERY	CAPACITY (TBD)	LOCATION
National	Paraguaná CRP Refining Center (Amuay & Cardón Refineries)	955	Falcón
	Puerto La Cruz	187	Anzoátegui
	El Palito	140	Carabobo
	Bajo Grande	16	Zulia
	San Roque	5	Anzoátegui
	Total national	1,303	

	REFINERY	CAPACITY (TBD)	LOCATION
International	Isla	335	Curazao
	Camilo Cienfuegos	32	Cuba
	Jamaica	17	Jamaica
	Haina	17	República Dominicana
	Lake Charles	425	Estados Unidos
	Corpus Christi	157	Estados Unidos
	Lemont	167	Estados Unidos
	Chalmette	92	Estados Unidos
	Saint Croix	248	Estados Unidos
	Nynashamn	15	Suecia
	Gothenburg	5	Suecia
	Dundee	4	Escocia
	Eastham	5	Inglaterra
	Total International	1,519	
	Total PDVSA Refining Capacity	2,822	

PDVSA Refining Capacity 2013
% Total refining



Source: *Informe de Gestión Anual de PDVSA de 2013.*

Refineries outside Venezuela

REFINERIES	LOCATION	COMPANY	REFINING CAPACITY (MBD)	PDVSA CAPACITY (MBD)	SHARE
Lake Charles	United States	CITGO	425	425	100%
Corpus Christi	United States	CITGO	157	157	100%
Lemont	United States	CITGO	167	167	100%
Chalmette	United States	Chalmette Refining[2]	184	92	50%
Saint Croix	United States	Hovensa[3]	495	248	50%
Camilo Cienfuegos[4]	Cuba	CUVENPETROL	65	32	49%
Jamaica[5]	Jamaica	Petrojam	35	17	49%
Isla[6]	Curazao	PDVSA	335	335	100%
Haina[7]	Dominican Republic	Nynas	34	17	49%
Dundee	Scotland	Nynas	9	4	50%
Eastham	England	Nynas	18	5	25%
Nynashamn	Sweden	Nynas	29	15	50%
Gothenburg	Sweden	Nynas	11	5	50%

Source: *Informe Operacional y Financiero PDVSA 2012.*

[2] Joint Venture in association with ExxonMobil Co.
[3] Joint Venture in association with Hess Co.
[4] Joint Venture in association with Comercial Cupet S.A.
[5] Joint Venture in association with Petroleum Corporation of Jamaica (PCJ).
[6] Leased in 1994. Leasing agreement ends in 2019.
[7] Joint Venture in association with Refidomsa.

Processed Oil Volume and Inputs Directed Towards Processes and Mixtures 2011 – 2013

NATIONAL REFINING	PROCESSED OIL VOLUME - 2013 (TBD)	PROCESSED OIL VOLUME - 2012 (TBD)	PROCESSED OIL VOLUME - 2011 (TBD)	PROCESS AND MIXTURES INPUTS - 2012 (TBD)
Paraguaná Refining center	654	638	699	103
Puerto La Cruz Refinery	173	171	169	56
El Palito Refinery	128	127	127	101
Total	955	936	995	260

INTERNATIONAL REFINING	PROCESSED OIL VOLUME (INCLUDES PROCESS AND MIXTURES INPUTS) - 2013 (TBD)	PROCESSED OIL VOLUME (INCLUDES PROCESS AND MIXTURES INPUTS) - 2012 (TBD)	PROCESSED OIL VOLUME (INCLUDES PROCESS AND MIXTURES INPUTS) - 2011 (TBD)
CITGO Petroleum Corporation*	685	637	659
Chalmette Refinery	138	133	131
Saint Croix Refinery	**	**	283
Isla Refinery	170	176	170
Camilo Cienfuegos Refinery	54	55	55
Jamaica Refinery	23	23,8	24,5
Haina Refinery	28	24,6	26,2
Nynas***	34	55,7	56,6
Total	1,132	1105,1	1405,3

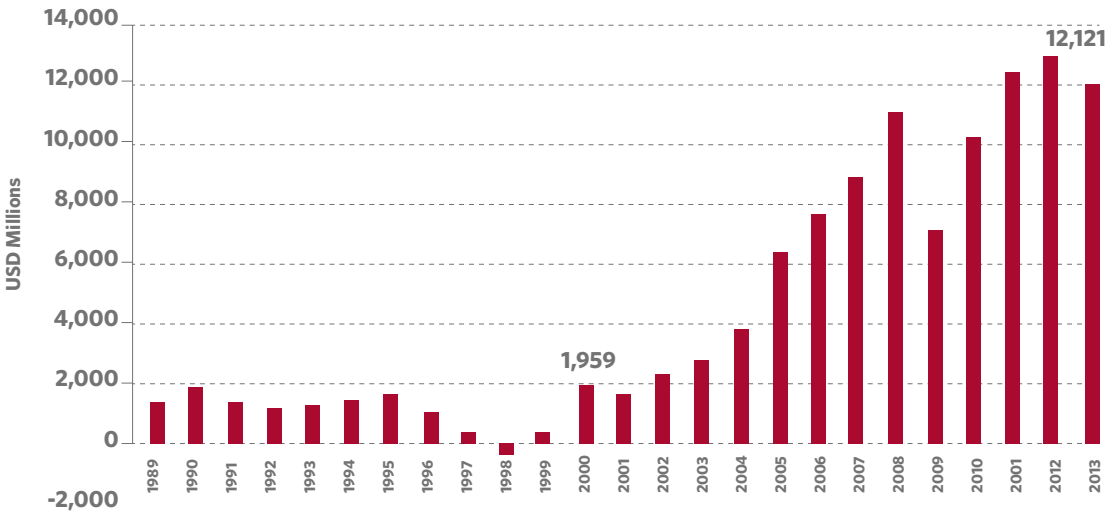
Source: *Informe de Gestión Anual de PDVSA 2013, 2012 y 2011.*
**Lake Charles, Corpus Christi & Lemont refineries.*
***Closed since February 2012.*
****Dundee, Eastham, Nynashamn & Gothenburg refineries.*

SUBSIDIES

Fuel prices in Venezuela are set by the government and have not changed since 1997. They stand at 0.097 BsF / liter for 95 octane gasoline and 0,075 BsF/liter for 91 octane gasoline. On the other hand, export prices have grown 269 % in real terms (an annual rate of 9.77 %), raising the barrel price from 29.96 USD to 110.54 USD.
In that time span, Venezuela's official currency has experienced 1,039 % devaluation, creating a 0.7USD/liter price gap.

The gap has raised the opportunity cost of selling gasoline in the country, increasing the economic subsidy for the last 15 years.

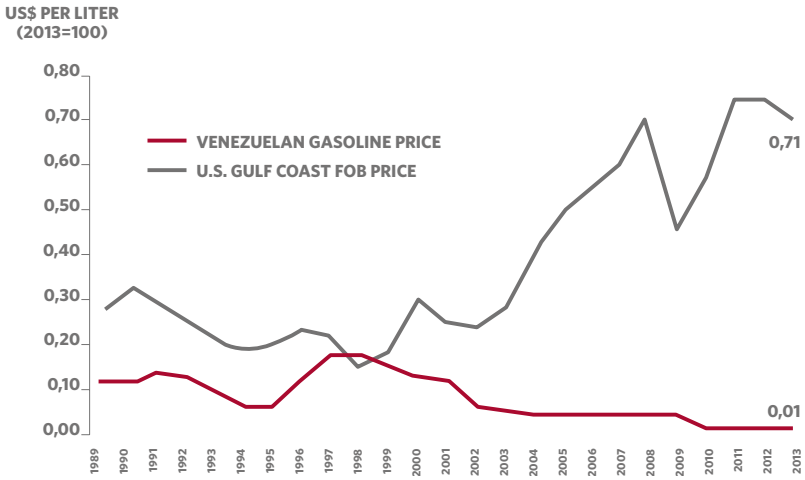
In 2013, according to PDVSA's Informe de Gestión, gasoline consumption was of 299 tbd, representing an equivalent subsidy of 12.121 billion USD and 3.5 % of GDP



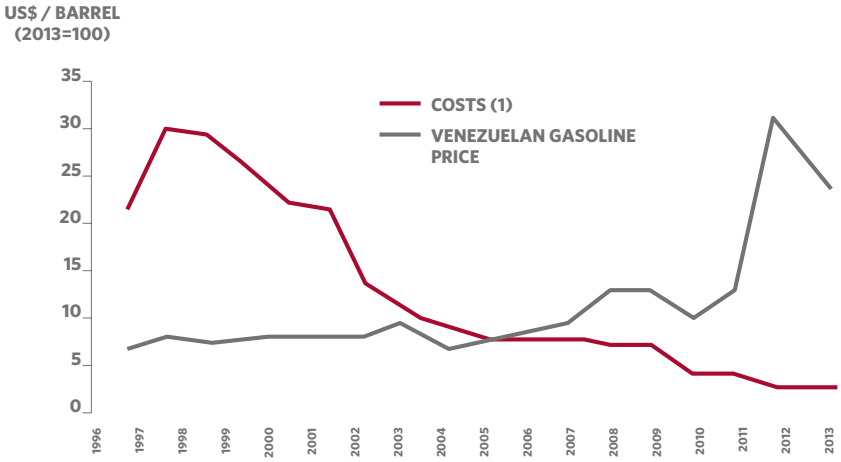
Source: *EIA, Bureau of Labor Statistics, Informe Financiero y Operacional PDVSA, MENPET.*
Note 1: *New York Harbor American Price was used as a reference*
Note 2: *Average liter Price of gasoline in Venezuela*

On the other hand, since 2006 the price of gasoline charged at gas stations sits below the average cost of production, making impossible for PDVSA to cover extraction, refining and US imports costs.

Gasoline Prices: USA vs. Venezuela



Prices v. Accounting Costs



Sources: *EIA, Bureau of Labor Statistics, Informe Financiero y Operacional PDVSA, MENPET.*
Note 1: *Includes extraction, refining and import costs*

Commercialization

According to official figures, Venezuela's exports of oil and refined products reached 2.425 million barrels per day in 2013 to include:

Raw:
1.935 million barrels per day

Refined products and natural gas liquids
490 thousand barrels per day

Of the total exports, commercialization by region was the following:

North America
845 million barrels per day

Central America and the Caribbean
369 tbd

Asia
1115 tbd

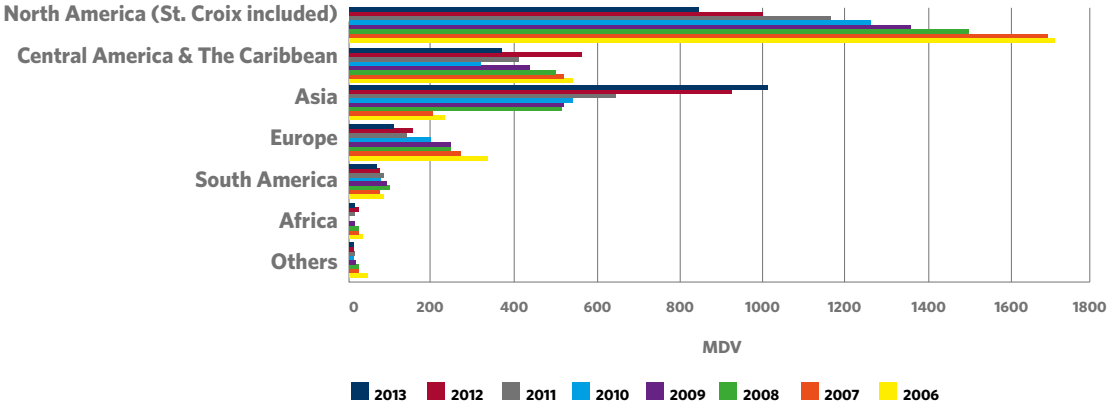
Europe
107 tbd

South America
67 tbd

Africa
10 tbd

Other
12 tbd

Exports by Region 2006-2013 (Thousands B/D)



Source: *Informe Operacional Financiero de PDVSA del año 2007 y Informe de Gestión Anual de PDVSA de 2008, 2009, 2010, 2011, 2012 y 2013.*

Exports classified by product 2005-2013 (Thousands B/D)

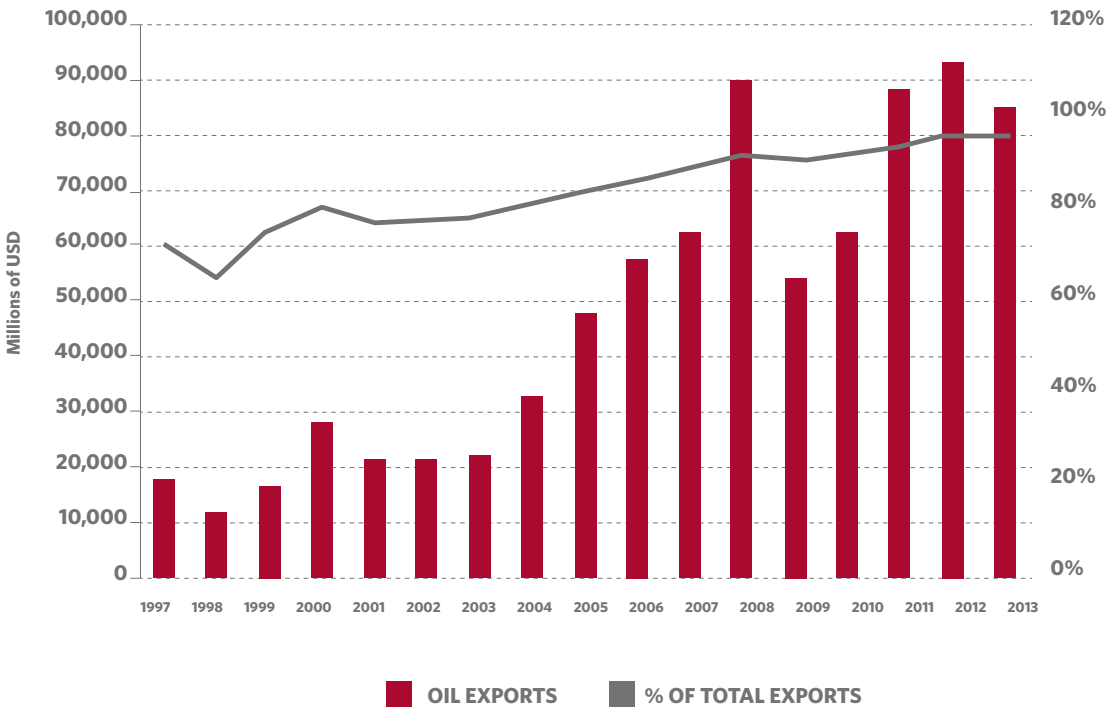
PRODUCT TYPE	2013	2012	2011	2010	2009	2008	2007	2006
Gasoline & naphtha	36	30	46	49	48	69	80	95
Distillates	6	43	64	63	108	104	133	140
Residual fuel oil	281	258	268	215	297	227	160	174
Asphalt	6	5	1	0,3	1	0	10	16
Kerosene/Turbo fuels/Jet	51	57	66	59	59	64	59	58
Others	41	40	33	43	33	61	74	82

Source: *Informe de Gestión Anual de PDVSA de 2013.*

Fiscal Policy and the Oil Sector

In 2013, oil exports accounted for 96 % of the total value Venezuela's exports. Total oil exports in 2013 were 8.7 % lower than 2012, they represented a contribution to the nation of USD 28,064 million (tax and nontax), a 19.4 % growth from the previous year. Of that amount were USD 17,630 million paid in taxes; 7,829 million USD to FONDEN and 10,435 million USD were allocated to social development programs.

Venezuelan Oil Exports 1997-2013 (Millions US$)

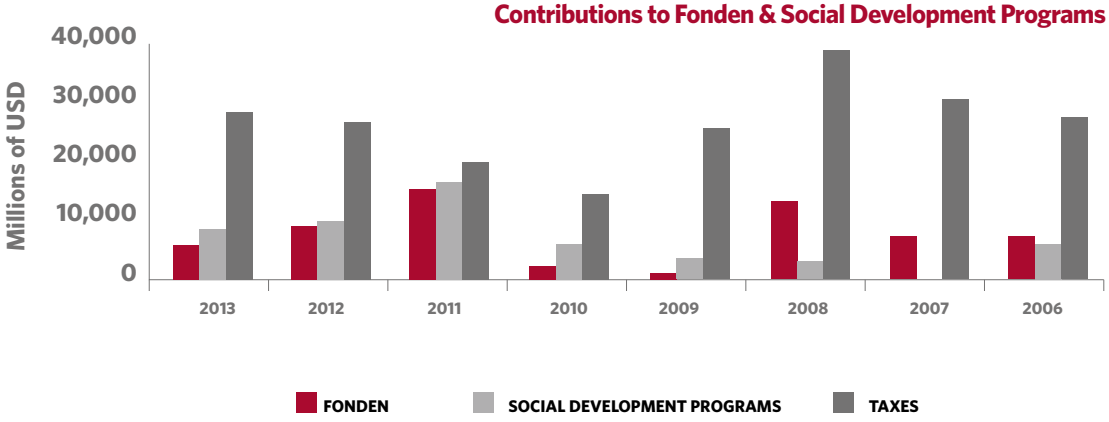


Source: *BCV e Informe de Gestión Anual de PDVSA 2013; Exportaciones de 2013: Boletín Económico Mensual, Banco Mercantil, mayo de 2014 .*

PDVSA's social expenditures and contributions to FONDEN have been volatile. They grew from 2004-2008 but decreased by 62 % in 2009. These expenses reached peaked in 2011 at 30 billion USD, decreased by 43% in 2012 and by 23% in 2013.

As a proportion of GDP, these contributions changed from 3.9 % in 2004 to 6.42 % in 2011 and recently have been of 4.54 % and 3.18 % in 2013.

Contributions to Fonden & Social Development Programs



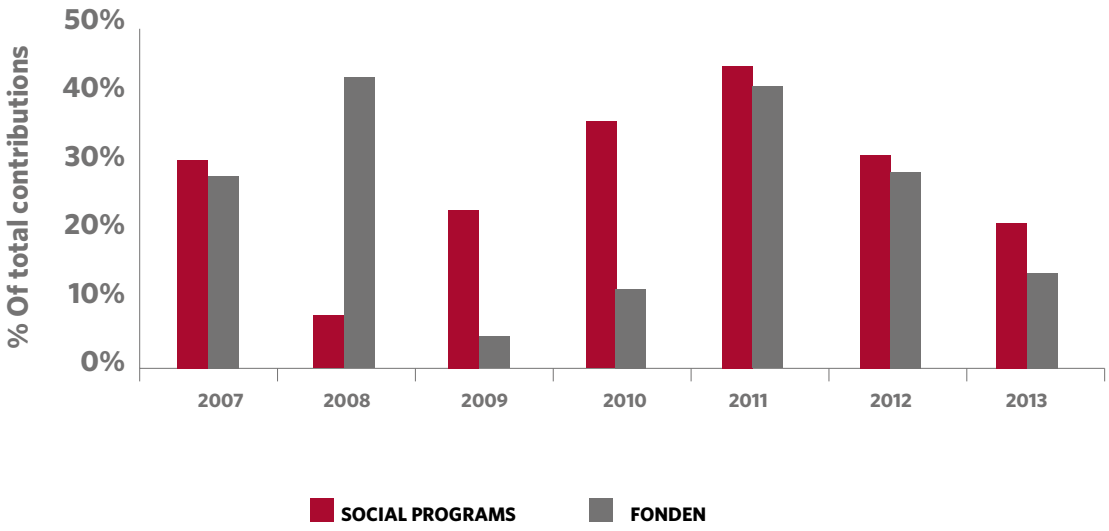
Source:
Estados Financieros Consolidados PDVSA 2013.

PDVSA: Financial Information (Millions USD)

	2005	2006*	2007	2008	2009	2010	2011	2012	2013
Sales	82,915	99,252	96,242	125,499	73,819	94,929	124,754	121,480	113,979
Income on refinery selling	--	1,432	--	998	--	--			
Asset share in afilliates net profits	1,074	1,120	732	-153	139	184	278	-64	0
Crudes and products purchases	32,001	38,778	28,137	44,600	25,392	34,017	39,783	40,012	37,017
Operative Costs**	14,152	14,879	15,112	16,581	15,482	12,039	14,718	23,014	22,720
Expenses***	5,487	5,824	6,720	10,192	10,736	9,766	10,690	11,183	18,591
Net Financial Expenses	n/d	n/d	n/d	200	-5,038	8,391	2,884	249	-17,413
Minority Interests	14	458	902	1,962	1,474	n/d	n/d	n/d	
Royalties and other taxes	13,318	18,435	21,981	23,371	12,884	13,904	17,671	17,730	19,262
Social Development Spending	6,909	13,784	14,102	14,733	3,514	7,018	30,079	17,336	13,023
Income Tax	5,793	4,031	5,017	4,280	3,310	3,384	2,007	7,279	7,845
Income from discontinued operations, net of taxes	154	20	101	57	-234	n/d	1,353		
Loss from discontinued operations, net of taxes	n/d	n/d	n/d	-655	-1,274	-558	n/d		
Net Income	4,335	3,212	4,809	9,413	4,498	3,164	4,496	4,215	15,835

Source:
Informe de Gestión Anual 2013 .
** Source: Información Financiera y Operacional de PDVSA y sues filiales, until 31/12/2007.*
*** Includes exploration costs*
****Depreciation and Amortization, plus administrative expenses, plus financial expenses plus other expenses.*

PDVSA Social Contributions 2007-2013



Source: *Informe de Gestión Anual de PDVSA 2013 y Estados Financieros Consolidados PDVSA 2013.*

PDVSA'S INVESTMENT PLAN: SIEMBRA PETROLERA

PDVSA announced in 2005 the Siembra Petrolera Plan 2005-2012, proposing the use of oil resources to enhance the energy production capacity of Venezuela. According to the plan's official documents, oil production by the end of 2012 should have almost doubled reaching 5.837 million barrels a day. Production in 2013 represented almost half of that figure.

In PDVSA´s Annual Report for 2012, a new Siembra Petrolera Plan for 2013 to 2019 was announced.

Goals for 2019

• Increase the level of oil production to 6 million barrels per day in 2019, of which 4 million barrels per day come from the Orinoco Oil Belt.

• Increase production of natural gas to a volume of 11,947 million cubic feet, with a significant proportion coming from the gas belt of our territorial waters.

• Increase production of Liquid Natural Gas to 255 thousand barrels per day.

• Raise the domestic refining capacity to 2.2 thousand barrels per day and to 2.4 thousand barrels per day internationally, for a total capacity of 4.6 thousand barrels per day.

• Achieve a level of exports of crude and products of 5.6 thousand barrels per day.

• Develop a systematic and sustainable industrial capacity for goods and services required by the hydrocarbon core activities.

• Strengthen the national capacity to transport crude and products.

OIL AND GAS ASPECTS OF PLAN DE LA PATRIA LAW:

The Plan de la Patria Law introduces new objectives for Venezuela's petroleum industry, which are the following:

Deepen a market diversification strategy with an oil export goal of 1,335 tbd that would be headed towards Latin America and the Caribbean, and 3,162 tbd headed towards China, India and Japan by the year 2019.
Enhance the methane gas distribution network to reduce GLP consumption, improve quality of life and decrease environmental contamination through the deployment of 8,625 km of pipelines and 16,818 km of internal lines, in order to benefit over 728,900 families.
Build 5 thermo-electrical plants with a total capacity of 2,620 MW.
Develop a Venezuelan gas belt to reach a total production capacity 300 tbd by the year 2014 and 2,030 tbd by the year 2016.

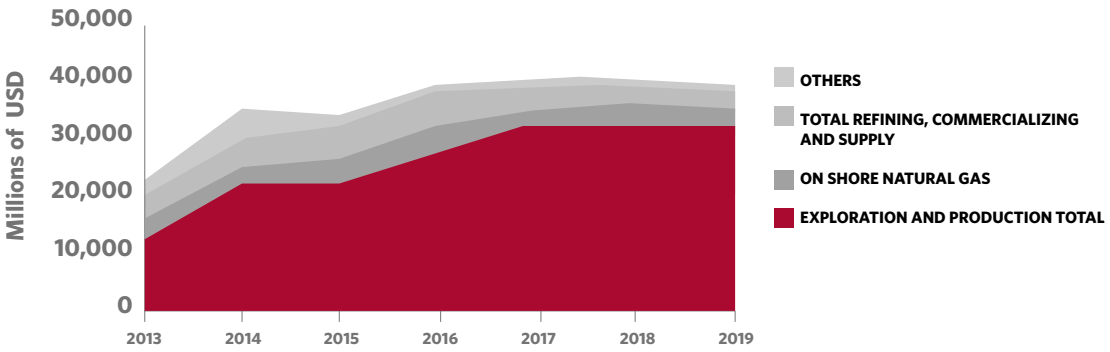
The following are Plan de la Patria Law's changes from the original Siembra Petrolera's strategies:

- In the new framework, total gas production for 2019 is expected to be of 10,494 tcf
- By 2019, refining capacity is now expected to grow by 1,800 tbd
- Natural Gas Liquids production is expected to grow by 130 tbd.

AMOUNTS AND INVESTMENT SCHEME

PDVSA estimates that implementation of the Plan will require an investment of approximately U.S. $ 256,986 million in the period 2013-2019. Of that amount, PDVSA is expected to provide 81 %; the remaining 19 percent will be contributed by its partners. Of total investments, 74 percent will be directed towards exploration and production, 9 percent will be invested in PDVSA Gas, 10 percent in Refining, 2 percent in Trade and Supply, and the remaining 5 percent in Other Organizations.

Investments disbursements (MM USD) 2013-2019



Source: *Informe Operacional y Financiero, PDVSA 2013.*

The disaggregated investment plan 2012-2019 shows a significant increase in exploration and production until 2018, and a refining effort concentrated between 2014 and 2018. Investment in non-oil subsidiaries tends slow down, flattening out around 2014. According to 2013-2019 projected investments, an E&P effort is evident until 2018. Refining projects will be focused between 2014 and 2018 and the category Other Organizations will grow during at the beginning of the Plan to stabilize in the final years.

It should be noted the abrupt reduction of detail in planned disbursements information in relation with 2011 and 2012 Management Reports.

In addition to reduction in categories, the temporal profile of investments changed considerably.

GAS
SECTOR

Gas
figures 2013

Gas Reserves:
197.089 trillion cubic feet, of which 64.072 trillion cubic feet are associated with the Orinoco Oil Belt and 35.339 trillion cubic feet associated with extra heavy crude are present in Eastern and Barinas-Apure basins.

Gas production:
7,395 million cubic feet per day, of which 2,779 are reinjected.

Rate Reserves / Production:
73 years.

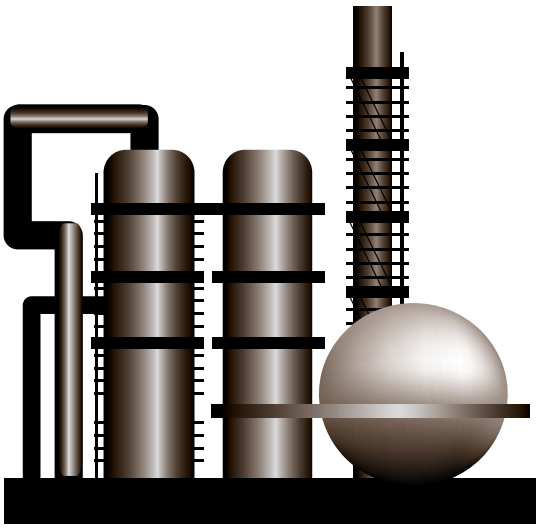
Average price of gas in Venezuela 2013:
$ 0.19 / MPC.

Offshore exploration and exploitation projects:
- Mariscal Sucre Project
- Rafael Urdaneta Project (Falcón)
- Plataforma Deltana Project
- Liquefied Natural Gas Project
- Golfo de Paria Oeste y Punta Pescador Project
- Blanquilla-Tortuga Project

On shore projects:
- Anaco Gas Project
- San Tomé Gas Project
- Fractioning Capacity Increase in Jose
- Soto Deep Extraction Plant
- IV Train in San Joaquin
- Piritial I
- Handling and Disposal of CO^2
- G/J José Francisco Bermudez (SINORGAS) Northeastern Natural Gas Pipeline
- Expansion of the Baja Grande Ulé Amuay Transport System
- Ulé Amuay Center-Eastern Pipe Interconnection Segment
- National Gasification

Exploration and Production

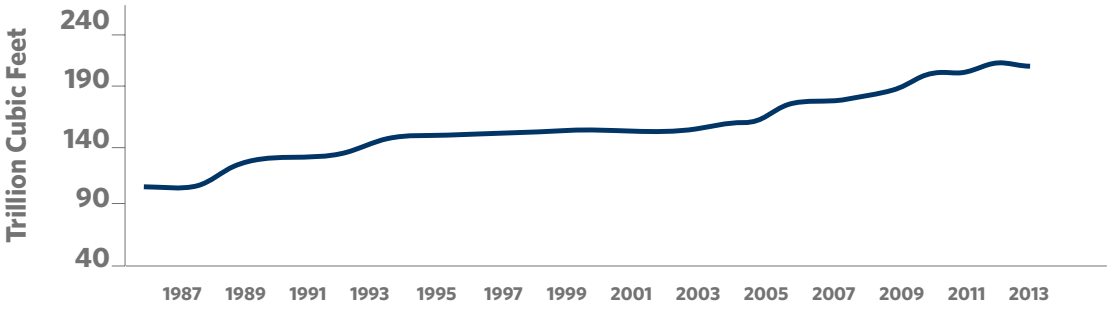
RESERVES



Venezuela is the country with the eighth largest gas reserves. According to BP's Statistical Review of World Energy 2014, the country has approximately 197.76 billion cubic feet of gas, which constitute the second largest reserves in the Americas, the United States hold the largest at 300 trillion cubic feet[9]. Venezuela's reserves account for 73 % of Central and South America and 3 % of world's total.

Venezuela's reserves have remained relatively stable since the mid-90s, growing at an average annual rate of nearly 1 %. From the year 2006 there have been significant additions: natural gas reserves have increased 15 % over the past seven years.

Venezuelan Natural Gas proved reserves 1985-2013



Source: *BP Statistical Review of World Energy, 2014*

[9] *Shale gas reserves have not yet been incorporated into these figures.*

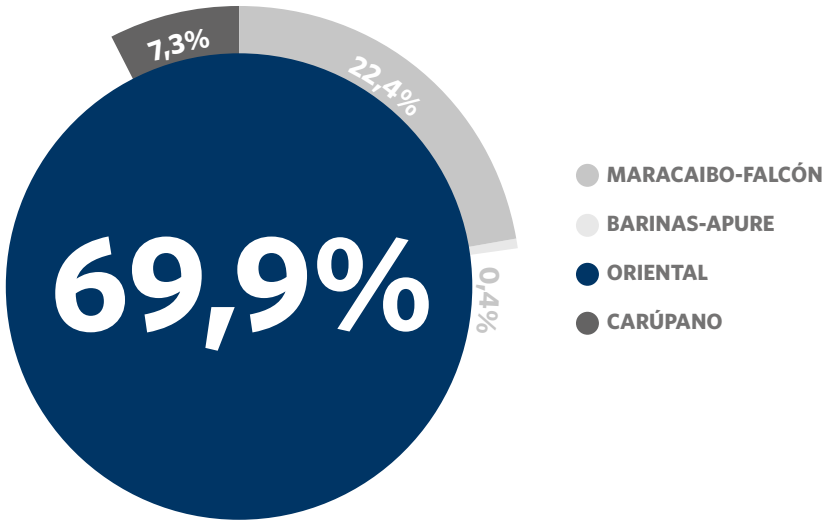
SHALE GAS RESERVES HAVE NOT YET BEEN INCORPORATED INTO THESE FIGURES.

According to the PDVSA's Informe de Gestión Anual 2013, certified gas reserves in Venezuela now amount to 197,089 trillion cubic feet, about 30 percent of which are associated with Orinoco's Oil Belt (FPO).

In 2013, 667 million cubic feet of gas were incorporated as a result of the discovery of 8 new deposits -- 98 % coming from exploratory efforts and 2 % from studies financed by PDVSA Gas -. Most of the reserves are located in the northern and northeastern parts of the country but also at the eastern basin and on the shores of the Caribbean and Atlantic continental shelf, spreading across an area of over 500 thousand square kilometers.

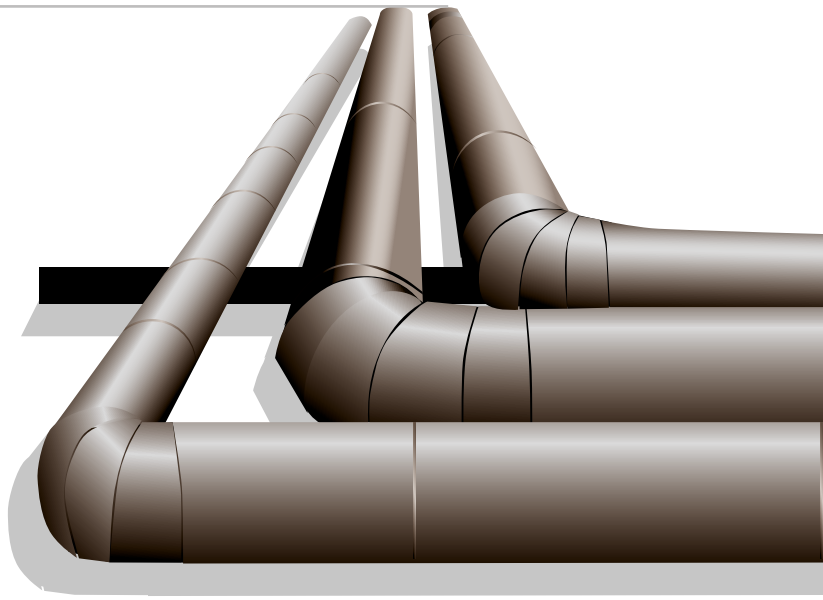
The chart below shows the distribution basins of natural gas reserves:

Gas Reserves distribution classified by vessel 2013



Source: *Informe de Gestión Anual de PDVSA 2013.*

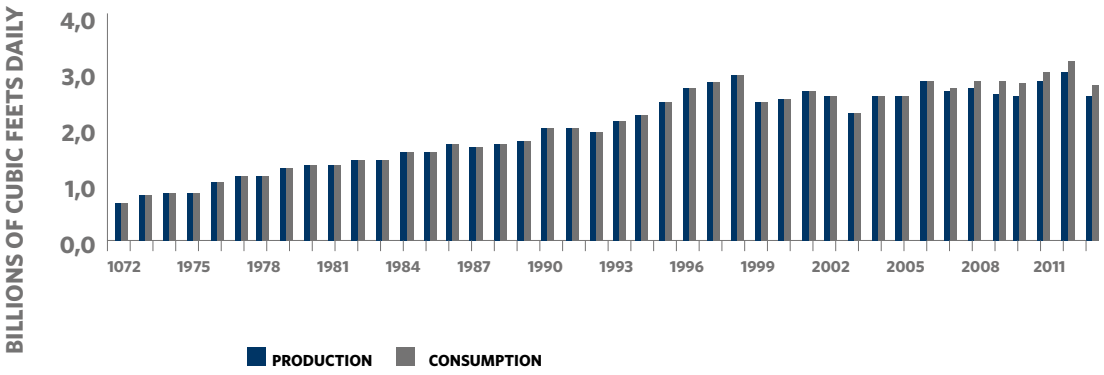
PRODUCTION AND CONSUMPTION



According to PDVSA's Informe de Gestión Anual, during the year 2013, natural gas production in the country was 7,395 million cubic feet of gas per day, 37.57 % of which was used for reinjection That accounts for a net gas production of 4,616 million cubic feet per day, a 3.5 % growth from 2012.

Venezuelan production represents around 19% of production in Central and South America and 1-2 % of the world's total.

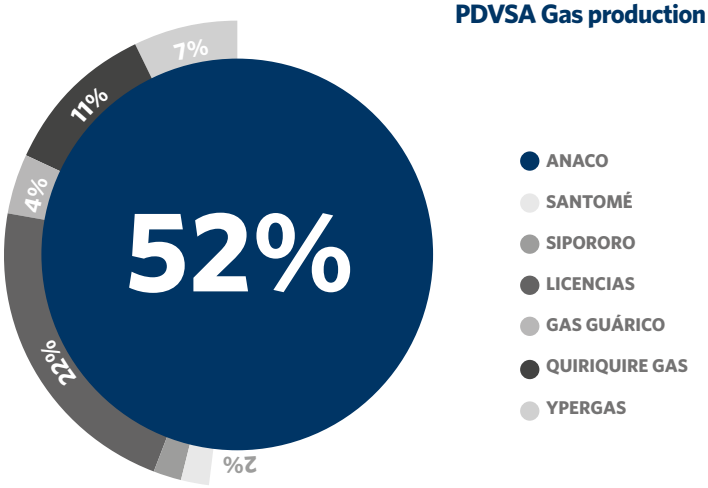
Venezuelan Natural Gas production and Consumption (1970-2012)



Source: *BP Statistical Review of World Energy 2014*

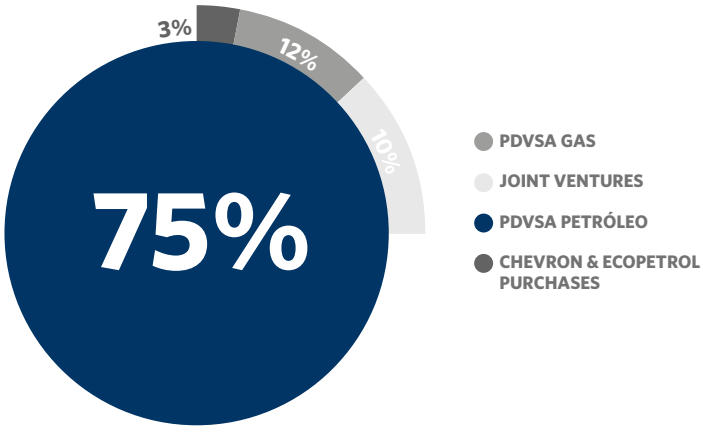
In the past three years, production levels have decreased while consumption has exceeded the amounts of gas elaborated in the country. Venezuela has therefore had to resort to imports.

PDVSA Gas production



Since 2008, Venezuela has been receiving gas from Colombia through the Transcaribeño Antonio Ricaurte pipeline. During 2013, Venezuela received from Colombia on average 203 million cubic feet per day of gas, resulting in a total supply for internal consumption of 7,598 million cubic feet of gas per day (MMCFD).

Gas availability by source



Of the total natural gas available in 2013, 26.68 % was for the domestic market to meet the needs of the electricity, steel, cement, aluminum, household, marketing and petrochemicals.

Fuente: *Informe de Gestión Anual de PDVSA 2013.*

TRANSPORT AND DISTRIBUTION

The Venezuelan distribution system for methane gas comprehends a 5,031 kilometers pipeline network with width variances. The main systems are listed below:

- Anaco – Barquisimeto
- Anaco – Jose / Anaco - Puerto La Cruz
- Anaco – Puerto Ordaz
- Ulé – Amuay
- Interconnection Coast – West
- Interconnection Center East - West
- Transcaribeño Antonio Ricaurte Pipeline

These facilities met the demand of more than 282,579 commercial and residential users in 2013, 91 % of which located in La Gran Caracas.

DOMESTIC GAS

According to PDVSA Gas Comunal's statements, 95 % of Venezuelan families use liquefied petroleum gas (LPG) as an energy source. In December 2007 PDVSA Gas Communal was created from the merger of TROPIGAS and Vengas, the two largest gas distributors in the country that were previously acquired by PDVSA.

According to PDVSA's last report, PDVSA Gas Communal owns 63 of the 89 LPG filling plants nationwide and supplied a total of 43.52 tbd, a 3.6 % growth compared with 2012. That amount is distributed in 32.83 tbd corresponding to PDVSA Gas Communal and 610.69 tbd by the private sector.

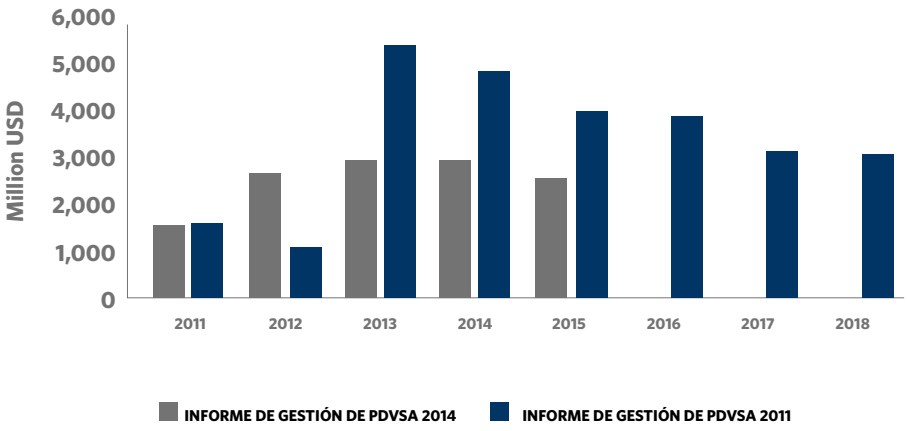
INVESTMENT

Venezuela's gas development is part of the Plan de la Patria 2013-2019. Two of its main axes are the development of offshore gas to satisfy domestic market demand and to guarantee Venezuela's absolute sovereignty over its oil and gas resources. According to the Plan, the targets set for 2019 with regards to gas production are 11,947 MMCFD of natural gas and 255 tbd of LNG.

In 2010, 1.305 billion USD were invested in Mainland Gas Development, 16 % less than what PDVSA had planned for in 2009. In 2011, the actual investment was 1,601 million USD, 6 % higher than in the 2010 plan investment for the development of mainland Gas. Beginning 2010, offshore gas development investment has not been reported.

Total disbursements for gas investment in the Ground projected for the period 2014-2019 was of 23,207 million USD. In 2013, the total invested amount was USD 2,868 million; the total 2013-2019 projections are 9% lower than the original Plan Siembra Petrolera's original course of action for 2012-2018

On-shore Proyected Dissimbursement Investments 2011-2018



Source: *Informe de Gestión PDVSA 2010 y 2011.*

PROJECT	OBJECTIVE	CURRENT SITUATION
Mariscal Sucre	To incorporate into internal markets, gas produced off-shore in the Eastern part of the country. To develop 70 % of non-associated gas and condensed liquids reserves from the Dragón, Patao, Mejillones and Río Caribe camp in order to produce 1,250 mmpced of gas and 28 tbd of condensed liquids.	This Project involves the construction of 34 perforating Wells, installation of 2 production platforms, submarine production systems, collection lines and an export system that includes 563km of submarine pipelines.- Additionally urban planning for the platform, a construction dock, Vehicle viability plans and services for the Complejo Industrial Gran Mariscal de Ayacucho (CIGMA), adecuation and PAGMI gas processing plants. The project began its execution in 2007 and is divided in two phases (I & II). Phase I has two stages, first a scheme of accelerated production of 300 mmpcd by the end of 2014 and then another 300 mmpcd at the end of 2017. The project is planned to be executed by 2022 with an estimated investment of 13,471 million USD. In a previous Informe de Gestión -2002- PDVSA had estimated the project's conclusion to be in 2020.
Rafael Urdaneta	As a first phase of the Project, to explore, quantify and exploit free gas basins in order to satisfy energy demand in the northwestern part of Venezuela – particularly the Paraguaná Refining Center. Its goals are to increase the amount of reserves of non-associated natural gas by 23 tcf and liquid hydrocarbons by 7 billion cubic feet	
Natural Gas Liquids Project	To provide associated installations with GNL conditioning, liquefaction, storage and boarding for exports of 4.7 million annual tons. These exports products will be obtained through 800 million CFED that come from the Eastern Region production areas (Plataforma Deltana Bloque 2 and Marical Sucre – Dragón – Patao. The potential markets for its products are Europe, Argentina, Cuba, Brazil and Asia.	

PROJECT	OBJECTIVE	CURRENT SITUATION
Deltan Platfform Project	A part of the Delta Caribe Oriental Project, it is based on the exploration and production of non-associated offshore gas in an area of 9,441 square kilometers, through the Venezuelan and Trinidad & Tobago's border	
Anaco Gas Project	Construction of five operative centers with the capacity to collect, compress and transfer a production of 2,559 million pcnd and 34.55 tbd of light crude with the purpose of handling with safety and reliability the production of gas and crude oil in the San Joaquin, Santa Rosa, Zapato/ Mata R fields as a part of Phase I and the Santa Ana and Aguasay, as a part of Phase II, Construction of infrastructure to interconnect the project's operative centers with the Gas Anaco's production control room, with the purpose of monitoring, handling of the alarms, measuring each variable historic trends, production simulations, testing of wells and asset management.	**San Joaquin Camp:** reached a progress of 90.19%. Its achievements were: Total compression start at the San Joaquin Operative Center with a capacity of 525 million cubic feet at low pressure and 780 mmpced at high pressure **Santa Rosa Camp:** reached a cumulated physical progress of 73.75 %. The Project "Completion of Construction of theSanta Rosa Field Collecting System and Operative Center" is currently taking place. **Wapato/Mata R Camp:** reached a cumulated physical progress of 70.94%. **Principle achievements:** Culmination of the turbocompresor uninstalling contract from the Zapato/Mata R camp to the Musipán compressor plant, in order to raise compressing capacity by 152 mmpced at 60 lpca of pressure
San Tomé Gas Project	Execution of visualization, definition, implementation and commissioning phases of infrastructure for: Collection and centralization of production, which includes the construction and preparation of 38 flow stations, 5 charging stations, 6 water treatment and injection plants by centralizing operations in the Chimire – Boca, Nipa and Elotes- Isla blocks. Construction of 150 km of a low pressure gas collection system. Construction of 200 km of pipelines. Compression: Construction of 8 compressor plants (Güere, Boca, Chimire, Elotes - Isla, Nipa, Esquina - Trico, nardo, Güico), with a capacity of 550 mmpcd/125 Hp Transmission for processing: Construction of a 150 km gas collection system at low pressure, flow lines, 200 km of pipelines and 180 km of a high pressure transmission system.	Reached an cumulative physical progress of 16.62 % (contrasting with 15 % in 2012). Its achievements were: Partial start for the Guere Project, with the delivery of 20 mmpcd of gas for the internal market. Construction of flow station, collection systems, transmission systems, flow lines and operative pathways-Beginning of construction of the Chimire-Soto transmission system, physical advance of 15.88 %. Construction of terrace for the Boca II compressor plant. Beginning of international procurement for the Boca compressor plant. Detailed engineering execution for the Nipa Block production facilities. Basic engineering executions for the Chimire block production facilities.

PROJECT	OBJECTIVE	CURRENT SITUATION
IV San Joaquín Train Project	To allow to raise NGL processing capacity in Anaco by 1,000 mmpced with a 98% recovery factor of propane gas, thus generating 50 tbd of NGL and890 mmpced for the gas transport systems on the internal market.	Accumulated a physical execution of 39.83% (has not changed sin 2012) with the execution of the following activities: Construction of Phase II of Access viality at the San Joaquin Extraction Plant Installation and commissioning of the 19.6 MW turbo generators for the national electric grid.
Pirital I	To add, via the NGL Pirital I extraction plant, 1,000 mmpced to the Northern Monagas area, in order to take advantage of gas that is reinjected to oil production Wells. The plant will have a 99 % recovery factor for propane and generate over 42 tbd of NLG.	Presents a physical advancement of 8.47 % (constant since 2012), related to procedures necessary to obtain external financing from Gs Engineering and Construction. Currently on the recruitment phase for the detailed engineering infrastructure.
Enhanment of Fractionation Capacity on Jose	To execute engineering, procurement, construction and commissioning of a new fractioning GNL train of 50 tbd in the fractioning plant and Jose dispatch. Beyond industrial services, it will include transport facilities, GNL entry, reception, storage and dispatch.	Showed 29.08 % advancement. Its main achievement was the replacement and commissioning of the 8th loading arm of the 9th platform of the Jose Fractionation Plant.
Soto Deep Extraction Plant	To build a liquid extraction module to comply with the required supply of raw materials required for the petrochemical industrial park and to process 200 mpced of natural gas from Anaco and San Tomé, thereby raising NGL production by 15 tbd. This production will be transported by a 35 km pipeline from Soto to San Joaquin for it to be later fractured in the Jose Cryogenically Complex. Additionally, this project includes the development of electrical infrastructure of 45 MW to supply the national electrical grid.	Accumulated physical execution of 45.22 % (has not changed sin 2012) Its main achievement at the December 2013 was the execution of civil and mechanical works of the Soto Norte electric infrastructure, with a 77.38 % progress.
Handling and Disposal of CO2 Emissions	Through this project, new plants dedicated to conditioning and injecting gases into qualifying oil fields will be commissioned. The project's goals include raising production of liquid hydrocarbons through enhanced recovery. Phase I of the project will handle a 32 mmpced CO2 capacity, taking by the Soto deep extraction plant. Phase II will build a CO2 handling capacity of 210 mmpced, based on the Calidad de Gas al Mercado Interno	Accumulated physical execution of 8.83% (changed from 4.45 % in 2012) Activities that leveraged its progress are: Execution of Phase III on 2 special studies oriented to determine the feasibility of injecting CO2 to the Zapato Mata R field with the goal of hydrocarbon enhancement. Basic engineering progress, 60.53 %.

PROJECT	OBJECTIVE	CURRENT SITUATION
José Francisco Bermúdez North-western Pipeline	Comprehends the execution of visualization, conceptualization, definition, implementation and commissioning of infrastructure that allows to transport the natural gas volumes produced in the Eastern off shore area, from Guiria to the Sucre, northern Anzoátegui, Monagas and Nueva Esparta's consumption centers in order to satisfy industrial, domestic needs as well as the demand of the refining sector.	Accumulated physical execution of 92.94% (from 51% 2012) Among the principal aspects and achievement for 2013 for this project are: • Completion of a 68 km-long, 36 inch pipeline for the Provisor-Cumaná section, from the bm-11 valve station to the bm-14 valve station (Cumana) between the Sucre and Anzoátegui states. •• Completion of a 155 km-long, 16-36 inch pipeline for the Cumana-Cariaco-Araya-Coche-Margarita section, from the bm-14 valve station to the bm-30 valve station in Isla Margarita, with a capacity of 180 mmpcd. • Construction of the primary regulation and district stations. at the Coche and Margarita valve stations. • Installation of a 158 km-long 36 inch pipeline for the nº7 Güiria - El Pilar – Cariaco construction package
Extension of the Ulé-Amuay Bajo Grande Transport System	Increase gas transport capacity from 220 mmpced to 620 mmpced, therefore leveraging compliance with national and international gas contracts such as: Receiving natural gas from the Cardón IV block and complying with the Eni, Repsol and PDVSA's agreement to supply PDVSA Gas S.A. with natural gas from Cardon IV. Complying with contractual commitments to export gas to Colombia. Cover the electrical sector's gas demand (from the Josefa Camejo, Termozulia I & II plants) and satisfy the commercial, residential, industrial and transport natural gas needs.	Accumulated physical execution of 37.5% (changed from 33% in 2012) Activities and achievements for this project were: Culmination of engineering for the Project. Partial enhancement of the km 217 terminal's station. Enhancement of the km 215 sectioning station and construction of the 26 inch pipeline from the 215 km station to the 217 km station. • Progress on the Bajo Grande terminal station of 75% and the 217 km terminal station of 9.77%.

PROJECT	OBJECTIVE	CURRENT SITUATION
Centran Wester Linkage	Interconnect the Anaco-Barquisimeto system with the Ule-Amuay system in order to pass over 520 mmpced of natural gas from Eastern Venezuela to western Venezuela, therefore supplying Centro Refinador Paraguaná's gas demand, releasing gas liquid for export and supplying western Venezuela's gas needs in the electric, petrochemical and industrial sectors.	Currently on implementation, shows a cumulative physical execution of 90.60 % (it was 88 % in 2012) Activities and achievements for this project were: Culmination of detailed engineering. • Contract signed for the completion of the Morros Compressing Plant. • Start of new compression train 1 from the Altagracia compressor plant, adding 400 mmpced to the Anaco Barquisimeto system. at an 885 psi charge in order to raise the operational flexibility of the compressor plant.
National Gasification	To ensure gas supply to Venezuela's rural areas through the installation of distribution networks of methane gas, in order to satisfy commercial and domestic demand, in order to increase LPG exports, to improve local development and to raise lower-income communities' quality of life.	Cumulative physical execution of 53.94 % (it was 46 % in 2012)and gasification of 102,109 homes throughout the national surface. Contract signed between PDVSA Gas and a Portuguese consortium, for the execution of basic engineering for the principal ring that will provide methane gas to the city of Cumana. • The Great Caracas region currently carries out projects with Russian, Belarusian and Chinese delegations as well as a relocation of the Caracas-Litoral pipeline in order to provide natural gas for 23,000 homes that belong to the social program Gran Misión Vivienda Venezuela.
Rehabilitation of Pipelines	The Project has as an objective the construction and replacement of new transport infrastructure of methane gas (12 to 36 inches pipelines) for a total of 768 km located between the eastern, central and western parts of the country in order to increase operational flexibility, to raise transport capacity and supply, as well as to leverage national social development within the nearby areas where the Project will take place. To avoid transport and supply shortages during the course of the project there are provisions for new pipelines for gas, replacements and interconnection stations on a national scale.	Accumulated physical execution of 10.56 % Activities that leveraged the project's progress were the following: Construction started for the subproject "tramos cortos" 30 inch Nurgas. • Contracts signed for the replacement of the gas pipeline for the Anaco - Barquisimeto / Subsistema Epa - N50 transmission system.(NurGas pipeline 30 inches). • Start of basic and detailed engineering for these subprojects: Arichuna - Figueroa 26 inches pipelines–;replacement of short sections for 26 inch pipelines Arichuna - Caiza, replacement of short sections for 26inch pipelines La Encrucijada - Los Morros y replacement of short sections for 20 inch pipelines Tejerías - Guacara.
Extension of the Anaco-PLC Transport System Phases I & II	To provide the necessary methane gas infrastructure to satisfy future gas demand in the Anaco – Puerto Ordaz system. This project has the goal to leverage the development of the industrial, electrical, oil and pretro chemical sectors within the Siembra Petrolera Plan for that area of the country	Accumulated physical execution of 96.82 (has not changed sin 2012 due to the rebooting of 2 recruitment processes: electromechanical Works for the Barbacoas II sectioning station and the complementary works needed for the construction of the Barbacoas II sectioning station under the new recruitment policies.

PROJECT	OBJECTIVE	CURRENT SITUATION
Extension of the Anaco-Puerto Ordaz Epa Soto Pipeline	To provide the necessary methane gas infrastructure to satisfy future gas demand in the Anaco – Puerto Ordaz system. This project has the goal to leverage the development of the industrial, electrical, oil and pretrochemitry sectors within the Siembra Petrolera Plan for that area of the country. To transport over 200 mmpced methane gas from northern Monagas to satisfy the electric sector demand.	Accumulated physical execution of 99.82 % (from 91 % in 2012)). Its principal achievements are: •Operations began for the 29 km-long 36 inch gas pipeline • Completion of construction for the Asapo 36, Epa - Soto section station. • Hydrostatic test for the pipeline, alienation, welding, gammographing, perforation below surface, banking at ground level, installation of support for the pipelines. Additionally, hydrostatic tests for the Epa & Soto stations, commissioning for the gas pipelines, installation of spools and valves at the Epa station and fabrication of PUNTOS DE EMPALME by armored JUNTASin the Soto and Epa stations • Completion of construction of complementary works
Extension of the Anaco-Puerto Ordaz Transport System Pipeline West Lejos – Morichal – Mamo sections	To provide the necessary methane gas infrastructure to satisfy future gas demand in the Anaco – Puerto Ordaz system. This project has the goal to leverage the development of the industrial, electrical, oil and pretrochemitry sectors within the Siembra Petrolera Plan for that area of the country.	Cumulative physical execution of 95% (has not changed sin 2012). Operations began for the West-Lejos section
Extension of the Anaco-Barquisimeto Transport System	To increase transport capacity and to improve the trustworthiness and operational flexibility necessary to supply actual and future natural gas demand in Great Caracas, Central Litoral, Carabobennian Litoral and the Barquisimetan axis. It will be achieved through the substitution of systems affected by mechanic integrity problems and the addition of new systems that allow for the growth of current capacity.	Physical evolution of 45.65 % (from 32 % in 2012). Its principal achievements have been: • 55 km of pipelines installed for Phase I o the Moron-Barquisimeto Project and 24 km of 20 inch pipelines for Phase II • Mechanics activities at the 13 km of pipelines were culminated for the Restitución de Capacidad Altagracia - Arichuna (Altagracia – Guatopo branch) project. N10 and n 50 station are currently in execution Construction and commissioning of a total 88 km pipeline Epa – N30 (section n12-n30).
La Raisa Thermoelectric Temporary Supply	To guarantee the execution of necessary infrastructure in order to ensure gas supply to the new and already existing electric generation plants	Culminated 20 km of 20 inch pipelines, from the PDVSA Gas valve in Arichuna to the El Sitio electric plant with a branch to the La Raisa plant (5 km long). Construction of this facility has been assumed temporary. Supplied volume is 40 mmpcd.
El Sitio Electric Temporary Supply		Culminated 1.7 km of 10 inch pipelines, a regulation station and a measuring station. Supplied volume is 40 mmpcd.
Ezequiel Zamora Electric Temporary Supply		Culminated 2.6 km of 16 inch pipelines, a primary regulation station and a measuring and regulation station. Supplied volume is 40 mmpcd.
La Cabrera Electric Temporary Supply		Culminated 3.5 km of 16 inch pipelines, a regulation station and a measuring station. Supplied volume is 103.4 mmpcd.

GAS PRICES

All the gas produced in Venezuela is consumed domestically; therefore national prices are used in Venezuela's natural gas analysis.

According to current regulations, the State sets the prices and tariffs through the Ministry of Popular Power for Energy and Petroleum, with the collaboration of Ministry of Popular Power for Production and Commerce, counting with recommendations from Enagas.

In 2006, the regulatory body determined that for the year 2007, prices should reach approximately Bs. 26.86 per cubic meter. A new goal of Bs. 45.42 per cubic meter was set for 2015

National and international Gas prices (Dollars by millions of BTU)

	VENEZUELAN* (FIXED 2011)		WORLD (JANUARY 2011)***		VENEZUELAN (JANUARY 2012)***		WORLD (JANUARY 2012)***		VENEZUELAN* (FIXED 2013)		WORLD (JANUARY 2013)	
	Amoco	Lago	Henry Hub	NYC Gate ****	Amoco	Lago	Henry Hub	NYC Gate ****	Amoco	Lago	Henry Hub	NYC Gate ****
Dispatch Center at Anaco	0,31	0,62	2,97	5,06	0,33	0,66	2,67	4,85	0,35	0,7	3,3	4,52
Mean	0,47		4,02		0,5		3,76		0,53		3,91	

Source: *Venezuelan prices: Gaceta Oficial 38.401; World prices: Bloomberg*
** Domestic Gas*
**** Prices in December 31st*
***** Mean monthly price in January*

PDVSA's performance compared with other Latin-American State controlled companies

The importance of oil as an industrial strategic commodity and an economic engine of trade locally as well as internationally, has driven governments to intervene directly in their petroleum producing sectors by the creation of State-run companies, also called National Oil Companies (NOC's).
These NOCs design a variety of strategies that reflect, to some extent, each government's political, economic and social objective and their historical, institutional and geological contexts.

In Latin America, the most important NOCs are the Petrobras from Brazil, PEMEX from México and PDVSA from Venezuela. Even though they share similar characteristics, their level of performance in rcent years and their strategies differ greatly. This section will show a comparison of the three companies measuring the following indicators: production per employee, level of debt to leverage and profit margins.

PRODUCTION PER EMPLOYEE

Regarding production per employee, all three of the companies experienced downward trends from 2001-2013. PDVSA was the most affected. The company, during that period, created non oil subsidiaries and started to directly participate in certain activities that it previously outsourced. As a consequence, its total number of employees grew from 39,000 in 2001 to 113,369 in 2013. In the meantime, total production of oil stayed flat. Mares & Tamiano (2007) argued that the the drastic reduction of hig-skilled labor that took place in 2002-2003 following a series of protests, still affects the company's general productivity.

In the case of Pemex, the exhaustion of some of its most important fields like Cantarell and a lack of new investments have resulted in a production fall from 3.4 million barrels a day in 2004 to 2.5 million barrels a day in 2013. Additionally, the low number of production agreements with foreign companies has hindered the transfer of knowledge, lowering the level of human capital and therefore having negative effect on production. The influence of its unions and low labor flexibility in Mexico has made Pemex keep on payroll an excessive number of employees. In it main activities it needs 5 times more employees per refined barrel than comparable oil companies. (Victor, Hults & Thurber, 2012).

Petrobras, on the other hand, has seen its number of employees growing from 46,000 workers in 2002 to 86,111 in 2013. In the production growth context of Brasil, the production per employee indicator has mildly decreased. Nonetheless, in this period Petrobras has managed to establish itself as one of the world deep water technology leaders, contributing to a significant production increase from 200 thousand barrels a day in 1975 to 2,120 thousand barrels a day in 2013.

PROFITS

Taking into account total earnings before taxes, royalties and financial expenses as a proportion of income, Pemex is the leader. Recently, the company's strategies focus on maximizing operative margins and raising production in existing fields while keeping exploration investments low.

Petrobras shows the lowest number of revenues amongst the three companies. Its production costs are significantly higher at USD 17.22 per barrel as a consequence of off-shore drilling – costs compare with USD 11.40 per barrel in PDVSA and USD 7.87 per barrel in Pemex –. However, taking into account net earnings as a proportion of total revenues, Petrobras comes in first place.

Both PDVSA and Pemex pay a significant amount of taxes. In the case of the later, at least 60 % of its revenues are paid in taxes or obligations. In PDVSA, its fiscal payments, transfers to parafiscal funds and contributions to social programs represent more than 70 % of its revenues. Fiscal payments for Petrobras barely reach a 30 % threshold.

LEVERAGE

For this indicator (the ratio obtained dividing the level of debts by total assets), Pemex had the highest value. Pemex's high level of debt relates with the difficulties it faces in using its own funds to finance investment projects as a consequence of the high number of taxes and royalties the company has to pay to the Mexican State.

PDVSA shows a relatively lesser number of financial debts related to its assets. However, the constitution of energetic agreements that set a proportion of oil production below market prices thehigh fiscal impact on its revenues and the fossil fuel subsidies set by the State have resulted in cash flow problems for the company, making it increase its financial debts while maintaining growing commercial debts to suppliers. The sum of these two kinds of liabilities divided by total assets represents a ratio of 27.8.

Petrobras has increased its debt levels by 252 % between 2006 and 2013. In 2007, the company began an ambitious 200 billion USD investment plan. On the other hand, its debt/assets ratio has not been radical given its entrance to the capital markets and its growing earnings

PERFORMANCE AND AUTONOMY

In countries like Mexico and Venezuela, highly productive oil fields created possibilities for the efficient and quick extraction of crude oil as well. However, these conditions favored rent-seeking behavior.

Some of the differences between Pemex and PDVSA can be explained by the implementation of their nationalization process. In Brazil, where oil extraction potential was more limited, Petrobras' objectives were oriented towards a different direction and the management model by which it was created -- taking into account the institutional context during it creation - gave the company more autonomy over its decisions, promotingthe development of skills and technical capacity, technological innovation and an integrated operation.

There are positive and negative elements in each company's management related to their countries development. A high number of governmental interventions hider productivity even when the State's and the company's objectives are aligned.

On the other hands, a context that provides more autonomy can favor development and efficiency in each of the companies but creates the risk of asymmetrical information that turns the company into a "State within the State", thereby increasing the risks for diverging and often confronting interests.

An agenda to introduce sector reforms needs to understand the context by which these companies operate and how that context expands of limits the scope of the proposed reforms.

	PDVSA		PETROBRAS		PEMEX	
	2002	2013	2002	2013	2002	2013
Financial Debt/Assets (%)	15,0	18,77	22,77	35,5	32,6	41
Rairg/Income (%)	21,7	16	30,0	12	59,1	45
Earnings (net losses) / income (%)	6,1	13,9	10,2	11,5	-5,0	-10,6

Note: *Rairg: Result before taxes, royalties and net financial expenses*

Source: *Informe de Gestión Anual PDVSA 2013, Informe Anual Pemex 2013, Anuario Estadístico Pemex 2013, Financial Statements Petrobras (20-F)*

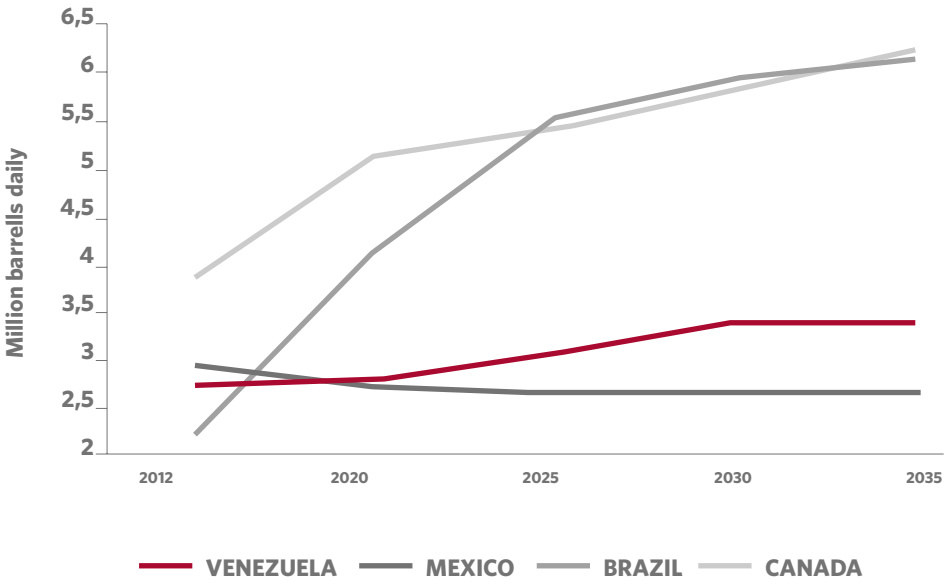
2012–2035 PROJECTIONS

The following is a set of projections estimated by the International Energy Agency for the period 2012 - 2035 and in its New Policies scenario.

Oil

The International Energy Agency projects a significant increase in production beginning in 2020-2025. Below is a visual comparison between Venezuelan production prospects and other important producers', both regionally and among members of OPEC.

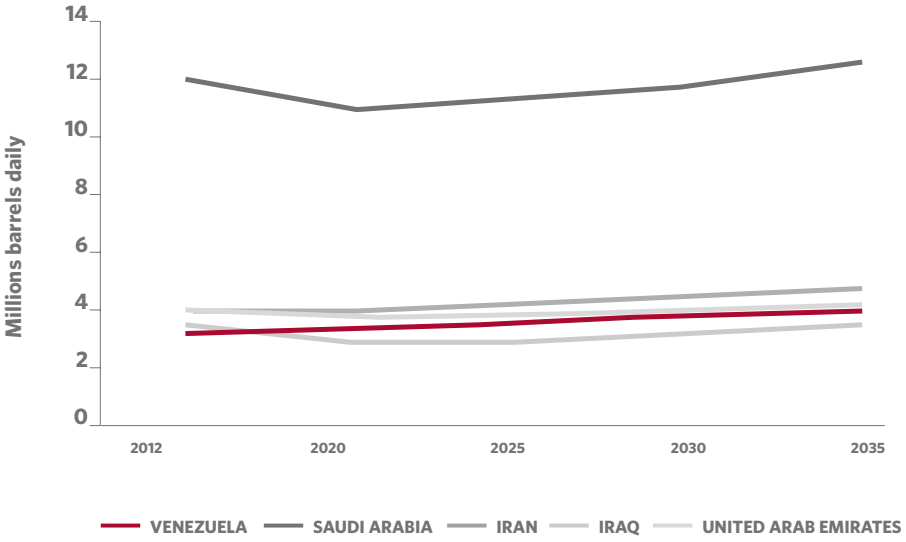
Expected Production Venezuela-Americas



By 2015 production in Brazil, Venezuela and Mexico will be similar, given a continued increase in production in Brazil and a continued decrease in Mexico. From 2025, Brazilian production will reduce its growth rate. In the case of Canada, strong growth is projected, as a result of its non-conventional crude production in the Athabasca Oil Sands.

Source: *International Energy Agency*
World Energy Outlook 2013, New Policies Scenario y Cálculos Propios

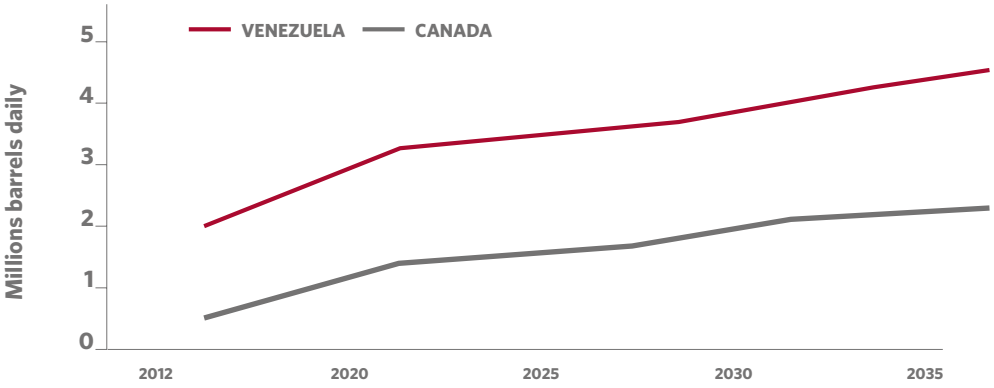
Expected production Venezuela-OPEC



Forecasts for the majority of OPEC's countries expect production increases, with the only exceptions being Iraq and Kuwait -annual -0.15 % decreases for each of them-. According to OPEC, Qatar will be the producer that grows the most, at an annual rate of 1.15 %.

To meet OPEC's projections, Venezuela must have an annual growth of production equivalent to 0.88 %.

Unconventional crudes expected production

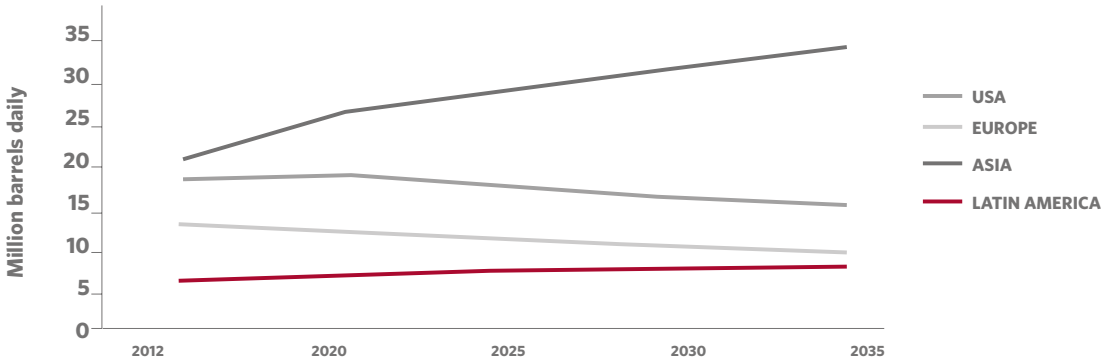


Source: *International Energy Agency World Energy Outlook 2013, New Policies Scenario y Cálculos Propios*

The annual growth rate of production of unconventional oil in Venezuela will be much higher than the overall growth rate of oil production, reaching an equivalent of 7 % annual increase. This trend will have an expected effect that, by the year 2035, approximately 63 % of Venezuelan production will be of this type of oil.

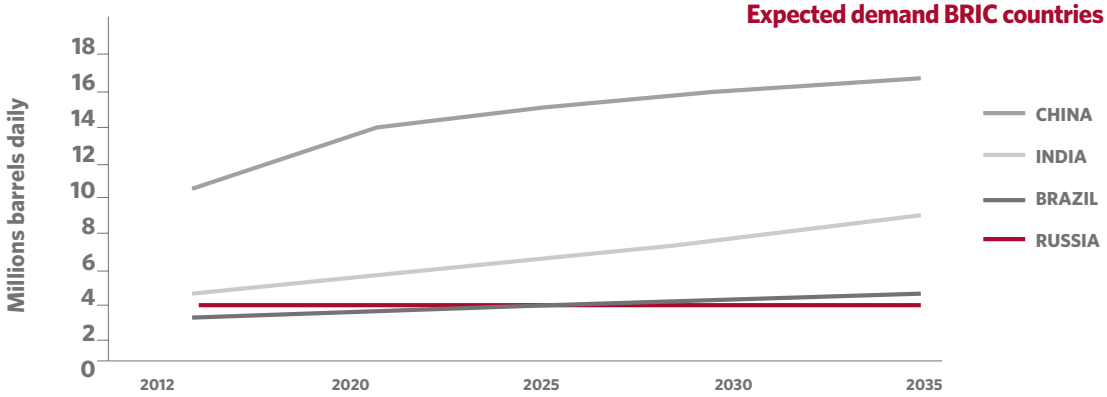
In the matter of global oil demand, the IEA estimates a compound annual growth of 0.60 percent, caused mainly by the growth of Asian developing countries (2.11 %) and Latin America (1.06 %) compared to reductions of demand in the United States (-0.8%) and European (-1.09 %).

Projected Demand by Region



Within the BRIC (Brazil, Russia, China and India, expected demand shows much higher growth in China and India relative with the rest of the group.

Expected demand BRIC countries

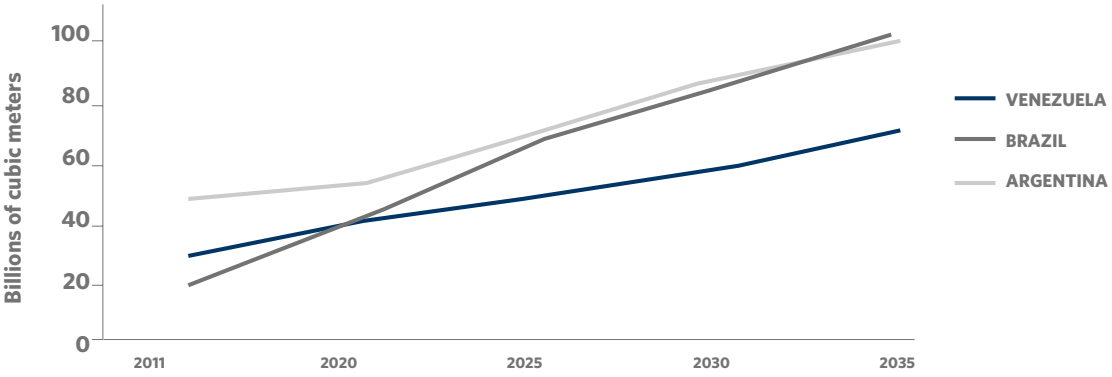


Source: *International Energy Agency World Energy Outlook 2013, New Policies Scenario y Cálculos*

Gas

Regarding natural gas production, the International Energy Agency projects a steadily growing trend for Venezuela, with compound annual growth of 3.88 %, showing a considerable acceleration from the year 2030.

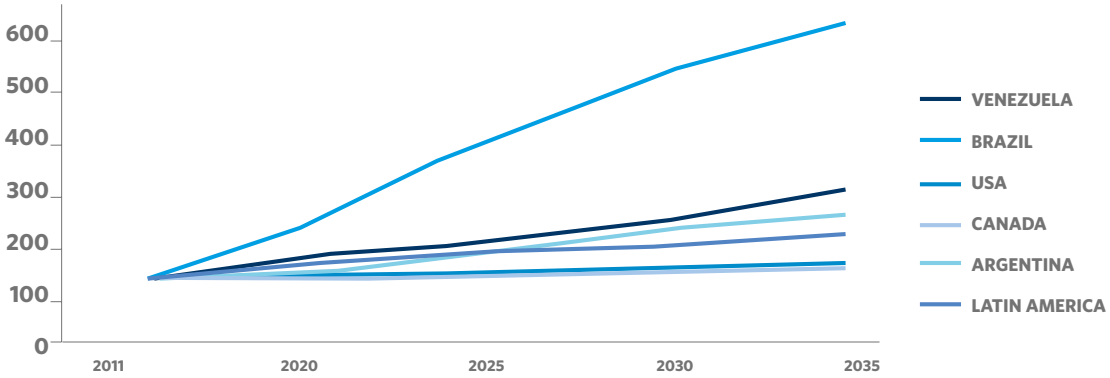
Expected production Venezuela-the Americas



Despite the positive forecasts for Venezuelan production, Brazil's case stands out for its sharp rise beginning 2020, where it is expected to reach a constant compound annual rate of 6.7 % on a throughout the estimated timeframe. In contrast, Argentina shows a less favorable forecast, with an annual rate of 4.21%.

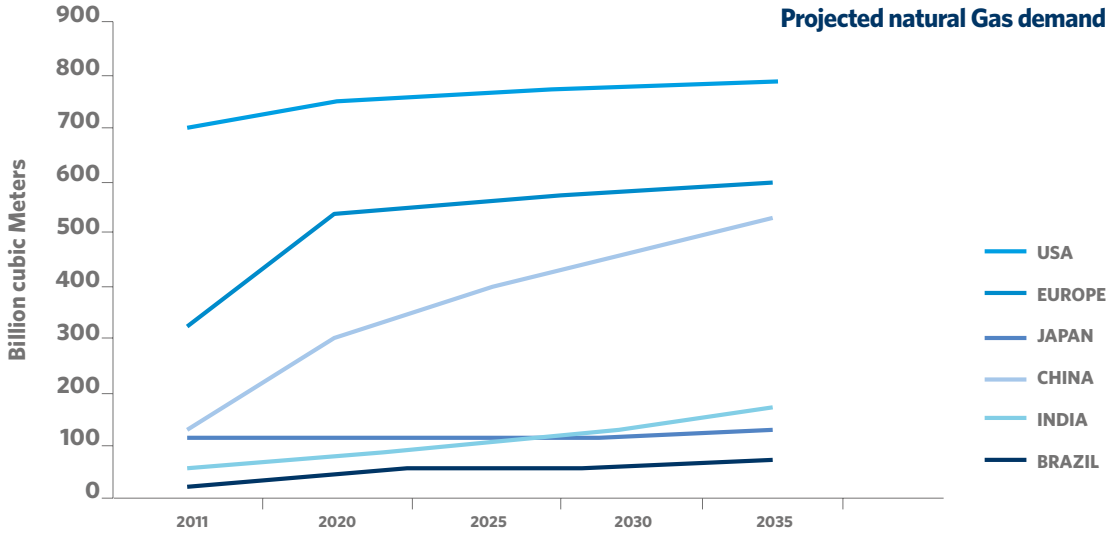
At the continental level, there is a growing trend of 0.61 % in U.S. natural gas production due to shale gas developments. Meanwhile, Latin America shows higher growth (2.33 %), but starting from lower levels. Canada, despite starting with production levels similar to those in Latin America, shows a lower growth rate of 0.35% compounded annually.

Continental projected production (2010=100)



In the matter of projected demand for natural gas, there is again proportionately greater growth in China (5.95 %), but also a positive trend in the growth of demand in the U.S. (0.69 %) and Europe (2.62 %). Brazil shows a growing trend in natural gas consumption (5.14 %), similar to India's (4.41 %). Japan, on the other hand, appears to stagnate (0.14 %).

Projected natural Gas demand



Source: *International Energy Agency World Energy Outlook 2013, New Policies Scenario and own calculations.*

The International Centre for Energy and Environment (CIEA)
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Igor Hernández
Economist, UCAB. MA. Economy, Duke
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Ph.D.(c) NYU., M.Phil. Cambridge
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Ph.D. (c), Tulane. M.P.P. Chicago
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Researchers
María Gabriela Salazar - Economist, UCAB
Jean Paul Leidenz - Economist, UCAB
Alfredo Vetencourt - Economist, UCAB

IESA , headquarters in Caracas - Venezuela
Tel: (+58 212) 555 4260