

Oil and Natural Gas

São Paulo is a national reference in the oil and gas industry. According to the 2012 balance sheet of the National Petroleum Agency (ANP), the five refineries operating in the state represent 42% of the total capacity in Brazil, accounting for a significant production of derivatives, such as gasoline, liquefied petroleum gas (LPG), diesel fuel, kerosene, among others.

This performance is closely related to the regional fossil fuel market, in which São Paulo is relevant, with 28% of the national market. The State also stands out in relation to the consumption of natural gas, accounting for 23% of the total national consumption (ANP – 2012).

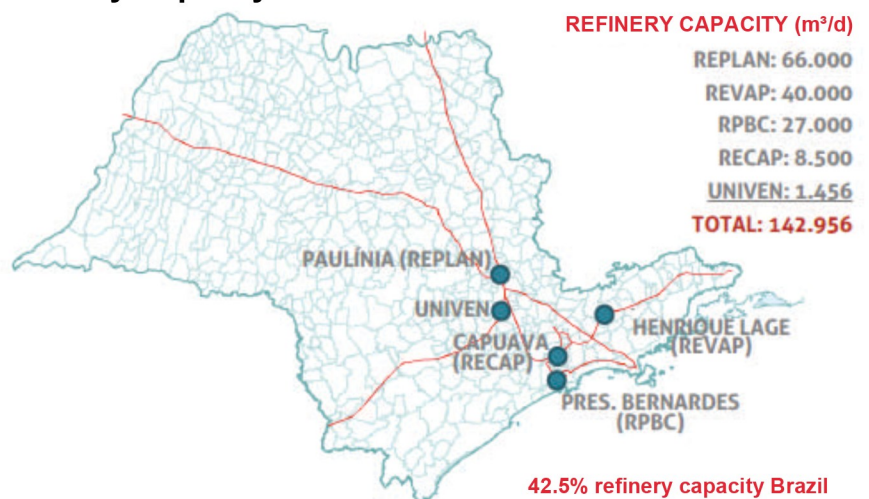
Due to its structured set of education and research institutions and for hosting approximately 50% of the national park of equipment manufacturers and service providers for the sector, according to estimates of the State Board of Oil and Natural Gas of São Paulo (Cepeg), the State

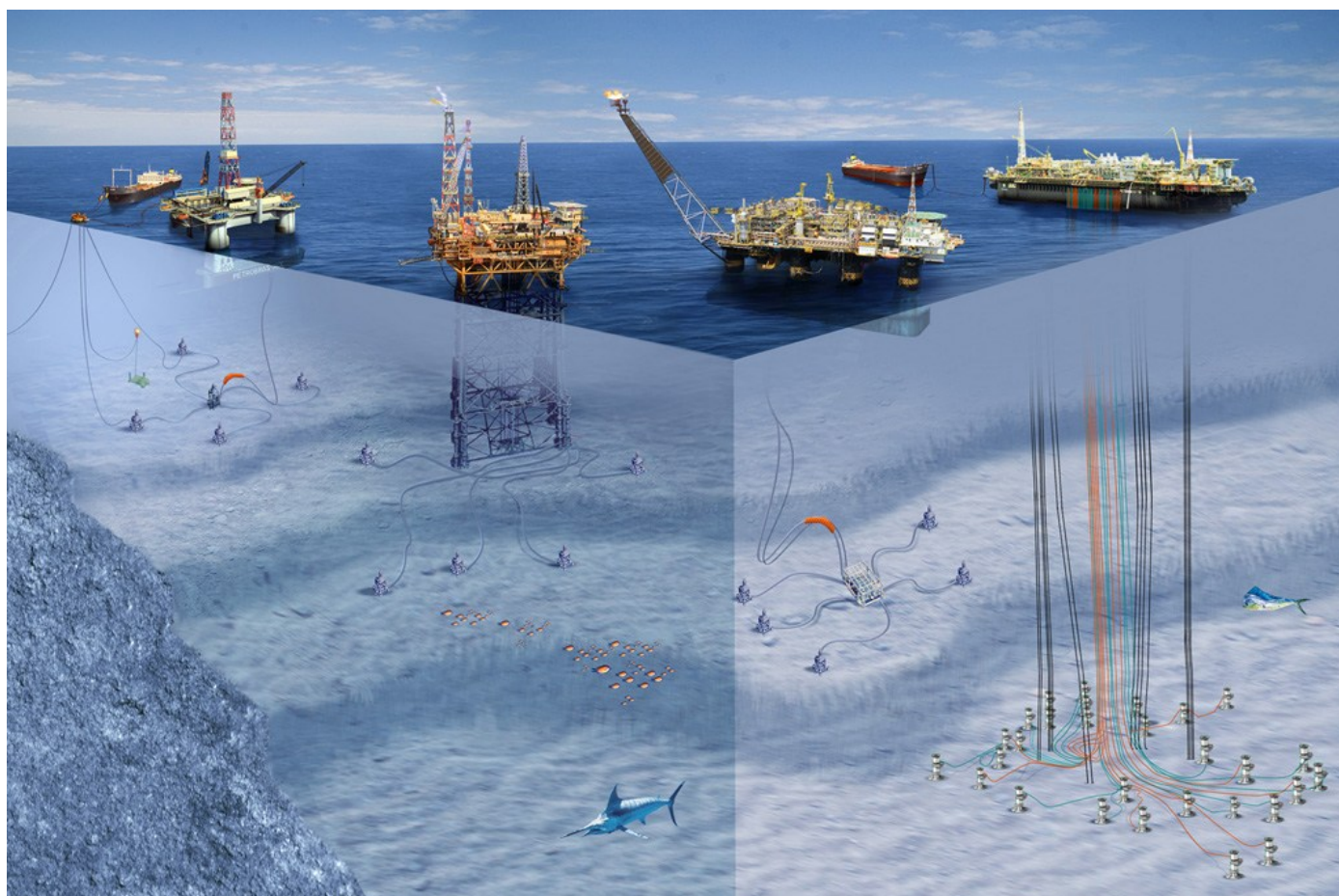
tends to further expand its role as a technological benchmark over the upcoming years.

At the national level, the oil industry accounts for over 11% of Brazil's Gross Domestic Product (GDP) – (IBGE – 2011). Collaborate to this portion the share of investments from Petrobras and other operators in the sector made in recent years – largely due to the discovery and exploration of the pre-salt layer in Santos Basin.

Brazil produces 2 million barrels of oil per day (ANP – 2012) and the expectation is that the

Refinery Capacity





The oil fields of the pre-salt are located at depths ranging from 1,000 to 2,000 meters of water depth, and between 4,000 and 6,000 meters deep underground, at an average distance of 300 km from the coastline.

extraction significantly grows with the financial efforts in course.

Pre-salt

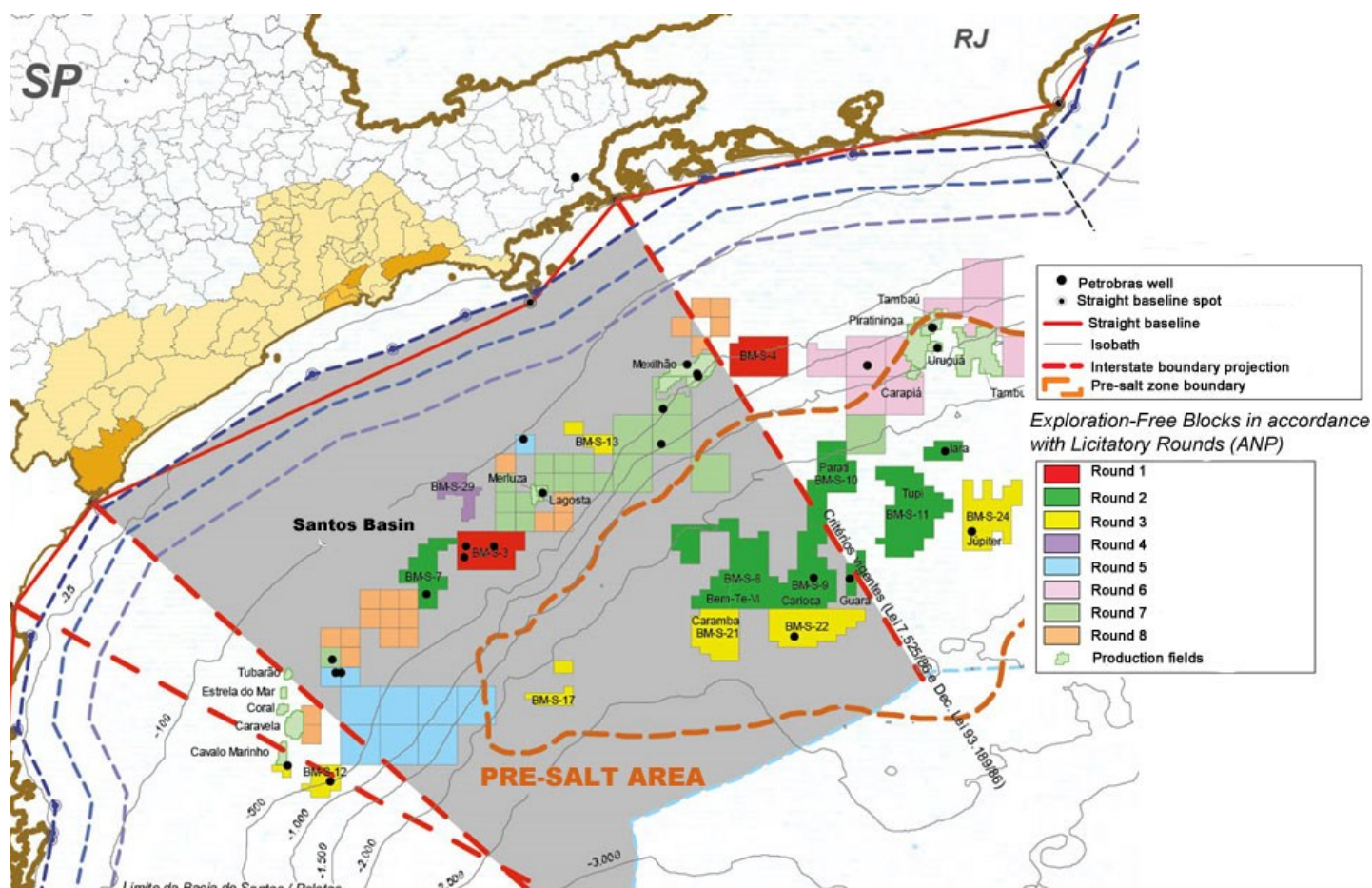
It is estimated that the total volume of oil reserves in the pre-salt area of Santos Basin reaches 14 billion barrels, with emphasis on the fields of Lula (RJ) and Sapinhoá (SP), which recoverable volumes reach 6.5 billions and 2.1 billions of oil equivalent barrels, respectively.

As a result of the high potential of the region, it includes the installation and interconnection of six producing wells in Lula and five in Sapinhoá. To transport natural gas, two large subsea pipelines were installed, one of 216 km, interconnecting Lula to Mexilhão, and the other

with 145 km, from Mexilhão to the Monteiro Lobato Gas Treatment Unit (UTGM) in Caraguatatuba city, which processing capacity is 20 million cubic meters of gas per day (Petrobras – 2012).

In 2012, the production in Santos Basin reached 126,000 oil barrels per day (bpd) maintaining a high rate of exploration success and the realization of high productivity in producing wells.

As the largest operator in the area, Petrobras estimates that the Santos Basin is expected to produce approximately 2 million barrels of oil per day by 2020, with the installation of 22 new FPSOs (floating, production, storage and offloading) in the region (Petrobras – 2012).



In the State of São Paulo, the fields of Sapinhoá, Carioca, Carioca NE, Guará Sul, Peroba, Caramba, Bem-te-vi, Merluza, Lagosta, Mexilhão, Piracaba, Baúna, among others, are located in the pre-salt area

New investments

The confirmation of Petrobras' investments in the region by 2025, US\$ 90 billions, will represent for the State of São Paulo in the implementation phase of the project, 130,000 direct jobs, and in the operation phase, 70,000. With regard to indirect jobs, it is estimated to generate 120,000 jobs in total.

Focused on this potential, the State Government has extended the offer of professional training courses and the creation of incentive plans to make the state more attractive to oil and gas companies, stimulating the industry and the generation of jobs and income in the sector.

Natural Gas

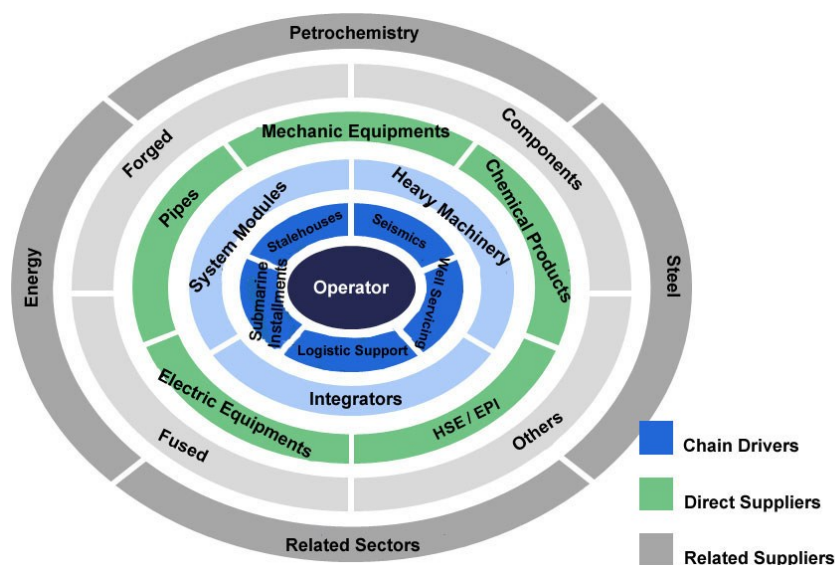
The State of São Paulo is the largest consumer of natural gas in Brazil. Divided into three concession areas of gas distribution, the State is served by Comgás, Gás Brasileiro and Gás Natural Fenosa, which together distributed in 2012 more than 16.6 million m³/day, according to the Department of Energy (SE) of the State of São Paulo.

As the supply structure grows, natural gas will play an important role in the state's economy, especially in the industry, which concentrates approximately 80% of total consumption (SE – 2012). The development of the production chain is related to the growth prospect in the supply of natural gas with the production of pre-salt.

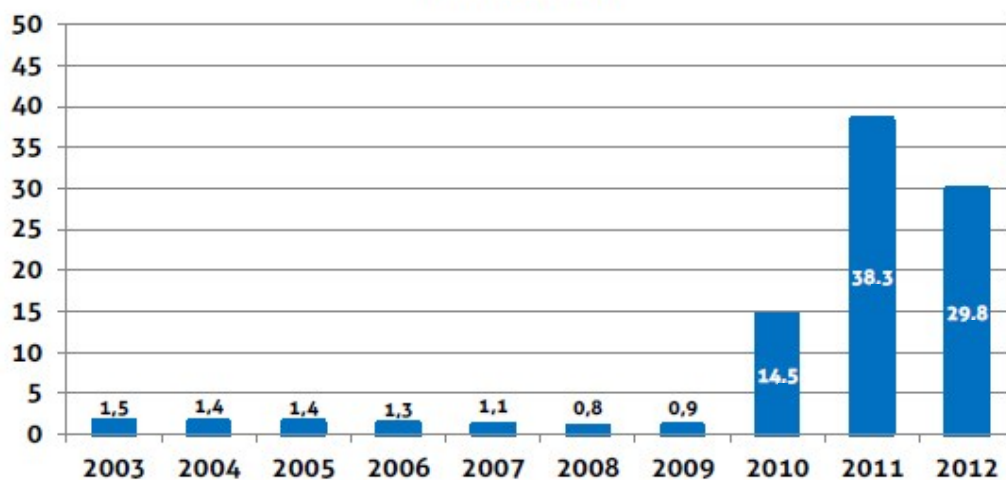
Supply chain

Investe SP has prepared a study which turned up seven main subsectors of activities linked to the oil and gas supply chain, listed in order of potential for the development of new businesses. Check it below:

Subsector	Comments
Instrumentation and Process Control	It is the subsector with the biggest potential for investment attraction. It presents huge competition worldwide and Brazil still has a huge market yet to be explored, with significant opportunities in the State of São Paulo.
Hydrobombs	Second only to Instrumentation in general project volume terms. Global tendencies point to strong potential as to the growth of this industry, in which Brazil - and São Paulo particularly - has been demonstrating ability in attracting big projects.
Engineering Services	This area may not be on the same level as the two listed above, but there are a couple of factors which bring strong opportunities for foreign investments. The first reason is the fact that São Paulo has demonstrated capacity of attracting projects in this subsector. Moreover, this potential is concentrated around a small range of companies.
Valves	Brazil was fifth in a list of investment destinies for this subsector, which suggests that São Paulo, by vocation, has a chance of dominating the market.
Gas Turbines	This subsector presents opportunities worldwide due to the huge array of countries attracting investments. However, São Paulo has got the biggest industrial park in Brazil, which suggests very good opportunities for new businesses.
Machinery and Electric Generators	This subsector reflects the other two above in terms of tendencies, according to São Paulo's leadership in the machinery and equipment industry.
Geophysical	Despite being a significantly smaller subsector in relation to the others listed, Brazil has been attracting investments in it.

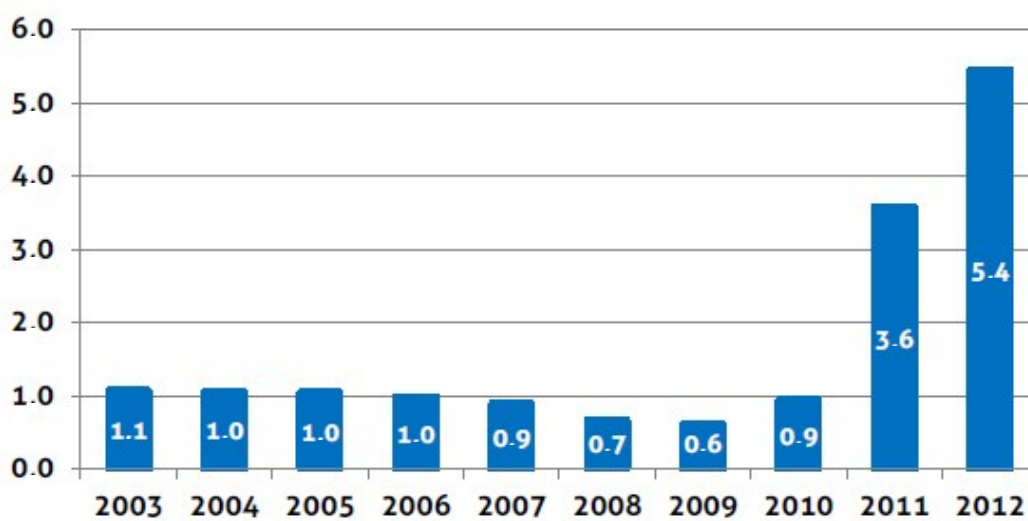


Oil production in São Paulo
(thousand bbl/d)



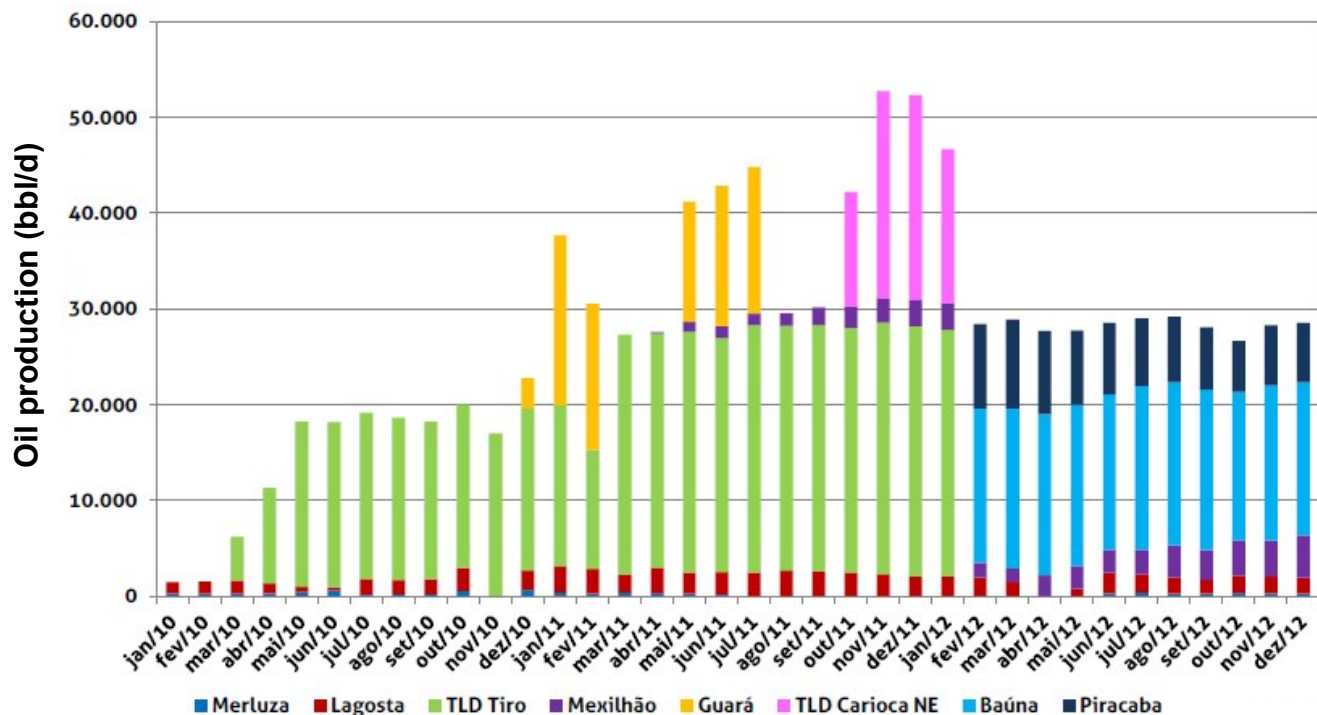
Source: ANP

Natural gas production in São Paulo
(million m³/d)

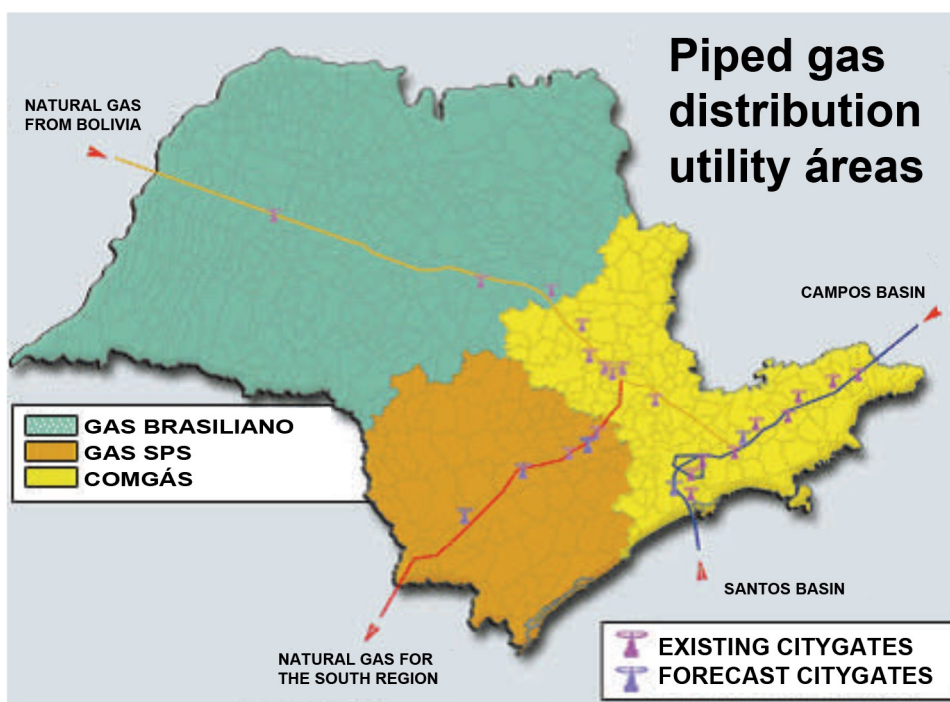


Source: ANP

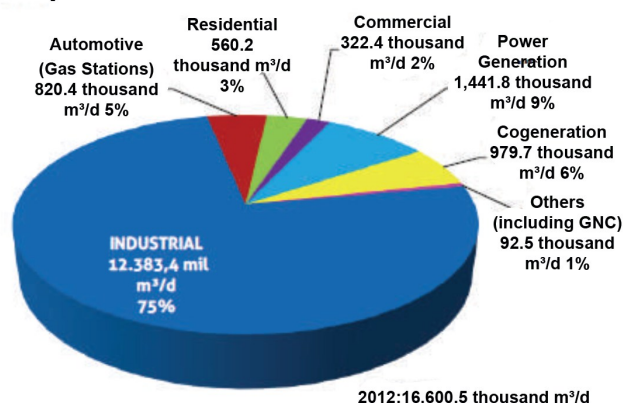
Daily production of oil in the fields of Santos Basin bordering municipalities of São Paulo



Source: ANP

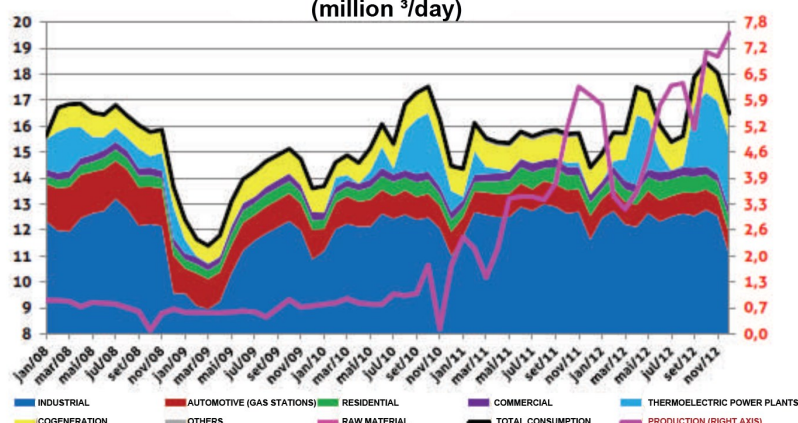


Consumption of Natural Gas – São Paulo 2012



2012: 16,600.5 thousand m³/d

Evolution of Production and Consumption of Natural Gas (million m³/day)



The increase of natural gas exploration will provide environmental, economic and energy efficiency gains, in addition to increasing the competitiveness of the industrial park.

Financing and incentives

The Government of São Paulo has a credit facility intended for the supply chain of the oil and gas sector.

Operated by **Desenvolve SP** – São Paulo Development Agency – the credit facility finances loans with interest starting from 0.57% per month and payment term of up to 10 years with a maximum grace period of two years, for companies located in the state with annual sales between R\$ 360 thousand and R\$ 300 million.

At the federal level, there is the Mobilization Program of the National Oil and Gas Industry (**Prominp**), responsible for, among other projects, the National Professional Qualification Plan

(**PNQ**), whose goal is to expand the training of manpower with courses offered in conjunction with regional institutions, such as the State Schools of Technology (**Fatecs**) and the Federal Institute of Education, Science and Technology of São Paulo (**IFSP**).

Aimed to stimulate innovation and the training and qualification of human resources in the supply chain of the sector, the Oil and Natural Gas Sector Fund (**CTPetro**), of the Financier of Studies and Projects (**Finep**), has released funds to various institutions from São Paulo, including the State University of Campinas (**Unicamp**), the University of São Paulo (**USP**) and the Technological Institute of Aeronautics (**ITA**). In general, the projects are aimed at increasing






productivity, reduction of costs and prices and improvement of the quality of products in the industry.

Result of a partnership between Unicamp and Petrobras, the Center for Petroleum Studies (**Cepetro**) also excels in scientific and technological development in the oil and gas field in the State of São Paulo, uniting professionals from the university and industry in search for new skills and technologies for the industry.



The State of São Paulo has the largest network of public colleges and universities in Brazil with courses focused on the oil industry

Why invest in the Oil and Gas sector in São Paulo?

-  São Paulo has five refineries that represent 42% of the total capacity in Brazil.
-  Large extractive potential with the new pre-salt fields.
-  Wide range of professional training courses.
-  Special credit facilities.
-  Wide range of suppliers of products and services.

Contact us

We would like to invite you to learn more about the reasons that make the State of São Paulo the right choice for your business. Investe São Paulo is always ready to serve you promptly, efficiently and free of charge. Check out how this Investment Promotion Agency can assist your project by visiting our website www.investe.sp.gov.br or contact us by e-mail: investesp@investesp.org.br.

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