INFRASTRUCTURE REPORT

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BOLIVIA-BRAZIL GAS PIPELINE

The first efforts to transport natural gas from Bolivia to Brazil date back to the first half of the century. The project, however, was postponed many times for a variety of reasons, such as lack of knowledge on the size of Bolivian reserves, the lack of a tradition in Brazil of consumption of natural gas, and the elasticity of substitution of competing energy sources, especially hydroelectric power and fuel oil. The alternative of importing Bolivian gas gained strength in the late 1980s and early 1990s due to a series of factors. Among these were the confirmation of the size of Bolivian natural gas reserves, the slowdown in the growth of Brazil's hydroelectric base, the strengthening of energy integration policies in the Southern Cone, and growing use worldwide of gas-fired combined-cycle technology for electricity generation.

In November 1991, Petrobrás and Yacimientos Petrolíferos Fiscales Bolivianos (YPFB), with the participation of the Energy Ministry and Hidrocarbonetos da Bolívia, signed the Letter of Intent for the Energy Integration of Bolivia and Brazil. The document expressed the decision of the two countries to reach agreement on the purchase and sale of Bolivian natural gas at an initial volume of 8 million m^3/day, with plans to double this volume with the growth of the Brazilian market and the size of Bolivian reserves. Continuing bilateral negotiations, on February 17, 1993 Petrobrás and YPFB signed the Purchase and Sale Contract, which was contingent on receiving financing that made economically viable the construction of a gas pipeline that linked Bolivia's gas fields to Brazilian markets. The contract was revised many times to accommodate changing deadlines and volumes.

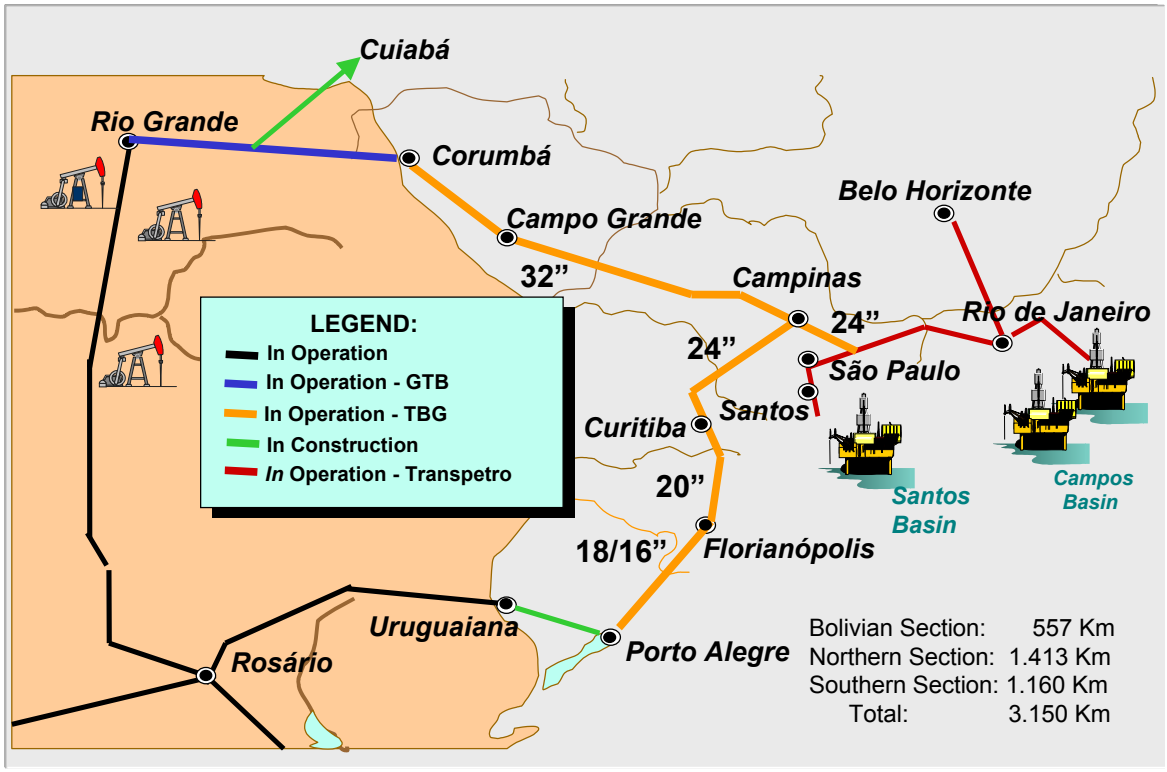
In 1996, the Brazilian government included the installation of the Bolivia-Brazil gas pipeline among its priority projects, as part of the Brazil in Action Program. Once the sources of financing were resolved, work was begun on the project in July 1997.

The Project

The Bolivia-Brazil gas pipeline project consists of the construction of 3,150 km of pipeline connecting the city of Rio Grande in Bolivia to the city of Porto Alegre in Brazil. The pipeline flows through 5 Brazilian states and 135 municipalities (11 in Mato Grosso do Sul state, 70 in São Paulo, 13 in Paraná, 27 in Santa Catarina and 14 in Rio Grande do Sul). Total investment is estimated at US$ 2,154 billion, of which US$ 1,719 billion corresponds to the Brazilian portion of the pipeline.

SECTION	DIAMETER (inches)	LENGTH (km)	COMPRESSOR STATION
Rio Grande/Puerto Suarez	32	557	4
Corumbá/Campinas	32	1,258	10
Campinas/Guararema	24	155	
Campinas/Curitiba	24	469	
Curitiba/Florianópolis	20	281	1
Florianópolis/Criciúma	18	178	1
Criciúma/Porto Alegre	16	252	
Brazilian Total	***-***	***2,593***	***12***
Bolivian Total	***-***	***557***	***4***
General Total	***-***	***3,150***	***16***

Source: Gaspetro.



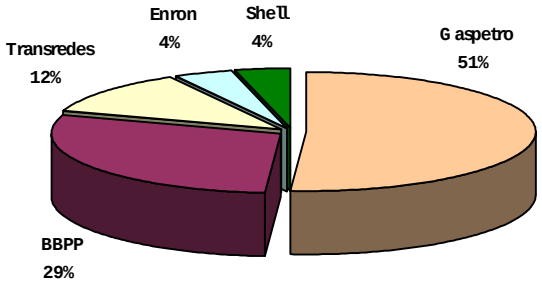
The gas pipeline has a diameter of 32 inches along the section from Rio Grande until Campinas (São Paulo state), where it forks into two sections of 24 inches each. The first fork ends at Guararema (São Paulo) where it links up with the existing gas pipeline system in Brazil's Southeast; the second fork flows south to Araucária in Paraná state. From Araucária until Porto Alegre (Rio Grande do Sul) the diameter of the pipeline becomes successively smaller until it reaches 16 inches.

The gas pipeline has 16 compressor stations, of which four are in Bolivia (Izozog, Chiquitos, Roboré, Yacuses) and 12 are in Brazil (Albuquerque, Guaicurus, Anastácio, Campo Grande, Mimoso, Rio Verde, Mirandópolis, Penápolis, Ibitinga, São Carlos, Araucária and Biguaçu). The stations are being installed gradually to accompany the increase in the volume of gas transported. At present the transport of gas is limited to 17 million m^3/day. When all of the stations are installed the Bolivia-Brazil Gas Pipeline will reach its maximum capacity of 30 million m^3/day.

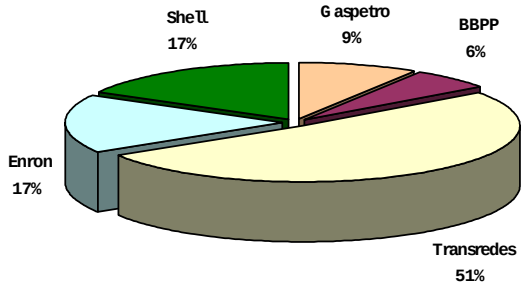
Project Leaders (TBG and GTB)

Two independent companies were constituted for the construction and operation of the gas pipeline: Gás Transboliviano S.A. (GTB), a Bolivian company, and Transportadora Brasileira Gasoduto Bolívia-Brasil S.A. (TBG), a Brazilian company.

TBG, a publicly-held company constituted on April 18, 1997, has the following stockholding structure:



GTB, also a publicly held company constituted in 1997, at present has the following stockholding structure:



Transporte de Hidrocarburos S.A. (Transredes) is a privately held Bolivian company formed in May 1997 to operate the monopoly in Bolivia on the transport of hydrocarbons for forty years. The company's capital is held in equal parts by Shell, Enron and Fundos de Pensão Bolivianos.
BBPP Holdings Ltda is a holding company and its capital is distributed equally among British Gas Americas Inc., El Paso Energy and Broken Hill Proprietary Company (BHP).

Operation of the Gas Pipeline

The operation of the gas pipeline begins the moment that GTB receives natural gas from YPFB and takes it to the Brazilian border. At this point the commodity is delivered to TBG, which is responsible for its transportation to the networks of the state-level distribution companies in Brazil. These companies are responsible for the delivery of the gas to final consumers.

For all commercial purposes, the sale of the gas directly from YPFB to Petrobrás takes place at the border. YPFB is responsible for contracting the transportation company (GTB) for the Bolivian part of the journey. However, the payment to GTB for its services is made directly by Petrobrás in the name of YPFB. In Brazilian territory, Petrobrás contracts TBG and pays for the transport of the gas to the entry points (city gates) of the state networks. In addition, Petrobrás is also responsible for the sale of gas to the state-level distributions companies.

Two types of contracts control the commercialization of Bolivian gas. The first type of contract governs the purchase and sale of the commodity and the second the transport of the commodity to the city gates in Brazil. The contracts are for blocks of transportation capacity.

The first block, called the Transportation Capacity Quantity (TCQ), is the volume of gas stipulated in the purchase and sale contract between YPFB and Petrobrás signed in 1993. In the contract YPFB agrees to sell and Petrobrás agrees to buy, on a take-or-pay basis, ever-higher volumes of gas. The level starts at 8 million m^3/day and rises to 18 million m^3/day in year eight, where it remains until year twenty.

In the same contract, YPFB makes available to Petrobrás a buy option for additional volumes of gas (to a maximum of 12 million m^3/day) from Bolivian reserves, as long as Bolivia is able to supply this additional amount. The option links to the first 6 million m^3/day a Transport Capacity Option (TCO) that can be exercised by Petrobrás. Advance payment by Petrobrás guarantees it the right to transport 6 million m^3/day of gas in excess of the TCQ amount for 20 years.

The transport capacity in excess of the TCQ and TCO volumes up to the pipeline's maximum capacity of 30 million m^3/day (i.e. 6 million m^3/day) is referred to as the Transportation Capacity Extra (TCX).

The supply contracts already signed between Petrobrás and state natural gas distributors provide for sale volumes that start at 4.1 million m^3/day and rise to 22.5 million m^3/day beginning in 2007. Of the total for 2007 still pending contract and sale are 3 million m^3/day of TCQ, 4 million m^3/day of TCO, and 0.55 million m^3/day of TCX. Except for Mato Grosso do Sul, all other states that purchase Bolivian gas have closed contracts based on TCQ volumes. Of the 8.2 million contracted for 2007 by Mato Grosso do Sul, 5.45 million is for TCX volumes, 2 million for TCO and 0.75 million for TCQ.

Current Status of Project

The first phase of the gas pipeline (as far as São Paulo) was inaugurated in February 1999. Operations began on July 1, 1999 with deliveries made to the Paulínia Refinery (Replan) and to Guararema. In October, supply began to the Limeira Delivery Station, marking the first deliveries of Bolivian gas to Comgás. The average amount of gas transported during 1999 was 1.99 million m^3/day, for total revenue of R$ 32.1 million.

According to Petrobrás, in March 2000 the gas pipeline transported 4 to 5 million m^3/day of gas to São Paulo.

On March 31, the second phase of the gas pipeline was inaugurated to meet demand in Brazil's South. The beginning of commercial operations on this section will raise the total volume of gas transported to 8 million m^3/day.

Also in March an addendum was made to the contract between Petrobrás and YPFB providing for imports of 30 million m^3/day of gas in 2004, which had originally been expected only in 2007. The change will require investments in compressors to expand the capacity of the pipeline from the current 17 million m^3/day to 30 million m^3/day.

Financing

Total investment for the project is US$ 2.154 billion, of which US$ 1.719 billion was made in Brazil and US$ 435 million in Bolivia. The project attracted domestic funding from the BNDES and Finame. Funding from outside of Brazil came from the multilateral credit institutions comprising the International Bank for Reconstruction And Development (IBRD), the Inter-American Development Bank (IADB), Corporación Andina de Fomento (CAF) and the European Investment Bank (EIB). The International Finance Corporation (IFC) and export credit agencies (ECAs), such as Export Import Bank of Japan and others, also provided financing.

FUNDING	US$ million	%
Financing	**1,387**	**64.4**
IBRD	310	14.4
IFC	126	5.8
IADB	240	11.1
EIB	60	2.8
CAF	80	3.7
Finame	285	13.3
ECAs[1]	286	13.3
Internal Funds (Equity)	**767**	**35.6**
Petrobrás	165	7.7
Petrobrás (BNDES-TCO)	*383*	*17.8*
TBG and GTB Shareholders	219	10.1
Total	***2,154***	***100.0***

[1]ECAs - Export Credit Agencies.

Price of Imported Gas

The price of natural gas delivered at the city gate, free of taxes, to be paid by distributors to Petrobrás is divided into two parts: (i) the price of the commodity; and (ii) the transport fee. The transport fee, which is the same along the entire length of the gas pipeline, is in turn divided into the capacity fee and the conveyance fee. The price formulas of the gas are as follows:

$$\mathbf{PCG_i = PCT_i + TT_i}$$

$$\mathbf{TT_i = TC_i + TM_i}$$

where:

$\mathbf{PCG_i}$ = Price of natural gas delivered by Petrobrás to the Distributor at the city gate and in quarter i

PCT_i = Price of the Commodity at the point of delivery in Bolivia in quarter i

TT_i = Transport Fee of the natural gas in quarter i

TC_i = Capacity Fee in quarter i

TM_i = Conveyance Fee in quarter i

Bolivian imports of gas have an adjustment mechanism that separates the price of the commodity from the actual transport.

The price of the commodity is adjusted quarterly based on a basket of U.S. and European fuel oils.

PCT_i = PC_0 x *f* (basket of fuel oils)

The base price (PC_0) for the first 18 million m^3/day of gas imported (TCQ) is shown below:

Year	PC_0 (US$/MMBTU)
1 to 3	0.95
4 to 5	0.96
6	0.97
7 to 8	0.98
9	0.99
10 to 11	1.00
12	1.01
13 to 14	1.02
15 to 16	1.03
17	1.04
18 to 19	1.05
20	1.06

For additional volumes (TCO and TCX) up to 30 million m^3/day, the PC_0 is US$ 1.20/MMBTU.

The transport fee, which is the responsibility of TBG and GTB, is adjusted annually based on a U.S. inflation index.

The Capacity Fee (TC) is adjusted annually at the rate of 40% of the inflation in the U.S. dollar through 2007, and 15% of the inflation in the U.S. dollar beginning in 2008, with a minimum correction of 0.5% p.a. for the entire period. The inflation in the U.S. dollar is measured by the Consumer Price Index published by U.S. Labor Statistics.

The Conveyance Fee (TM) is adjusted annually at the rate of 100% of the inflation in the U.S. dollar, as measured by the Consumer Price Index published by U.S. Labor Statistics, with a minimum correction of 3.5% p.a. for the entire period.

The final sale price of the gas at the city gates to the Distribution Companies is subject to ICMS value-added tax (which may vary from state to state) and the PIS/Cofins taxes.

The distribution margin of the sale price to the final consumer is determined by the amount of power granted by each state to the Distribution Companies.

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