

February 2018

GAS ENERGY LATIN AMERICA (GELA)

Specialized
Consultant



www.gasenergyla.com

1.- Project overview

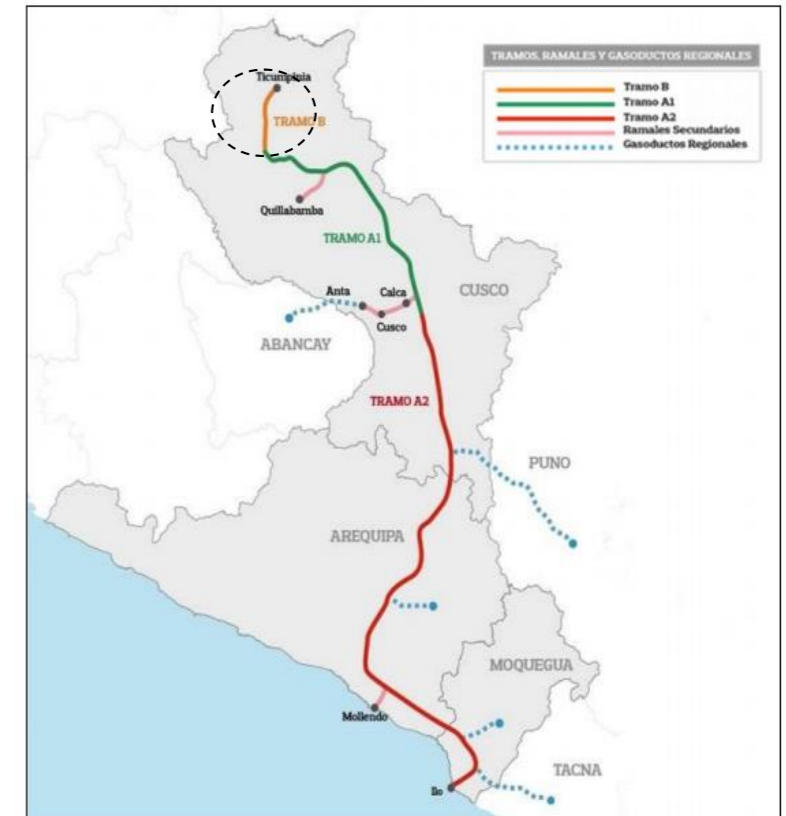
The project named in Spanish reads: “Mejoras a la Seguridad Energética del Perú y Desarrollo del Gasoducto Sur Peruano” hereinafter the Projects. It was designed to achieve the following two objectives:

- Provide energy security by adding capacity redundancy in existing pipelines located in the Peruvian jungle.
- Promote massive expansion and industrialization of natural gas in southern Peru.

The project main characteristics included the construction of a safety zone (redundancy) of 83.5 Km which includes natural gas and liquid pipelines. From there, an 858 Km. gas trunk line initiated moving south of the country and the provinces of Arequipa and Moquegua, and their respective lateral branches.

The project was awarded to “Gasoducto Sur Peruano S.A.” a consortium formed by Odebrecht, Enagas and Grana y Montero (who joined later in the project). A public-private partnership was signed with the State of Peru on 07/23/2014. The expected total investment was approximately US\$4.6 billion for the construction phase (CAPEX) and US\$2.7 billion for operation and maintenance costs (OPEX) for a total of \$7.3 billion and a 34 year concession.

Drafting of the Gasoducto Sur Peruano Project



— GASODUCTO SUR PERUANO
- - - GASODUCTO DE SEGURIDAD ENERGÉTICA

Source: Proinversión

February 2018

2. - Project viability before its completion

In order to fill the pipeline and create natural gas demand, two thermoelectric power plants were encouraged to be built at the end of the pipeline. In addition a very small industrial commercial, NGV and domestic demand exists in southern Peru. As demand was not enough to build a standalone gas pipeline, the Project required annual financial guarantees of up to US\$920 million to act as insurance in case throughput volume was unable to cover pipeline capital and operating costs.

These guarantees were to be collected through tolls and charges to the power sector and cross subsidies with other liquid pipelines (cross subsidies). This requirement was strongly opposed by some business leaders, companies and politicians. However, the project forged ahead.

At that time, Gas Energy Latin America suggested in seminars and mass media that the economic viability of the project was linked to the export of natural gas via LNG or piped gas or electricity to northern Chile. Then, Chile was a serious demand option that could pay attractive prices offered by its competitive domestic energy system. Peruvian society rejected those ideas, and politicians in power were unwilling to pay the political price of what they considered an unpopular idea. Of course they did not endorse it either.

"La Hora N" - Interview: Viability of the South Peru Gas Pipeline (Sept-2013)



<https://www.youtube.com/watch?v=GDHyPJBJGIU>

(The subject is addressed at minute 5:15)

El Comercio Ríos: "El gasoducto se debe anclar a una planta de exportaci..."

ECONOMÍA f t v +

Ríos: "The pipeline must be anchored to an export plant"

Si este megaproyecto depende solo de la demanda doméstica, tendrá que ser subsidiado, advierte el especialista Alvaro Ríos



— ¿Qué hacer, entonces?

Ni la demanda de las dos termoeléctricas del sur ni el consumo domiciliario son suficientes para justificar un gasoducto de gran escala. Si no lo anclamos a una planta de gas natural licuefactado (GNL) para exportación, ese ducto lo van a tener que subsidiar los peruanos con las tarifas de electricidad o con impuestos.

3.- Project epilogue

The high investment to build the pipeline, required also a tight date to conclude the financing, set for 01/23/2017. This date, unfortunately for the Project coincided with Odebrecht's corruption scandal revelations, and made it impossible for the consortium to secure the required financing.

On 1/24/2017, the General Direction of Hydrocarbons of the Ministry of Mines and Energy of Peru, the entity granting the concession on behalf of the government, informed the consortium that it was cancelling the Project. By then, the Project had achieved 38% of progress with a substantial level of assets already purchased. However, field development of infrastructure was just 10%.

February 2018



Government officially finalized the contract for the Gasoducto Sur Peruano with Odebrecht

La resolución suprema indica que la finalización del contrato se da porque el concesionario no cumplió con el cierre financiero establecido.



Hace semanas el consorcio señaló que proyecto Gasoducto Sur Peruano tiene un 37.60% de Avance General y 10.7% de avance en la construcción y montaje del sistema de ductos. | Fuente: ANDINA

Odebrecht statement after the end of the contract

Odebrecht Latininvest confirms the decision of the Peruvian government to execute the contract for the concession of the Gasoducto Sur Peruano. The company will continue directing its efforts, together with the respective authorities, so that this process is carried out in an appropriate manner, respecting the signed contract and mitigating the impacts for the Southern Macro Region of the country.



4.- Current situation in light of a new political environment and changes in the Chilean market.

This Project was perhaps the most important infrastructure development of the region. Today there are serious doubts the project will ever be concluded. Let's see why Gas Energy Latin America makes this serious statement.

Close to a year ago, the government of Peru expressed its intention to continue with the Project with a different concessionaire. For this purpose, the government approved the selection of an administrator who would evaluate and manage the assets purchased and infrastructure already built. Also, the government approved the selection of a company to value the assets with the goal of proposing a new bid in which the new concessionaire would acquire the existing assets and development.

As of the day of this publication at the end of February 2018 the situation is as follows:

- There is not yet a company selected to value the assets. As such there is pending the discussion regarding the value already invested in the Project that would have to be recognized by the State of Peru or the new concessionaire when the project is bided out again. A quite complex and lengthy task.
- The concept of guarantee of the main trunk line has been cancelled. This concept ensured the payment for the investment made by the concessionaire, something considered necessary for its development without allowing LNG exports for example.

- The Minister of Mines and Energy is currently analyzing with the Ministry of Finances a new Project and ways to find funds to be given to the new concessionaire. This type of Projects has strong opposition by several political and economic sectors in Peru.
- Currently, there are legal processes from members of the consortium or against the Government of Peru. An arbitration at the Chamber of Commerce, a procedure for insolvency at INDECOPI (monopoly institution), a demand in the Luxemburg due to resolution DU 003-2017 mentioned above and the application of clause 20 of the concession contract. In addition there are serious legal and administrative dispute between members of the consortium. Gas Energy Latin America estimates that these legal and administrative disputes will take at least over 3 years to be solved.
- To make things worse, the political environment has also sour because of the alleged links of the president of the country and his financial advisory firms with Odebrecht. This is taking substantial amount of his staff and personal time and the opposition in congress is fiercely attacking the current administration. This situation has generated a paralysis of the public entities and more fear among government bureaucrats when taking decisions. All together the Project seems every day more cadaveric in terms of materializing.

February 2018

In addition, exports of energy to Chile are a thing of the past. While Peruvians were debating the appropriateness of exporting natural gas or electricity to northern Chile for years, Chileans were addressing their energy needs by having massive investments in domestic renewable energy solutions, mainly solar in the north of the country. At this stage, Gas Energy Latin America believes, surprisingly, that small LNG and power from solar sources will maybe flow from south to north in the future.

All things said, Gas Energy Latin America concludes that the Project faces strong conditions for not materializing at all and/or delaying the start of gas flow for at least five or six years from now.

NEGOCIOS

A LA ESPERA DE MEGAPROYECTO

Pro investment: Pipeline would be awarded in the first half of 2008.

GESTIÓN

Odebrecht could seek international arbitration to recover investment in GSP

"Tenemos mucha esperanza de que se cumpla el contrato, que se haga la subasta hasta enero", afirmó el presidente de Odebrecht Latininvest, Mauricio Cruz.



GESTIÓN

Gasoducto Sur Peruano suffers new Delay: it will be tendered at the end of 2018

El diseño del proyecto resulta más complejo pues ya no contará con el financiamiento de las facturas eléctricas, indicó la ministra de Energía y Minas, Cayetana Aljovín.

There is nothing clear about the new tender and worse how its financing will be structured

5.- What are the implications and what went wrong?

Despite the describe difficulties, GELA is of the view that there is still merit in evaluating a gas supply to southern Peru. In addition to the still expected benefits of massive gas massification and industrialization in southern Peru, there is still the issue of gas supply to the power plants installed. If these plants are not supplied with natural gas, they will have to use a much more expensive alternative such as diesel bringing prices of electricity up notably.

Bringing gas is still strategic from the point of view of energy security as it was with the recently delayed Project. Today, 50 percent of the energy generated in Peru relies on only one gas pipeline. On February 2018, the gas pipeline suffered ruptures forcing the thermal electric plants to utilize diesel significantly impacting their costs and electricity prices. This occurred despite having an excess capacity of gas thermoelectric plants. If the gas disruption is for longer periods of time, then supply is in compromise as there is no redundancy.

February 2018

There were mistakes with the continuation of the Project before cancelling the concession. For example the sale of Odebrecht shares in the consortium. With the contract solved, the government could have appointed an administrator and continue with the project while a new bid was offered, something that was not done. Key strategic decisions were not taken timely by the current administration, and is one of the main obstacles for a new efficient bid to get a new concessionaire.

6.- Gas Energy conclusions

Gas Energy believes that natural gas supply alternatives to the power plants in the south must be looked at. There are two options that must be looked at. One is considering shipping LNG from Pampa Melchorita to the power plants and from there running some pipelines which implicates serious negotiations with the plat off taker. The other is using part of the concession line to Ica and then run a more cost effective pipeline further south. These options should be seriously considered as an alternative to the current process.



- | | | |
|---|---|---|
| <p>Santa Cruz de La Sierra • Bolivia
4to Anillo #3840 Esq. Roca y Coronado
Tel.: 591 3 311 4060</p> | <p>Bogotá • Colombia
Calle 126 No 11B - 70 Apto. 301
Tel.: 57 1 6291299 / 57 300 219 1303</p> | <p>Santiago • Chile
Los Peñascos 2470 - Lo Barnechea
Tel.: 56 9 988 8844</p> |
| <p>San Isidro • Lima • Perú
Calle Las Golondrinas 393, Of. 302
Tel.: 51 1 422 7819</p> | <p>Buenos Aires • Argentina
Lisandro de la Torre N° 8775, Pilar
Tel.: 54 911 6 052 9781</p> | <p>Montevideo • Uruguay
Juncal N° 1327
Tel.: 54 911 6 052 9781</p> |
| <p>Caracas • Venezuela
Boulevard El Cafetal Edificio Caroni, Oficina 12
Tel.: 58 0424 277 1265</p> | <p>Madrid • España
Calle Rio Tormes, 13 Boadilla del Monte - 28660
Tel.: 34 916 323 272 / 34 619 448 396</p> | <p>Porto Alegre • Brasil
Avenida Carlos Gomes, 111, sl. 701 - 90480-003, Auxiliadora
Tel.: 55 51 3307 4779</p> |
| <p>Quito • Ecuador
Calle Leonardo Tejada E 17 - 109 Edificio Ibis 07 - 1B
Tel.: 593 2 334 3532 / 593 (0) 99 920 2120</p> | <p>Washington D.C. • EE.UU
1934 Old Gallows Rd., Suite350, Tysons Corner, VA 22182
Tel.: 1 703 224 8077</p> | <p>Porto Alegre • Brasil
Avenida Diário de Notícias, 400
Tel.: 55 51 998 220 902</p> |
| <p>San Jose •Costa Rica
Urb. Los Colegios, Casa 34K, San Vicente, San José
Tel.: 506 8945 4650</p> | <p>D.F. • México
Av. Sonora 162- 702 Col. Hipódromo - 06100
Tel.: 52 1 55 5286 4536</p> | |

