



Downstream

The new rules for gas trading

The Colombian natural gas market: the new rules of the game

Back in 2009-2010 there was a natural gas rationing in Colombia: the GNV sector (compressed natural gas for vehicles, mainly taxis) and some large industries were cut off from their gas supply. This situation was not very pleasant for the energy authorities but it was manageable. The really unpleasant moment arrived when the gas supply was not enough to feed the power plants running on natural gas: a power blackout is politically unbearable. Hence, the then energy minister was Hernán Martínez intervened in the power pool market and modified its functioning in order to avoid a blackout (it was an El Niño period when drought reduces hydroelectric capacity). He attributed the situation to the gas producers: he argued they were 'hiding' their gas reserves with the aim of creating an artificial scarcity thus increasing the gas prices that consumers were willing to pay. Apparently the real reason was that TGI, which was responsible for gas transport in the country's interior, did not install a compressor on time to increase the capacity of the Ballenas-Barrancabermeja gas pipeline. That was key to supplying the gas-fueled power plants located downstream Barrancabermeja, that is, more than 1000MW represented by: TermoCentro, TermoSierra, TermoDorada, TermoEmcali, and TermoValle.

Whatever the perceived or real reason, the minister embarked on a plan to modify the way the natural gas was traded. His first and only trial (Decree 2730/2010) proved an error. Then, a succession of decrees (see 2807/2010, and 2100/2011) and regulations followed. Since 2012 the gas regulator (Creg) has worked hard to set up a new scheme for trading natural gas. As a result, they have enacted multiple resolutions during 2013: 088, 089, 123, 124, and 147. In this article, we will discuss these

changes and summarize the results of the first trading 'round' that took place last October under the new frame.

A physical market, not a financial one: The first thing to mention is that such new scheme is about a physical market (i.e. physical delivery) rather than a financial one (i.e. it is not a Henry Hub futures market). The market has been split into two:

- **Primary market:** the participants are the original or first gas sellers (i.e. gas producers and gas importers) and, from the buyers' side, non-regulated consumers -those that consume above 100GBTU D- and traders. Although some monthly trades may take place in this market, it is basically meant to deal with mid- (i.e. one year) to long-term (i.e. five or more than five year) transactions (there cannot be two-, three-, or four-year duration contracts). If Upme (the planning arm of MinMinas) forecasts that gas supply is greater than gas demand for three of the five years in the horizon, bilateral, direct negotiations between producers and buyers may take place; otherwise, an auction process is triggered.

- **Secondary market:** the participants are the gas 're-sellers' embodied by traders and, from the buyers' side, they may be: gas traders, gas producers and gas importers. This market is essentially meant to deal with short-term transactions, as follows: intra-day (a period of less than 24 hours), one day, one week, one month, one quarter and one year. According to Creg, this market is expected to evolve from 300GBTUD in the first year to 1000GBTUD in the fourth year (which is the size of the current primary gas market). In order to provide some liquidity to the market and facilitate secondary trading, some issues have been standardized. For instance, the gas year (i.e. from December 1st to November 30th of the following year), contract duration (i.e. one year, five years, or more than five years), delivery points (i.e. Ballenas,

Barrancabermeja, Cusiana, and La Creciente), price indexation (i.e. US inflation) and more importantly, contract types.

Standardized Contracts:

Apart from explicitly forbidding take-or-pay type contracts, the new scheme sets up mandatory types of contracts as defined by regulation. For the primary market they are:

- **Firm gas supply contract (CF):** guarantees that one agent will provide a maximum amount of natural gas for a specified period except on days set for maintenance and scheduled tasks.

- **Conditional firm gas supply contract (CFC):** guarantees that one agent will provide a maximum amount of natural gas during a given period without interruption, except when a probable scarcity condition arises and except for up to five calendar days defined at the discretion of the seller.

- **Gas purchase option contract (OCG):** guarantees that one agent will provide a maximum amount of natural gas during a probable scarcity condition and in up to five additional calendar days defined by the buyer. The buyer will pay a monthly premium for the right to take up to a determined maximum amount of gas. In addition the buyer will pay the purchase price at the time of delivery of the nominated amount of gas.

The auctions will be for CF, CFC and OCG. The duration of contracts will be for one year and five years with start dates of December 1st of the relevant year and end dates of November 30th of the contract's last year. In the case of annual direct negotiations, the same contracts will be traded, but their durations may exceed five years.

The market operator (MO):

In order to run the new system a new actor has been created: the Market Operator (MO). It will be selected via

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Downstream

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a competitive process during the first half of 2014 for it to be able to manage the primary market auction for 2015, and the secondary market that follows suit. The MO will be basically in charge of running two things:

- The auctions: this is the most complicated task since these will be of a new and basically unknown kind: there may be simultaneous auctions (i.e. different gas fields combined with different durations and different contract types) and so not so easy to run.

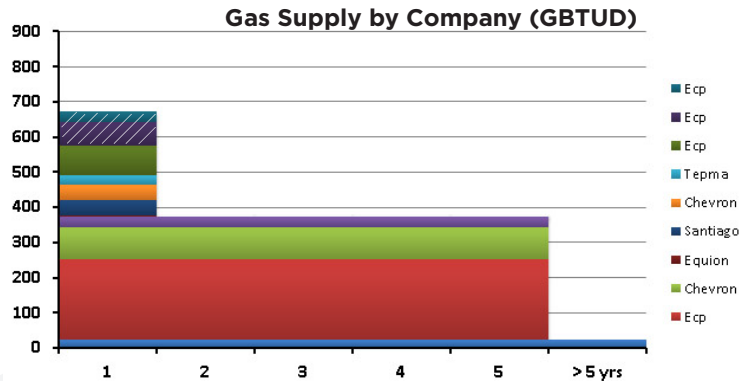
- The central electronic bulletin (BEC): auctions or bilateral negotiations plus whatever happens in the secondary market must be recorded and published in aggregated and anonymous statistics on transactions, volumes and prices for the various contract types, according to a defined schedule.

What happened last October?
During October 2013 the first round for primary market was run. It was not an auction process; it was a round of bilateral negotiations whereby around 75% of the current market entered into contract: 673 GBTUD out of an estimated total domestic market of 900GBTUD. The results are as shown in the first graph.

The patterned area (~100GBTUD) corresponds to non-firm contract types: CFC and OCG.

It could be seen that the red color (representing Ecopetrol) is abundant even without picturing Equion (which is 49% Ecopetrol). The total amount of contracted gas amounts to around 0,8tcf: Ecopetrol takes around two thirds of it, and Chevron ~20%. In terms of the fields supplying the market, Cusiana is ~40%, Ballenas 34%, and Cupiagua 26%.

There is an important field missing here: Pacific Rubiales' La Creciente, with about 70GBTU/D; it did not enter into these negotiations



probably because it had already negotiated a previous deal.

The patterned area (~100GBTUD) corresponds to non-firm contract types: CFC and OCG.

The demand side comprises 27 consumers. It can be seen that the majority of the gas (~86%) was contracted on long-term contracts rather than one-year contracts. The largest single customer is, as expected, Gas Natural, representing almost one third of the total demand.

In terms of market segments, the industrial sector represents 30%, the residential sector represents about a quarter, the power sector 12%, 14%, and the remainder to others.

Again, there are some important missing consumers like Cerromatoso (~16GBTUD), and Abocol (~20GBTUD) from the industrial sector, and several

from the power sector (Merieléctrica, TermoEmcali, etc.).

Anyway, the 'experiment' proved successful according to the MinMinas Mr Amylkar Acosta since the price achieved was US\$3,80/mmBtu, that is: "two dollars below current Guajira gas price", he said.

Bottom-line: A great deal of the existing proved gas reserves have been left 'un-contracted'. One reason has already been mentioned: that there were already prevailing contracts previously negotiated. But there may be another reason: speculation. It is very likely that next round (to take place during the second half of 2014) will not be about bilateral negotiations but auctions will be triggered and a new actor showing up (if things develop as planned by Creg): the gas importer. But of course, we are speculating too!

