

NATURAL GAS CONTRACT STANDARDIZATION PROCESS

COLOMBIAN INDUSTRY WORKSHOP

Our Team and Our Charge

□ Team

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□ Charge

- Help to establish standardized natural gas contracts for Colombia and for an auction.

Our Three Reports



- International experience: contract standardization in North America & Europe
- Survey of recent contracts in Colombia
- Proposals for standardizing certain contract terms

Colombia's Distinctive Characteristics

- Very high concentration of supply
- Disconnected gas transport systems
- Lack of gas storage facilities
- Illiquid secondary market
- Civil law system
- Impact of El Niño

What Needs to Be Regulated?

- Price?
- Quantity?
- Contract terms?
- Mischief?



International Experiences

North America and Europe

Economic Principles of Contracting

- Performance incentives are best when risks are assigned according to who can best influence or mitigate them.
 - ▣ Only works perfectly when damages can be well measured.
- When there are competitive secondary markets, damages for failure to take or deliver are perfectly measured by market prices.
 - ▣ In the absence of competitive secondary markets, an index linked to notional prices can be used.
 - ▣ With imperfect indexes, parties should be allowed some additional flexibility for “normal” interruptions.

International Experiences in Deregulation

- In the 1970s and 1980s, a number of gas shortages and price irregularities indicated that a regulated market was not best for consumers or the natural gas industry. Into the 1980s and early 1990s, the industry gradually moved toward less regulation, allowing for healthy competition and market-based prices.
- In the North American markets, initial deregulation policy gave way, or was enhanced by later regulatory actions;

International Experiences in Deregulation

- With the expiration of the Natural Gas Policy Act of 1978 in the mid-1980's, the natural gas market in the United States (and shortly afterwards Canada) began a process of deregulation which lasted into the 1990's.
- Europe followed suit with regulatory reforms beginning in the early 1990's.
- When these deregulation efforts began in earnest they moved with some measure of speed throughout the industry

International Experiences in Deregulation

- These regulatory measures led to a strengthening of the natural gas market, lowering prices for consumers and allowing for a great deal more natural gas to be discovered.
- Competition characterizes the natural gas industry as it is known today. The restructuring of the industry, and the move away from strict regulation, has allowed for increased efficiency and technological improvements.

International Experiences in Deregulation (The Move to Standardization)

- By the mid 1990's it was apparent that contracting was a major issue.
- Carolyn Hazel of Conoco summarized this well, when she said. *“Until the mid-1980's, producers sold their natural gas production in the field under long term contracts with pipeline purchasers. Gas marketers were rare. This made the gas marketing business relatively simple and straightforward: negotiate one contract for each package of gas (usually a field or group of wells) every ten to twenty years, and sometimes an occasional surplus gas contract.”*

International Experiences in Deregulation (The Move to Standardization)

- “Considering the number of companies buying and selling gas each day and each month, it is reasonable to estimate that tens of thousands of spot transactions are concluded each month. Because of the extremely compressed negotiation time for these transactions, many (if not most) of these transactions are concluded with delinquent, inadequate, ambiguous or absent documentation.”

International Experiences in Deregulation (The Move to Standardization)

- “The differences in well drafted spot contracts very rarely have distinct commercial value and therefore do not deserve extensive negotiation. The industry would therefore be well served to embrace a standard form for the spot market business. The GISB standard contract offers a very workable, balanced solution to the current waste of time and monies spent fitting antiquated contracting practices to a very new and different commercial reality.”

International Experiences in Deregulation (The Move to Standardization)

- As is indicated in these statements, the market in North America was ready for a more efficient contracting regime.
- By the mid-1990's this effort was being fostered by industry participants who were responding to more open regulatory policies at the federal levels of government.
- In 1996, the GISB Standard Contract was introduced into the North American natural gas market (along with the Canadian Gas EDI Standard Form)

International Experiences in Deregulation (The Move to Standardization)

- In October of 2001, the Gas Industry Standards Board (GISB) was recognized by the American National Standards Institute (ANSI) as a Standards Development Organization
- In December of 2001, the North American Energy Standards Board (NAESB) was formed and took the place of GISB

International Experiences in Deregulation (The Move to Standardization)

- In 1999, the European Federation of Energy Traders (EFET) was formed.
- EFET's primary role is to act as an advocate for the energy markets, and interact with the various regulators on decisions and rulings that impact the energy markets, with the goal of forming one energy market for Europe.
- The natural gas market in Europe officially opened in August of 2000.
- The market in Europe is very complex, and yet the regulators continue to push forward in developing and opening up the market.

International Experiences in Deregulation (The Move to Standardization)

- The development of standard contracts has also become a priority in the European market and EFET released its most recent Standard Contract in 2007.

International Experiences in Deregulation (The Move to Standardization)

- The Transportation Sector was also impacted by the move to an open market
- “Standard” transportation contracts have not been developed in the US market.
- Through detailed regulatory processes, the pipeline industry has been transformed to reflect the open market
- As is the case in Colombia, the majority of pipeline capacity in the North American and European markets is contracted on a firm basis.

International Experiences in Deregulation (The Move to Standardization)

- Dispatch schedules have become more flexible as the market has opened up.
- Shippers who are holders of Firm capacity are allowed to deliver to alternate delivery points, if they have so elected in their firm agreements.
- The transformation of the market has also included increased flexibility with regard to nominations and delivery of natural gas to markets.

International Experiences in Deregulation (The Move to Standardization)

- Information is available at all times as is demonstrated in the following example from the El Paso Corporation website
- This nomination schedule provides flexibility to re-nominate gas supplies throughout the gas day.

Nomination Cycle	Nomination Deadline for Shippers/Poolers	Point Operator Confirmation Deadline	Receipt of Final Scheduled Quantities By Shippers and Point Operators	Effective Flow Time
Intraday 1	9:15 a.m. MT	12:00 p.m. MT	1:00 p.m. MT	4:00 p.m. MT On the same gas day
Timely	10:45 a.m. MT	2:30 p.m. MT	3:30 p.m. MT	8:00 a.m. MT On the next gas day
Intraday 2	4:15 p.m. MT	7:00 p.m. MT	8:00 p.m. MT	8:00 p.m. MT On the same gas day
Evening	5:15 p.m. MT	8:00 p.m. MT	9:00 p.m. MT	8:00 a.m. MT On the next gas day
Late Day Cycle 5	10:00 p.m. MT	10:00 p.m. MT	11:00 p.m. MT	12:00 a.m. MT On the same gas day
Late Day Cycle 6	12:00 a.m. MT	12:00 a.m. MT	1:00 a.m. MT	2:00 a.m. MT On the same gas day
Late Day Cycle 7	2:00 a.m. MT	2:00 a.m. MT	3:00 a.m. MT	4:00 a.m. MT On the same gas day

International Experiences in Deregulation (The Move to Standardization)

- The practice of contracting for natural gas has taken many forms over the past fifteen years.
- With simplified contracting practices in place, the North American and European markets have been able to shift the focus from time-consuming contract negotiations to executing more transactions.
- As the market continues to change, so has the Standard Contract; growing to reflect changing circumstances related to energy commerce.



Natural Gas Contracts in Colombia

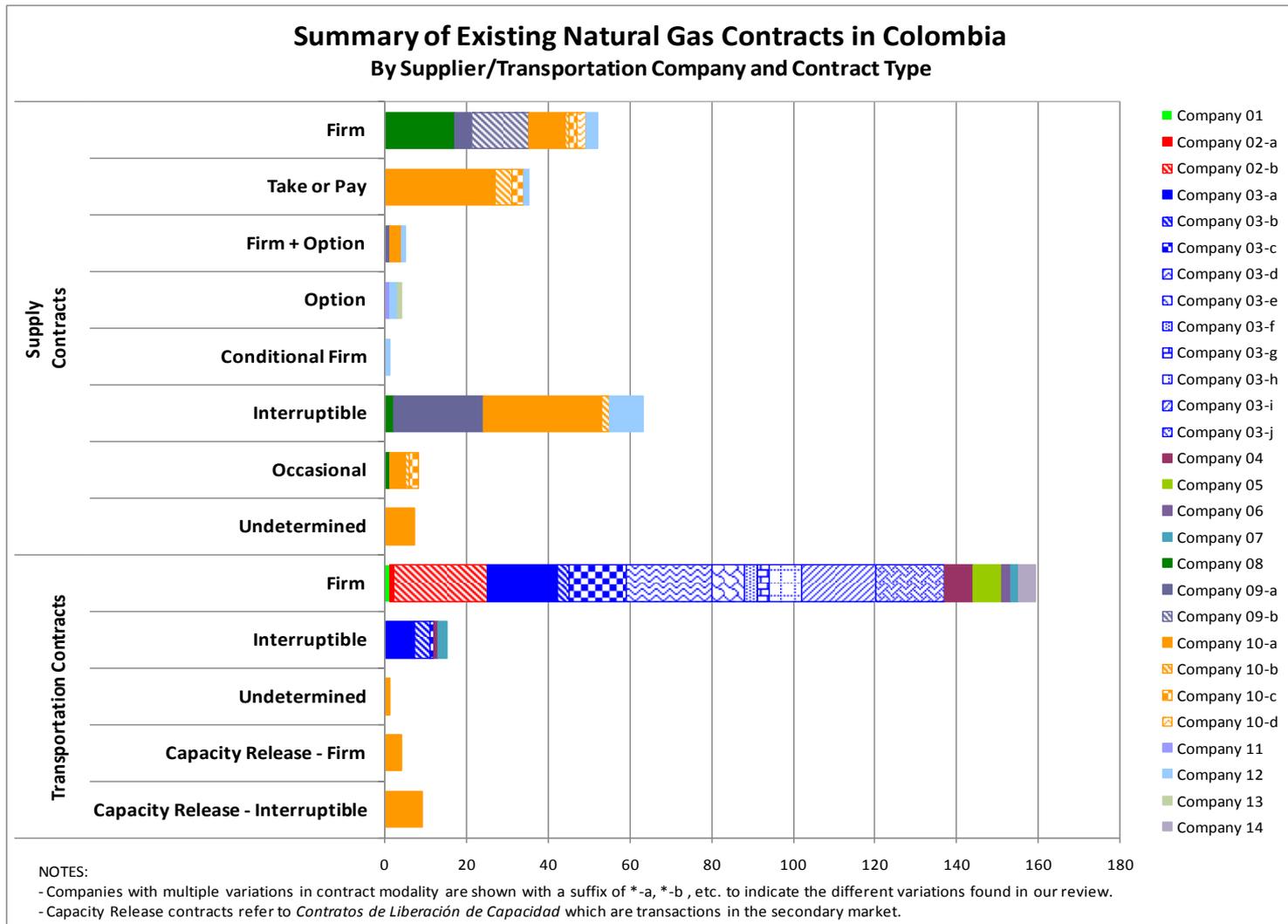
Natural Gas Contracts in Colombia

- Contracts in Colombia contain many features of contracts in other markets around the world
- However, there are a significant number of differences in Colombia from other markets, primarily related to the deregulation movements in other natural gas markets
- Consistent contract language facilitates:
 - ▣ Consistent understanding and behavior
 - ▣ Establishment of routines that result in less costly execution of market transactions
- Diversity in contracting terms promotes confusion

Natural Gas Contracts in Colombia

- Our team reviewed approximately 400 contracts from the Colombian markets
- The current state of contracting in Colombian is very similar to that of other countries prior to deregulation
- Some of the “forms” utilized in the Colombian market are derived from standardized contracts in other markets
- Following is a graphical representation of “differences” in Colombian contracts

Natural Gas Contracts in Colombia



Firm and Take-or-Pay Contracts

- Several types of language observed even within the same seller and its many counterparties
- Take-or-Pay contracts are still used and preferred in the Colombian market
- There is a wide range in Take-or-Pay levels within the contract sample
- Take-or-Pay contracts have given way to Firm contracts in developed markets

Firm and Take-or-Pay Contracts

- Take-or-Pay contracts vs. Firm contracts
 - ▣ Developments consistent with economic principles
 - ▣ Maintain control of capacity and supply
- Reservation Charge
- Performance Obligation (Firm contracts)
 - ▣ Financial Settlement
 - ▣ Liquidated Damages

Conditional Firm Contracts

- Ensures firm supply subject to interruption if the market price exceeds the Scarcity Price
- Allow generators access to firm supplies of gas when certain conditions are met
- Key to success is a backup of firm gas supply and transportation capacity

Purchase Option Contracts

- Allow buyers the right, not obligation, to purchase gas
- Contract for physical delivery
- Provides flexibility necessary in the Colombian market
- If option agreements are in place there must be an assumption that physical supplies are adequate to meet potential demand

Interruptible Contracts

- Tentative sale arrangement which can be interrupted at any moment for any reason
- Significant difference in Colombian interruptible contracts:
 - ▣ A firm obligation can arise from an interruptible sale or purchase
 - ▣ One market participant noted that “Interruptible contracts have become like firm contracts”

Transportation Contracts

- Primarily Firm contracts
 - ▣ Many small variations
- Capacity Release
 - ▣ Shippers may avoid non-performance penalties by releasing capacity to third parties
- Penalties
 - ▣ Variations
 - ▣ Imbalances
- Tolerance levels and timing vary in the same pipeline with different customers

Force Majeure Clause

- Likely the most contentious issue in Colombian gas market
- Unforeseeable Circumstances and Exempting/Excusable Events
- Very significant issue with many terms and reasons to excuse performance
 - ▣ Scheduled maintenance
 - ▣ Unscheduled maintenance
 - ▣ Emergency shut-downs
 - Plants
 - Pipelines
 - ▣ Operational problems
- Maintenance

Damages/Penalties

- Colombian contracts contain very different and complex penalty language
 - ▣ Low take levels create incentive to not perform
 - ▣ Some take levels are very high, up to 100% of the daily quantity while others are very low
- Language tends to favor producer/seller
 - ▣ Consistent with economic principles and regulated prices
 - ▣ Cannot surmise that producers or other parties are managing contracts to control the market, but there is a potential for this to occur if these terms are not clear and evenly accepted and enforced

Default/Penalties

- Default provisions in developed markets:
 - ▣ defaulting party pays the difference in the contract prices and the market price
 - ▣ Price volatility can make this penalty significant
- Natural gas price volatility
 - ▣ Regulated prices in Colombia reduce volatility
 - ▣ Deregulation may increase performance on gas contract commitments



Terms to be Standardized

And Proposals for New Terms

Standardizing Terms

- A well-functioning natural gas market must rely on a system of regulations, policies and contracts that are easy to understand, reward good performance and enhance efficiency.
- Market development should not be understood as a single event, but as an ongoing process.
- What we present here today is not the “final” solution for Colombia
- The “final” solution will take place over a transition period
- Government regulations play a central role in to the development of efficient markets, and new regulation will certainly impact how parties in Colombia contract for gas in the future

Standardizing Terms

- Our task is to make recommendations about contract standardization for the Colombian natural gas markets.
- Standardization is just one element in achieving an open market, but very crucial to success
- Standardization is not a one-step process.
- In the North American and European markets, the standardization process that began in 1985 still continues.

Standardizing Terms (Our Approach)

- We have approach the challenge of creating standardized terms by taking account of several factors and engaging in a series of steps, as follows:
 - ▣ A clear understanding of the goals of the proposed reforms
 - ▣ A reviewed approximately 400 Colombian contracts
 - ▣ Interviews with market participants
 - ▣ An historical analysis of the development of other natural gas markets
 - ▣ Review the standard contract forms in Europe and North America as possible models for contracts in Colombia
 - ▣ A disciplined evaluation of how these differences between the natural gas markets in Colombia and other countries affect the most efficient contracting solutions
 - ▣ An analytical approach founded in “law-and-economics.”

Standardizing Terms (Other terms)

- In the Terms of Reference for this Consultancy we have been requested to make recommendations for “other” terms, which include:
 - ▣ Contract Units
 - ▣ Amounts
 - ▣ Duration or Term
 - ▣ Quality
 - ▣ Maximum interruptions
 - ▣ Damages for breach
 - ▣ Warranties

Standardizing Terms

- An important key to contract standardization for the natural gas market is that certain critical terms must be uniformly defined and accord well with best practice for the industry.
- Following are the terms that we recommend for standardization. Particular recommended definitions of these terms follow later in this report:
 - ▣ Firm Commitment
 - ▣ Interruptible Commitment
 - ▣ Force Majeure
 - ▣ Special Circumstances, Exempting Events
 - ▣ Default

Standardizing Terms

- **Firm Commitment**. In current practice, the definition of “Firm” varies among contracts and is ripe for standardization in a way that applies to both purchases and sales of natural gas and to transportation. Our recommendation is that the Colombian natural gas industry adopt the definition as found in the NAESB Standard Form 6.3.1 dated September 5, 2006, which reads as follows:
- **“Firm”** shall mean that either party may interrupt its performance without liability only to the extent that such performance is prevented for reasons of Force Majeure; provided, however, that during Force Majeure interruptions, the party invoking Force Majeure may be responsible for any Imbalance Charges as set forth in Section 4.3 related to its interruption after the nomination is made to the Transporter and until the change in deliveries and/or receipts is confirmed by the Transporter”.

Standardizing Terms

- **Interruptible Commitment.** "Interruptible" shall mean that either party may interrupt its performance at any time for any reason, whether or not caused by an event of Force Majeure, with no liability, except such interrupting party may be responsible for any Imbalance Charges as set forth in Section ___ related to its interruption after the nomination is made to the Transporter and until the change in deliveries and/or receipts is confirmed by Transporter.

Standardizing Terms

- Force Majeure is one of the most critical terms in any natural gas contract
- In most cases the invoking of Force Majeure is the only way to be excused for commitments under a Firm Natural Gas Contract
- As we have already stated, Colombian law is clear with regard to this term
- Our proposal is to not propose a standardization of this term, and to leave it as is defined in the Colombian Civil Code

Standardizing Terms

- **Special Circumstances, Exempting Events.**
- It has been our observation that Special Circumstances and Exempting Events have taken a position of equal or greater importance than Force Majeure.
- It is our proposal that Special Events or Exempting Event remain in the Standardized Terms of the Colombian natural gas industry, but there be significant limits as to the events that can be included as part of the definition of this term.
- The invoking of Special Circumstances or Exempting Events should only be allowed for a limited number of days during the contract year.
- Without such limitations, the Firm commitments of sellers and buyers can be rendered meaningless.

Recommendation of Contract Types

- We are recommending a significant streamlining of the contracts in the Colombian natural gas market to four (4) types of agreements:
 - Firm
 - Interruptible
 - Conditional Firm
 - Call options



End