Consultancy for standardizing the contracts for supply and pipeline transportation of natural gas in Colombia

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Report 4

Team Leader:

- Paul Milgrom, paul@auctionomics.com

Additional team members:

- Bob Broxson, FTI Consulting, Bob.Broxson@fticonsulting.com
- Gustavo Suarez Camacho, Gsuarez@suzalegal.com

Auctionomics and FTI consulting

209 Hamilton, Suite 220

CA 94301, Palo Alto

United States

Introduction

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. Developing such a system requires a coordinated effort among many parties – essentially everyone in the industry, because the system must properly balance the needs of all the parties. In Colombia these parties include the government, producers, transporters, electric generators, distribution companies and commercial agents selling to retail customers.

Market development is not a single event, but an ongoing process. Two reasons account for the continuous nature of market development. First, even if the environment itself were stable, the process of development takes time to implement and leads to new experiences and understandings that enable further constructive changes. Second, circumstances change. New sources of supply and demand emerge and old sources grow or shrink. Supply or demand may become more or less concentrated, changing the costs or benefits of various kinds of regulation.

Appropriate government regulations play a central role in the development of efficient markets, establishing a structure in which all parties are confident about the rules and can compete on appropriately balanced terms. CREG has already taken some initial steps to promote market development by retaining consultants to prepare reports focusing on the development of standardized contracts, auctions for firm natural gas supplies and the formalized development of a secondary or spot market. More importantly, the government has commenced initiatives to introduce new regulatory policies and decrees that will provide more effective oversight and more transparency for all participants in the market and help eliminate regulatory uncertainties that have inhibited private contracting. With the introduction of new regulations, participants will be in a better position to be proactive in meeting the requirements of the market and effective in managing the energy needs of all Colombians.

The new policies and definitions, as presented in the new Decree 2100 of 2011, will place the Colombian natural gas market on a transition path similar to the one taken in other open markets around the world. In the North American and European markets, the proactive steps of the governments, in consultation with industry, to bring about significant revision of regulatory policy, allowed for an orderly transition from a highly regulated market to a more open structure, with only minor disruptions.

Our task in this report is to make recommendations about contract standardization for the Colombian natural gas markets. Standardization is just one element in achieving an open market, but it is very crucial to success. But even standardization is not a one-step process. In the North American and European markets, the standardization process that began in 1985 still continues. In these two markets, the standardization process, although encouraged by regulators, was primarily led by the industry, with representatives of all sectors of the natural gas market participating. Similarly, while in Colombia it is the government that has initiated the process, its success will depend crucially on the industry's assuming an important role to insure that the contract terms which are introduced and adopted will protect the rights and legitimate interests of all parties.

In this report, we make recommendations regarding specific terms that should be standardized in the Colombian market. It is our view that, by adopting the standard definitions of these recommended terms, the Colombian market will enjoy the benefits of easier contracting and more balance and consistency in its contracting and commercial practices.

Our Approach

We have approached the challenge of creating standardized terms by taking account of several factors and engaging in a series of steps, as follows:

First, we needed a clear understanding of the goals of the proposed reforms and the constraints imposed by law and regulation. Our understanding is that Colombian laws and regulations determine both. Our understanding of how Colombian law affects our efforts is recorded in a separate section of this report.

Second, we have reviewed approximately 450 Colombian contracts from recent years to achieve an understanding of the terms that have been used and the extensive variations among them.

Third, with CREG's leadership, we have participated in interviews with market participants. This helped to ensure that we have correctly understood both the current situation in Colombia and the practical factors that the industry participants regard as most important for our task of evaluating current contracts and making recommendations about standard contracts.

Fourth, we have conducted an historical analysis of the development of other natural gas markets, particularly in North America and Europe, finding that the problems associated with non-standard contracts that are currently being tackled in Colombia have close historical precedents in those other markets. Historical accounts of the problems created by non-standard contracts are directly applicable to the Colombian situation.

Fifth, we have reviewed the standard contract forms used in Europe and North America as possible models that may hold some lessons for Colombia. We have analyzed how the Colombian market and legal environment differ from those of Europe and North America, and used that analysis to evaluate how their standardized contracts can be changed to adapt to Colombia's particular circumstances.

Sixth, to make a disciplined evaluation of how these differences between the natural gas markets in Colombia and other countries affect the most efficient contracting solutions, we take an analytical approach founded in "law-and-economics." This approach analyzes how laws and contracts affect the economic efficiency of markets, particularly when parties are sometimes unable to perform their obligations or find performance to be very costly. We attach an appendix to this report describing the nature, origins and impact of the law-and-economics approach.

Finally, after a draft of this report was provided to the Colombian industry, we received and reviewed written comments from industry participants and participated in a series of phone conferences with them to understand their views about our proposed recommendations.

“Other” Terms

The main portion of this report focuses on particular terms that are ripe for standardization. In *the terms of reference* for this consultancy, we were also specifically asked to make recommendations about certain other elements of standardized contracts, with the bulleted points below offered as leading examples. Most of these require only brief comment, which we supply here.

- *Contract Units*. The units for measurement of natural gas are neither a point of confusion for market participants nor one that affects parties’ interests differently. The most common contracting unit in Colombian contracts is the MMBTU, and we propose that unit initially, in the hopes that it can become a consensus choice.
- *Amounts.* For purposes of contract standardization alone, there is no need to restrict the permissible contract amounts: the amounts could be any suitable quantities agreed by the buyer and seller. There could possibly be a small issue for the auction design, where some might believe it desirable to express quantities in multiples of a fixed unit, or to require certain minimum amounts for economy of trading. We defer to the auction consultancy for a recommendation on this matter.
- *Duration or Term*. The duration or term of a contract does not generally need to be standardized and can be left to industry participants. Any auction of contracts will require standard durations, and we expect that suppliers may offer to provide longer terms in the auction in exchange for a higher premium. We leave the specification of these durations to the auction consultancy.

- *Quality*. Our understanding is that quality standards are normally established by the natural gas pipeline through its regulatory processes, and are incorporated by reference in these contracts. Gas producers must meet the pipeline's quality standard, and gas purchasers can buy only the quality of gas that flows through the pipeline. (The comments and discussions following our first draft report included remarks about the quality of service rendered by the pipeline transporters. Those comments are not summarized here, because evaluating quality issues is beyond the scope of this report.)
- *Maximum interruptions*. This appears to be a contentious issue among some industry participants. Our proposal limits interruption in firm contracts, particularly as they relate to Exempting Events. This puts the responsibility for interruptions on the party most able to control them and, with prices determined in the market, and extra cost incurred by producers would be reflected in the contract price.
- *Damages for breach*. As discussed in this report, the economically efficient damages for breach depend not only on the characteristics of product being delivered but also on country-specific factors, such as the transparency and liquidity of the secondary market and whether there is price regulation. As market and pricing information in Colombia becomes more readily available with the transition to a more open secondary market, a "local" price or "Index" can eventually be created to provide an excellent basis for the calculation of damages for breach. Until such an index comes into existence, there are two main options: the use of a third party or independent price index and the use of a multiple of the contract price. We make a specific index recommendation in the

next section and evaluate it in comparison to the multiple of contract price option. Our final recommendation favors the latter option.

- *Warranties*. Warranties are primarily concerned with buyer creditworthiness. We do not recommend standardization of this term except for the auction. Policies about buyer creditworthiness will also determine who is eligible to bid for how much gas in any proposed auction, and that affects the likely competitiveness of the auction. Recommendations about warranties need to be coordinated with the auction consultancy.

Summary of Recommendations

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. These terms form the foundation of executing transactions which are consistent, understandable and equally enforced across the industry. Following are the terms that we recommend for standardization. Particular recommended definitions of these terms follow later in this report:

1. Firm Commitment
2. Interruptible Commitment
3. Force Majeure
4. Default
5. Special Circumstances, Exempting Events

As natural gas markets have developed in the international arena, these terms have come to be defined on a consistent basis in standardized contracts. While individual countries may have laws or codes that define these terms, it is important that the meaning of these terms also be clear within the context of the particular market and the commercial transactions that are executed therein. It is not realistic to expect that the "final" best definitions of terms for this market will be reflected in our initial recommendation. Over time, performance and market interactions will allow for the development of improved and more comprehensive definitions for the Colombian market. This will be similar to the process in other markets, which have developed contract terms and refined them with ever-increasing precision, leading to lower costs and greater efficiency. As the market matures, other terms may be introduced to enhance market functionality further. For example, as the flow of information improves in the marketplace, definitions, or terms related to an "index" pricing may be introduced. This will be an indicator that the market is progressing. The use of this type of information will also be helpful in calculation of potential damages for default, a common term in the industry.

Our final recommendation concerns the way damages should be calculated for non-performance. When there is no transparent and liquid secondary market to establish spot prices for gas, there are two possible approaches to determining damages. The first relies on creating a temporary price index that tracks the theoretical market price in Colombia, though imperfectly so. The second eschews the creation of an index in favor of a more limited damages measure, which is fixed in terms of the contract price and may rely on other contemporaneous transactions.

We begin by evaluating the index approach. Since 1977, regulations have prescribed that the price for the La Guajira field is to be calculated and updated in February and

August of each year. In calculating this price, the government currently uses third party information, specifically the Platts Gulf Coast Residual Fuel Oil Price Index, to determine the updated price for each period. As a gas price index, this appears flawed, because any gas index based on fuel oil prices is vulnerable to changes in the ratio of gas prices to oil prices. In the absence of an actual liquid and transparent secondary market, there is not data allowing us to compare the performance of this index to the price it is supposed to track, but we believe that the logical arguments concerning its flaws are compelling ones. Nevertheless, we have analyzed this price index for the period of 2000 to present and compared it to the Henry Hub Monthly Index. Since 2009, the calculated La Guajira and Henry Hub prices have been quite close to one another. For the first five months of 2011, the la Guajira price has been essentially identical to the Henry Hub Index. The following table reflects our analysis and findings relative to the relationship between the Henry Hub Index and the regulated price for the La Guajira Field:

	Guajira Regulated Prices as of 5/3/2011	
Month/Year	**HH Index**	**US$/MBTUD**
Average 00 - 11	5.674	2.2633
Average 09 - 11	4.1924	3.6429
Average 10 - 11	4.334	3.9484
Average 5/10 - 4/11	4.1291	4.0364
Through May, 2011	4.19	4.205

A table containing the history of Henry Hub and La Guajira prices is attached as Appendix D.

In the an earlier draft of this report, we remarked that because of the concentration in the Colombian market, it is likely that a Colombian gas price index that might be developed over the next few years would have a risk of manipulation. We recommended that the Colombian natural gas industry adopt the Henry Hub Index to calculate breach damages. Because decisions about breach are made on a daily basis, we recommended that damages be based on the Henry Hub Index on the day of breach. We made this recommendation knowing that such an index would necessarily be imperfect and affected by location-specific factors that are different from the ones at work in Colombia.

After the first draft of this report, we received several comments on this proposed index. Some comments challenge the validity of using a gas index from the United States, while others suggested using or developing an Index based upon the West Texas Intermediate (WTI) price. We acknowledge the limits of using any foreign index, but this is unavoidable until an index of Colombia prices becomes available.

Our recommendation had avoided using crude oil price indexes for Colombian natural gas, because such an index could subject the Colombian market inappropriately to volatility of crude oil prices that are unrelated to developments in natural gas. Since 2009, crude oil prices, including WTI, have fluctuated significantly (both up and down) while natural gas prices have been relatively stable. A stable gas price encourages confidence in a growing natural gas market, especially one that is growing across all of its various segments; residential, commercial and industrial.

In making this recommendation, we considered using a benchmark from the European market. However, the current price for natural gas in Europe is trading at a premium to North American and Colombian prices.

Given these difficulties, we urge Colombia to develop a good index at the earliest possible date. Without a good price index, the theoretical ideal of "expectation damages" based on the law-and-economic approach is very costly to implement, requiring case-by-case analysis of the particular circumstances that determine the loss.

To mitigate the costs of such an approach, a standard contract could instead fix damages based on the contract price and other indicators of some contracting parties' behavior. For example, if a supplier delivers gas to another customer at a higher price and such prices are publicly recorded, then the damages might be set based on the highest such price, as a proxy for the secondary price. One commenter on our draft report suggested making the penalty for non-delivery equal to a multiple of the contract prices (i.e. 1.5 times).

A larger penalty for non-performance by producers effectively makes the firm contracts firmer and more costly for producers. In the portfolio approach to contracting that we recommend below, the size of the non-performance penalty can be expected to affect the supplier's choice of how much firm and how much interruptible gas to supply. If penalties are to be based on a multiple of the contract price, then, ideally, industry representatives should be the ones to decide this multiple, with the intention that the standard contract should evolve if the multiplier is set badly.

While we believe that there are no perfect options in this case, we have reconsidered our initial recommendation. We believe that Colombia should implement a Colombia-specific price index and the earliest possible date and should adopt the 1.5x contract price term suggested by the commenter as an interim measure, taking advantage of its simplicity and the fact that is responsive solely to Colombian market conditions.

Market Characteristics and Evolving Contract Standards

As described in our recent report, “History of Standardization of Natural Gas Contracts”, historical processes to reach an open market take time and a progression of both regulatory and legal changes coupled with an acceptance by the industry of a need for change in the way companies do business. In the United States and Canada, for instance, until about 1985, the markets were highly regulated and controlled by a relatively small number of participants, with the vast majority of natural gas purchased, transported and sold by a single vertically integrated entity. In turn, once the gas was sold, it was distributed to commercial, industrial and retail customers by a local monopolistic entity, the Local Distribution Company (LDC). The prices and tariffs across the supply chain were controlled by local, state and federal government agencies and there was effectively no competition in the market, other than where multiple pipelines served a particular market. Natural gas prices were set at a national level. As the move towards deregulation became a reality, the controls were gradually removed, and voluntary market transactions dictated the price of gas. The market grew in sophistication, as companies adjusted to the new market-based reality, and prices became responsive to economic forces of supply and demand. The pipeline companies moved towards a shipper-only model, and the LDC's were opened up to allow customers access to the market, and the ability to buy directly from producers and market agents. Along with the deregulation of the market came the introduction of independent or third party merchant or trading companies.

Initially, each of these market participants developed its own distinctive contract, which dictated the specific terms desired by that company. The result was a "negotiation" as to whose contract would be used as the base, and then a negotiation as to the desired terms of the contract. The contracting costs were high because of these additional steps required to transact business. As described in our earlier reports, in the early to mid-1990's (late 1990's in Europe) there was a move in the industry to develop standardized contracts. The result was the development of standard contracts that were accepted across the industry. The contract forms included the Gas Industry Standards Board (GISB) form contract in the USA, the Gas EDI standard form contract in Canada and the European Federation of Energy Traders (EFET) standard form contract in Europe. The GISB was ultimately replaced by the North American Energy Standards Board (NAESB) form contract, which remains in use today.

Both the European and North American markets are significantly larger than that of Colombia and this larger size is a distinct advantage with regard to standardization because there is not as much focus on a singular geographic region. For instance, the US natural gas market consumes approximately 23 Trillion Cubic Feet (TCF) of natural gas annually. In non-winter months, demand is approximately 55 Billion Cubic Feet

(BCF) per day, with demand peaking in the winter at approximately 70 BCF. With this significant market and supply size, and the addition of over 3 TCF of storage capacity, the US market provides much more capability to respond to individual supply disruptions and market fluctuations. In Colombia, the gas market is much smaller – approximately 1,000,000 MMBtu (or 1 BCF) per day – with supply coming from two major sources. Another important difference is that Colombia lacks the underground storage capacity that is used in North American (and Europe) both to adapt to interruptions and to match seasonal variations in demand. For all of these reasons, supply disruptions that would be considered minor and easily manageable in North America or Europe are much more significant in Colombia. The standardization process must take account of all these differences, including provisions and language that fit Colombia's unique market circumstances.

One implication of the greater liquidity and flexibility of more developed markets is that interruptions in supply are more easily accommodated. This allows greater reliance on firm gas contracts with appropriate damage clauses. By including damage terms that relate failures to deliver gas to spot market prices, producers are provided with incentives for what is sometimes called "efficient breach," which means that gas supplies will be interrupted whenever any event happens that makes the cost of delivering gas higher than its value to the system. In a system like Colombia's with no developed storage capacity, no good substitute for production from the two major fields, and only a small secondary market, the contracts for gas-fired power plants, or any buyer requiring firm gas supplies, need very firm assurances of physical delivery of gas, especially in times of greatest supply interruption.

Another factor of significance in Colombia is the independence of the two major pipeline systems. If there is a standardization process across the pipelines' contracts, it should focus on areas where the two main systems share commonality in regulation and operations. In other markets, it is common for pipelines to have differing tariffs while operating under the same regulations.

One way to allow the pipeline systems to interact in support of both the primary and secondary markets would be to establish Pooling Points on the systems that would allow the various participants to exchange gas supplies across the two currently separated systems. This has been successfully done in other countries, but would require some cooperation from the pipelines. For this type of service to be most effective, the two main pipelines should be connected. Based on our understanding, this is not an improbable or impossible solution for Colombia. Making this connection would allow for significantly more flexibility for both suppliers and markets. An example of how this could work would be to establish a Pooling Point at La Guajira Field, where both pipelines have a presence (If the pipelines were interconnected, then a producer with production on either or both pipelines could participate in these activities by trading gas on both of the main transportation pipelines.). Those producers with production at both La Guajira and Cusiana could establish accounts to exchange gas supplies at these two major supply points and could potentially mitigate some percentage of supply disruptions at one field with gas from another. This is only an example, and the physical parameters have not been reviewed to determine the probability of success. Nonetheless, similar exchange mechanisms are commonly used in other markets and may be beneficial for Colombia.

Discussion of Colombian Law and Regulations

Pursuant to articles 73 and 74 of Law 142 of 1994, contract standardization must be carried out within the scope of the powers and authorities vested in the Comisión de Regulación de Energía y Gas -CREG- (Energy and Gas Regulatory Commission), in order to foster competitiveness between natural gas service providers, increase efficiency and quality of the services rendered, and avoid anti-competitive practices or an abuse of dominant position. Considering that under several regulations some terms may have different scope or meaning, as noted in previous reports, we recommend unifying the scope of the terms used by service providers and by the regulatory agency so as to avoid different interpretations that adversely affect regulatory efficiency and compromise attainment of its goals. The issuance of order 2100 of 2011 is the first step in achieving this important goal.

Likewise, contract standardization should be carried out pursuant to the principles provided for in the preliminary title of the above-mentioned domicile public services law, and in keeping with its previously mentioned goals, which are repeatedly stated throughout the statute in compliance with constitutional provisions. Additionally, as provided for in the law, contractual terms shall be governed by private law, and particularly subordinated to public order imperative legal provisions, as well as to special rules provided for in articles 35 and 38 of Law 142 of 1994, and applicable CREG resolutions – it is understood that the resolutions may be modified by the regulatory commission – unless otherwise expressly provided by law.

Put less formally, this means that despite the legislative parameters that guide these regulations and the awarding of contracts to natural gas public service providers, CREG may exercise its discretionary authority to regulate all matters falling under its sphere of competence.

Results of Standardization in US and Europe

As we have described in our earlier reports, standardization enhances efficiency by allowing the parties to focus on execution of transactions rather than in negotiating individual contracts. At the beginning of the move to standardization in the North American markets, there was a clear and explicit recognition of the problems caused by non-standard contracts. Below, we quote from a 1996 presentation by Carolyn Hazel, Senior Counsel at ConocoPhillips emphasizing exactly that point.

> "While all of these changes have been helpful, current gas marketing practices in general do not meet the time requirements imposed by the commercial environment of the spot market. First, each marketing company blithely charges its marketers to use its own model form. Therefore, in each new prospective commercial relationship, the party perceiving itself to have the lesser economic clout must review, consider and negotiate the base terms and conditions proposed by the other party. To exacerbate this situation, most marketers revise their base terms and conditions periodically, requiring repeated review and negotiation of contracts between old trading partners. Finally, the vocabulary for spot gas contracts is not standard. Therefore, even where base terms and conditions are neatly in place between parties, the traders do not remember the specific vocabulary used in a specific agreement, so that the vocabulary used on the transaction confirmation (which was drafted for use with a different base contract) does not match the vocabulary used in the base contract, resulting in considerable ambiguity."[1]

The "ambiguity" to which Hazel refers was rampant in the North American natural gas market and the desire to solve the ambiguity problem contributed momentum to the drive for standardization, which has succeeded in drastically reducing the cost of doing

[1] "How and When to Use Gas Industry Standards Board (GISB) Contract For Short-Term Sales of Natural Gas", Origins of the GISB Standard Form Contract, Carolyn S. Hazel

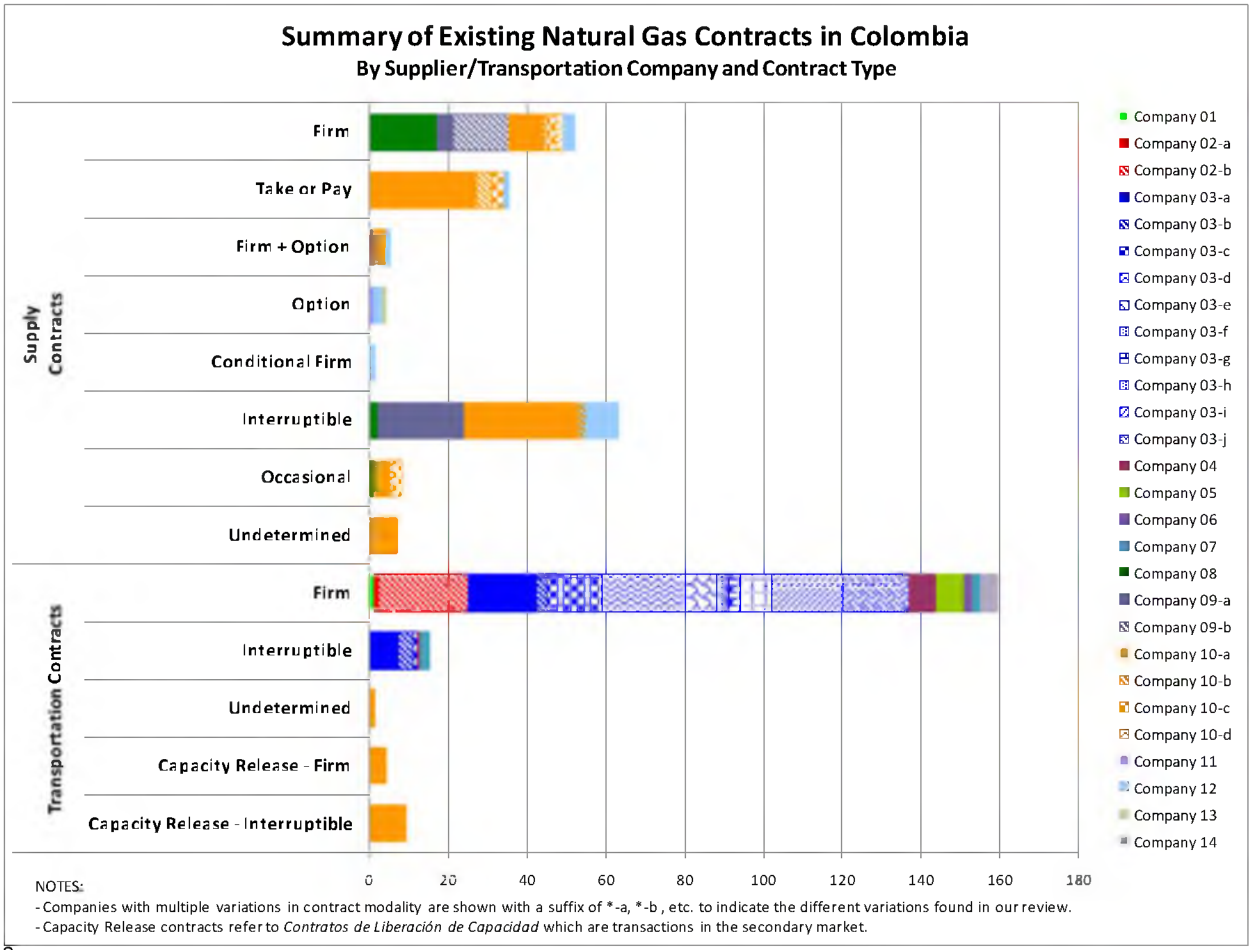
business. In concluding her comments on contracting practices, Ms. Hazel made a statement that is relevant today for markets like Colombia, describing the misunderstanding, confusion and economic loss that are suffered when there are too many different contract versions, and potentially hundreds of interpretations of the contract language.

> "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. Further, the differences among the general terms and conditions in most contracts in use in today's spot market are not substantive, but rather reflect different drafting styles and vocabularies. 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."[2]

Today, the successor to the GISB contract, the NAESB Standard Form, is not only utilized for spot transactions, but for long term transactions as well.

As we have emphasized, development is not a single event, but a process, and standardization is a part of the process. When the GISB contract was adopted in the late 1990's, it was just one step along a path. A review of the many revisions to the GISB, and then the NAESB Standard Form is a testament to the fact that the need for adaptation never ends, even if the passage of time makes revisions less frequent. Colombia is just at the beginning of this process. In a our recent report entitled "Contract Review and Regulatory Comments," we included the following chart, documenting the large number of contract forms used in the Colombian natural gas market in recent years.

[2] Ibid.



[3]

As Carolyn Hazel emphasized in 1996, the large number of contracts used in the market reflects the numbers of different contract drafters, but may not reflect any important differences in the meaning or interpretation of the terms. This also appears true in Colombia, and that is why we will recommend adopting certain standardized contract terms with a limited number of contract types. By adopting a smaller number of contracts with known terms, the Colombian market will be in a better position to attend

[3] "Report on Existing Natural Gas Contracts in Colombia," Paul Milgrom, Bob Broxson and Gustavo Camacho.

to the critical issues facing the industry; finding more natural resources and delivering them efficiently and economically into the market.

In one of our industry participant meetings, a participant remarked that “our base contracts are modeled after the GISB form.” While this is likely a true statement, “modeled after” is not sufficient for an effective contracting regime. The hallmark of an effective standardized contract environment is that all of the terms are essentially identical, and any veering from the standard forms is noted in special sections of the standard contracts. Typically, these changes are not related to the primary, standardized terms of the contract, but to issues like credit assurance and customized default language.

Recommendations Regarding the Number of Contracts

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
- Option contracts

In truth, many “types” of agreements are regularly entered into on the same contract form in many markets. As is seen below, the confirmation page of the NAESB Standard Form allows for Firm, Interruptible and Firm (Variable Quantity) transactions. The key to executing under this type of form is to clearly spell out the obligations and unique requirements of the transaction. This form would also be workable for gas sold in the firm auction.

TRANSACTION CONFIRMATION
FOR IMMEDIATE DELIVERY

EXHIBIT A

Letterhead/Logo

Date: ______________________

Transaction Confirmation #: ______________

This Transaction Confirmation is subject to the Base Contract between Seller and Buyer dated ____________________. The terms of this Transaction Confirmation are binding unless disputed in writing within 2 Business Days of receipt unless otherwise specified in the Base Contract.

SELLER:	BUYER:
______________________	______________________
______________________	______________________
______________________	______________________
Attn: ______________________	Attn: ______________________
Phone: ______________________	Phone: ______________________
Fax: ______________________	Fax: ______________________
Base Contract No. ______________________	Base Contract No. ______________________
Transporter: ______________________	Transporter: ______________________
Transporter Contract Number ______________________	Transporter Contract Number: ______________________

Contract Price: $______/MMBtu or ______________________________________

Delivery Period: Begin ______________ End ______________

Performance Obligation and Contract Quantity: (Select One)

Firm (Fixed Quantity):	**Firm (Variable Quantity):**	**Interruptible:**
______ MMBtus/day	______ MMBtus/day Minimum	Up to ______ MMBtus/day
EFP	______ MMBtus/day Maximum	
	subject to Section 4.2. at election of	
	Buyer or Seller	

Delivery Point(s): ______________________

(If a pooling point is used, list a specific geographic and pipeline location)

Special Conditions:

Seller ______________________	Buyer: ______________________
By ______________________	By: ______________________
Title ______________________	Title ______________________
Date ______________________	Date ______________________

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NAESB Standard 6.3.1
September 5, 2006

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[4] NAESB Standard 6.3.1, September 5, 2006

The European Federation of Energy Traders (EFET) standard form agreement is slightly different in that there are several Annexes, which allow for the execution of various types of transactions under its General Agreement. They are as follows:

1. Annex 2A “Confirmation of Individual Contract (Fixed Price)”
2. Annex 2B “Confirmation of Individual Contract (Floating Price)”
3. Annex 2C “Confirmation of Individual Contract (Call Option)”
4. Annex 2D “Confirmation of Individual Contract (Put Option)”

Each Annex allows for the execution of a unique transaction (potentially unlimited) under the same General Agreement, which includes the unique terms and conditions for the type of deal that is struck between the parties. This type of certainty in the contract allows for efficient contracting processes and allows the parties to include specific terms that may impact one transaction, but not any other. This form also allows for the inclusion or exclusion of specific issues, such as “Planned Maintenance” and “Long Term Force Majeure Limit.” Copies of these four (4) annexes are attached to this report as Annex “A.” Either of these standard forms of agreement provides a significant level of flexibility in terms of executing transactions, and could be of benefit to the unique circumstances facing the natural gas market in Colombia.

Conditional Firm Contract

The conditional firm contract that we propose is similar to the ones that have been used by gas-fired electrical generators to sell their firm gas in periods of normal electricity demand. The contracts transfer the rights and obligations of the seller (historically, an electricity generator) under its firm gas contracts to the buyer, except that the seller of a conditional firm contract may take the gas under the condition that the price of electricity exceeds a scarcity value (which has been specified by the electricity regulator).

Option Contract

The option contract that we propose is complementary to the conditional firm contract, enabling producers to sell both in tandem, for example in the proposed auctions. It provides its holder with the right to take delivery of firm gas under the condition that the price of electricity exceeds a scarcity value (which has been specified by the electricity regulator).

Firm Contracts and Regulatory Uncertainty

On several occasions during our industry meetings, gas producers in Colombia have expressed to us their hesitance to commit a majority of gas supply on a firm basis, despite the preference of buyers for firm gas contracts. To explain their position, the producers cited regulatory issues and, in particular, uncertainties about what a firm commitment might mean in current and potential future Colombian gas regulations. In recent years, the Colombian government has issued decrees (Decrees 2687and 4670 /2008; 1514, 2730 and 2807 / 2010) related to firm gas sales, amongst other regulated matters. With the new Decree 2100 of 2011, these definitions and a direction for the industry was made more clear. This new Decree from the Ministry of Mines and Energy derogates those mentioned above and additionally Decree 3428/2003. This explains, in our view, why CREG has not yet regulated the numerous subjects covered by the recent decrees. In view of these wide ranging regulatory rulings, producers have made the decision to hold volumes off the market for firm sales until there is clarity in the regulations, or new proposed rules for the market. With the release of the proposed decree, there is hope among many industry participants that a higher level of gas can be committed to the market on a firm basis. It is imperative that the industry in Colombia finds a workable solution to issues regarding security of supply and delivery of sufficient quantities of natural gas to consumers across the country. The best and most obvious solution is for CREG to reduce ambiguity certainty by implementing an agreed, standard definition of “firm” gas supply.

Liquidity and Damages

Liquidity of the natural gas market refers to market participants’ abilities to buy or sell meaningful quantities of natural gas at known prices. Normally, good liquidity requires the participation of many willing buyers and sellers. Having accurate, available pricing information allows for better price discovery in the market, whether for long- or short-term transactions, and promotes greater efficiency in the allocation of the available gas.

There are two important connections between the existence of liquid secondary markets and contract terms. In a liquid market, posted prices provide a useful, objective estimate of the cost incurred by either party if the other fails to perform. As secondary markets mature and become liquid, standard contracts should incorporate damages clauses that link damages to secondary market prices. Thus, good secondary markets enable writing better contracts.

But there is also a reverse connection: contract standardization promotes more liquid secondary markets, for two reasons. First, standardization allows potential participants to know and describe more easily what is being offered or demanded. And second, it reduces the cost of making transactions, since there are fewer terms to study and negotiate. These effects both tend to increase the liquidity of secondary markets.

In Colombia, there is a secondary market for natural gas, but this market has few actual participants. Also, the current central bulletin board does not provide posted prices to enable buyers and sellers to find one another and transact deals. The development of this market is the subject of a different CREG consultancy.

Terms to Be Standardized

There are many terms in a natural gas contract. In the context of standardizing contracts, there are those terms which contain the intent and understanding of the parties to an agreement. Since the publication of our most recent report, the following Spanish language definitions have been prepared. These definitions were drafted by our Colombian attorney to conform to Colombian regulations and laws. We incorporate them directly into our report in Spanish in order to facilitate a greater understanding.

I. DEFINICIONES SUGERIDAS PARA CONTRATOS DE COMPRAVENTA DE GAS Y DE TRANSPORTE DE ACUERDO CON EL TERCER INFORME.

1.- Para Contratos de Suministro o de Transporte de Gas Natural con Garantía de Firmeza:

Contrato de Suministro Firme o que Garantiza Firmeza. "Contrato escrito en que un Vendedor garantiza a un Comprador el servicio de suministro de una cantidad máxima de gas natural, sin interrupciones, durante un período determinado excepto en los días establecidos para mantenimiento y labores programadas. Se requiere que el Vendedor cuente físicamente con el gas natural objeto de la obligación en firme o que garantiza firmeza desde el momento que se inician las entregas hasta el cese de las mismas."

Contrato de Transporte Firme o que Garantiza Firmeza. "Contrato escrito en que un Transportador garantiza a un Remitente una capacidad máxima de transporte de gas natural, sin interrupciones, durante un período determinado excepto en los días establecidos para mantenimiento y labores programadas. Se requiere que el Transportador cuente físicamente con la capacidad de transporte para asumir y cumplir el compromiso contractual fírme o que garantiza firmeza desde el momento que se inician las entregas hasta el cese de las mismas".

Estas definiciones están basadas en la que trae el artículo 2 del Decreto 2100 de 2011. Las mismas reproducen las establecidas en el artículo 1 de la Resolución 070 de 2006, así como la del artículo 1 del Decreto 880 de 2007, por lo que ya son conocidas y utilizadas por el mercado para la comercialización del gas natural desde la producción y su transporte por gasoductos.

2.- Para los Contratos de Suministro o Venta de Gas Natural interrumpibles:

Contrato de Suministro Interrumpible o que No Garantiza Firmeza.- "Contrato escrito en el que un Agente no asume compromiso de continuidad del servicio de suministro de un volumen máximo de gas natural, durante un tiempo determinado, reservándose cada una el derecho de interrumpir en cualquier momento y por cualquier razón la entrega o recibo de gas natural, según el caso, mediante aviso a la otra parte".

La anterior definición está en línea con las del artículo 1 de la Resolución 070 de 2006 y el artículo 1 del Decreto 880 de 2007.

3.- Para los Contratos de Transporte de Gas Natural interrumpibles:

Contrato de Transporte Interrumpible o que No Garantiza Firmeza.- "Contrato escrito en el que un Transportador no asume frente a un Remitente compromiso de continuidad del servicio de capacidad máxima de transporte de gas natural, durante un tiempo determinado, reservándose cada parte el derecho de interrumpir en cualquier momento y por cualquier razón la entrega o recibo de gas natural, según el caso, mediante aviso a la otra parte".

La anterior definición está en línea con las del artículo 1 de la Resolución 070 de 2006 y el artículo 1 del Decreto 880 de 2007.

4.- **Fuerza Mayor o Caso Fortuito.-** Se acoge la definición del artículo 1 de la ley 95 de 1890 que subrogó el artículo 64 del Código Civil. Esta recomendación también comprende los Contratos de Transporte de Gas a que se refiere el tercer reporte. Respecto a éstos últimos la cláusula se denomina Causa Extraña para ajustarla a lo dispuesto por el artículo 10 del D.E. 01 de 1990 que subrogó el artículo 992 del Código de Comercio

5.- **Evento Eximente.-** En la cláusula se propone una definición. Se anota que los Eventos Eximentes quedaron incorporados en la cláusula de Fuerza Mayor pero distinguiéndola de ésta. Las causales son diferentes pero el efecto respecto de la responsabilidad del deudor de la obligación incumplida es el mismo. Esta recomendación también comprende los Contratos de Transporte de Gas a que se refiere el tercer reporte.

II. CLAUSULAS SUGERIDAS PARA CONTRATOS DE COMPRAVENTA DE GAS DE ACUERDO CON EL TERCER INFORME.

1.- Contratos Firmes o que Garantizan Firmeza.

OBJETO.- El Vendedor se obliga a vender y entregar al Comprador en el Punto de Entrega, y éste se obliga a comprar y a recibir del Vendedor al Precio estipulado en este Contrato, , a título de compraventa, la cantidad máxima garantizada de Gas Natural de su propiedad proveniente del campo __________ (en lo sucesivo el "Campo Productor") que se determina en el Anexo ____, sin interrupciones, durante un término de ____________ (años, meses o días), excepto en los días establecidos para mantenimiento y labores programadas por el Vendedor, de conformidad con los términos y condiciones del presente Contrato.

PARAGRAFO.- El Vendedor garantiza que cuenta físicamente con cantidad o reservas de Gas Natural para cumplir su obligación de suministrar en firme al Comprador desde el momento en que se inicien las entregas hasta el cese de las mismas.

2.- Contratos Interrumpibles.

OBJETO.- El Vendedor se obliga a vender y entregar al Comprador en el Punto de Entrega, y éste se obliga a comprar y a recibir del Vendedor al Precio estipulado en este Contrato, a título de compraventa, la cantidad máxima de Gas Natural de su propiedad proveniente del campo __________ (en lo sucesivo el "Campo Productor") que se determinan en el Anexo ____, durante un término de ____________ (años, meses o días), pero reservándose el derecho de interrumpir, en cualquier momento y por cualquier razón, sea ésta causada o no por un evento de Fuerza Mayor, Caso Fortuito o Evento Eximente, sin responsabilidad alguna, el suministro o la recepción de Gas Natural, según corresponda, dando aviso escrito a la otra Parte, de conformidad con los términos y condiciones del presente Contrato.

3.- Para ambas modalidades contractuales.

FUERZA MAYOR O CASO FORTUITO Y EVENTOS EXIMENTES.

Ninguna de las Partes será responsable frente a la otra por el incumplimiento de las obligaciones contraídas por ellos, incluyendo demoras, daños por pérdidas, reclamos o demandas de cualquier naturaleza, cuando dicho incumplimiento, parcial o total, se produzca por causas y circunstancias que se deban a un evento de Fuerza Mayor, Caso Fortuito o Eventos Eximentes.

Para los efectos de este Contrato se entiende por Fuerza Mayor o Caso Fortuito todo evento que pueda calificarse como tal según la ley colombiana, que sea imprevisto, irresistible y sin culpa de la Parte que invoca dicho hecho como eximente de responsabilidad. Igualmente, por Evento Eximente se entiende todo hecho o evento que se encuentre razonablemente fuera de control de la Parte afectada por dicho evento y cuyos efectos no son imputables a su culpa o imprudencia, pese a la oportuna diligencia y cuidado debidos por dicha Parte para prevenir o impedir su acaecimiento o los efectos del mismo.

La Fuerza Mayor o Caso Fortuito incluirá, entre otros y sin limitarse a ellos, los siguientes: (i) Actos de la Naturaleza deslizamientos de tierra, huracanes, inundaciones, avalanchas, rayos, terremotos, incendio, maremoto, naufragio, desastre en transporte terrestre, aéreo, férreo, fluvial o marítimo, que directa o indirectamente contribuyan o resulten en la imposibilidad de alguna de las Partes para cumplir con sus obligaciones. (ii) Actos de cualquier autoridad competente a nivel nacional, departamental o municipal, incluyendo leyes, decretos, resoluciones, órdenes, reglamentos, sentencias, acciones judiciales, órdenes judiciales, regulaciones, negación de la emisión, renovación o confirmación de permisos y licencias, que directa o indirectamente contribuyan o resulten en la imposibilidad de alguna de las Partes para cumplir con sus obligaciones. (iii) Actos de desorden civil incluyendo guerra, bloqueos, insurrecciones, sabotajes, embargos, motines, paros comunitarios, acciones de las fuerzas militares relacionados con o en respuesta a algún acto de desorden civil o de terrorismo, o cualquier otra circunstancias que surjan o que puedan ser atribuidas a guerra, declarada o no, que directa o indirectamente contribuyan o resulten en la imposibilidad de alguna de las Partes para cumplir con sus obligaciones.

Se consideran como Eventos Eximentes los siguientes: (i) La imposibilidad parcial o total para la operación y funcionamiento de las instalaciones y facilidades para la producción, manejo, transporte, entrega o recibo del crudo y/o productos, y de los ductos, carrotanques, botes o cualquier otro medio empleado para su transporte, así como de las conexiones o las instalaciones de cualquiera de las Partes, por actos malintencionados de terceros ajenos al control y manejo directo de cualquiera de las Partes y sin su culpa, como los ataques o sabotajes terroristas o guerrilleros o las alteraciones graves del orden público, entre otros, que directa o indirectamente contribuyan o resulten en la imposibilidad de alguna de las Partes para cumplir con sus obligaciones y (ii) Actos de desorden industrial incluyendo cesación ilegal de actividades y paro cuando esos actos contribuyan o resulten en la imposibilidad de cualquiera de las Partes para cumplir con sus obligaciones.

El cumplimiento de las obligaciones de este contrato afectadas por la Fuerza Mayor, Caso Fortuito o Evento Eximente se suspenderá durante todo el tiempo en que cualquiera de las Partes esté en imposibilidad de cumplirlas, total o parcialmente, por dichos eventos, siempre y cuando la Parte afectada haya dado aviso por escrito a la otra dentro de los cinco (5) días calendario siguientes al acaecimiento de los hechos, invocando las circunstancias constitutivas de la Fuerza Mayor, Caso Fortuito o Evento Eximente y toda la información necesaria para demostrar la ocurrencia del hecho, su irresistibilidad y sus efectos.

Una vez que la Parte afectada haya proporcionado la notificación por escrito respecto del hecho de Fuerza Mayor, Caso Fortuito o Evento Eximente, se suspenderá el cumplimiento de la respectiva obligación a partir del acaecimiento del respectivo hecho, de entregar o de aceptar la entrega de Gas, según corresponda, hasta el momento en que haya cesado la causa eximente de responsabilidad y superado el evento, y no se considerará que ninguna de las partes ha incumplido tales obligaciones frente a la otra durante dicho evento.

Si dentro de los diez (10) días hábiles siguientes al recibo del aviso o notificación, la Parte no afectada no acepta por escrito la existencia de un evento de Fuerza Mayor, Caso Fortuito o Evento Eximente se procederá de acuerdo con los mecanismos de solución de controversias previstos en este Contrato, sin perjuicio de suspender el cumplimiento de las obligaciones afectadas los plazos para el cumplimiento de las obligaciones afectadas. Si la Parte no afectada no manifiesta dentro del plazo el rechazo de la Fuerza Mayor, Caso Fortuito o Evento Eximente, se entenderá que ha aceptado la existencia de la eximente de responsabilidad mientras duren los hechos constitutivos de la misma.

La Parte que invoque la ocurrencia de un evento de Fuerza Mayor, Caso Fortuito o Evento Eximente deberá emplear sus mejores esfuerzos para subsanar la causa que dio lugar a su declaratoria, e informará por escrito dentro de los tres (3) días siguientes a la otra Parte la fecha y hora en que fue superado dicho evento y la reiniciación del cumplimiento de las obligaciones suspendidas.

La ocurrencia de alguno de los eventos previstos en esta cláusula no exonerará ni liberará en ningún caso a las Partes del cumplimiento de sus obligaciones causadas con anterioridad a la ocurrencia de los eventos a los que se refiere esta cláusula.

Ninguna de las partes tendrá derecho a beneficiarse con las disposiciones de la Fuerza Mayor, Caso Fortuito o Evento Eximente, en la medida en la que el cumplimiento se vea afectado por una o todas las siguientes circunstancias: (i) la Parte que invocó la Fuerza Mayor, Caso Fortuito o Evento Eximente no remedió la situación ni reinició el cumplimiento de las obligaciones afectadas con una diligencia razonable; o (ii) las condiciones financieras o económicas de cualquiera de las Partes, que incluirá, sin limitación, la capacidad del Vendedor de vender el Gas a un precio mayor o más ventajoso que el precio del Contrato, la capacidad del Comprador de adquirir el Gas a un precio menor o más ventajoso que el precio del Contrato, (iii) la pérdida de los mercados del Comprador o la incapacidad del Comprador de usar o revender el Gas Natural adquirido mediante el presente, excepto, en cualquiera de los casos constitutivos de Fuerza Mayor o, Caso Fortuito o Eventos Eximentes o (iv) la pérdida o el fallo en el suministro de Gas Natural al Comprador por fallas en las instalaciones de producción, tales como los pozos y/o las plantas de procesamiento y/o tratamiento o la drástica reducción de las reservas, excepto en cualquiera de los casos constitutivos de Fuerza Mayor, Caso Fortuito o Evento Eximente.

4.- Cláusula de Incumplimiento de Obligaciones que Garantizan Firmeza y Limitación de Responsabilidad.

4.1 El Vendedor o Comprador que incumpla una obligación de entregar o de recibir Gas garantizada con firmeza, según el caso, responderá e indemnizará los perjuicios derivados de su incumplimiento hasta por una suma que no excederá la cantidad determinada así:

4.1.1 Si el Vendedor incumple su obligación firme de entregar Gas en cualesquier Día(s), el Vendedor reconocerá y pagará al Comprador a título de indemnización una suma equivalente a una vez y media (1.5) el Precio del Gas Natural estipulado en la Cláusula ________ "Precio" de este Contrato.

4.1.2 Si el Comprador incumple su obligación firme de recibir Gas en cualesquiera Día(s), el Comprador reconocerá y pagará al Vendedor a título de indemnización una suma igual a la diferencia positiva, si existiere, entre el Precio de que trata la Clausula ____ de este Contrato y el precio que efectivamente haya recibido el Vendedor por la reventa de dicho Gas no retirado por el Comprador, teniendo en cuenta los ajustes por las diferencias razonables existentes entre los costos de transporte desde o hasta el/los Punto(s) de Entrega, multiplicada por la diferencia existente entre la Cantidad Contratada y la cantidad efectivamente recibida por el Comprador durante tal/tales Día(s), excluida la cantidad para lo cual no existe posibilidad alguna de venta; y (ii) las compensaciones, sanciones, penalidades o multas que el Vendedor deba pagar por el incumplimiento de obligaciones con garantía de firmeza que tuviere con terceros vendedores.

Para los anteriores efectos el precio de la reventa del gas no retirado por el Comprador éste será uno razonable de acuerdo al preaviso que el Comprador haya dado al Vendedor; las cantidades de Gas Natural no retirado por el Comprador, el término o duración del incumplimiento y _____________.

4.2 Las Partes expresamente acuerdan que la cantidad de que tratan los numerales 4.1.1 y 4.1.2 de esta cláusula no incluyen la reparación de los gastos, costos, tarifas, sanciones o cargos impuestos por un Transportador como compensaciones por variaciones de entrada o de salida o exceso de tasa horaria o desbalances que el Vendedor y/o el Comprador hayan podido haber causado por la falta de cumplimiento en las nominaciones y balance de dicho Transportador, pero el Vendedor y/o el Comprador incumplido, según el caso, será responsable de tales gastos, costos, tarifas, sanciones o cargos, si existieren, de conformidad con lo establecido en este Contrato. El pago de la suma que arroje tal diferencia desfavorable deberá realizarse dentro de los cinco (5) Días Hábiles siguientes a la presentación de la factura correspondiente por la parte afectada, la cual deberá contener la base sobre la cual se efectuó el cálculo de dicha suma.

4.3 La limitación de la responsabilidad de que trata esta cláusula no es aplicable en caso que el incumplimiento del Vendedor o del Comprador, según sea el caso, se deba a dolo o culpa grave del incumplido.

4.4 Ninguna de las Partes responderá frente a la otra por lucro cesante, daños indirectos, o interrupción o pérdida de negocios. En cuanto al lucro cesante y daños imprevisibles sólo responderán cuando el daño obedezca a dolo o culpa grave de conformidad con lo previsto en las leyes colombianas.

4.5 Las reparaciones técnicas y los mantenimientos periódicos o programados y racionamientos por Fuerza Mayor o Caso Fortuito, siempre que de ello se de aviso amplio y oportuno a la otra parte, no será considerado como un incumplimiento de obligaciones que garanticen firmeza.

4.6 Fuera de lo anteriormente estipulado las Partes expresamente renuncian a cualquier otra acción judicial o extrajudicial para la obtención y reconocimiento de indemnizaciones o compensaciones adicionales derivadas del incumplimiento de obligaciones "en Firme" por cualquiera de ellas.

III. CLAUSULAS SUGERIDAS PARA CONTRATOS DE TRANSPORTE DE GAS DE ACUERDO CON EL TERCER INFORME.

1.- Contratos Firmes o que Garantizan Firmeza.

OBJETO.- El Transportador se obliga a transportar Gas Natural del Remitente hasta por una capacidad máxima de transporte desde el Punto de Entrada hasta el Punto de Salida,, y el Remitente se obliga a pagar los Cargos del Transporte y disponer de dicha capacidad garantizada para el transporte de Gas Natural, sin interrupciones, durante un término de ____________ (años, meses o días), excepto en los días establecidos para mantenimiento y labores programadas por el Transportador, de conformidad con los términos y condiciones del presente Contrato.

PARAGRAFO.- El Transportador garantiza que cuenta físicamente con la capacidad de transporte para asumir y cumplir sus obligaciones contractuales firmes o que garantizan firmeza transportar el Gas Natural al Remitente.

2.- Contratos Interrumpibles.

OBJETO.- El Transportador se obliga a transportar Gas Natural del Remitente hasta por una capacidad máxima de transporte desde el Punto de Entrada hasta el Punto de Salida, y el Comprador se obliga a disponer de dicha capacidad garantizada para el transporte de Gas Natural, durante un término de ____________ (años, meses o días), reservándose las Partes el derecho de interrumpir, en cualquier momento y por cualquier razón, sea ésta causada o no por un evento de Fuerza Mayor, Caso Fortuito o Evento Eximente, sin responsabilidad alguna, la disponibilidad de la capacidad máxima de transporte o la entrega de Gas Natural para la utilización de dicha capacidad, según corresponda, dando aviso escrito a la otra Parte, de conformidad con los términos y condiciones del presente Contrato.

3.- Para ambas modalidades contractuales.

CAUSA EXTRAÑA.

Ninguna de las Partes será responsable frente a la otra por el incumplimiento de las obligaciones contraídas por ellos, incluyendo demoras, daños por pérdidas, reclamos o demandas de cualquier naturaleza, cuando dicho incumplimiento, parcial o total, se produzca por causas y circunstancias que se deban a un a causa extraña. Cuando el Transportador la invoque deberá demostrar que adoptó todas las medidas razonables que hubiere tomado un transportador según las exigencias de su profesión para evitar el perjuicio o su agravación. La causa extraña comprende la Fuerza Mayor o Caso Fortuito y los Eventos Eximentes.

Para los efectos de este Contrato se entiende por Fuerza Mayor o Caso Fortuito todo evento que pueda calificarse como tal según la ley colombiana, que sea imprevisto, irresistible y sin culpa de la Parte que invoca dicho hecho como eximente de responsabilidad. Igualmente, por Evento Eximente se entiende todo hecho o evento de que se encuentre razonablemente fuera de control de la Parte afectada por dicho evento y cuyos efectos no son imputables a su culpa o imprudencia, pese a la oportuna diligencia y cuidado debidos por dicha Parte para prevenir o impedir su acaecimiento o los efectos del mismo.

La Fuerza Mayor o Caso Fortuito incluirá, entre otros y sin limitarse a ellos, los siguientes: (i) Actos de la Naturaleza, deslizamientos de tierra, huracanes, inundaciones, avalanchas, rayos, terremotos, incendio, maremoto, naufragio, desastre en transporte terrestre, aéreo, férreo, fluvial o marítimo, que directa o indirectamente contribuyan o resulten en la imposibilidad de alguna de las Partes para cumplir con sus obligaciones. (ii) Actos de cualquier autoridad competente a nivel nacional, departamental o municipal, incluyendo leyes, decretos, resoluciones, órdenes, reglamentos, sentencias, acciones judiciales, órdenes judiciales, regulaciones, negación de la emisión, renovación o confirmación de permisos y licencias, que directa o indirectamente contribuyan o resulten en la imposibilidad de alguna de las Partes para cumplir con sus obligaciones. (iii) Actos de desorden civil incluyendo guerra, bloqueos, insurrecciones, sabotajes, embargos, motines, paros comunitarios, acciones de las fuerzas militares relacionados con o en respuesta a algún acto de desorden civil o de terrorismo, o cualquier otra circunstancias que surjan o que puedan ser atribuidas a guerra, declarada o no, que directa o indirectamente contribuyan o resulten en la imposibilidad de alguna de las Partes para cumplir con sus obligaciones.

Se consideran como Eventos Eximentes los siguientes: (i) La imposibilidad parcial o total para la operación y funcionamiento de las instalaciones y facilidades para el trasiego y transporte del Gas, así como de las conexiones o las instalaciones de cualquiera de las Partes, por actos malintencionados de terceros ajenos al control y manejo directo de cualquiera de las Partes y sin su culpa, como los ataques o sabotajes terroristas o guerrilleros o las alteraciones graves del orden público, entre otros, que directa o indirectamente contribuyan o resulten en la imposibilidad de alguna de las Partes para cumplir con sus obligaciones y (ii) Actos de desorden industrial incluyendo cesación ilegal de actividades y paro cuando esos actos contribuyan o resulten en la imposibilidad de cualquiera de las Partes para cumplir con sus obligaciones.

El cumplimiento de las obligaciones de este contrato afectadas por la Fuerza Mayor, Caso Fortuito o Evento Eximente se suspenderá durante todo el tiempo en que cualquiera de las Partes esté en imposibilidad de cumplirlas, total o parcialmente, por dichos eventos, siempre y cuando la Parte afectada haya dado aviso por escrito a la otra dentro de los cinco (5) días calendario siguientes al acaecimiento de los hechos, invocando las circunstancias constitutivas de la Fuerza Mayor, Caso Fortuito o Evento Eximente y toda la información necesaria para demostrar la ocurrencia del hecho, su irresistibilidad y sus efectos.

Una vez que la Parte afectada haya proporcionado la notificación por escrito respecto del hecho de Fuerza Mayor, Caso Fortuito o Evento Eximente, se suspenderá el cumplimiento de la respectiva obligación a partir del acaecimiento del respectivo hecho, de entregar o de aceptar la entrega de Gas, según corresponda, hasta el momento en que haya cesado la causa eximente de responsabilidad y superado el evento, y no se considerará que ninguna de las partes ha incumplido tales obligaciones frente a la otra durante dicho evento.

Si dentro de los diez (10) días hábiles siguientes al recibo del aviso o notificación, la Parte no afectada no acepta por escrito la existencia de un evento de Fuerza Mayor, Caso Fortuito o Evento Eximente se procederá de acuerdo con los mecanismos de solución de controversias previstos en este Contrato, sin perjuicio de suspender el cumplimiento de las obligaciones afectadas los plazos para el cumplimiento de las obligaciones afectadas. Si la Parte no afectada no manifiesta dentro del plazo el rechazo de la Fuerza Mayor, Caso Fortuito o Evento Eximente, se entenderá que ha aceptado la existencia de la eximente de responsabilidad mientras duren los hechos constitutivos de la misma.

La Parte que invoque la ocurrencia de un evento de Fuerza Mayor, Caso Fortuito o Evento Eximente deberá emplear sus mejores esfuerzos para subsanar la causa que dio lugar a su declaratoria, e informará por escrito dentro de los tres (3) días siguientes a la otra Parte la fecha y hora en que fue superado dicho evento y la reiniciación del cumplimiento de las obligaciones suspendidas.

La ocurrencia de alguno de los eventos previstos en esta cláusula no exonerará ni liberará en ningún caso a las Partes del cumplimiento de sus obligaciones causadas con anterioridad a la ocurrencia de los eventos a los que se refiere esta cláusula.

Ninguna de las partes tendrá derecho a beneficiarse con las disposiciones de la Fuerza Mayor, Caso Fortuito o Evento Eximente, en la medida en la que el cumplimiento se vea afectado por una o todas las siguientes circunstancias: (i) la disminución de la capacidad interrumpible o del transporte secundario en firme, a menos que el transporte primario en firme, también se disminuya; (ii) la Parte que invocó la Fuerza Mayor, Caso Fortuito o Evento Eximente no remedió la situación ni reinició el cumplimiento de las obligaciones afectadas con una diligencia razonable o debida; o (iii) las condiciones financieras o económicas de cualquiera de las Partes; (iv)

4.- Cláusula de Incumplimiento de Obligaciones que Garantizan Firmeza y Limitación de Responsabilidad.

4.1 El Transportador o el Remitente que incumpla una obligación garantizada con firmeza -diferentes de las variaciones de salida o de entrada, excesos de tasa horaria o desbalances-, según el caso, responderá e indemnizará los perjuicios derivados de su incumplimiento hasta por una suma que no excederá la cantidad determinada así:

4.1.1 Si el Transportador incumple su obligación firme de transportar Gas Natural del Remitente hasta por una capacidad máxima de transporte desde el Punto de Entrada hasta el Punto de Salida, en cualesquier Día(s), reconocerá y pagará al Remitente a título de indemnización una suma equivalente al valor de los Cargos de Transporte diarios por el término en que haya durado la falla del servicio, más el valor de las multas, sanciones o recargos que el incumplimiento le haya ocasionado al Remitente y el valor de las inversiones o gastos que el Rwemitente hay incurrido para suplir el servicio.

4.1.2 En caso de pérdida total o parcial del Gas Natural transportado, el monto de la indemnización a cargo del Transportador será determinado de conformidad con lo que estipula el artículo 39 del D.E. 01 de 1990 que subrogó el artículo 1031 del Código de Comercio.

4.1.3 Si el Remitente incumple su obligación firme de entregar y/o recibir el Gas Natural hasta por una capacidad máxima de transporte desde el Punto de Entrada hasta el Punto de Salida, en cualesquiera Día(s), reconocerá y pagará al Transportador a título de indemnización una suma equivalente a una vez y media (1.5) el valor de los Cargos de Transporte autorizados por la CREG.

4.2 La limitación de la responsabilidad de que tratan los numerales 4.1.1 y 4.1.3 de esta cláusula no es aplicable en caso que el incumplimiento del Transportador o del Remitente, según sea el caso, se deba a dolo o culpa grave del incumplido.

4.3 Ninguna de las Partes responderá frente a la otra por lucro cesante, daños indirectos, o interrupción o pérdida de negocios, salvo lo estipulado en el numeral 4.1.2 de esta cláusula. En cuanto al lucro cesante en los casos de los numerales 4.1.1 y 4.1.3 y daños imprevisibles, las partes sólo responderán cuando el daño obedezca a dolo o culpa grave de conformidad con lo previsto en las leyes colombianas.

4.4 Las reparaciones técnicas y los mantenimientos periódicos o programados y racionamientos por Fuerza Mayor o Caso Fortuito, siempre que de ello se de aviso amplio y oportuno a la otra parte, no será considerado como un incumplimiento de obligaciones que garanticen firmeza.

4.5 Fuera de lo anteriormente estipulado las Partes expresamente renuncian a cualquier otra acción judicial o extrajudicial para la obtención y reconocimiento de indemnizaciones o compensaciones adicionales derivadas del incumplimiento de obligaciones “en Firme” por cualquiera de ellas.

Special Circumstances, Exempting Events.

The concentration of Colombia’s gas supplies as well as the absence of substantial gas storage facilities contribute to making gas supply interruptions in Colombia market more frequent than in North America and Europe. In Colombia, both scheduled and unscheduled maintenance can disrupt the suppliers’ ability to deliver gas. These facts, combined with the lack of highly liquid secondary markets that could help parties to mitigate interruptions, makes it important for Colombian contracts to include terms to govern these foreseeable interruptions.

Clauses governing Special Circumstances and Exempting Events have, in Colombia, become terms that are used to accomplish a contract governance function similar to the Force Majeure clauses in the European and North American markets. In many of our conversations, industry participants point out that these clauses are of such significance that the Colombian market cannot function effectively without them.

We have already described how Exempting Events may be integrated with Force Majeure for Colombia to replicate the effect of the more expansive Force Majeure definition used in other markets. In addition, we recommend that a Special Circumstances clause be included in the standardized contracts adopted by the Colombian market, which allow disruption by either buyer or seller for a fixed number of days per contract year. We recommend that the maximum number of days allowed for interruption be limited to ten (10) days, and that the number of days allowed for these types of events should be equal for all participants in the industry across Colombia.

The historic level of production dependability appears to be approximately 95%, or higher. As we have emphasized above and in previous reports, utilizing a clause like Exempting Events too frequently will harm dependability and the reputation of the parties making such claims. Based on the high historic level of supply dependability, we make this recommendation.

Transportation Agreements

Our contracts review revealed a significant amount of variation among agreements entered into by the Transporters. The level of variation, in our view, is unusual when compared to transportation practices in other markets. As we have discussed in our other reports, the pipeline companies in Colombia are regulated in much the same fashion as in other regulated markets. However, upon closer review of the transportation agreements, it is apparent that terms are not consistent across the industry. Within the tariffs of the transportation companies are not only the rates allowed to be levied, but also other clauses which, if enforced, would make the industry operate in a more efficient manner. It is our recommendation that the Colombian transporters adopt business operations that are consistent with tariffs, and use the same definitions as the rest of the industry, particularly in relation to the following:

Firm Transportation. Transporters should adopt the same definition of "Firm" as all other participants in the market: both parties should be required to live up to this standard. Rates for this service should be known and consistently applied across the transportation systems.

Interruptible Transportation. As with the definition of Firm Transportation, the transportation companies should adopt the same definition of Interruptible Transportation as is previously outlined in this report. It is important that there be a clear distinction between firm and interruptible obligations, not only on behalf of the shippers, but by the transportation company, as well. As with gas supply, the role of interruptible transportation can and should play a significant role in the natural gas industry in Colombia. Interruptible transportation rates should be evenly applied across the transportation systems, and the rules associated with interruptibility should be clearly known to all parties.

Force Majeure. Our recommendation for Force Majeure and Exempting Events for Transportation Agreements is the same as for natural gas supply and marketing agreements.

Operating Issues. There should be a common enforcement of operating issues in the Colombian market. In particular, the regulations or tariff provisions relating to Quality and Pipeline Pressure should be enforced with consistency across both major pipeline systems. The tariffs of the companies contain allowances for these issues, and these allowable levels should be maintained by the industry and enforced by the pipeline companies.

Imbalances. Colombia is at some operational risk because it lacks the necessary infrastructure, like underground gas storage, to support its operational needs, particularly in periods of operational difficulties. In order to maintain operational integrity and ensure the proper functionality of the systems, all transportation companies should adopt clear and enforceable rules.

Informational Requirements. In our discussions with industry participants, we were told that operational information for the pipelines systems is often inaccurate and, in many cases, untimely. The current regulations have requirements regarding information that should be available to the market. Our recommendation is not that the transportation companies be required to provide “confidential” information to the industry. Rather, the transportation companies should provide to all market participants timely operational information relating to day-to-day capacity. Specifically, we recommend that the transportation companies adhere to the current policies and regulations and provide timely information, as follows:

- Operational data including:
    - Receipt and Delivery Point Volume Data
    - Operational Constraints on the Systems
- Information regarding the utilization of Firm Capacity
- Capacity Available for long or short term assignment
- Maintenance Issues

Information of this type is of vital importance to the operation of an open market, and will allow for a more efficient industry. This type of information is particularly crucial in a market that is transitioning to a standard operational and contracting environment.

Trading Hubs. In a market in transition, the ability to trade locationally can be valuable. It is our recommendation that the pipelines consider implementing policies that allow for physical trading to occur at “Hubs” or Pooling Points. This type of trading creates an environment with more transparency that will allow for more efficient use of available gas and pipeline resources.

Small and Potential Producers and Developing Fields

In our interactions with the market participants in the Colombian natural gas sector, we have heard a consistent theme from what are referred to as the Small and Potential Producers. It is the consensus among this group that the new regulations and policies that are being developed in the process of this and the Auctions and Secondary Markets consultancies may not be appropriate for them. Indeed, their particular concerns have not been studied or reflected in our analyses. It is our understanding that this group of market participants will not be subject to the new regulations in the same manner as the larger and more established participants in the Colombian market. We understand that there will be specific rules under which these companies will operate. It is up to the Ministry of Mines and Energy and the CREG to develop and administer these market rules and regulations.

Conclusions

Contractual commitments in any market need to be clear, enforceable, and balanced among the parties. Throughout this process, our team has sought to understand Colombia's unique operational requirements and to make suggestions compatible with those to allow a smooth transition to a freer, more open, and more efficient market. Significant challenges remain, but many of these can be overcome by progressive regulatory reform and proactive acceptance of a new operating environment by the industry participants. In order for the transition to an open market to begin, a whole series of changes by the regulator and the industry will be required. The government must take action to promote a regulatory policy that allows for the transparent trade of natural gas, and enact policies that make available the highest level of natural gas to the market. From the industry, it is imperative that contracting policies balance obligations appropriately among all parties, and that buyers, sellers, transporters and other commercial agents face a level playing field. In order to accomplish this, certain terms must be standardized across the industry.

A “Firm” contract should be firm in reality and not in name only. Interruption should be limited to only those causes excused by Force Majeure and Exempting Events, as described elsewhere in this report. We recommend the Force Majeure and Exempting Events clause we have discussed in this report because it clearly meets all of the needs of the market in Colombia. Certain additions to the clause, or the Transaction Confirmation, can deal with issues such as the maximum length for a Force Majeure or Exempting Event. This type of language exists in standard agreements, as we have shown in the EFET General Agreement. This language could be of value to the Colombian natural gas industry.

“Interruptible contracts” can be valuable to the market as part of a portfolio of producer gas offerings. According to nearly every industry group, firm gas is a priority for the Colombian market. Our suggested portfolio approach allows buyers with the most critical needs to acquire firm gas while still permitting producers to have the flexibility they need in face of normal supply fluctuations.

All of the sectors of an integrated natural gas market must be working well to be successful. It is our view that having contracts with common or standard terms will start the market on the path to success. Beyond standardization of terms, there must also be a free flow of information relating to all aspects of the market, including supply, demand, transportation and pricing. The industry must be prepared and willing to share information in order to bring maximum value and consistency of performance to the market. We believe that the adoption of all of the terms and activities we have offered through this process will get the Colombian market moving in the right direction and that all participants will benefit.

Appendices

Appendix "A"	"Law and Economics"
Appendix "B"	Suarez Zapata Partners Comments and Analysis on Colombian Law
Appendix "C"	EFET Annex Documents
Appendix "D"	Historical Prices at Henry Hub and La Guajira