



FEDERAL ENERGY REGULATORY COMMISSION

# 2009 Analysis of Physical Gas Market Transactions

Using FERC Form 552 Submissions

Item No: A-3  
December 16, 2010

Mr. Chairman, Commissioners. Today I am pleased to present the Office of Enforcement's analysis of physical gas market transactions for 2009, using FERC Form 552 submissions.

## FERC Form 552

- Collects data on physical gas purchases and sales volumes
- Collects data on market participants that bought or sold more than 2.2 Trillion Btu of physical gas a year

Order No. 704 had its genesis in the Energy Policy Act of 2005, where section 23 of the Natural Gas Act authorized the Commission "to facilitate price transparency in markets for the sale or transportation of physical natural gas in interstate commerce." On December 26, 2007, the Commission issued Order No. 704, which imposed an annual reporting requirement on certain natural gas market participants.

Last year, the Commission began collecting information in its "Annual Report of Natural Gas Transactions" (Form 552) to shed light on the use of published price indexes by the gas industry and to better understand the fixed-price transactions that contribute or could contribute to published monthly and daily gas price indexes.

Form 552 collects information from market participants that sold and purchased 2.2 million MMBtu or more of physical gas in the reporting year, roughly the amount of gas used by a 90-MW peaker power plant running everyday for 9 hours.

# FERC Form 552

[cont.]

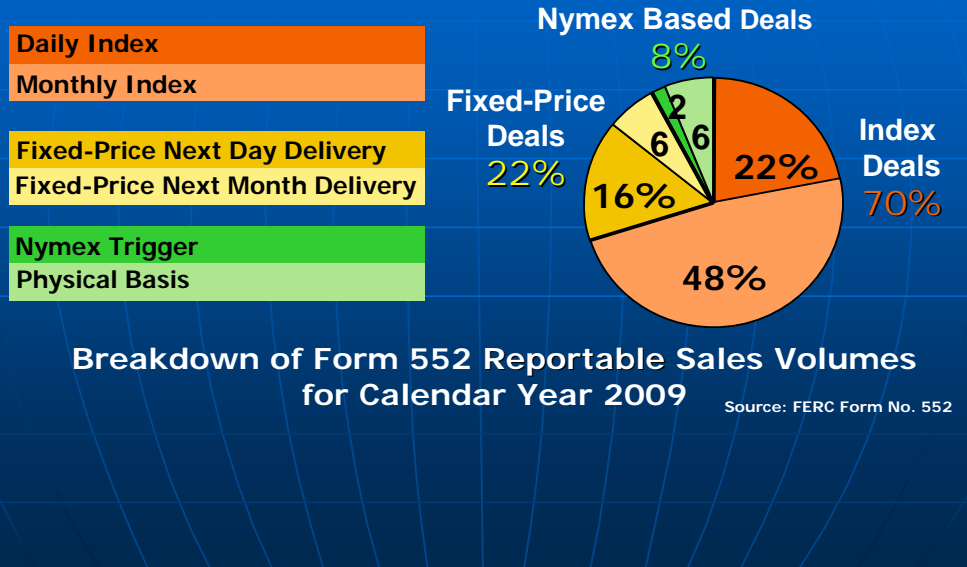
- **Reports total volumes for the following transactions:**
  - **Published daily or monthly indexes**
  - **Fixed-priced next-day delivery**
  - **Fixed-priced next-month delivery**
  - **Nymex trigger agreements**
  - **Physical basis**

Form respondents report aggregate transactions that use published daily and monthly indexes, aggregate transactions for fixed-price next-day or next month delivery that could be used in an index and certain monthly transactions that are based on Nymex trigger agreements and physical basis.

This information helps Market Oversight and the public understand the market's level of reliance on published price indexes. It also helps clarify the types of participants that contribute to and rely on those indexes for pricing information. Additionally it allows us to understand the size of the wholesale market for physical gas. The data collected for 2009 shows that the respondents who reported fixed price transactions to index publishers accounted for just 11% to 13% of the total gas volumes reported on by Form 552 respondents. Thus, the data indicates that index publishers are deriving their index prices from a relatively small amount of gas volumes. That a relatively small amount of gas volumes are being used to determine index prices may be a matter of some concern as a number of indexes are used to set the price of physical and financial gas contracts.

Form 552 does not attempt to catalog all possible kinds of physical market transactions, although we do think we are capturing a large portion of the market. Because the data are aggregated by company or company subsidiary, it is not a tool to uncover confidential commercial information.

# Index Volumes Dominate Transactions



For calendar year 2009, we received Form 552 submissions from 700 respondents, which included corporate subsidiaries and which accounted for 2,057 companies. Respondents reflected the entire spectrum of the gas industry, including producers, marketers, LDCs, generators and industrial customers.

Total reported physical gas market transactions amounted to almost 56 Tcf, about 2.5 times domestic marketed production in 2009 of 22 Tcf. Reported transactions are a multiple of the physical gas market because the same gas can be resold several times between producers and consumers. For example, if a producer sells to a marketer who sells to an end user, the same gas supply has been involved in two transactions.

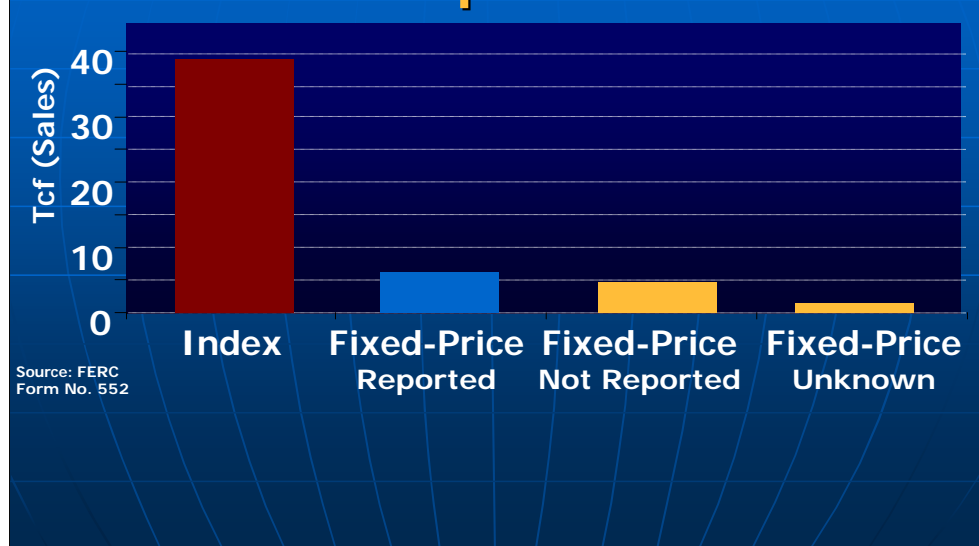
Our analysis of the 2009 data shows that:

Transactions at a published index price accounted for 70% of reported volumes, and more than two-thirds of those transactions were based on next-month indexes.

Taken together, fixed-priced transactions from bilateral deals for next-day and next-month gas accounted for 22% of total volumes. And of those, daily fixed-price deals are the majority.

Transactions based on Nymex, such as Nymex trigger and physical basis agreements, represented about 8% of reported volumes.

## Index Prices Derived from Low Amount of Fixed-price Volumes



As noted earlier, Form 552 requires market participants that sold and purchased 2.2 million MMBtu or more of physical gas during the reporting year to report total volumes for: (1) transactions that used published daily and monthly index prices, (2) transactions for fixed-priced next-day or next month delivery that are reported to index publishers and used by publishers in an index, (3) transactions for fixed-priced next-day or next month delivery that are not reported to index publishers, and (4) certain monthly transactions based on Nymex trigger agreements and physical basis.

The Form 552 data for 2009 indicates that about one-fifth of respondents reported the prices for their fixed-price transactions to index publishers in 2009. These respondents accounted for about 6 Tcf of the volumes reported through Form 552. Nearly 5 Tcf of the volumes reported through Form 552 were fixed-priced transactions that were not reported to index publishers. According to the Form 552 data, approximately 39 Tcf of the volumes reported through Form 552 were transacted at index prices. The reporting status of a statistically insignificant portion of fixed-price volumes was unclear.

By recasting the earlier pie chart in terms of index-based and fixed-price transaction volumes, we can see that index publishers are deriving their index prices from a relatively small amount of gas volumes. With at least 6 Tcf of the market setting the price for 39 Tcf of the market, this means that for every MMBtu reported to an index publisher, more than 6 MMBtu rely on that price. This estimate is aggregated on a national basis, and the leverage of index volumes on fixed-price volumes will vary from point to point. In addition, as the largest market participants generally report to index publishers, the top 10 sellers represent 55% of the 6 Tcf reported to index publishers.

# Conclusions

- Gas market sales and purchase volumes in 2009 were at least 2.5 times marketed production.
- Form 552 provides information on who the largest participants are and details common transactions by buyers and sellers.
- Most physical transactions are based on index prices.
- Index prices are formed from a relatively small volume of fixed-price transactions.

In conclusion, Form 552 shows the approximate size of the U.S gas market. Almost 56 Tcf of physical gas market transactions occurred in 2009, 2.5 times the volume of gas produced.

Form 552 provides information on which the largest participants are and details common transactions by buyers and sellers. For example, the top 10 gas sellers accounts for 33% of total reported volumes. Also, monthly and daily index sales accounted for the majority of total reported volumes.

Finally, the data indicate that index publishers are deriving their index prices from a relatively small amount of gas volumes. This is added information to the market, advances the goal of price transparency and provides a better understanding of the formation of price indexes. However, since the data are aggregated nationally, the actual leverage of index volumes on fixed price volumes by trading hub is not captured by the data.



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We would be happy to answer any questions.