Oil and Gas Valuation Subcommittee

Status Report

The subcommittee has been tasked to study -

whether published gas index prices are a viable measure of value for federal gas royalties not sold at arm's length

Royalty Policy Committee
Denver, Co
May 10, 2007

Published Gas Index Prices

Index – a ratio derived from a series of observations and used as an indicator

Several price reporting publications compile daily and monthly price surveys - Indexes

Prices are collected firsthand by reporting publications from actual buyers and sellers for deliveries into pipelines

The market sources provide the delivery point, price, volume, source, trade date, start & end flow dates, and must certify that they are making a good faith effort to report completely

Price indexes are based on original reporting

The Market Environment

The number of transactions reported to the price publications continues to increase – more and more trades are being reported. The open interest in the NYMEX contract reflects this as well. The markets do not seem to have any problems buying and selling gas – the confidence level in the indexes is high. Most markets have adequate liquidity; the common perception is that liquidity continues to increase.

There has also been a tremendous increase in the amount of electronic trading – primarily through Intercontinental Exchange (ICE) – of futures and options. ICE is an electronic trading system that provides liquidity and transparency for both buyers and sellers at hundreds of points and under numerous trading arrangements (daily, monthly, longer terms, basis trading, etc).

Commercial Transaction

Published index prices are used extensively for commercial transactions as the basis for valuation.

These contracts recognize the basic integrity of index pricing. Adjustments are included to account for transportation and processing costs.

Many contracts use a combination of published data based upon first-of-month and daily pricing.

However, some subcommittee members feel that, index prices cannot be used, in isolation, to value production at the lease. Other factors in the valuation equation should include transportation and processing adjustments.

The Minerals Management Service

The MMS also uses the indices as a starting point for valuation

- Purchasers of Federal royalty-in-kind production for both the onshore and offshore program submit bids with decrements or increments from the offered pipeline index
- The Indian gas valuation regulations utilize an index zone price and a proxy for transportation
- In the current Federal gas valuation regulations, the second benchmark notes “other reliable public sources of price or market information”

Currently, the MMS is developing a strategic business plan that incorporates the goal of early valuation certainty and is considering expanding regulatory improvements from recent valuation rulemakings to older product valuation regulations.

<u>Industry Has Long Advocated The Use Of Index Valuation</u>

Comments received about the proposed 2004 Federal Gas Valuation Regulations include:

A letter signed by representatives of American Petroleum Institute, Independent Petroleum Association of America, Domestic Petroleum Council and U.S. Oil and Gas Association stated (in part) – *Indexing for gas valuation should be a top priority for MMS rulemaking. Industry urges the MMS to revisit the gas negotiated rulemaking effort and reexamine the 1995 consensus report.* (09/21/2004)

ChevronTexaco stated (in part) – *ChevronTexaco supports revising the current gas rule to rely on index prices to value gas not sold at arm's length. (09/21/2004)*

The Council of Petroleum Accountants Societies (COPAS) stated (in part) – *The usage of published natural gas indices and location differentials for gas not sold under arm's length contracts should be pursued. 09/07/2004*

The States' Concerns

The State and Tribal Royalty Audit Committee (STRAC) also commented at that time – *the MMS has an excellent opportunity to change the regulations, to rewrite that affiliate resale or some other tracing method be used to value lessees royalty*. *Due to the complexity and historical failure of REGNEG, we do not support the use of an index pricing methodology*.

One state has a concern about a zone pricing approach with an index pricing basis.

For much of this state's gas production there is the option to flow to different markets. These markets have different demand structures, the prices do not move in tandem and can vary widely from month to month. For this reason, the state believes that index proxy for value would miss the mark and fail to represent the actual value for Federal gas produced.

Rockies Pipelines vs. NYMEX

Another state believes that the arm's-length-gross proceeds of the producer or its affiliate is preferable to index pricing.

At a panel presentation, a representative from Platts said the historical spread between the Rockies and the Mid-Continent is almost $3.00 while the transportation component is about $1.00

For example:

The May 2007 FOM Henry Hub price was $7.51
While the Colorado Interstate Gas index was $4.59

This state feels there is simply too much of a disconnect between the Rocky Mountain index prices v. NYMEX, too much difference that is not transportation.

Louisiana Proposal

Where index pricing is used to value non-arms-length sales, that index price should be no less than the high end of the averaged daily or month-forward pricing index range as published for each liquid market index point for volume flowing to each such index point from the producer/seller and affiliate.

However, the industry felt the high end of a range is unfair – and that no one can or should be required to pay royalty on the highest reported transaction used to calculate the market value.

FERC Proposed Rulemaking

Currently, the MMS is not configured to efficiently unravel transportation and location components of Federal gas production as adjustments to index prices, where bundled transportation services make it difficult to accurately determine actual costs.

MRM is not currently set up to handle unraveling these costs to construct a proxy for Federal gas valuation as it does for the Indian gas valuation production.

FERC recently published a notice of proposed rulemaking to facilitate price transparency in natural gas markets. The rulemaking proposal will require the intrastate pipelines to post daily capacities. The information that would be required to be reported will get the MMS closer to being able to construct meaningful location differentials for federal gas production

From the notice – “These revisions would facilitate price transparency in markets for the sale of physical gas in interstate commerce” and “to assess the importance of index pricing in the market, and to determine the size of the fixed –price trading market, which forms price indices”

Commodity Future Exchange Commission

This month the Commodity Future Exchange Commission is seeking to enforce a subpoena on Platts to supply trade information used in calculating the index price of natural gas. Platts is resisting. This is a non-public investigation, but more than likely it stems from the alleged trading activity by Energy Transfer Company at the Houston Ship Channel that was detailed last fall in the Gas Daily and was noted in Dan Riemer's November 2006 presentation.

In the footnotes of the subpoena, I counted 25 actions by the CFTC since 2002 against market participants for allegedly manipulating the prices and/or false reporting of prices to the index providers.

It would appear that despite assurance to the contrary, the accuracy of the indices is not a settled matter. That said, improvements to energy market oversight, including provisions in EPAct 2005 giving FERC broader authority are providing greater confidence in the integrity of energy markets.

The Challenge

If the Indexes represent market value at a stated location, then the task becomes:

Can index prices be used as one variable in the valuation equation even a starting point?

How are premiums and discounts to be applied?

What is the best way to treat transportation and processing which are important components in the marketing of gas production

Perhaps the rule should be crafted on a regional basis

A regional analysis of the number and relative proportion of the non-arm's-length sales volumes to arm's length sales may help define the scope of Federal gas valuation challenge.