

Fair Return and Value Marketable Condition/Index Price Update

September 13, 2018

Updated Index Pricing Recommendation

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Marketable Condition/Index Price Update

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February, 2018 recommendation to pursue rulemaking for index pricing for federal gas

Utilized Indian approach as broad basis for this approach

Recommendation was created without consideration of other marketable condition factors

Updated approach incorporates specific elements of valuation as well as alternative index pricing approaches

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Recommendation

Pursue rulemaking to define Gas Index Pricing Option with a Marketable Condition Concept

Key factors to be addressed by this rule would be:

- The concept will have valuation options. The level of complexity will be determined by the design of the model.
- A standardized average single (per defined geographic area) price acceptable to both industry and DOI/ONRR
- Calculated (by ONRR) from generally accepted index price publications or other acceptable market-sensitive source
- Apply price to wellhead (or royalty measurement point) MMBTUs
- Incorporate reasonable geographically sensitive transportation deductions
- Apply price to all Federal gas sales types

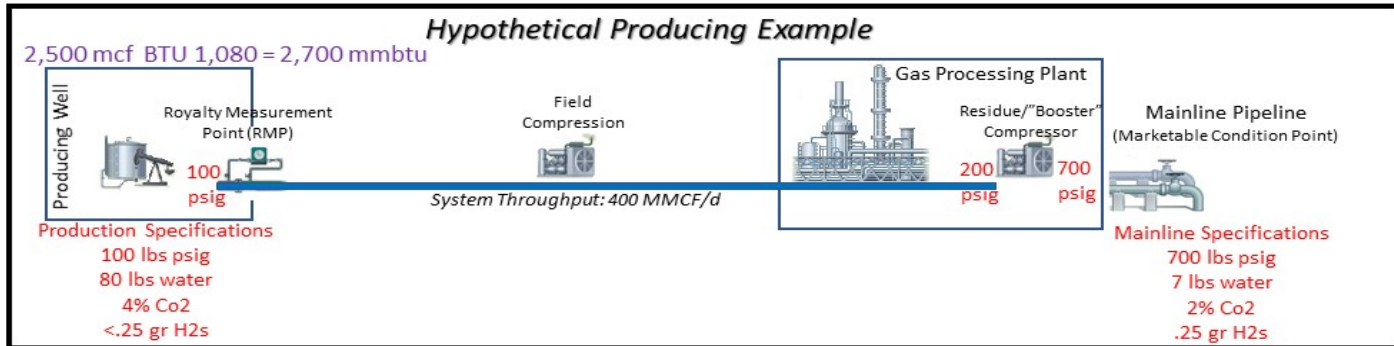
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Background

- General support among Payors for Index Pricing concept
- Potential to resolve many Marketable Condition issues
- Index Price provision contained within repealed 2017 Federal Valuation Rule was not received well by Payors
 - The highest reported price was unachievable and reflected index points not representative of how the gas was actually marketed;
 - Transportation cost deductions were unreasonably low; and
 - The resulting price could only be used for non-arms-length sales type

Gas Index Pricing Options – August 2018



Required Valuation Components

A. Market Index Price \$3.75/mmbtu

B. Average Field Transportation (\$0.35/mmbtu)

C. Average Disallowed System UCA: 55%

D. BTU Bump Factor (from Table, based on BTU) 4%

E. Simple Published Price (A – (B * (1-C)) = \$3.5925

F. Marketable Condition Standardized Cost Table (see below)

Field Compressions	Rate per MMBTU	Boosting Compression	Rate per MMBTU	Dehydration	Rate per MMBTU	CO2 Treating	Rate per MMBTU	H2S Treating	Rate per MMBTU
0-100 psi	\$0.020	0-100 psi	\$0.005	100,000	\$0.020	0-.5%	\$0.020	.00-.005 gr	\$0.005
101-200psi	\$0.025	101-200 psi	\$0.010	200,000	\$0.025	.6%-1.0%	\$0.025	.006-.01 gr	\$0.075
201-300psi	\$0.035	201-300 psi	\$0.020	300,000	\$0.035	1.0%-1.5%	\$0.035	.01-.015 gr	\$0.085
301-400psi	\$0.040	301-400 psi	\$0.025	400,000	\$0.040	1.6%-2.0%	\$0.040	.01-.015 gr	\$0.090
401-500psi	\$0.045	401-500 psi	\$0.030	500,000	\$0.045	2.1%-2.5%	\$0.045	.015-.02 gr	\$0.095
501-600psi	\$0.050	501-600 psi	\$0.035	600,000	\$0.050	2.6%-3.0%	\$0.050	.021-.03 gr	\$0.100
	\$0.050	+	\$0.030	+	\$0.040	+	\$0.040	+	\$0.00 = \$0.16

Note: All of the Required Valuation Components to the right plus the elements of the MC Cost Table must be calculated or negotiated by the RPC Team(s)

Valuation Options

- 1A**

Simple ONRR Published Price With BTU Bump

Formula: Volume X E X (1.0 + Bump)

2,700 X \$3.5925 X 1.04 = \$10,087.74

X .125 Royalty Rate

\$1,260.97 ONRR Royalty

1B

Simple Industry Calculated Price With BTU Bump

Formula: Volume X (A – (B X (1-C)) X (1.0 + Bump))

2,700 x (\$3.75 – (\$0.35 x 45%)) x 1.04 = \$10,087.74

X .125 Royalty Rate

\$1,260.97 ONRR Royalty

2

Calc'd Price using Standardized Table w/ Bump

Formula: Volume X (A – (B - F) X (1.0 + Bump))

2,700 x (\$3.75 – (\$0.35 - \$0.16)) x 1.04 = \$9,996.49

X .125 Royalty Rate

\$1,249.56

Optional

3

Gross Proceeds

Calculate value and allowances per current regulations