

APPENDIX A

Exhibit B

DELIVERABLE SUPPLY ANALYSIS

I. Natural Gas Cash Market Overview

According to the U.S. Energy Information Administration (“EIA”), approximately 25% of the energy used in the U.S. in 2011 came from natural gas.¹ Natural gas has an abundant supply in the U.S. and highly liquid physical and financial markets that are regulated at both the federal and state level. The Environmental Protection Agency regulates aspects of natural gas mining, the Federal Energy Regulatory Commission (“FERC”) regulates the interstate transmission and sale of natural gas, state level governments or agencies regulate intrastate commerce, and the CFTC regulates the majority of natural gas financial markets. Price reporting agencies publish physical transaction price and publish indexes daily, which results in a highly transparent price of physical natural gas, which is unique amongst commodities.

Commercial energy companies, such as Exxon Mobile, Chesapeake Energy and BP, extract natural gas from wells drilled across North America and process it (clean it of impurities) so it can be transported from production areas to consumption areas across a series of interstate and intrastate pipelines. Typically, natural gas producers sell to pipeline owners and operators, who sell to local distribution companies, who then sell to the end users and consumers. Natural gas extraction and production occurs every day but the demand fluctuates by season. To meet the seasonal demand needs, natural gas is stored during summer months and withdrawn to meet increased demand during the winter months. Like all other commodities, natural gas is the same basic product at all U.S. locations and can be injected into a pipeline in one geographic area to fulfill a delivery obligation in a different geographic area.

There are over 40 different natural gas market centers, or hubs, across the U.S. where thousands of market participants can buy and sell natural gas 24 hours a day, 7 days a week. The majority of physical natural gas transactions occur the last week of every month during what is called bid week. This is when consumers of natural gas make purchases to take delivery during the entire following month and producers sell the majority of their production. Consumers and producers also transact for daily delivery during a month to meet their balancing needs.

¹ http://www.eia.gov/energyexplained/index.cfm?page=natural_gas_use

Participation in the physical natural gas cash market is robust and made up of a diverse group of fully integrated natural gas companies, producers, natural gas pipeline companies, gas and electric utilities, storage operators, and marketers. Most market participants simultaneously engage in transportation, trading, storage, and other activities at multiple hubs in the U.S. where all physical natural gas hubs are intertwined and linked together by the interstate and intrastate pipeline system. Market participants report the price and volume of gas for each transaction to price reporting agencies who publish the data daily. Market participants hedge the risk associated with participating in the physical natural gas market with a variety of financial derivative products.

Fixed Price Contracts

Natural gas market participants use fixed price natural gas contracts to hedge risk associated with cash market natural gas exposure. The buyer of an outright or fixed priced transaction pays a fixed price to receive a floating price. For example, a buyer of ICE Henry Hub LD1 would pay a fixed price to receive a price equal to the monthly last settlement price for the NYMEX Natural Gas contract (“NG”). The fixed price contract allows the buyer to manage risk related to the NYMEX NG contract, which is priced based on delivery at the Henry Hub in Louisiana.

Basis Contracts

In the natural gas market, a basis contract represents the difference in the price of gas between two distinct delivery points. Basis transactions play an important price discovery role in the natural gas market, and serve to assign value to natural gas at a specific location for the coming months.² Market participants use basis contracts to hedge the difference between the price of natural gas at the Henry Hub in Louisiana (LD1) and the price of gas at another geographic location. The difference between the price of gas at a basis location and the Henry Hub is often referred to as a basis risk, which is a factor of transportation costs, weather, and demand. Basis contracts allow market participants to manage this risk. The seller in an ICE basis transaction receives a fixed price based on the monthly last settlement price for the NYMEX NG plus or minus a fixed basis differential, and pays the buyer the monthly published index price at the contract’s geographic location.³ ICE will use the monthly price published in Platt’s “Inside FERC Gas Market Report” for the U.S. natural gas delivery locations referenced below.

Index Contracts

² Sturm, 57.

³ Sturm, 56.

An index contract represents the difference between the monthly index price and daily index price at the same delivery location. The buyer in an index transaction pays the published monthly index price at the contract's geographic location and receives the published daily index price at that geographic location. In determining the final settlement, ICE will use the monthly price published in Platt's "Inside FERC Gas Market Report" for the U.S. natural gas delivery locations referenced below. For the daily index assessment, ICE will use the daily price published in Platt's "Gas Daily, Daily Price Survey."

Swing Contracts

A swing contract references the published daily index price for gas at a specific delivery location. Market participants use swing contracts to hedge physical exposure on a day-to-day basis.⁴ The gas buyer in an ICE swing transaction pays a fixed price and receives the average of the daily index prices for the month at the contract's geographic location. ICE will use the daily price published in Platt's "Gas Daily, Daily Price Survey."

II. Price Sources

Platts North American Natural Gas Index Summary

Platts publishes benchmark price assessments for daily and monthly natural gas markets and its price reporting is well known in the industry as fair and accurate. The daily and monthly indexes Platts publishes are based on original reporting that is collected by Platts from actual buyers and sellers. Pursuant to the FERCs' guidance, firms provide price reports to Platts from noncommercial departments separate from the trading activity. Entities reporting to Platts are required to certify that data submitted is complete and accurate, and make a reasonable effort to inform Platts of any errors or omissions in the data submitted. Platts also employs a comprehensive compliance review of submissions and its methodologies to ensure the published prices accurately reflect physical deals.

Reports submitted to Platts are required to specify the delivery point, or market center location, as defined by Platts in its North American Natural Gas Methodology and Specifications Guide, as well as the price, volume, source, buy/sell indicator, trade date, start and end flow dates, and counterparty and intermediary names. Platts performs a number of tests to analyze the quality and completeness of the reports received and determines any outlying or anomalous transactions that may require exclusion.

For the monthly bid week index (Inside FERC), each day of bid week, entities report all fixed-price physical deals negotiated that day for delivery throughout the next month. Entities also report physical deal when the basis value is negotiated on one of the first three days of bid

⁴Sturm, 83.

week and the price is set by the final closing price of the NYMEX NG futures contract plus or minus the basis value. The monthly index price is the volume-weighted average at delivery points where there is robust trading activity and transaction data available. In circumstances where trading activity at a point is too limited to use a volume-weighted average, Platts will perform an assessment to determine the index price. In making an assessment of thinly traded points, Platts uses other available information to make a determination as to whether the reported transactions reflect a representative value at the trading point compared to more liquid locations. For the daily price index (Gas Daily) entities report each business day all fixed-price physical deals completed prior to the 11:30 am CPT the North American Energy Standards Board (NAESB) nomination deadline for next-day delivery. Platts does not perform assessments in determining daily index prices and relies only on the volume-weighted average of deals reported at the delivery point. Platts' pricing methodology is publically available on its website at: http://www.platts.com/IM.Platts.Content/methodologyreferences/methodologyspecs/na_gas_methodology.pdf.

III. Deliverable Supply Analysis

In its November 18, 2011, final position limit rulemaking, the Commission defined deliverable supply as “the quantity of the commodity meeting a derivative contract’s delivery specifications that can reasonably be expected to be readily available to short traders and saleable by long traders at its market value in normal cash marketing channels at the derivative contract’s delivery points during the specified delivery period, barring abnormal movement in interstate commerce.”⁵

ICE determined the limit of gas flow at the physical points that make up a hub is the best measurement of supply readily available for delivery. It represents a knowable, standardized measurement of only the supply of natural gas that can be delivered at the contract’s delivery points, and excludes excess supply (gas in storage, in the pipeline or otherwise available for purchase at another location) that could never be delivered.

In April 1992 the Federal Energy Regulatory Commission (“FERC”) issued Order 636 to unbundle the buying and reselling of natural gas by pipeline operators and instead promote the expansion of market centers or hubs to increase transparency and efficiency in trading natural gas and capacity.⁶ Today, hubs provide an active wholesale marketplace where producers and retailers execute a variety of natural gas transactions to serve local distribution companies and other customers. Transactions range from end-users obtaining capacity to move the natural gas

⁵ 17 CFR 1,150-51 (2011), <http://www.cftc.gov/ucm/groups/public/@lrfederalregister/documents/file/2011-28809a.pdf>.

⁶ 18 CFR 284 (1992), <http://www.ferc.gov/legal/maj-ord-reg/land-docs/restruct.asp>.

to shippers acquiring or renting capacity to “park” or store their excess gas in the pipeline for sale when demand increases. Hubs are comprised of many types of physical assets, participants and transactions, and it is the utilization of capacity that facilitates the needs of each to make the hub market liquid and efficient.

A pipeline reports its capacity daily through FERC order 720 mandated informational postings.⁷ If a segment of the pipeline is unavailable, the report would reflect the decreased capacity at the location (for example, common seasonal capacity changes occur as some pipeline segments are taken off-line for maintenance during low-demand periods). Recent expansions of the US natural gas network have increased capacity, allowing supply from previously unreachable areas to make its way across the U.S. Additionally, advancements in shale gas extraction and production have resulted in significant increases to the supply of natural gas and allowed the US to become a global exporter of the commodity.⁸

Retail gas providers can only provide as much natural gas as the capacity of a pipeline will allow. Therefore, the ability to satisfy end user demand is primarily constrained by the physical capacity of the pipeline infrastructure itself. To give one infamous example, in the winter of 2013-14, prices of natural gas in the Northeast significantly increased due to insufficient capacity to meet the demand of electricity generators and residential users. While an end-user in the Northeast may have been able to purchase natural gas at another location, the gas could not have been delivered given the shortage of capacity.

Given the Exchange’s natural gas contracts are based on hubs, and capacity plays an integral part of the efficiency and liquidity of those hubs, ICE determined that a hub’s capacity represents the best estimate of the quantity of natural gas that could reasonably be expected to be readily available to short traders and saleable by long traders at its market value at the contracts’ delivery points.

To calculate deliverable supply, ICE used data from Bentek. As a subsidiary of Platts, Bentek’s data for natural gas hubs reflects the makeup of Platt’s indices. ICE used the average daily capacity by pipeline for 2012, 2013 and 2014 from Bentek’s website. The data had several flow location types per pipeline; ICE took as deliverable supply the larger of either average daily capacity for *receipt* OR average daily capacity for *delivery* flow locations for a hub.

⁷ 18 CFR 284 (2008), <http://www.ferc.gov/whats-new/comm-meet/2008/112008/G-1.pdf>.

⁸ Natural Gas Market Centers: A 2008 Update,” U.S. Energy Information Administration (EIA) (April 2009), http://www.eia.gov/pub/oil_gas/natural_gas/feature_articles/2009/ngmarketcenter/ngmarketcenter.pdf.

IV. Transco Leidy Cash Market Overview and Position Limits

The Transcontinental Gas Pipeline Company (“Transco”) transports natural gas through an interstate transmission pipeline system, extending from South Texas to New York City.⁹ Transco, Leidy Line receipts covers the downstream region from the Leidy/Wharton storage facilities in Clinton and Potter counties, Pennsylvania to Transco’s station 505 in Hunterdon County, New Jersey.¹⁰

For the Exchange’s deliverable supply analysis it reviewed three years of Bentek data for receipt points associated with Transco’s Leidy Line published by Bentek. As stated above, in November 2008, FERC issued Order No. 720 finalizing the requirement for interstate pipelines to publish certain volume information, including operational capacity.¹¹ FERC’s order used the NAESB definition of operational capacity, which is: “[t]he capacity could be scheduled at (or through) the identified point, segment or zone in the indicated direction of flow.”¹² Transco’s Leidy Line runs through Clinton and Potter counties, Pennsylvania and Hunterdon County, New Jersey. The Exchange downloaded Transco Pipelines’s capacity data by day in those counties from Bentek, sorted it for receipts, and summed by capacity. The three year average of capacity by day was 7.17 BCF per day of capacity in the Leidy Line.

For the Transco Leidy Future contracts, the Exchange set the spot month speculative position limit at 25% of the average monthly capacity for the Leidy Line. Given daily operational capacity of 7.17 BCF and using a typical 30-day month, monthly operational capacity for the Leidy Line is 215.0 BCF. Twenty-five percent of 215.0 BCF is 53.75 BCF. As the size of the Exchange’s natural gas contracts is 2,500 MMBtu, the equivalent of 53.75 BCF in ICE contracts is 21,500 contracts (rounded to the nearest hundred).

V. Tennessee Zone 4 300L Cash Market Overview and Position Limits

Tennessee Gas Pipeline Company (“TGP”) is the owner of an almost 14,000 mile pipeline that runs from the Gulf Coast producing region to deliver gas along the Northeastern seaboard. TGP is divided into eight zones. Zone 0 and L are in the producing regions of Texas and Louisiana. The remaining zones are numbered one through six moving south-to-north. Zone 4 (“Z-4”) is made up of 67 points, 62 are delivery points and five are bi-directional.¹³ The 300 Leg (“300L”) encompasses a subset of Z-4’s delivery points. Specifically, Zone 4 300 Leg includes from station 315 in Tioga County, Pa. to station 321 in Susquehanna County, Pa.¹⁴

⁹ <http://co.williams.com/operations/atlanticgulf-operations/transco/>

¹⁰ http://www.platts.com/IM.Platts.Content/MethodologyReferences/MethodologySpecs/na_gas_methodology.pdf

¹¹ FERC Order No. 720, Pg. 69. <http://www.ferc.gov/whats-new/comm-meet/2008/112008/G-1.pdf>

¹² Accepted definition for operational capacity, NAESB Data Dictionary, https://naesb.org/pdf4/wgq_2012_ap_14b_rec.doc

¹³ TGP Informational Postings, Point Capacity. <http://pipeline2.kindermorgan.com/Navigation/SiteMap.aspx?code=TGP&category=D>

¹⁴ http://www.platts.com/IM.Platts.Content/methodologyreferences/methodologyspecs/na_gas_methodology.pdf

For the Exchange's deliverable supply analysis, it reviewed three years of capacity data for receipt points associated with Tennessee Zone 4 300L published by Bentek. As stated above, in November 2008, FERC issued Order No. 720 finalizing the requirement for interstate pipelines to publish certain volume information, including operational capacity. FERC's order used the NAESB definition of operational capacity, which is: "[t]he capacity could be scheduled at (or through) the identified point, segment or zone in the indicated direction of flow." TGP's Zone 4 300L runs east to west starting in north-central Pennsylvania's Potter County, continuing through Tioga, Bradford, Susquehanna, and Wayne County, PA, then reaches the Zone 4 border in Pike County. The Exchange downloaded capacity data for those counties by day from Bentek, sorted it for receipts, and summed by capacity. The three year average of capacity by day was 6.62 BCF per day of capacity in the TGP's Zone 4 300L.

For the Tennessee Zone 4 300L Future contracts, the Exchange set the spot month speculative position limit at 25% of the average monthly capacity of TGP's Zone 4 300L. Given daily operational capacity of 6.62 BCF and using a typical 30-day month, monthly operational capacity for TGP's Zone 4 300L is 198.6 BCF. Twenty-five percent of 198.6 BCF is 49.65 BCF. As the size of the Exchange's natural gas contracts is 2,500 MMBtu, the equivalent of 49.65 BCF in ICE contracts is 19,900 contracts (rounded to the nearest hundred).