

ICE Deliverable Supply Estimate for Henry Hub

I. Cash Market Overview

The U.S. natural gas pipeline network consists of over 300,000 miles of interconnected pipelines. The market for physical natural gas 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. Because natural gas is homogenous, commercial energy companies can extract natural gas from wells drilled across North America, process it (clean it of impurities) and transport it from production areas to distant 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. Demand for natural gas fluctuates by season but extraction and production remains relatively constant. In summer months when demand is lower than production excess natural gas is injected into storage facilities to be used in winter months when demand often increases to levels that exceed daily production.

According to the U.S. Energy Information Administration (“EIA”), approximately 28% of the energy used in the U.S. in 2014 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 futures and options markets. Price reporting agencies publish physical transaction prices and publish indexes daily, which results in a highly transparent price of physical natural gas, which is unique amongst commodities.

II. Deliverable Supply Analysis

In its November 18, 2011, final position limit rulemaking, the Commission maintained its long standing definition of deliverable supply as the quantity of a commodity that could “reasonably be expected to be readily available” at a contract’s specified delivery points.² As part of its review, ICE analyzed regional production, storage capacities, physical gas flow and deliverable capacity at each metered point on the Sabine Pipeline.³

Natural Gas Supply

Henry Hub is located in the EIA defined southeast geographic region, which includes the Gulf Coast natural gas producing region. The Gulf Coast is a highly integrated pipeline network⁴ and, depending on market conditions, natural gas produced or stored anywhere in the region could make its way to market directly through Henry Hub.⁵ EIA data from 2014 for the southeast region reflected average monthly

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

² “In general, the term “deliverable supply” means 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.” 76 Fed. Reg. 71633 (November 18, 2011)

³ NYMEX Rulebook chapter 220 defines the physical delivery specifications, available at <http://www.cmegroup.com/rulebook/NYMEX/2/220.pdf>

⁴ www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ngpipeline/southwest.html

⁵ “The extensive intrastate natural gas pipeline network in the Southwest provides much of the transportation services between the region’s producing basins and the interstate network of exporting natural gas pipelines.” http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ngpipeline/southwest.html

supply of 3,306 Bcf,⁶ and for pipelines connected directly to Henry Hub the supply of natural gas is 430 Bcf or 13% of the regional total. This supply is further constrained by the capacity of the various interconnections that comprise Henry Hub.

Henry Hub Natural Gas Flows

FERC requires that interstate pipelines publish data on natural gas flows at each delivery and receipt point, which Sabine Pipe Line, LLC provides daily on its website. ICE used data from Bentek⁷ and calculated average monthly natural gas flow for the period of 2013 to 2015 of 4.93 Bcf for delivery points and 5.12 Bcf for receipt points. The midpoint of these figures is 5.03 Bcf, or 503 contract equivalents (10,000 MMBtu). Please See Table 1⁸ in the Appendix for the complete list of data.

Henry Hub Natural Gas Storage

Jefferson Island Storage & Hub located in Erath, Louisiana is a natural gas storage facility directly connected to Henry Hub and consists of two salt-dome storage caverns with 7.5 Bcf of storage. According to the U.S. Energy Information Administration report 191 Field Level Storage Data, average working gas capacity from 2012 through 2014 was 6.6 Bcf. The turnover rate for gas in storage at Jefferson Island is about once per year. The amount of working gas is equivalent to 655 contract equivalents.

Henry Hub Pipeline Capacity

FERC also mandates that interstate pipelines post daily the Operationally Available Capacity (“OAC”) for each delivery and receipt point. OAC is defined as “[t]he total capacity which could be scheduled at (or through) the identified point, segment or zone in the indicated direction of flow.”⁹ To comply with the requirement, Sabine makes this information available daily on its website. ICE utilized a Bentek application to calculate the average monthly OAC for the period of 2013 to 2015 for each delivery and receipt point. The average aggregate OAC for receipt points was 90.3 Bcf and for delivery points was 108.8 Bcf. The midpoint of these figures is 99.6 Bcf, or 9,960 contract equivalents. Please see Table 2¹⁰ in the Appendix for the complete list of data.

Deliverable Supply Estimate

Because pipeline capacity is the binding constraint between supply and consumption areas, ICE determined that the aggregate OAC of the points on the Sabine pipeline best reflect the quantity of natural gas readily available for delivery at Henry Hub. ICE’s estimate of deliverable supply for Henry Hub combines the 2013 through 2015 average monthly aggregate OAC for the midpoint of receipt and delivery points, and the 2012 through 2014 average monthly working gas in storage, which results in a deliverable supply estimate of 10,615 contract equivalents.

⁶http://www.eia.gov/cfapps/ngqs/ngqs.cfm?f_report=RP2&f_sortby=&f_items=&f_year_start=&f_year_end=&f_show_compид=&f_fullscreen=

⁷ Bentek is a company that provides natural gas related data, including pipeline data. <http://www.bentekenergy.com/about/>

⁸ The underlying data is publicly available, but requires a paid subscription from Bentek, therefore ICE has made it available to the Commission for review.

⁹ https://www.naesb.org/pdf4/wgq_2012_ap_14b_rec.doc

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Appendix

Underlying Data for Flow and Capacity Analysis

(Attached under separate cover)



March 2, 2016

Assistant Secretary of the Commission
FOIA, Privacy and Sunshine Acts Compliance
Commodity Futures Trading Commission
Three Lafayette Centre, 8th Fl.
1155 21st Street, N.W.
Washington, DC 2058

Re: Request for Confidential Treatment Request

Dear Sir or Madam:

In accordance with Commission Regulation 145.9(d), ICE Futures U.S., Inc. (the “Exchange”) requests confidential treatment pursuant to the Freedom of Information Act, 5 U.S.C. 552, for the attached materials titled “Appendix to Henry Hub Deliverable Supply” that were provided to Steve Sherrod on March 2, 2016.

The Exchange is requesting confidential treatment for the aforementioned data pursuant to Commission Regulation 145.9(d)(1)(i) and (ii) on the grounds that disclosure of the material:

- (i) is specifically exempted by statute that either requires that the matter be withheld from the public in such a manner as to leave no discretion on the issue or establishes particular criteria for withholding or refers to particular types of matters to be withheld; or
- (ii) would reveal trade secrets or confidential commercial or financial information.

The Exchange further requests that this material receive confidential treatment in perpetuity. If you have any questions, please contact me at (312)836-6733 or erik.haas@theice.com.

Very truly yours,

Erik Haas
Director Market Regulation
ICE Futures U.S.

cc: Steve Sherrod
Enc.