

**SUBMISSION COVER SHEET**

**IMPORTANT:** Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 14-331RR (2 of 2)

Organization: New York Mercantile Exchange, Inc. ("NYMEX")

Filing as a:  DCM  SEF  DCO  SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): August 21, 2014 Filing Description: **REVISED: Notification Regarding Rule Amendments in Connection With the Initial Listing of the Natural Gas Weekly Financial Option Contract.**

**SPECIFY FILING TYPE**

Please note only ONE choice allowed per Submission.

**Organization Rules and Rule Amendments**

- Certification § 40.6(a)
- Approval § 40.5(a)
- Notification § 40.6(d)
- Advance Notice of SIDCO Rule Change § 40.10(a)
- SIDCO Emergency Rule Change § 40.10(h)

Rule Numbers: \_\_\_\_\_

**New Product**

Please note only ONE product per Submission.

- Certification § 40.2(a)
- Certification Security Futures § 41.23(a)
- Certification Swap Class § 40.2(d)
- Approval § 40.3(a)
- Approval Security Futures § 41.23(b)
- Novel Derivative Product Notification § 40.12(a)
- Swap Submission § 39.5

Official Product Name:

**Product Terms and Conditions (product related Rules and Rule Amendments)**

- Certification § 40.6(a)
- Certification Made Available to Trade Determination § 40.6(a)
- Certification Security Futures § 41.24(a)
- Delisting (No Open Interest) § 40.6(a)
- Approval § 40.5(a)
- Approval Made Available to Trade Determination § 40.5(a)
- Approval Security Futures § 41.24(c)
- Approval Amendments to enumerated agricultural products § 40.4(a), § 40.5(a)
- "Non-Material Agricultural Rule Change" § 40.4(b)(5)
- Notification § 40.6(d)

Official Name(s) of Product(s) Affected: Natural Gas Weekly Financial Option

Rule Numbers: Chapter 1006

August 21, 2014

**VIA ELECTRONIC PORTAL**

Christopher J. Kirkpatrick  
 Office of the Secretariat  
 Commodity Futures Trading Commission  
 Three Lafayette Centre  
 1155 21st Street, N.W.  
 Washington, DC 20581

**RE: CFTC Regulation 40.6(a) Certification. Notification Regarding Rule Amendments in Connection With the Initial Listing of the Natural Gas Weekly Financial Option Contract.  
 NYMEX Submission No. 14-331RR (2 of 2)**

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is notifying the Commodity Futures Trading Commission (“CFTC” or “Commission”) that it is self-certifying the listing of the Natural Gas Weekly Financial Option contract (“Contract”) for trading on the NYMEX trading floor, CME Globex, and for submission for clearing through CME ClearPort effective on Sunday, September 7, 2014, for trade date Monday, September 8, 2014.

Pursuant to Commission Regulation 40.6(a), NYMEX is separately self-certifying block trading on the Contract with a minimum threshold of 10 contracts in NYMEX/COMEX Submission No. 14-351.

Please note that NYMEX Submission No. 14-331RR (2 of 2) includes a revised Non-reviewable Range Table in Appendix C, with additions underlined and deletions ~~overstruck~~. All other terms of the original submission remain unchanged.

The contract specifications are as follows:

<b>Rule Chapter Number and Contract Title</b>	Chapter 1006 Natural Gas Weekly Financial Option
<b>Commodity Code</b>	LN1, LN2, LN3, LN4, LN5
<b>Contract Size</b>	10,000 MMBTU
<b>First Listing</b>	September 12, September 19, September 26, October 3
<b>Listing Period</b>	The nearest four Fridays
<b>Termination of Trading</b>	Options expire on Friday. If the Friday of the listing is a scheduled Exchange holiday, the option shall terminate on the first Business Day immediately preceding the Friday. However, if the first Business Day immediately preceding the Friday is the expiration of a Henry Hub Natural Gas Futures contract, the weekly option shall not be listed for trading.

<b>Minimum Price Fluctuation</b>	CME Globex: 0.0010 CPC: 0.0001
<b>Value per Tick</b>	CME Globex: \$10.00 CPC: \$1.00
<b>Block Trade Minimum Threshold</b>	10 contracts

**Trading and Clearing Hours:**

Open Outcry: Monday – Friday 9:00 a.m. – 2:30 p.m. (8:00 a.m. – 1:30 p.m. Chicago Time/CT).  
 CME Globex: Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. CT) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT).

**Fee Schedule:**

**Natural Gas Weekly Financial Option**

Exchange Fees					
	Member Day	Member	Cross Division	Non-Member	IIP
<b>Pit</b>	\$0.45	\$0.70	\$0.95	\$1.45	
<b>Globex</b>	\$0.45	\$0.70	\$0.95	\$1.45	\$0.95
<b>ClearPort</b>		\$1.75		\$2.50	
<b>Agency Cross Fee</b>		\$1.50		\$2.25	
Other Processing Fees					
	Member	Non-Member			
<b>Cash Settlement</b>	\$0.90	\$1.15			
Additional Fees and Surcharges					
<b>Facilitation Desk Fee</b>	\$0.20				

The Exchange is also notifying the CFTC that it is self-certifying the insertion of the terms and conditions for the Natural Gas Weekly Financial Option contract into the Position Limit, Position Accountability and Reportable Level Table and Header Notes located in the Interpretations and Special Notices Section of Chapter 5 of the NYMEX Rulebook in relation to the listing of the Contract. The terms and conditions establish the all month/any one month accountability levels, expiration month position limit, reportable level and aggregation allocation for the Contract (See Appendix B, attached under separate cover).

Exchange business staff responsible for the new product and the Exchange Legal Department collectively reviewed the designated contract market core principles (“Core Principles”) as set forth in the Commodity Exchange Act (“CEA” or “Act”). During the review, Exchange staff identified that the new product may have some bearing on the following Core Principles:

- **Prevention of Market Disruption:** Trading in the Contract will be subject to the NYMEX rules (“Rulebook”) Chapters 4 and 7 which include prohibitions on manipulation, price distortion and disruptions of the delivery or cash-settlement process. As with all products listed for trading on one of

CME Group's designated contract markets, activity in the new product will be subject to extensive monitoring and surveillance by CME Group's Market Regulation Department.

- Contracts Not Readily Susceptible to Manipulation: The Contract is not readily susceptible to manipulation due to the liquidity and robustness in the underlying cash markets, which provides diverse participation and sufficient spot transactions to support the final settlement index.
- Compliance with Rules: Trading in this Contract will be subject to the rules in Rulebook Chapter 4 which includes prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading in these contracts will also be subject to the full panoply of trade practice rules, the majority of which are contained in Chapter 5 of the Rulebook. As with all products listed for trading on one of CME Group's designated contract markets, activity in this new product will be subject to extensive monitoring and surveillance by CME Group's Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.
- Position Limitations or Accountability: The spot month position limit for the Contract is set at a conservative level that is less than 25% of the monthly deliverable supply in the underlying market in accordance with the guidelines included in CFTC Part 150.
- Availability of General Information: The Exchange will publish information on the Contract's specification on its website, together with daily trading volume, open interest and price information.
- Daily Publication of Trading Information: Trading volume, open interest and price information will be published daily on the Exchange's website and via quote vendors.
- Financial Integrity of Contracts: All contracts traded on the Exchange will be cleared by the Clearing House of the Chicago Mercantile Exchange Inc. which is a registered derivatives clearing organization with the Commission and is subject to all Commission regulations related thereto.
- Execution of Transactions: The Contract will be listed for trading on CME Globex and the NYMEX trading floor and for clearing through CME ClearPort. The CME Globex platform provides a transparent, open, and efficient mechanism to electronically execute trades on screen. In addition, the NYMEX trading floor continues to be available as a trading venue and provide for competitive and open execution of transactions. The CME ClearPort platform continues to provide a competitive and open execution of transactions by brokers.
- Trade Information: All required trade information is included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.
- Protection of Market Participants: Rulebook Chapters 4 and 5 contain multiple prohibitions precluding intermediaries from disadvantaging their customers. These rules apply to trading on all of the Exchange's competitive trading venues and will be applicable to transactions in these products.
- Disciplinary Procedures: Chapter 4 of the Rulebook contains provisions that allow the Exchange to discipline, suspend or expel members or market participants that violate the Rulebook. Trading in these contracts will be subject to Chapter 4, and the Market Regulation Department has the authority to exercise its enforcement power in the event rule violations in this product are identified.
- Dispute Resolution: Disputes with respect to trading in this contract will be subject to the arbitration provisions set forth in Chapter 6 of the Rulebook. Chapter 6 allows all nonmembers to submit a claim for financial losses resulting from transactions on the Exchange to arbitration. A member named as a respondent in a claim submitted by a nonmember is required to participate in the arbitration pursuant

to Chapter 6. Additionally, the Exchange requires that members resolve all disputes concerning transactions on the Exchange via arbitration.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.6(a), the Exchange hereby certifies that the Contract complies with the Act, including regulations under the Act. There were no substantive opposing views to the listing of the Contract.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or [Christopher.Bowen@cmegroup.com](mailto:Christopher.Bowen@cmegroup.com).

Sincerely,

/s/ Christopher Bowen  
Managing Director and Chief Regulatory Counsel

Attachments: Appendix A: Rule Chapters  
Appendix B: Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the NYMEX Rulebook (attached under separate cover)  
Appendix C: Rule 588.H – Non-reviewable Range Table (REVISED table; additions underlined and deletions ~~overstruck~~)  
Appendix D: Cash Market Overview and Analysis of Deliverable Supply

## **APPENDIX A**

### **Chapter 1006 Natural Gas Weekly Financial Option**

#### **1006100. SCOPE OF CHAPTER**

This chapter is limited in application to weekly put and call options on the Henry Hub Natural Gas Futures contract. In addition to the rules of this chapter, transactions in Natural Gas Weekly Financial Option contract shall be subject to the general rules of the Exchange insofar as applicable.

#### **1006101. OPTION CHARACTERISTICS**

The number of weeks open for trading at a given time shall be determined by the Exchange.

##### **1006101.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

##### **1006101.B. Trading Unit**

On expiration of a call option, the value will be the difference between the settlement price of the first nearby Henry Hub Natural Gas Futures contract and the strike price multiplied by 10,000 MMBtu, or zero, whichever is greater. If expiration occurs on the last day of trading for the first nearby Henry Hub Natural Gas Futures contract, the value will be the difference between the settlement price of the second nearby Henry Hub Natural Gas Futures and the strike price multiplied by 10,000 MMBtu, or zero, whichever is greater.

On expiration of a put option, the value will be the difference between the strike price and the settlement price of the first nearby Henry Hub Natural Gas Futures contract multiplied by 10,000 MMBtu, or zero, whichever is greater. If expiration occurs on the last day of trading for the first nearby Henry Hub Natural Gas Futures contract, the value will be the difference between the strike price and the settlement price of the second nearby Henry Hub Natural Gas Futures, multiplied by 10,000 MMBtu, or zero, whichever is greater.

##### **1006101.C. Price Increments**

Prices shall be quoted in dollars and hundredths of cents per MMBtu for trades submitted for clearing through CME ClearPort and Open-Outcry trading floor. For trades executed through the CME Group Globex platform, the prices shall be dollars and tenths of cents per MMBtu.

##### **1006101.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

##### **1006101.E. Termination of Trading**

Options will expire at the close of trading on a Friday schedule. If such Friday falls on the expiration of a Natural Gas European option, the weekly option shall not be listed.

For the first (1st) weekly option of the month, if the first Friday of the listing is a scheduled Exchange holiday, the option shall terminate on the first Business Day immediately preceding the Friday. However, if the first Business Day immediately preceding the Friday falls in the preceding calendar month or is the expiration of a Natural Gas European option, the first weekly option shall not be listed for trading.

For the second (2nd) weekly option of the month, if the second Friday of the listing is a scheduled Exchange holiday, the option shall terminate on the first Business Day immediately preceding the Friday. However, if the first Business Day immediately preceding the expiration day is the expiration of a Natural Gas European option, the weekly option shall not be listed for trading.

For the third (3rd) weekly option of the listing, if the third Friday of the listing is a scheduled Exchange holiday, the option shall terminate on the first Business Day immediately preceding the

Friday. However, if the first Business Day immediately preceding the expiration day is the expiration of a Natural Gas European option, the weekly option shall not be listed for trading

For the fourth (4th) weekly option of the listing, if the fourth Friday of the listing is a scheduled Exchange holiday, the option shall terminate on the first Business Day immediately preceding the Friday. However, if the first Business Day immediately preceding the expiration day is the expiration of a Natural Gas European option, the weekly option shall not be listed for trading

**1006101. F. Type Option**

The option is a European-style option which can only be exercised on expiration day.

**1006102. EXERCISE PRICES**

- (A) On the first Business Day of trading in an option contract, trading shall be at the following strike prices: (i) the previous day's settlement for the underlying Henry Hub Natural Gas Futures contract rounded off to the nearest five-cent increment strike price, unless such settlement price is precisely midway between two five-cent strike prices, in which case it shall be rounded off to the lower five-cent increment strike price and (ii) the twenty five cent increment strike prices which are twenty five-cent increments higher than the strike price described in (i) of this Rule and (iii) the twenty five-cent increment strike prices which are twenty increments lower than the strike price described in (i) of this Rule and (iv) an additional ten strike prices for both call and put options will be listed at \$.250 increments above the highest five-cent increments as described in (ii) of this Rule beginning with the first available such strike that is evenly divisible by \$.25 and (v) an additional ten strike prices for both put and call options will be listed at \$.25 increments below the lowest five-cent increment as described in (iii) of this Rule, beginning with the first available such strike that is evenly divisible by \$.25.
- (B) Thereafter, on any Business Day prior to the expiration of the option, (i) new consecutive strike prices for both puts and calls will be added such that at all times there will be at least twenty five-cent increment strike prices and ten \$.25 increment strike prices above and below the at-the-money strike price available for trading in all options contract months. The at-the-money strike price will be determined in accordance with the procedures set forth in subsection (A)(i) of this Rule.
- (C) Notwithstanding the provisions of subsections (A) and (B) of this rule, if the Exchange determines that trading in the Natural Gas Weekly Financial Option will be facilitated thereby, the Exchange may, by resolution, change the increments between strike prices, the number of strike prices which shall be traded on the first day in any new option contract month, the number of new strike prices which will be introduced on each Business Day or the period preceding the expiration of a Natural Gas Weekly Financial Option in which no new strike prices may be introduced.

**APPENDIX B**

**NYMEX Rulebook Chapter 5 Position Limit Table**

(Attached under separate cover)



## APPENDIX C

### Rule 588.H Globex Non-Reviewable Ranges

<u>Instrument</u>	<u>Bid/Ask Reasonability</u>	<u>Non-Reviewable Range (NRR)</u>
Natural Gas Weekly Financial Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of \$0.05	20% of premium up to ¼ of the underlying futures non-reviewable range with a minimum of 1 tick.

<u>Contract</u>	<u>Non-Reviewable Range (NRR) in Globex Format</u>	<u>NRR including Unit of Measure</u>	<u>NRR Ticks</u>
Capesize 2014 Time Charter Average (Baltic) Futures	500-50000	\$500 per day	500

## APPENDIX D

### **Cash Market Overview and Analysis of Deliverable Supply**

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is intending to launch a Natural Gas Weekly Financial Option contract for trading on CME Globex and the NYMEX trading floor, and for clearing through CME ClearPort.

<b>Contract</b>	<b>Commodity Code</b>	<b>Rule Chapter</b>
Natural Gas Weekly Financial Option	LN1-LN5	1006

#### Deliverable Supply Analysis for Henry Hub Natural Gas Futures “NG” Contract

##### **Methodology and Data Sources: Key Components of Estimated Deliverable Supply**

In estimating Henry Hub deliverable supply we relied on Commission long-standing precedent, which provides that the key component in estimating deliverable supply is the portion of typical production and supply stocks that could reasonably be considered to be reliably available for delivery. Most recently, the Commission stated in its final position limit rulemaking that:

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.<sup>1</sup>

Accordingly, there are three factors NYMEX considered in updating the existing Henry Hub deliverable supply estimates:

- (1) Natural gas production that can flow to the delivery location;
- (2) Delivery capacity of the delivery mechanism; and
- (3) Storage information.

While we considered all of the above factors, the determination of deliverable supply with respect to the Henry Hub has historically been subject to being defined by the delivery capacity of the delivery mechanism; in other words, delivery capacity has historically served as a constraint that defines deliverable supply. As detailed below, due to the fact that production levels and stored product with ready access exceed delivery capacity, this continues to be the case.

##### **Natural Gas Production**

To determine production estimates, NYMEX reviewed information gathered from two sources: Bentek, a wholly owned subsidiary of Platts and the U.S. Department of Energy (“DOE”) Energy Information Administration (“EIA”).

Bentek is an industry leader in the provision of data aggregation and collation from the Interstate Natural Gas Pipelines’ electronic bulletin boards.<sup>2</sup> Interstate natural gas pipelines are subject to Federal Energy Regulatory

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<sup>1</sup> 76 Fed. Reg. 71633 (November 18, 2011)

<sup>2</sup> Bentek collects details on the flow of interstate pipeline natural gas from the production source, commonly known as the wellhead, to the local distribution company’s (including municipal operated distributors) delivery point, commonly known as its city-gate, beyond which point the pipeline ceases to be a federally regulated interstate pipeline.

Commission (“FERC”) oversight and jurisdiction. As part of its regulatory oversight, FERC requires interstate pipelines to operate publicly accessible electronic bulletin boards which provide information on scheduling, available capacity and natural gas flows on a near real-time basis. Among other things, Bentek collects and disseminates collated data from these electronic bulletin boards daily. Given this, the Bentek data presented can be more current than the EIA data, which are typically subject to a minimum two-month delay in publication.

EIA data are a definitive source for production information and EIA does provide marketed production data for Federal U.S. Gulf Coast offshore production as well as onshore production for individual states such as Louisiana or Texas; these data include, however, some onshore production that would not be able to readily access the delivery point.

Bentek provides greater geographic detail than the EIA data by providing both U.S. Gulf Coast offshore and onshore production and we believe that the Bentek data provides only onshore or offshore natural gas production that has ready access to the delivery point. In any event, as is discussed below, NYMEX believes that the Bentek data underestimates the total production with ready access to the Henry Hub but, nonetheless, represents a reasonable basis for production estimates.

### **Henry Hub Delivery Capacity**

In addition to production that can readily access the delivery point, the Exchange takes into account the delivery capacity of the delivery facility, the Henry Hub. Generally, deliverable supply is mathematically bounded by production and stored product (with ready access) and delivery capacity. Excepting for the coincidence where these equal each other, then either one or the other is the binding factor in determining deliverable supply. In terms of the Henry Hub, delivery capacity is the binding factor and this will be detailed further below. The source of the Henry Hub pipeline receipt and delivery capacity is the Sabine Pipe Line Co. website. As part of FERC regulation, interstate pipelines are required to provide daily capacity information that includes receipt and delivery design, scheduled and available for all certificated interconnections.<sup>3</sup>

### **State of Louisiana and Producing Area Natural Gas Storage**

Storage data are provided on a weekly basis by EIA and are approximately four business days old upon release. These data are provided by general region—East, West and Producing. Producing includes the U.S. Gulf Coast region which includes the delivery location for the NG contract. The EIA also collates data at the individual state level but provides these data with a time lag of approximately six months. At these frequencies of release, there are no official storage data with greater geographic detail than either the Producing region or state level. We did not try to estimate which portion of stored natural gas was readily accessible to the delivery location.

### **The Henry Hub Physical Delivery Mechanism**

Terminating obligations in the Henry Hub Natural Gas futures contract are fulfilled by delivering pipeline quality natural gas to the Henry Hub pipeline interconnection designated by the buyer. The Henry Hub consists of interconnections with 12 interstate and intrastate pipelines and related infrastructure. The Plant is owned and operated by Chevron Corporation. Of the 12 pipelines, 11 have interconnections to receive natural gas at the Henry Hub and 10 to deliver processed “dry” natural gas from the Henry Hub. The deliveries pipelines source their natural gas from the U.S. Gulf Coast region, both onshore and offshore, which extends from Texas to Alabama. Henry Hub has two compressor stations that enable natural gas to move from lower pressure pipeline Henry Hub receipt interconnections to higher pressure downstream Henry Hub pipelines.

Henry Hub also offers an intra-Hub tracking and transfer service, a form of in-system title transfer and documentation, to accommodate trading and delivery needs of its customers. This service, which is offered by Sabine Hub Services Company, a non-federal jurisdictional subsidiary of Chevron, enhances the natural gas trading environment for producers, marketers, and end users with respect to meeting their physical and financial requirements. In addition, the number of interruptible transportation customers of Henry Hub has grown to approximately 160 market participants.

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<sup>3</sup> Information available at <http://www.sabinepipeline.com>.

## Physical Market Trading Structure and Term Contracts

### Physical Market Trading Structure

Typically, there is a chronology of sales and purchases of natural gas in the U.S. market that starts with a sale from producer and finishes with a purchase by an end-user to consume the natural gas, typically far downstream of the U.S. Gulf Coast. First-sales are from producers to marketers or other middleman-type firms with delivery at the production point or where natural gas first enters the pipeline system (or liquids processing facility attached to the system). The first-sale buyer transports it from the point of sale downstream. Typically, the first-sale buyer resells the natural gas to someone other than the end-user. Sales to end-users, who do not further resell the natural gas but ultimately consume it, are final-sales.

As implied, sometimes end users also resell natural gas, frequently during the same commercial cycle in which they purchased it. Other buyers of resold natural gas also either resell it or store it and resell it later. A common commercial practice is the first-sale and multiple subsequent re-sales occurring in the same delivery cycle; this line of re-sales usually includes a final sale, but not always, since a significant portion of natural gas is stored.

Henry Hub is essentially an active reseller market where buyers either: resell the natural gas to someone else at Henry Hub; transport it downstream for delivery and re-sale to someone else; transport it downstream to consume it; or transport it downstream to store it. Most of the sales and deliveries in the Henry Hub are comprised of volumes for re-sale, storage or final-sales. In fact, the commercial physical market in Henry Hub sales is estimated to be 6-10 times the multiple of physical natural gas that flows through Henry Hub, which is a direct indication that most sales are for re-sale. *Gas Daily* and *Inside F.E.R.C.* publish transaction information for delivery at Henry Hub but do not capture all transactions that occur at the Henry Hub.

### Term Contracts

The Exchange contacted and surveyed natural gas market participants regarding common commercial practices, including the use of term contracts, in the North American natural gas market.<sup>4</sup> The responses we received were consistent and can be summarized as follows:

- Most first-sales of production are sold term, as indicated above, typically for delivery on the producing property or nearest entry to the pipeline system, including liquids processing plants, and typically to middleman-firms. These middleman-firms typically resell the natural gas to other middleman-firms or to market participants performing that function or to end-users. Gulf Coast market participants estimated re-sales ranging from 50% to over 90%—skewing towards the higher end. Some market participants indicated they did not know of exceptions but did not estimate 100% of first sales to be ultimately resold.
- No restrictions typically apply to the resale of natural gas bought first-sale on a term basis from producers. In fact, restrictions would clearly not be applicable because sales are typically to marketers or others acting in a middleman-firm role with the expressed responsibility of reselling the natural gas. The participants with whom we spoke indicated that they had not encountered any restrictions. Several market participants did point out that “burner-tip” sales—i.e. to utilities—could entail a restriction on the utility from reselling the natural gas; however, they made clear that such sales, in their experience, were downstream of first-sales and first re-sales as well, especially in the U.S. Gulf Coast.
- Henry Hub is largely downstream of first-sales; some first-sales take place there but, typically, not as part of a term sale. Consequently, natural gas production that is readily accessible to Henry Hub in terms of transportation is also readily accessible commercially. Natural gas that has readily accessible transportation to Henry Hub is not otherwise committed and unavailable to be delivered at Henry Hub.
- Term sales do not result in reductions to the deliverable supply for Henry Hub. All market participants agreed that natural gas purchased on a term sale is available for re-sale and delivery, including to the Henry Hub and that all market participants downstream of first-sales participate in the market for resale (as some first-sellers do).
- Our sources expressly advised us that any production sold long-term was available for re-sale, which is especially the case in the U.S. Gulf Coast market and the Henry Hub.

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<sup>4</sup> The Exchange contacted 15 firms, surveying 10, as well as a market participant group that included several dozen members. The individually contacted firms included major producers and marketers. The Energy Market Participant Group was organized through Hunton & Williams LLP to discuss and comment on regulatory issues.

## **The 1996 Deliverable Supply Estimate Underlying the Existing Position Limit and Market Changes Since 1996**

### **The 1996 Position Limit Approval and Deliverable Supply Estimate**

In October 1996, NYMEX received approval from the Commission for its currently effective spot month position limits for the Henry Hub Contract. The determinative factor for the deliverable supply estimate at that time was capacity. The receipt capacity at that time was approximately 6,705 Henry Hub Contract equivalents (NG contract unit: 10,000 MMBtu).

### **Market Changes since the 1996 Position Limit Approval**

Since the approval of the position limits for the Henry Hub Contract in 1996, deliverable supply has been materially impacted by a number of important and significant changes in the domestic natural gas market and the operation of Henry Hub including: a change of ownership in Chevron Corporation's acquisition of Texaco Corporation; interconnection increases at Henry Hub; and storage capacity increases near the Henry Hub.

### **NYMEX's Updated Deliverable Supply Estimate and Supporting Data**

As indicated above, the factors that NYMEX considered in updating deliverable supply are natural gas production, delivery capacity at the Henry Hub, and natural gas storage. The following sections set forth recent data regarding each of these components and identify the updated deliverable supply estimate supported by the data.

#### **A. Data for Natural Gas Production**

In performing our analysis of deliverable supply at the Henry Hub, we first reviewed EIA data and determined that certain production levels reported by EIA, while containing relevant data, would include production that would not be accessible to be delivered at the Henry Hub. Tables 1-3 provide EIA data on Federal Offshore Louisiana and Texas marketed natural gas production by month from January 2008 through November 2012. Federal Offshore production is a subset of production that is readily accessible to be delivered at the Henry Hub but the onshore Louisiana and Texas production includes production from parts of each state that would not be readily accessible to the Henry Hub.

Federal Offshore Production since 2008 has ranged from 6,196 contract equivalents in September 2008, when Hurricane Ike disrupted oil and natural gas production in the U.S. Gulf Coast, to 24,106 contracts equivalent in January 2008. Since 2008, the monthly average has been 17,281 contract equivalents, and in 2012 through November (the most recent month available at the time the analysis was performed), the monthly average was 12,682 contract equivalents. During 2012 (through November), the monthly production ranged from 10,934 contract equivalents in September to 14,385 contract equivalents in March.

Since 2008, the range for onshore Louisiana is 8,816 contract equivalents in September 2008 (again during Hurricane Ike) to 27,545 contract equivalents in December 2011. For onshore Texas, the range is 49,967 contract equivalents in February 2011 to 62,876 contract equivalents in December 2011.

As indicated above, NYMEX believes that not all onshore Louisiana and Texas is readily accessible to the Henry Hub. Consequently, even though EIA is the pre-eminent official source for production data, we reviewed the Bentek production estimates in order to identify information for specific offshore and onshore areas that are accessible to the Henry Hub.

Table 5 provides Bentek's estimates for 2009, 2010, 2011 and 2012 (through December 28) of daily production for Onshore and Offshore Louisiana, Texas, Mississippi and Alabama in million cubic feet. Applying daily average offshore production accessible to the Henry Hub as estimated by Bentek over 30-day periods for each of these years, yielded totals that were comparable to EIA's monthly average of Federal offshore production: 2009— 21,984 (Bentek) contract equivalents versus 20,241 (EIA) respectively; 2010—19,728 (Bentek) contract equivalents versus 18,709 (EIA) respectively; 2011—16,317 contract equivalents (Bentek through December 28) versus 15,103 contract equivalents respectively, and 2012-14,007 (Bentek) contract equivalents versus 12,682 contract equivalents (EIA through November) respectively.

One reason for the differences between Bentek's and EIA's data is that Bentek's data would also include state offshore production that is directed to the Interstate pipeline system, which is a base source from which Bentek retrieves data. Bentek's average 30-day period estimate of onshore production that was accessible to the Henry Hub during this period was: 2009— 7,407 contract equivalents; 2010— 5,826 contract equivalents; 2011- 5,817 contract equivalents; and 2012 5,634 (through December 28) contract equivalents. Therefore, in terms of the total production for offshore and onshore regions accessible to the Henry Hub, Bentek estimates that the average number of contract equivalents of production per 30-day periods was 29,391 in 2009, 25,554 in 2010, and 22,134 in 2011, and 19,641 (through December 28). We believe that Bentek's estimates underestimate production that can readily access the

Henry Hub because we believe additional in-State production areas would not be included in Bentek's U.S. Gulf Coast estimates. Consequently, we believe that any estimates based on the use of these data are conservative.

Declining natural gas production levels in the U.S. Gulf Coast area over the past several years reflect a supply response to relatively low prices—in nominal terms, levels last seen in 2001-2. Contemporaneously, natural gas production levels have increased in other areas, including areas that have reasonable access to the Henry Hub. The Exchange monitors production regularly and, in light of the continued production in the Gulf Coast region and other areas, anticipates the continuing central role provided by the Henry Hub as a delivery mechanism for natural gas. For instance, the EIA reported in July 2011 that, in the U.S. Gulf Coast region, there is 100 trillion cubic feet of recoverable natural gas resource in shale formations. (The analysis was current as of the time EIA's study was published but based on drilling data available in January 2009; additional recoverable natural gas reserves since then would not have been included.)

The production quantities included in these estimates represent production that is tendered in the secondary (or spot) market and which could easily access the Henry Hub delivery mechanism to dependably fulfill a secondary (or spot) market delivery there. The actual delivery path for production depends on the actual commercial activity each month in the secondary market, including delivery obligations for NYMEX natural gas contracts. There are multiple delivery points (including the Henry Hub) where such secondary market deliveries can take place for this production and the actual delivery locations for specific production each month fluctuates with its corresponding secondary market transactions.

#### **B. Data for Henry Hub Delivery Capacity**

The inflowing natural gas daily receipts capacity at the Henry Hub is 2,955,000 MMBtu which converts into 296 contracts per day and 8,865 contracts per 30-day month. The daily deliveries capacity at Henry Hub, outflowing natural gas, is 2,570,000 MMBtu which converts into 257 contracts per day and 7,710 contracts per month.

Additionally, displacements<sup>5</sup> via counterflow scheduling are standard practice in both the natural gas pipeline system and at the Henry Hub. By way of illustration, for the Henry Hub between January 1, 2008 and January 31, 2013, the highest daily displacement expressed as a percentage of capacity experienced at 7 of the 11 receipts pipeline interconnections was 80% and higher—four over 100% and one as high as 196%. Over the same time period for the 9 delivery pipelines, six of them have been 66% or higher than—including 106% and 197%. These numbers indicate both the importance of displacement overall and to how high a level of displacement can be reached across multiple interconnection points. The Exchange has confirmed with the pipeline operator that incorporating displacement into a calculation of delivery capacity is both reasonable and appropriate.

In incorporating displacement operating capacity into the estimate for deliverable supply, the Exchange employed equivalent methodology to incorporating forward-haul operating capacity: 1. Confirmation that system supplies with access to displacement at Henry Hub exceed operating displacement. 2. Incorporating displacement operating capacity, which equal 100% of the forward-haul capacity. The Exchange confirmed system supply access to Henry Hub displacement operating capacity with outside vendor Genscape. Regarding displacement operating capacity, the Exchange consulted with the pipeline operator who also confirmed that recognizing a system capability of displacement which equaled 100% of design capacity for each interconnection point was reasonable. (The highest daily displacement levels attained between January 1, 2008 and January 31, 2012 reinforce this.)

Based on the methodology described immediately above, the Exchange incorporated operating displacement estimates of 2,955,000 MMBtu per day for the receipts interconnection points and 2,570,000 MMBtu per day for the deliveries interconnection points.<sup>6</sup> Combining the design capacity with the displacement estimates results in total receipts capacity of 5,910,000 MMBtu per day and deliveries capacity of 5,140,000 MMBtu per day. In terms of 30-day monthly contracts equivalents, this converts into 17,730 contracts for receipts capacity and 15,420 contracts for

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<sup>5</sup> Displacement refers to the common practice of accommodating the scheduling and transportation of natural gas in opposite directions at pipeline interconnection points. Where such bi-directional flows or system nominations are common, displacement increases the effective flow capacity. The use of displacement is standard practice at the Henry Hub.

deliveries capacity. Applying the displacement capacity to deliveries capacity, which is less than the receipts capacity, yields a delivery capacity of 15,420 contracts.<sup>7</sup>

**C. Data for Natural Gas Storage in State of Louisiana and Producing Area**

Tables 4 and Chart 1 provide storage information from EIA for Louisiana and Producing Regions respectively. Producing regions include: Alabama, Arkansas, Kansas, Louisiana, Mississippi, New Mexico, Oklahoma, and Texas. For Louisiana, since 2008, the number of contract equivalents stored has ranged from 40,075 for March 2008, to 63,768 for October 2012. EIA does not provide storage levels at greater geographic detail than these levels on a regular basis. As previously indicated, we believe that the combination of production and storage is not the determinative factor in estimating deliverable supply for the Henry Hub—delivery capacity is.

**D. Updated Deliverable Supply Estimate**

As indicated in Table 5, the monthly production with ready access to Henry Hub delivery location has averaged 19,641 contract equivalents year-to-date in 2012 (through December 28). In 2009, the production averaged 29,391 contracts and, it averaged 25,554 contracts and 22,134 in 2010 and 2011 respectively.<sup>8</sup> (We believe these also underestimate production readily accessible to the Henry Hub, which is consistent with our intent to estimate conservatively.) As noted above, the delivery capacity is equal to 8,867 contracts per 30-day month. Due to the fact that production levels (and stored product) exceed delivery capacity, delivery capacity is the binding factor in estimating deliverable supply, which has been the case since the Henry Hub Contract was introduced in 1990. Accordingly, the Exchange's estimate of deliverable supply is 15,420 contract equivalents.

**Table 1  
Federal Offshore--Gulf of Mexico Natural Gas Marketed Production  
(Million Cubic Feet)<sup>9</sup>**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>2008</b>	241,064	228,507	239,263	209,165	208,428	219,044	230,193	211,888	61,961	133,579	157,377	173,874
<b>2009</b>	195,525	184,696	207,335	195,000	203,298	210,961	223,920	211,532	200,721	207,439	190,220	198,268
<b>2010</b>	202,102	188,046	209,373	193,806	192,728	177,531	178,573	190,298	177,334	183,545	171,021	180,704
<b>2011</b>	178,597	152,160	168,311	160,766	162,416	149,309	147,208	149,986	123,410	141,464	137,005	141,696
<b>2012</b>	142,00	130,179	143,846	134,980	131,754	118,676	125,411	111,871	109,338	123,400	123,580	

<sup>7</sup> We have deliberately strived to apply conservative estimates in this analysis. The use of the 25<sup>th</sup> percentile as the base for applying displacement estimates has resulted in substantial discounts in capacity from what would obtain had we employed either the system *capability* estimate (of design capacity) or the maximum achieved levels of displacement over the January 1, 2008 – January 31, 2013 period we examined. As we continue to monitor the market, we may approach the Commission on applying less conservative displacement estimates.

<sup>8</sup> The recent reduction in production constitutes a market supply response to historically low prices; the U.S. Gulf Coast region remains a vital source of natural gas.

<sup>9</sup> Source: EIA <http://www.eia.gov/dnav/ng/hist/n9050fx2m.htm>





**Table 2**  
**Louisiana Natural Gas Marketed Production**  
**(Million Cubic Feet)<sup>10</sup>**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	116,750	109,119	117,523	114,700	121,073	118,955	123,401	119,936	88,164	114,570	116,842	116,935
2009	117,724	109,038	121,175	120,190	126,861	123,191	130,019	135,035	132,683	142,318	143,288	147,086
2010	152,114	144,750	166,194	166,844	177,121	181,200	194,020	198,162	198,036	202,153	205,389	224,116
2011	224,410	208,495	246,230	242,398	255,559	243,809	257,767	266,831	263,106	274,314	270,841	275,447
2012	272,582	239,333	255,661	245,529	257,700	254,294	262,353	257,453	245,857	250,263	235,773	

**Table 3**  
**Texas Natural Gas Marketed Production**  
**(Million Cubic Feet)<sup>11</sup>**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	560,422	525,439	572,389	561,741	593,781	574,002	599,241	601,936	548,192	607,763	596,417	619,369
2009	627,592	549,812	611,626	577,383	589,499	563,018	568,827	576,556	539,050	550,208	521,418	543,985
2010	553,583	506,387	569,082	539,504	575,647	542,364	569,554	568,846	550,540	574,093	573,241	592,453
2011	588,714	499,667	599,244	579,060	606,707	579,536	600,815	605,105	590,030	622,392	612,834	628,759
2012	613,189	569,943	606,319	595,958	612,934	590,034	613,711	619,633	605,386	616,125	594,834	

**Table 4**  
**Louisiana Natural Gas Underground Storage Volume**  
**(Million Cubic Feet)<sup>12</sup>**

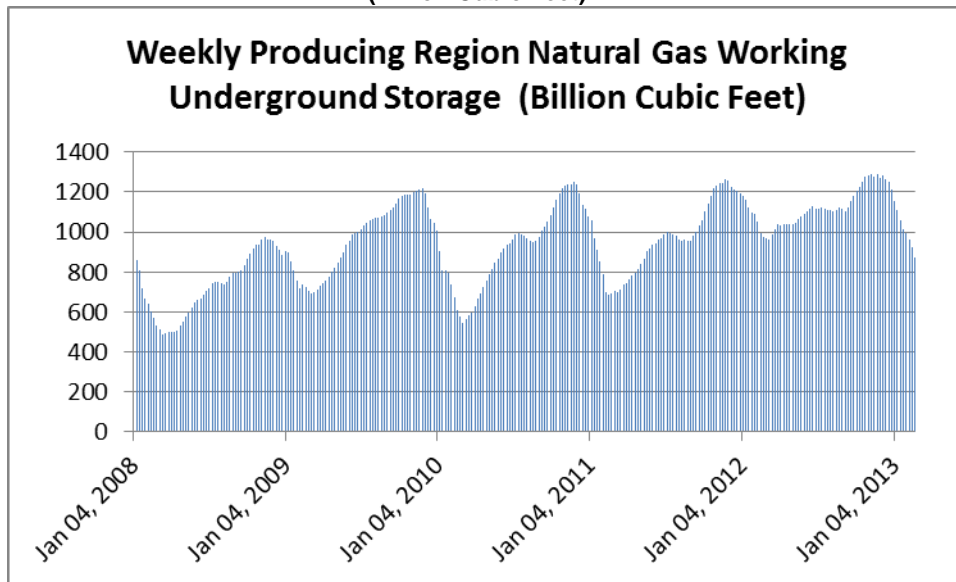
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	44,149	40,965	40,075	40,824	42,675	44,309	45,933	47,595	46,488	49,779	50,682	49,774
2009	45,251	43,144	44,609	46,863	51,224	52,501	54,600	55,979	58,417	59,297	59,734	54,479
2010	47,879	42,441	43,099	45,598	47,685	49,883	51,347	52,189	55,564	60,366	61,746	58,370
2011	53,068	47,935	49,432	50,869	53,639	54,109	53,000	52,660	55,156	60,736	62,396	61,938
2012	58,960	55,677	58,333	58,150	58,949	60,098	59,731	59,756	61,873	63,768	62,637	

<sup>10</sup> Ibid. <http://www.eia.gov/dnav/ng/hist/n9050la2m.htm>

<sup>11</sup> Ibid <http://www.eia.gov/dnav/ng/hist/n9050tx2m.htm>

<sup>12</sup> Source: EIA <http://www.eia.gov/dnav/ng/hist/n5030la2m.htm>

Chart 1  
Producing Region Natural Gas Working Underground Storage  
(Billion Cubic Feet)<sup>13</sup>



<sup>13</sup> Source: EIA

**Table 5**  
**US Gulf Natural Gas Production Accessible to Henry Hub**  
**(Production in million cubic feet per day)<sup>14</sup>**

Available LA/TX/MS/AL Natural Gas Supply	2012	2011	2010	2009
<b>Bentek LA Offshore YTD</b>	3,261	3,860	4,761	5,382
<b>Bentek LA Onshore YTD</b>	750	803	772	888
<b>Bentek TX Offshore YTD</b>	303	312	237	292
<b>Bentek TX Onshore YTD</b>	1064	1,053	1,073	1,472
<b>Bentek MS Offshore YTD</b>	395	478	744	761
<b>Bentek AL Offshore YTD</b>	710	789	834	893
<b>Bentek AL-MS-FL Onshore YTD</b>	64	83	97	109
<b>Total Bentek LA, TX, MS/AL</b>	6,547	7,378	8,518	9,797
<b>Daily Contract Equivalent (CE)</b>	655	738	852	980
<b>30-Day Month CE</b>	19,641	22,134	25,554	29,391
<b>25% of 30-Day Month CE</b>	4,910	5,534	6,389	7,348
<b>Available Natural Gas Supply</b>				
<b>Total Bentek Offshore LA, TX, MS/AL</b>	4,669	5,439	6,576	7,328
<b>Daily Contract Equivalent (CE)</b>	467	544	658	733
<b>30-Day Month CE</b>	14,007	16,317	19,728	21,984
<b>Available Natural Gas Supply</b>				
<b>Total Bentek Onshore LA, TX, MS/AL</b>	1,878	1,939	1,942	2,469
<b>Daily Contract Equivalent (CE)</b>	188	194	194	247
<b>30-Day Month CE</b>	5,634	5,817	5,826	7,407

<sup>14</sup> Source: Bentek