SUBMISSION COVER SHEET

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

Registered Entity Identifier Code (optional): 24-348

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

Filing as a: ☒ **DCM** ☐ **SEF** ☐ **DCO** ☐ **SDR**

Please note - only ONE choice allowed.

Filing Date: 09/26/24 Filing Description: Initial Listing of Henry Hub Natural Gas Weekly Futures 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: See filing.

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:
Rule Numbers:

Timothy Elliott
Managing Director and Chief Regulatory Counsel
Legal Department

September 26, 2024

VIA ELECTRONIC PORTAL

Mr. 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 40.2(a) Certification. Initial Listing of the Henry Hub Natural Gas Weekly Futures Contract.
NYMEX Submission No. 24-348

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. ("NYMEX" or "Exchange") is certifying to the Commodity Futures Trading Commission ("CFTC" or "Commission") the initial listing of the Henry Hub Natural Gas Weekly Futures contract (the "Contract") for trading on the CME Globex electronic trading platform ("CME Globex") and for submission for clearing via CME ClearPort effective Sunday, October 13, 2024 for trade date Monday, October 14, 2024.

Contract Title	Henry Hub Natural Gas Weekly Futures
CME Globex and CME ClearPort Code	HHW
Rulebook Chapter	509
Contract Size	10,000 Metric Million British Thermal Units (MMBtu)
Price Quotation	U.S. dollars and cents per MMBtu
Minimum Trading Price Fluctuation	$0.001
Value per Tick	$10.00
Settlement Type	Financial
Listing Schedule	Weekly contracts listed for 24 consecutive weeks
Initial Listing	Week of October 18, 2024 through Week of March 28, 2025
Termination of Trading	Trading terminates on Friday of the contract week. If Friday is not a business day, trading terminates on the prior business day.
Block Trade Minimum Threshold / Reporting Window	50 contracts / subject to a 15-minute reporting window
CME Globex Match Algorithm	F - FIFO
Trading and Clearing Hours	**CME Globex Pre-open:** Sunday 4:00 p.m. - 5:00 p.m. Central Time/CT; Monday – Thursday 4:45 p.m. - 5:00 p.m. CT **CME Globex:** Sunday 5:00 p.m. - Friday 4:00 p.m. CT with a daily maintenance period from 4:00 p.m. - 5:00 p.m. CT **CME ClearPort:** Sunday 5:00 p.m. - Friday 4:00 p.m. CT with no reporting Monday - Thursday from 4:00 p.m. - 5:00 p.m. CT

The new financially-settled Contract is a referenced contract that will aggregate into the Henry Hub Natural Gas Look-Alike Last Day Financial Futures contract (Rulebook Chapter 823; Commodity Code: HH).

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Exhibit A provides NYMEX Rulebook Chapter 509. Exhibit B (under separate cover) provides the Position Limits, Position Accountability and Reportable Level Table. Exhibit C provides the Exchange fees. Exhibit D provides the NYMEX Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table. Exhibit E provides the NYMEX Rule 589. – Special Price Fluctuation Limits and Daily Price Limits Table. Exhibit F provides the Cash Market Overview and Analysis of Deliverable Supply.

The Exchange reviewed the designated contract market core principles ("DCM Core Principles") as set forth in the Commodity Exchange Act ("CEA" or "Act") and identified that the Contract may have some bearing on the following Core Principles:

- **Compliance with Rules:** Trading in the Contract will be subject to the rules in Rulebook Chapter 4 which includes prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading in the Contracts will also be subject to the full panoply of trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook. As with all products listed for trading on one of CME Group Inc.'s ("CME Group") designated contract markets, activity in the new products 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.

- **Contract Not Readily Subject to Manipulation:** The Contract are not readily susceptible to manipulation and are based on the deep liquidity of the underlying futures contract.

- **Prevention of Market Disruption:** Trading in the Contract will be subject to the Rules of NYMEX 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 products will be subject to extensive monitoring and surveillance by CME Group's Market Regulation Department.

- **Position Limitations or Accountability**: The speculative position limits for the Contract as demonstrated in this submission are consistent with the Commission's guidance.

- **Availability of General Information:** The Exchange will publish on its website information regarding contract specifications, terms and conditions, as well as daily trading volume, open interest and price information for the Contract.

- **Daily Publication of Trading Information**: The Exchange will publish information contract trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contract.

- **Execution of Transactions**: The Contract will be listed for trading on the CME Globex electronic trading and for clearing through CME ClearPort. The CME Globex trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity.

- **Trade Information:** All required trade information for the Contract will be included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.

- **Financial Integrity of Contract:** The Contract will be cleared by the Chicago Mercantile Exchange Inc. which is a registered derivatives clearing organization with the Commission and is subject to all Commission regulations related thereto.

- **Protection of Market Participants:** NYMEX 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 Contract.

- **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 rules. Trading in these Contract 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 the Contract are identified.

- **Dispute Resolution:** Disputes with respect to trading in the Contract will be subject to the arbitration provisions set forth in Chapter 6 of the Rulebook. The rules in Chapter 6 allow 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 the rules in 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 40.2(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 proposal.

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

Should you have any questions concerning the above, please contact the undersigned at (312) 466-7478 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Timothy Elliott
Managing Director and Chief Regulatory Counsel

Attachments:
Exhibit A: NYMEX Rulebook Chapter 509
Exhibit B: Position Limits, Position Accountability and Reportable Level Table in Chapter 5 of the NYMEX Rulebook (attached under separate cover)
Exhibit C: Exchange Fees
Exhibit D: NYMEX Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table
Exhibit E: NYMEX Rule 589. – Special Price Fluctuation Limits and Daily Price Limits Table
Exhibit F: Cash Market Overview and Analysis of Deliverable Supply

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Exhibit A

NYMEX Rulebook
Chapter 509
Henry Hub Natural Gas Weekly Futures

509100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

509101. CONTRACT SPECIFICATIONS

The Floating Price for each contract week is equal to the arithmetic average of the settlement price of the Henry Hub natural gas first nearby futures for each business day of the corresponding contract week. The settlement price of the first nearby contract month of the Henry Hub natural gas will be used except if the monthly Henry Hub natural gas future expires during the contract week then the settlement price of the second nearby contract will be used for that contract week.

509102. TRADING SPECIFICATIONS

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

509102.A. Trading Schedule

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

509102.B. Trading Unit

The contract quantity shall be 10,000 MMBtu. Each contract shall be valued as the contract quantity (10,000) multiplied by the settlement price.

509102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per MMBtu. The minimum price fluctuation shall be $0.001 per MMBtu.

509102.D. Special Price Fluctuation Limits

At the commencement of each trading day, the contract shall be subject to special price fluctuation limits as set forth in Rule 589 and in the Special Price Fluctuation Limits and Daily Price Limits Table in the Interpretations & Special Notices Section of Chapter 5.

509102.E. 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.

509102.F. Termination of Trading

Trading terminates on Friday of the contract week. If Friday is not a business day, trading terminates on the prior business day.

509103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

Exhibit B

NYMEX Rulebook
Chapter 5
("Trading Qualifications and Practices")
Position Limits, Position Accountability and Reportable Level Table

(attached under separate cover)

Exhibit C
Exchange Fees

	Member	Non-Member
CME Globex	$0.70	$1.60
EFP	$0.80	$1.70
Block	$0.80	$1.70
EFR/EOO	$3.20	$4.00
Processing Fees	**Member**	**Non-Member**
Cash Settlement	$0.70	$0.95
Facilitation Fee	$0.60	
Give-Up Surcharge	$0.05	
Position Adjustment/Position Transfer	$0.10	

Exhibit D
NYMEX Rulebook
Chapter 5
("Trading Qualifications and Practices")
Rule 588.H. ("Globex Non-Reviewable Trading Ranges") Table

(additions underscored)

		Outrights			Spreads	
Instrument	**Globex Symbol**	**Globex Non-Reviewable Ranges (NRR)**	**NRR: Globex Format**	**NRR:Minimum Ticks**	**NRR: Globex Format**	**NRR: Outright Minimum Ticks**
Henry Hub Natural Gas Weekly Futures	HHW	$.05 per MMBtu	50	50	Each leg evaluated as an outright	

Exhibit E
NYMEX Rulebook
Chapter 5
("Trading Qualifications and Practices")
Rule 589. Special Price Fluctuation Limits and Daily Price Limits Table

(additions underscored)

Product	Rulebook Chapter	Commodity Code	PRIMARY/ASSOCIATED	ASSOCIATED WITH	Dynamically Calculated Variant	Daily Price Limit
Henry Hub Natural Gas Weekly Futures	509	HHW	Associated	NG	10% of Dynamically Calculated Reference Price	Daily Price Limit Table

Exhibit F

Cash Market Overview and Analysis of Deliverable Supply

In estimating deliverable supply for the Henry Hub Natural Gas Futures, New York Mercantile Exchange, Inc. ("NYMEX" or "Exchange") relied on 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 readily available for delivery. In its guidance on estimating deliverable supply, the Commodity Futures Trading Commission ("CFTC" or "Commission") states:

> 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. Typically, deliverable supply reflects the quantity of the commodity that potentially could be made available for sale on a spot basis at current prices at the contract's delivery points. For a non-financial physical- delivery commodity contract, this estimate might represent product which is in storage at the delivery point(s) specified in the futures contract or can be moved economically into or through such points consistent with the delivery procedures set forth in the contract and which is available for sale on a spot basis within the marketing channels that normally are tributary to the delivery point(s).[1]

I. Methodology and Data Sources

The Exchange considered four factors in evaluating the Henry Hub natural gas deliverable supply estimates:

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

A. Geographic Extent of the Market

The geographic extent of the market defines both the sources from which supplies can be readily provided as well as the destinations into which supply can be re-delivered. The Henry Hub delivery mechanism is part of a broader geographic market that encompasses U.S. Gulf Coast (USGC) area production, sales and re-sales. This includes production from Texas, Louisiana, Mississippi and Alabama, USGC area storage and USGC area pipelines and supporting facilities.

B. 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.[2] Interstate natural gas pipelines are subject to Federal Energy Regulatory 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.

[1] http://www.ecfr.gov/cgi-bin/text-idx?SID=74959c3dbae469e2efe0a42b45b8dfae&mc=true&node=ap17.1.38_11201.c&rgn=div9
[2] 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.

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 and 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 natural gas production that has ready access to the delivery point. 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.

C. Henry Hub Operating Capacity

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.[3] The natural gas daily deliveries operating capacity is 3,535,000 Dth which is equivalent to 3,535,000 MMBtu.

D. 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 Henry Hub Natural Gas Futures contract. The EIA also collects 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.

II. The Henry Hub Physical Delivery Mechanism

The Henry Hub consists of interconnections with 11 interstate and intrastate pipelines and related infrastructure. The Henry Hub is owned and operated by EnLink Midstream. 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 EnLink Midstream, 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.

III. Physical Market Trading Structure and Term Contracts

A. 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 7-8 times the multiple of physical natural gas that flows through Henry Hub, which is a direct indication that most sales are for re-sale. Platts *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.

[3] http://www.sabinepipeline.com//.

B. 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.[4] 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.

[4] The Exchange contacted in the past 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 Exchange does not believe that this trend has changed.

IV. Deliverable Supply Estimates and Supporting Data

The factors considered in evaluating deliverable supply are natural gas production, deliverable capacity at the Henry Hub, and natural gas storage.

A. Natural Gas Production

The Exchange reviewed monthly data reported by EIA for Federal Offshore – Gulf of Mexico Natural Gas Marketed Production (Table 1 below) from January 2021 through April 2024. The monthly average offshore natural gas production was approximately 6,505 contract equivalents in 2021, 6,420 contract equivalents in 2022, 6,063 contract equivalents, in 2023, and 5,642 contract equivalents from January 2024 to April 2024 (contract size: 10,000 MMbtu). Federal Offshore production is a subset of production that is readily accessible to be delivered at the Henry Hub.

The Exchange also reviewed monthly data reported by EIA for Louisiana Natural Gas Marketed Production (Table 2 below) and Texas Natural Gas Marketed Production (Table 3 below) from January 2021 through April 2024. The monthly average onshore production for Louisiana was approximately 28,698 contract

equivalents in 2021 and 33,873 contract equivalents in 2022, and 35,883 contract equivalents in 2023, and 32,538 contract equivalents from January 2024 to April 2024. The monthly average onshore production for Texas was approximately, 82,910 contract equivalents in 2021, 90,238 contract equivalents in 2022, 96,166 contract equivalents in 2023, and 97,337 contract equivalents from January 2024 to April 2024.

However, the onshore Louisiana and Texas production data includes production from certain regions of the states that would not be readily accessible to the Henry Hub. Consequently, even though EIA is the pre-eminent official source for production data, the Exchange relied on production estimates reported by Bentek which captures data for specific offshore and onshore areas that are accessible to the Henry Hub.

Table 5 provides Bentek's estimates of daily natural gas production accessible to the Henry Hub for Onshore and Offshore Louisiana, Texas, Mississippi and Alabama in million cubic feet for the period beginning January 2020 through June 2024. According to Bentek, average monthly onshore production accessible to the Henry Hub for was approximately, 6,723 contracts equivalents in 2021, 7,737 contract equivalents in 2022, 6,837 contract equivalents in 2023, and 6,678 from January 2024 to April 2024 respectively. Average offshore production accessible to the Henry Hub for period was approximately, 7,854 contracts equivalents in 2021 7,179 contract equivalents in 2022, 6,669 contract equivalents and 6,378 contract equivalents from January 2024 to April 2024 respectively. Additionally, as illustrated in Table 6 below, average offshore natural gas production accessible to the Henry Hub as estimated by Bentek yielded totals that were comparable to EIA's average of Federal offshore production. It should be noted that Bentek's offshore production data includes state offshore production that is directed to the Interstate pipeline system. Total annual average of onshore and offshore production as estimated by Bentek, is approximately 14,577 contracts equivalents in 2021, and 14,916 contracts equivalents in in 2022, 13,506 in 2023, and 13,056 contract equivalents from January 2024 to April 2024

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. 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 at the Henry Hub. 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. Henry Hub Deliverable Capacity

US Gulf Coast ("USGC") has undergone major changes in the last few years due to supply growth and the expansion of pipeline takeaway capacity. USGC has been a major production basin where natural gas is produced and processed then shipped to major demand center in Northeast, Midwest and Southeast via long-haul pipelines including the ones interconnected to the hub. Texas and Louisiana remain the top producing states with a share of approximately 35.5 % of the total U.S. natural gas production. However, the shale revolution has redefined the supply structure and Northeast is becoming a net exporter area displacing excess gas to the other markets notably USGC. Also, the region infrastructure is continuously growing. New concentration of facilities throughout the gas supply chain, including gathering and processing plants, extensive pipeline system, storage, industrial access, and LNG terminals have emerged. Henry Hub is an integral part of this infrastructure network.

In addition, USGC is undergoing a fundamental shift and becoming a major consumption destination specifically with LNG export terminals for example Sabine Pass LNG, Corpus Christi LNG, Cameron LNG, and Freeport LNG. U.S. began exporting LNG in February 2016. In July 2022, U.S. has the world largest LNG export capacity.[5]

Historically, the Exchange has utilized transfer services capacity as defined in a 2014 Form 10-K filing by EnLink Midstream. This number has never been updated or published since. After evaluating the new structural changes which center around the expanded capacity and infrastructure mentioned above the Exchange decided to speak with EnLink Midstream.

In our conversation with EnLink Midstream, it was determined that the design capacity which measures the operationally available capacity, is an adequate and commercially accepted measure to estimate the delivery capacity. Based on FERC Order No. 637,[6] issued on February 25, 2000, as amended in several subsequent orders, promulgated rules requiring interstate pipelines to publish various information including design and operationally available capacity on their public Electronic Bulletin Boards (EBBs). The delivery design and operationally available capacity for all interconnects is public information that is available on Sabine Pipe Line LLC website.[7] The daily deliveries design capacity at Henry Hub from its interconnects is 3,535,000 MMBtu which converts into 354 contracts per day and 10,605 contracts per month. While there may not be known constraints on being able to run at 100% design capacity, there is a potential that running at full capacity for extended periods of time may cause systematic issues. Therefore, the Exchange decided to look at haircut based on capacity utilization in the natural gas industry. The US Federal Reserve System estimates capacity utilization to be around 81% from 1967 to June of 2024 and 80% since January 2021.[8] Based on these numbers and in an effort to act conservatively and prudently, the Exchanges decided to haircut the design capacity of 10,605 contracts by an amount of 25%. In its conversations with market participants, firms expressed the view that a 25% haircut of design capacity was conservative. While the view was expressed that hub design capacity need not be haircut, firms agreed that applying a 25% haircut would be a conservative approach.

Additionally, the Exchange has taken into consideration backhaul in estimating the deliverable supply. Displacement or backhaul refers to gas flows that are scheduled in the opposite direction of existing scheduled flow in a pipeline, at a storage facility or at a Hub that accommodates delivery such as the Henry Hub. Displacement is a standard component of transportation services provided under FERC Gas Tariff[9] of Sabine Pipe Line in accordance with FERC regulations. This mechanism is integral to the network and considered as a common practice in pipeline operations.

Displacement can occur at any interconnect or point(s) on a natural gas pipeline system when volumes nominated and scheduled to flow in one direction are displaced by volumes nominated and scheduled to flow in the opposite direction. It is important to note that all confirmed nominations are viewed as flowing gas but only the net result of scheduled nominations flowing opposite directions at the same point will actually physically flow. The remaining volumes not displaced will determine the direction of actual physical flow through the inlet and outlet meters at the Henry Hub. Additionally, backhaul is coordinated directly by

[5] https://www.eia.gov/todayinenergy/detail.php?id=53719
[6] https://www.ferc.gov/sites/default/files/2020-05/rm98-10.pdf
[7] http://www.gasnom.com/ip/sabine/ipindex.cfm
[8] https://fred.stlouisfed.org/series/CAPUTLG2212S
[9] http://www.gasnom.com/ip/sabine/fileviewer.cfm?FromLoc=Tariff&file=tariff.pdf

interconnecting pipeline operators as a natural consequence of scheduled nominations between the two, without any special distinction or notification to shippers. Also, the Exchange has confirmed with the pipeline operator that incorporating displacement is both reasonable and appropriate.

In evaluating delivery capacity, the Exchange calculated the average monthly backhaul deliveries and receipts for all interconnects based on Design and Available capacities data provided by EnLink Midstream from, July 2021 to June 2024. Given that the inflowing natural gas receipts capacity is greater than the outflowing natural gas deliveries capacity, the Exchange determined at this time to use the outflowing natural gas deliveries capacity, which is the lower of the two numbers, in its evaluation of deliverable supply.

Based on the methodology described above, the Exchange estimated the backhaul capacity at the Henry Hub based on the following approach:

The Exchange first calculated the monthly backhaul capacity at every interconnect for each month based on all daily observations.

The Exchange summed up the largest monthly backhaul capacity at every interconnect over each 12-month interval over the 3-year timeframe. Accordingly, the total is 7,371,804 MMBtu for the July 2021 to June 2022 period, 5,836,288 MMBtu for the July 2022 to June 2023 period, and 6,150,410 MMBtu for the July 2023 to June 2024 period.

The average of three calculated values are 6,452,834 MMBtu which is equivalent to 645 contracts per month as illustrated in Table 7.

Monthly backhaul is not consistently in decline nor does it suggest a structural market shift; rather, the monthly displacement varies year over year and can be impacted by anomalous weather events such as Winter Storm Uri in 2021. The volume of natural gas in-flows and counter-flows (backhaul) are a function of the market dynamics. These flows fluctuate over time in response to demand variations that are typically driven by changes in loads which are well managed by the hub operator.

Winter Storm Uri which affected most of North America and brought severe destructive weather to the gas producing Southeastern states including Texas, Louisiana, and Oklahoma. According to National Oceanic and Atmospheric Administration (NOAA), Winter Storm Uri caused the coldest temperatures in more than 30 years and power outages for nearly 10 million people. The storm was characterized by the National Weather Service as “was one of the most impactful winter events in recent history that brought multiday road closures, power outages, loss of heat, broken pipes, and other societal impacts for the region.” Texas particularity suffered the worst since the event triggered massive failures power generation, transportation, and water systems leaving millions of Texans without electricity, heat, and water, many for several days. This resulted in the curtailment of natural gas production and well freeze offs in the affected area. EnLink Midstream which owns and operates Henry Hub stated in their press release for the first Quarter 2021 earnings that “Winter Storm Uri temporarily impacted volumes across EnLink’s asset footprint giving rise to commercial challenges offset by operational savings.” And added that “All systems have resumed normal operations and suffered no lasting integrity impact.”[10]

[10] https://investors.enlink.com/news-events/press-releases/detail/35/enlink-midstream-reports-first-quarter-2021-results-and

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

The Exchange reviewed monthly data reported by EIA for Louisiana Natural Gas Underground Storage Volume (Table 4 below) from January 2021 through April 2024. The monthly average for storage for Louisiana and producing regions (Alabama, Arkansas, Kansas, Louisiana, Mississippi, Oklahoma, and Texas) for was approximately 56,237contract equivalents in 2021,52,278 contract equivalents in 2022, 57,421 contract equivalents in 2023. And 55,848 contract equivalents from January 2024 to April 2024.

D. Seasonality

The Exchange continuously monitors the deliverable supply and the delivery requirements on the Contract. Further, the Exchange closely monitors seasonality and to the extent that the Exchange anticipates that 25 percent of any contract month's deliverable supply would fall below the current spot month limit, the Exchange would make a good faith effort to resolve conditions potentially limiting the adequacy of the deliverable supply or evaluate whether there is a need to adjust the spot-month position limit for that corresponding contract month.

E. Deliverable Supply Estimates

Given that production and storage levels exceed deliverable capacity, as noted above, deliverable capacity continues to be the constraining factor in estimating deliverable supply.

Position limits of the new Micro Henry Hub Natural Gas Futures contract will aggregate into the Henry Hub Natural Gas Look-Alike Last Day Financial Futures contract (Rulebook Chapter 823; Commodity Code: HH). Based on the above analysis and as shown in Table 7, the deliverable supply is estimated solely on capacity and average monthly backhaul capacity at the Henry Hub (7,954+ 645) contracts per month which is equal to 8,599 contracts per month. Twenty-five percent (25%) of the estimated monthly deliverable supply is 2,150. The Exchange and federal spot month position limit for the Henry Hub Natural Gas Futures contract is 2,000 contracts.

Table 1
Federal Offshore--Gulf of Mexico Natural Gas Marketed Production
(Contract Equivalents)[11]

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2021	7,180	6,404	7,420	6,976	7,205	6,742	7,175	6,141	3,455	6,004	6,557	6,804	6,505
2022	6,411	5,664	6,427	6,540	6,190	6,409	6,618	6,798	6,488	6,625	6,441	6,431	6,420
2023	6,767	5,949	6,487	5,845	5,629	5,708	6,304	5,999	6,280	6,171	5,704	5,910	6,063
2024	5,871	5420.1	5514	5,763									5,642

Table 2
Louisiana Natural Gas Marketed Production
(Contract Equivalents)[12]

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2021	27,742	22,327	28,301	27,364	28,357	27,615	29,994	29,280	29,061	30,774	31,041	32,520	28,698
2022	31,877	29,003	31,956	32,454	34,834	33,615	34,833	35,178	34,882	36,574	35,702	35,571	33,873
2023	36,386	35,246	37,016	36,354	37,955	34,575	36,358	36,535	35,172	36,068	34,383	34,552	35,883
2024	33,963	32,947	33,206	30,035									32,538

Table 3
Texas Natural Gas Marketed Production
(Contract Equivalents)[13]

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2021	79,938	61,071	82,806	82,381	84,731	81,758	86,068	86,240	85,875	88,699	85,649	89,700	82,910
2022	87,874	79,530	90,336	88,018	91,898	88,175	92,041	93,704	92,599	94,197	91,059	93,421	90,238
2023	93,596	84,291	96,118	93,266	98,239	94,944	98,520	99,640	96,678	99,997	97,481	101,227	96,166
2024	97,206	94,237	100,942	96,961									97,337

[11] https://www.eia.gov/dnav/ng/hist/n9050fx2M.htm
[12] http://www.eia.gov/dnav/ng/hist/n9050la2m.htm
[13] http://www.eia.gov/dnav/ng/hist/n9050tx2m.htm

Table 4

Louisiana Natural Gas Underground Storage Volume (Contract Equivalents)[14]

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2021	58,785	49,718	52,238	52,997	56,404	56,677	55,135	54,485	57,245	61,488	60,234	59,445	56,237
2022	49,134	42,253	43,262	48,621	52,394	54,224	53,107	52,579	54,580	59,604	60,973	56,611	52,278
2023	55,461	53,730	53,518	54,382	57,487	58,866	57,863	55,671	57,221	60,942	62,340	61,567	57,421
2024	53,343	54,835	56,646	58,569									55,848

Table 5

US Gulf Natural Gas Production Accessible to Henry Hub (Million Cubic Feet per Day)

Available LA/TX/MS/AL Natural Gas Supply	2021	2022	2023	Jan 24-June 2024
Bentek LA Offshore YTD	1,359	1,234	1,125	1,118
Bentek LA Onshore YTD	433	617	678	402
Bentek TX Offshore YTD	127	130	107	136
Bentek TX Onshore YTD	1,705	1,871	1,515	1,746
Bentek MS Offshore YTD	611	552	559	512
Bentek AL Offshore YTD	521	477	432	360
Bentek AL-MS-FL Onshore YTD	103	91	86	78
Total Bentek LA, TX, MS/AL	4,859	4,972	4,502	4,352
Daily Contract Equivalent (CE)	486	497	450	435
30-Day Month CE	14,577	14,916	13,506	13,056
25% of 30-Day Month CE	3,644	3,729	3,377	3,264
Available Natural Gas Supply	**2021**	**2022**	**2023**	**Jan 24-June 2024**
Total Bentek Offshore LA, TX, MS/AL	2,618	2,393	2,223	2,126
Daily Contract Equivalent (CE)	262	239	222	213

[14] https://www.eia.gov/dnav/ng/hist/n5030la2m.htm

30-Day Month CE	7,854	7,179	6,669	6,378

Available Natural Gas Supply	2021	2022	2023	Jan 24-June 2024
Total Bentek Onshore LA, TX, MS/AL	2,241	2,579	2,279	2,226
Daily Contract Equivalent (CE)	224	258	228	223
30-Day Month CE	6,723	7,737	6,837	6,678

Table 6
Monthly Average Offshore Production Accessible to Henry Hub Estimated by Bentek vs. EIA Monthly Average of Federal Offshore Production
(Contract Equivalents)

Year	Bentek	EIA
2021	7,854	6,505
2022	7,179	6,420
2023	6,669	6,063
2024	6,378	5,642

Table 7 Deliverable Supply Estimates

Design Capacity	2,651,250
Monthly Backhaul	6,452,834
Capacity Daily Contract Equivalent	265
Capacity Monthly Contract Equivalent	7,954
Monthly Backhaul-Contract Equivalent	645
DS: Capacity+Backhaul Contract Equivalent	8,599
25% Threshold	2,150
% of current Limit	23.26%