

SUBMISSION COVER SHEET

IMPORTANT: Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 24-587 (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): 12/23/24 **Filing Description:** Initial Listing of the NY Harbor ULSD Financial Calendar Spread Option (One Month) and the RBOB Gasoline Financial Calendar Spread Option (One Month) Contracts

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:

December 23, 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, D.C. 20581

Re: CFTC Regulation 40.2(a) Certification. Initial Listing of the NY Harbor ULSD Financial Calendar Spread Option (One Month) and the RBOB Gasoline Financial Calendar Spread Option (One Month) Contracts. NYMEX Submission No. 24-587 (2 of 2)

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 NY Harbor ULSD Financial Calendar Spread Option (One Month) and the RBOB Gasoline Financial Calendar Spread Option (One Month) contracts (the “Contracts”) for trading on the CME Globex electronic trading platform (“CME Globex”) and for submission for clearing via CME ClearPort, effective Sunday, January 26, 2025, for trade date Monday, January 27, 2025.

Contract Title	NY Harbor ULSD Financial Calendar Spread Option (One Month)	RBOB Gasoline Financial Calendar Spread Option (One Month)
CME Globex / CME ClearPort Code	FAF	ZAF
Rulebook Chapter	396	336
Settlement Type	Financially settled	
Underlying Futures Contract/Commodity Codes	NY Harbor ULSD Futures / HO	RBOB Gasoline Futures / RB
Contract Size	42,000 gallons	
Price Quotation	U.S. dollars and cents per gallon	
Minimum Price Fluctuation	\$.0001	
Value per Tick	\$4.20	
Termination of Trading	Trading terminates on the business day prior to the termination of trading in the first leg of the underlying spread.	
Listing Schedule	1-month spreads listed for the current year and next 3 calendar years	
Initial Listing	March 2025 through December 2028	
Block Trade Minimum Threshold / Reporting Window	10 contracts - subject to a 15-minute reporting window	

CME Globex Matching Algorithm	FIFO
Strike Price Listing Schedule	Dynamic strikes only at 0.0010 per gallon increment.
Exercise Style	European
Trading and Clearing Hours	<p>CME Globex Pre-open: Sunday 4:00 p.m. - 5:00 p.m. Central Time/CT Tuesday – Thursday 4:45 p.m. - 5:00 p.m. CT</p> <p>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</p> <p>CME ClearPort: Sunday 5:00 p.m. - Friday 4:00 p.m. CT with no reporting Tuesday - Thursday from 4:00 p.m. – 5:00 p.m. CT</p>

The Contracts will settle based on the prices of the NY Harbor ULSD Futures contract (Commodity Code: HO) and the RBOB Gasoline Futures contract (Commodity Code: RB), which are referenced contracts.

Exhibit A provides NYMEX Rulebook Chapter 336 and 393. Exhibit B 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. The Strike Price Listing and Exercise Procedures Table for the Contracts is provided in Exhibit E. Exhibit F provides the Cash Market Overview and the Analysis of Deliverable Supply.

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

- **Compliance with Rules:** Trading in the Contracts will be subject to Chapter 4 of the Exchange rules which includes prohibitions against fraudulent, non-competitive, unfair and abusive practices and will be subject to extensive monitoring and surveillance by CME Group’s Market Regulation Department. The Market Regulation Department may use its investigatory and enforcement power where potential rule violations are identified during its regular surveillance reviews.
- **Contract Not Readily Subject to Manipulation:** The Contracts are not readily susceptible to manipulation and are based on the liquidity and robustness of the underlying cash markets.
- **Prevention of Market Disruption:** Trading in the Contracts 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 Contracts 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 Contracts.
- **Daily Publication of Trading Information:** The Exchange will publish information on contract trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contracts.
- **Execution of Transactions:** The Contracts 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 Contracts 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 Contracts will be cleared by the CME Clearing House, 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 the Contracts.
- **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 the 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 these Contracts is identified.
- **Dispute Resolution:** Disputes with respect to trading in the Contracts 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 40.6(a), the Exchange hereby certifies that the Contracts comply 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 336 and 393
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 300.20. – Strike Price Listing and Exercise Procedures Table
Exhibit F: Cash Market Overview and Analysis of Deliverable Supply

Exhibit A

NYMEX Rulebook Chapter 393 NY Harbor ULSD Financial Calendar Spread Option

393100. SCOPE OF CHAPTER

This chapter is limited in application to NY Harbor ULSD Financial Calendar Spread options on the NY Harbor ULSD futures contract. In addition to the rules of this chapter, transactions in the NY Harbor ULSD Financial Calendar Spread Option contract shall be subject to the general rules of the Exchange insofar as applicable.

393101. OPTION CHARACTERISTICS

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

393101.A. Trading Schedule

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

393101.B. Trading Units

A Put Option contract will represent the cash difference between the strike price and the settlement price of the first expiring NY Harbor ULSD Futures ([NYMEX Chapter 150](#), Exchange Code: [HO](#)) contract in the spread less the settlement price of the second expiring NY Harbor ULSD Futures ([NYMEX Chapter 150](#), Exchange Code: [HO](#)) contract in the spread traded on the Exchange multiplied by 42,000, or zero, whichever is greater. A Call Option contract represents the cash difference of the settlement price of the first expiring NY Harbor ULSD Futures (HO) contract in the spread less the settlement price of the second expiring NY Harbor ULSD Futures (HO) contract in the spread traded on the Exchange less the strike price multiplied by 42,000, or zero, whichever is greater.

393101.C. Price Increments

Prices shall be quoted in dollars and cents per gallon and prices shall be in multiples of \$0.0001 per gallon.

393101.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.

393101.E. Termination of Trading

A NY Harbor ULSD Financial Calendar Spread Option contract shall expire at the close of trading on the business day immediately preceding the expiration of the first expiring NY Harbor ULSD futures contract in the spread.

393101.F. Type Option

A NY Harbor ULSD Financial Calendar Spread Option is a cash-settled European-style option contract which cannot be exercised prior to expiration.

393102. EXERCISE PRICES AND CHARACTERISTICS

Transactions shall be conducted for option contracts as set forth in Rule 300.20.

393103. SPECIAL PRICE FLUCTUATION LIMITS

At the commencement of each trading day, the contract shall be subject to special 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.

Chapter 336

RBOB Gasoline Financial Calendar Spread Option

336100. SCOPE OF CHAPTER

This chapter is limited in application to RBOB Gasoline Financial Calendar Spread options on the RBOB Gasoline futures contract. In addition to the rules of this chapter, transactions in the RBOB Gasoline Financial Calendar Spread Option contract shall be subject to the general rules of the Exchange insofar as applicable.

336101. OPTION CHARACTERISTICS

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

336101.A. Trading Schedule

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

336101.B. Trading Units

A Put Option contract will represent the cash difference between the strike price and the settlement price of the first expiring RBOB Gasoline Futures ([NYMEX Chapter 191](#), Exchange Code: [RB](#)) contract in the spread less the settlement price of the second expiring RBOB Gasoline Futures ([NYMEX Chapter 191](#), Exchange Code: [RB](#)) contract in the spread traded on the Exchange multiplied by 42,000, or zero, whichever is greater. A Call Option contract represents the cash difference of the settlement price of the first expiring RBOB Gasoline Futures (RB) contract in the spread less the settlement price of the second expiring RBOB Gasoline Futures (RB) contract in the spread traded on the Exchange less the strike price multiplied by 42,000, or zero, whichever is greater.

336101.C. Price Increments

Prices shall be quoted in dollars and cents per gallon and prices shall be in multiples of \$0.0001 per gallon.

336101.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.

336101.E. Termination of Trading

An RBOB Gasoline Financial Calendar Spread Option contract shall expire at the close of trading on the business day immediately preceding the expiration of the first expiring RBOB Gasoline futures contract in the spread.

336101.F. Type Option

An RBOB Financial Calendar Spread Option is a cash-settled European-style option contract which cannot be exercised prior to expiration.

336102. EXERCISE PRICES AND CHARACTERISTICS

Transactions shall be conducted for option contracts as set forth in Rule 300.20.

336103. SPECIAL PRICE FLUCTUATION LIMITS

At the commencement of each trading day, the contract shall be subject to special 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.

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	\$1.50
Block	\$1.85	\$2.65
EFR/EOO	\$1.85	\$2.65

Processing Fees	Member	Non-Member
Cash Settlement	\$0.90	\$1.15
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		
Instrument	Globex Symbol	Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Minimum Ticks
<u>NY Harbor ULSD Financial Calendar Spread Option (One Month)</u>	<u>FAF</u>	<u>The greater of the following:</u> <ul style="list-style-type: none"> •<u>Delta multiplied by the underlying futures non-reviewable range</u> •<u>20% of premium up to ¼ of the underlying futures non-reviewable range</u> •<u>5 ticks</u> 		
<u>RBOB Gasoline Financial Calendar Spread Option (One Month)</u>	<u>ZAF</u>	<u>The greater of the following:</u> <ul style="list-style-type: none"> •<u>Delta multiplied by the underlying futures non-reviewable range</u> •<u>20% of premium up to ¼ of the underlying futures non-reviewable range</u> •<u>5 ticks</u> 		

Exhibit E

**NYMEX Rulebook
Chapter 300
("Options Contracts")**

Rule 300.20. - Strike Price Listing and Exercise Procedure Table
(additions underscored)

Commodity Code	CME Globex Code	Product Name	Product Group	Product Sub-group	Exchange	Rule-book Chapter	Strike Price Listing Rule	Option Style	Contrary Instructions	Margin Style	Exact At-The-Money Characteristics	Underlying Commodity Code	Underlying Product Name
<u>FAF</u>	<u>FAF</u>	<u>NY Harbor ULSD Financial Calendar Spread Option (One Month)</u>	<u>Energy</u>	<u>Crude Oil</u>	<u>NYMEX</u>	<u>393</u>	<u>Dynamic strikes only at \$0.0010 per gallon increment</u>	<u>European</u>	<u>N/A - Financially Settled</u>	<u>Equity</u>	<u>N/A - Financially Settled</u>	<u>HO</u>	<u>NY Harbor ULSD Futures</u>
<u>ZAF</u>	<u>ZAF</u>	<u>RBOB Gasoline Financial Calendar Spread Option (One Month)</u>	<u>Energy</u>	<u>Crude Oil</u>	<u>NYMEX</u>	<u>336</u>	<u>Dynamic strikes only at \$0.0010 per gallon increment</u>	<u>European</u>	<u>N/A - Financially Settled</u>	<u>Equity</u>	<u>N/A - Financially Settled</u>	<u>RB</u>	<u>RBOB Gasoline Futures</u>

Exhibit F
Cash Market Overview and Analysis of Deliverable Supply

NY HARBOR ULSD FUTURES

In estimating deliverable supply for the NY Harbor ULSD Futures contract, 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.

Appendix C to part 38 of the Commission’s regulations defines deliverable supply as “the quantity of the commodity meeting the 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.”

Methodology and Data Sources

The Exchange considered four components in evaluating deliverable supply estimates of Ultra Low Sulfur Diesel (“ULSD”) for the New York Harbor delivery location of the NY Harbor ULSD Futures contract:

- A. ULSD production at Bayway Refinery;
- B. ULSD deliveries to the NY Harbor on Colonial Pipeline;
- C. ULSD storage levels in the delivery area; and
- D. ULSD imports and exports into the delivery area.

For production, storage and import/exports, the Exchange determined to use data collected by the United States Department of Energy (“DOE”) Energy Information Administration (“EIA”) for its analysis and evaluation of deliverable supply estimates for ULSD in the New York Harbor. The EIA provides detailed data on the key components of deliverable supply. The EIA provides such data on a monthly and annual basis. Where EIA data was not available, the Exchange also incorporated data from the United States International Trade Commission (“USITC”), and from industry sources.

II. Introduction

ULSD is a distillate fuel that has a dual-use as a heating oil and as a transportation fuel. As of December 1, 2010, all on-highway diesel fuel consumed in the U.S. is ULSD as mandated by federal regulations.¹

Unlike diesel fuel used in transportation, heating oil has no federal sulfur content restrictions. However, various state initiatives to apply comparable sulfur limits to heating oil are in planning or implementation stages in the Northeast, the main heating oil consuming region.

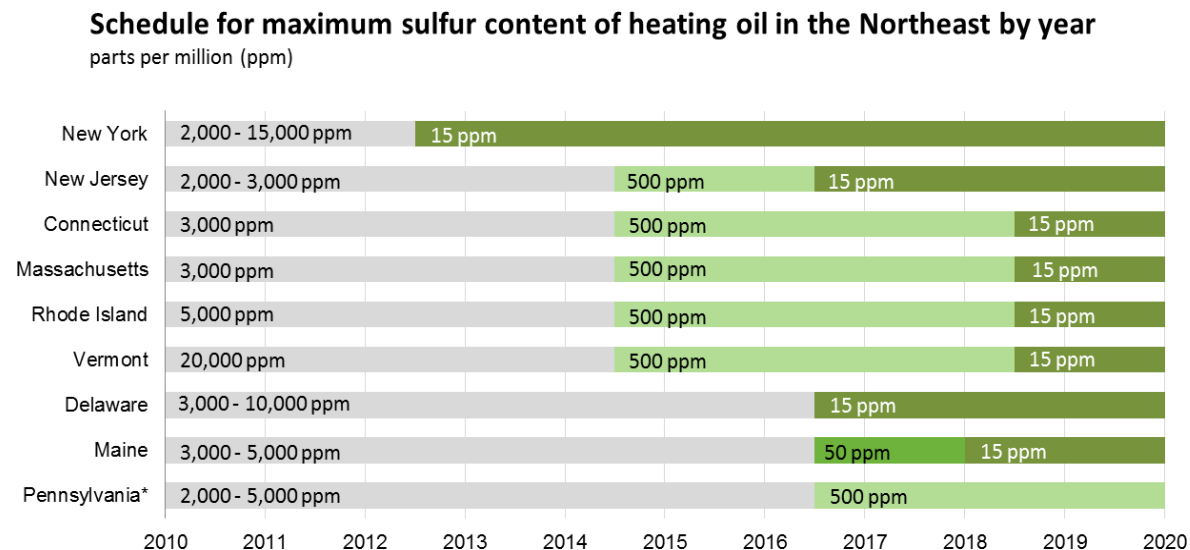
According to the EIA, New England and the Central Atlantic Coast of the United States (collectively known as the “Northeast” for data purposes) are the main consumers of heating oil, typically accounting for 80% of the sales.² As of July 1, 2012, New York State mandated that all heating oil sold for residential, commercial and industrial heating applications within the State contain no more than

¹ <https://www.federalregister.gov/documents/2005/11/22/05-22807/control-of-air-pollution-from-new-motor-vehicles-revisions-to-motor-vehicle-diesel-fuel-sulfur>

² <https://www.eia.gov/todayinenergy/detail.php?id=4070#:~:text=Over%2080%25%20of%20homes%20that,oil%20were%20built%20before%201950.>

15 parts per million (“ppm”) of sulfur. Following New York’s path, Delaware and New Jersey transitioned to 15ppm sulfur content in 2016. As of July 1, 2018, Connecticut, Maine, Massachusetts, Rhode Island and Vermont transitioned to ULSD for heating purposes.³ Figure 1 below is a summary of the specification changes to heating oil by state.

Figure 1 - Heating Oil Sulfur Specification Changes per State⁴



The NY Harbor ULSD Futures contract is the main benchmark used for pricing the distillate products market, which includes diesel fuel, heating oil, and jet fuel. The Exchange amended the grade and quality specifications in response to changes in environmental regulations in the Northeast, requiring cleaner, lower sulfur diesel standards for heating oil. Effective beginning with the May 2013 delivery month, the NY Harbor ULSD Futures contract required delivery of on-road ULSD with a maximum of 15ppm sulfur content.⁵

After transitioning to lower sulfur grade in May 2013, the NY Harbor ULSD Futures contract serves as a dual-use contract that is a price reference and hedging instrument for both the heating oil and on-road diesel markets. The heating oil pool will eventually be fully integrated into the ULSD market and the widespread adoption of a 15ppm sulfur content limit for heating oil is likely to encourage the development of a seamless ULSD distillate market throughout the entire East Coast, according to the EIA.

New York Harbor Delivery Region

New England and the Central Atlantic Coast of the United States, collectively defined by the EIA as the “Northeast,” is a well-connected and integrated geographical region in terms of oil and products infrastructure. The region is part of the larger Petroleum Administration for Defense District (“PADD”) system, specifically PADD 1.⁶

Located in both New York and New Jersey, the New York Harbor area is the largest oil product importing port in the nation and is the main oil and refined products pricing and trading hub. Petroleum products in New York Harbor are supplied by refineries located in New Jersey, Delaware and Pennsylvania, all located within 100 miles of the New York Harbor area. East Coast refineries, a

³ [https://www.eia.gov/energyexplained/heating-](https://www.eia.gov/energyexplained/heating-oil/#:~:text=In%202012%2C%20New%20York%20became,ULSHO%20on%20July%201%2C%202018.)

[oil/#:~:text=In%202012%2C%20New%20York%20became,ULSHO%20on%20July%201%2C%202018.](https://www.eia.gov/energyexplained/heating-oil/#:~:text=In%202012%2C%20New%20York%20became,ULSHO%20on%20July%201%2C%202018.)

⁴ http://www.eia.gov/forecasts/steo/special/winter/2014_winter_fuels.pdf

⁵ <https://www.eia.gov/todayinenergy/detail.php?id=11211>

⁶ <http://www.eia.gov/analysis/petroleum/nerefining/prelim/>

majority of which are located in New Jersey and Philadelphia, send products by local pipelines into New York Harbor.

Among the refineries serving the NY Harbor area, Bayway refinery is the largest supplier of ULSD. Located on the New York Harbor in Linden, New Jersey, the Phillips 66-owned refinery processes mainly light, low-sulfur crude oil. Bayway's refining units include fluid catalytic cracking ("FCC"), hydrodesulfurization units, a naphtha reformer, an alkylation unit and other processing equipment. The refinery's total crude capacity is 258,000 barrels per day (b/d), while its ULSD capacity is 108,000-115,000 b/d.⁷

Colonial Pipeline is the largest refined products pipeline in the U.S. and a key products supply link for the Northeast. The pipeline connects the Northeast to refinery output from the US Gulf Coast and foreign imports, principally from Canada, Virgin Islands, Caribbean and Europe. Colonial Pipeline's network of pipelines crosses 14 states, serving more than 260 marketing terminals in the Southern and Eastern U.S. The pipeline provides a link from the U.S. Gulf Coast to the New York Harbor area through the south and across the Eastern seaboard. It generally takes approximately 14 to 24 days for a product batch on Colonial Pipeline to get from Houston, Texas to the New York Harbor, with an average of 18.5 days. The Philadelphia-area refineries are strategically located along Colonial Pipeline.

The Harbor Pipeline is an approximately 80-mile 171,000 b/d refined product common carrier pipeline originating near Woodbury, New Jersey and terminating in Linden, New Jersey. It is majority-owned and operated by Sunoco.⁸

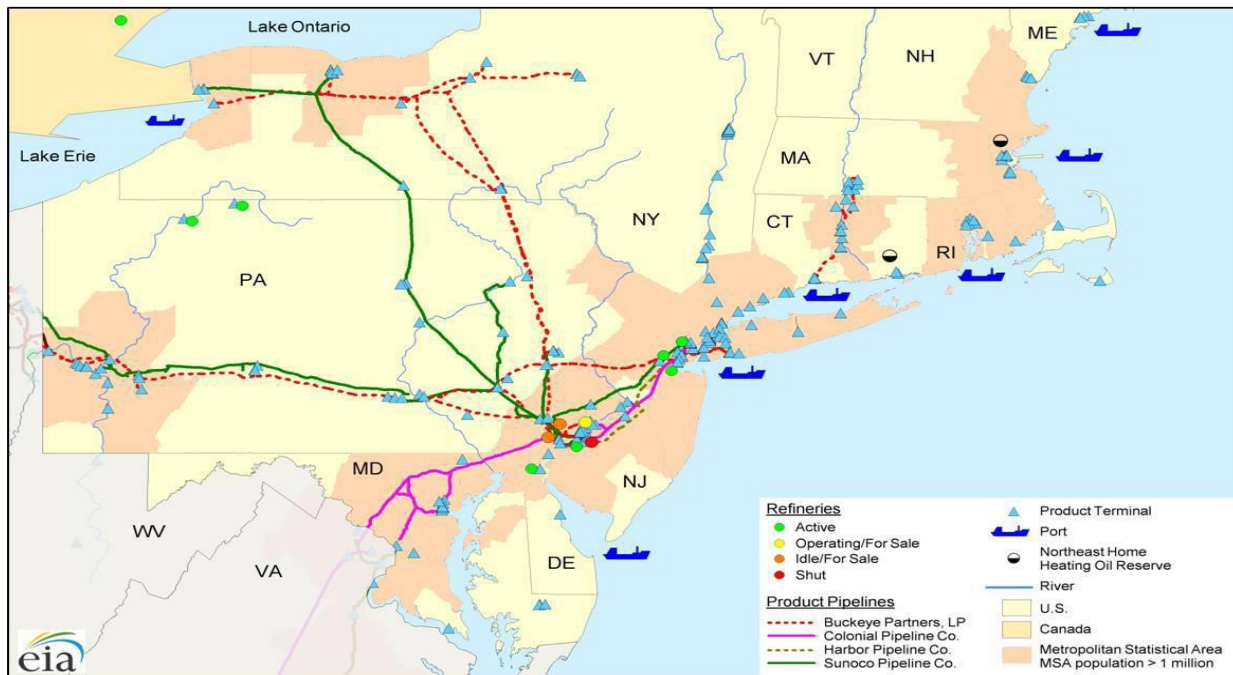
Many of the petroleum products delivered to New York Harbor are redistributed to smaller ports where they supply local demand. In particular, the Hudson River, which meets the Atlantic Ocean in New York Harbor, provides a major inland water route for petroleum product barges supplying eastern New York and parts of western New England. Significant volumes are shipped to New England via barge from New York Harbor. On the other side of the state, western New York product markets are primarily supplied from Canada at the Port of Buffalo, and via the Buckeye and Sunoco Logistics pipeline systems from Pennsylvania and the Midwest.⁹ Figure 2 below illustrates the logistics of refining and products transportation in the Northeast.

⁷ <http://www.phillips66.com/EN/about/our-businesses/refining/Pages/Bayway-Refinery.aspx>

⁸ <https://investor.phillips66.com/financial-information/sec-filings/sec-filings-details/default.aspx?filingid=11867386>

⁹ <https://www.eia.gov/state/print.php?sid=NY>

Figure 2. Northeast Refined Products Market Logistics¹⁰



As of January 1, 2024, there were 132 operable refineries, all of which were operating in the U.S. with total atmospheric crude oil distillation capacity of 18.4 million barrels per calendar day.¹¹ On the East Coast (PADD 1), there are eight operable refineries with 910 thousand b/d of atmospheric crude distillation capacity. The region has 310,000 b/d of FCC capacity. PADD 1 includes all states in New England, the Mid-Atlantic, and the South Atlantic and is subdivided into 3 sub-PADDs.

- PADD 1A – Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
- PADD 1B – New York, Pennsylvania, New Jersey, Delaware, Maryland, District of Columbia
- PADD 1C - West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida

Supply dynamics for each of the 3 sub-PADDs vary. PADD 1A, New England, has no refineries and relies on imports and transfers from other PADDs, primarily PADD 1B. PADD 1C relies primarily on pipeline transfers and marine shipments from PADD 3 and imports. PADD 1B is supplied by a combination of in-region refineries, transfers from other PADDs—primarily from PADD 3—and imports.¹²

The majority of PADD 1B refineries are located in New Jersey, Delaware and Pennsylvania, and within 100 miles of the New York Harbor area. These refineries are directly connected to the New York Harbor market by local pipelines and/or waterborne barges. A list of Northeast refineries is provided in Table 1.

¹⁰ <http://www.eia.gov/analysis/petroleum/nerefining/update/pdf/neprodmkts.pdf>

¹¹ http://www.eia.gov/dnav/pet/pet_pnp_cap1_dcu_nus_a.htm

¹² http://www.eia.gov/petroleum/refinery/outage/pdf/refinery_outage.pdf

Table 1 – Mid-Atlantic (PADD 1B) Refineries¹³

Name	State	Owner	Capacity	Status
Delaware City Refining Co LLC	Delaware City, DE	PBF Energy Co LLC	171,100 b/d	Operational
Paulsboro Refining Co LLC	Paulsboro, NJ	PBF Energy Co LLC	160,000 b/d	Operational
CPI Operations LLC	Paulsboro, NJ	PBF Energy Co LLC	32,000 b/d	Operational
Phillips 66 Company	Linden, NJ	Phillips 66 Company	258,500 b/d	Operational
American Refining Group Inc	Bradford, PA	American Refining Group Inc	11,000 b/d	Operational
United Refining Co	Warren, PA	Red Apple Group Inc	65,000 b/d	Operational
Monroe Energy LLC	Trainer, PA	Delta Airlines Inc	190,000 b/d	Operational

III. Deliverable Supply Estimates

A. ULSD Production

According to EIA’s “Refinery Capacity by Individual Refinery” data¹⁴ as well as data reported by Phillips 66,¹⁵ the total distillate fuel capacity at the Bayway refinery is approximately 108,000-130,000 b/d. Industry interviews indicate that almost all of Bayway’s distillate fuel capacity is used for ULSD production. In estimating ULSD production at the Bayway refinery, the Exchange adjusted the capacity figure downward due to seasonal factors, to 108,000 barrels per day. Further, EIA provides operable refinery utilization rates for the “East Coast” area of PADD 1, which is an accurate representation of the utilization rate for the Bayway refinery. EIA’s operable utilization rates represent the utilization of the atmospheric crude oil distillation units and are calculated by dividing the gross input to these units by the operable calendar day refining capacity of the units. Accordingly, the EIA refinery utilization rate is 86.4% utilization for the 3-year period of 2021 through 2023¹⁶ (83.6%, 92.7% and 83.0% respectively). Finally, according to industry sources at Phillips 66, it was explained that approximately 10,000 barrels per day of ULSD production are committed to long-term customers. Therefore, after accounting for long-term commitments, the net ULSD production at Bayway Refinery is estimated at 83,312 b/d, or approximately 2.50 million barrels per month.

¹³ <https://www.eia.gov/petroleum/refinerycapacity/table5.pdf>

¹⁴ Refinery Capacity by Individual Refinery Data: <https://www.eia.gov/petroleum/refinerycapacity/refcap23.xls> under the category “desulfurization, diesel fuel”

¹⁵ <http://www.phillips66.com/EN/about/our-businesses/refining/Pages/Bayway-Refinery.aspx>

¹⁶ http://www.eia.gov/dnav/pet/pet_pnp_unc_dcu_rec_a.htm

Table 2. Bayway Refinery Production

ULSD Capacity (b/d)	Capacity Utilization (3-Year Average)	Net ULSD Production (b/d)	ULSD Production committed to Long-Term Contracts (b/d)	Net ULSD Production Barrels per Month
108,000	86.4%	93,312	10,000	2,499,360

B. ULSD Deliveries

The main pipeline supplying ULSD to the NY Harbor market is Colonial Pipeline. Data for precise ULSD flows are not publicly shared by pipeline operators, however the Exchange estimated these figures using a combination of publicly available EIA data and other industry sources.

To estimate the amount of ULSD on Colonial Pipeline, the Exchange previously utilized a 5-step approach based on the Federal Energy Regulatory Commission (“FERC”) surcharge data to estimate the numbers of barrels per month that were shipped north of Booth, Pennsylvania in the Philadelphia area. In addition to the FERC surcharge, this included data from Colonial Pipeline distillate fuel deliveries, PADD 1 receipts by pipeline, tanker, and barge from PADD 3, and EIA prime supplier sales volumes data from Pennsylvania.

Colonial Pipeline discontinued the FERC surcharge on ULSD as of January 1, 2017.¹⁷ As a result, the Exchange employed a revised approach to calculate the amount of ULSD that reaches New York Harbor which is the end point of Colonial Pipeline.

The amount of ULSD that reaches the New York Harbor area on Colonial Pipeline can be estimated using data provided by the EIA and other publicly available data for the Northeast. For the purpose of this calculation the “Northeast” is defined as the states that make up PADD 1A (Connecticut, Massachusetts, Vermont, New Hampshire, Rhode Island, and Maine) plus New York, New Jersey and Pennsylvania, which are a large subset of PADD 1B. As previously described and shown in Figure 2, this region of the U.S. is relatively independent, with regional demand being met by local refinery production, imports, and pipeline deliveries from PADD 2 at the Pennsylvania border, or from PADD 3 via Colonial Pipeline. As all the of the preceding supply/demand variables except pipeline deliveries from Colonial Pipeline are available directly or indirectly, the Exchange uses the following formula to calculate ULSD deliveries to the Northeast from Colonial Pipeline:

$$\text{Colonial Pipeline Deliveries of ULSD} = \text{Northeast ULSD Demand} + \text{Northeast ULSD Exports} + \text{Northeast stock builds} - \text{Northeast ULSD Imports} - \text{Northeast ULSD Receipts from PADD 2.}$$

The Exchange outlines the sources, and any adjustments and rationale for the above variables as shown below. The data and results are demonstrated in **Table 3**:

- Northeast ULSD Demand:** Through March of 2022, the EIA provided Prime Suppliers Sales volumes of No. 2 Distillate Fuel Oil,¹⁸ which includes on-road diesel plus home heating oil (also called “fuel oil”)¹⁹ for each state. According to the EIA the Prime Suppliers report data measure primary petroleum product deliveries into the states where they are used for local marketing and consumption²⁰ and represent state-level demand data. For the 3 years ending March 2022, EIA’s prime suppliers sales volumes of No. 2 Distillate Fuel Oil for the Northeast averaged 45% of their total PADD 1 Product Supplied of ULSD. Therefore, for the months after March 2022 through August 2024 when Prime Suppliers data ceased to be reported, the Exchange calculated

¹⁷ https://colpipe.s3-us-west-1.amazonaws.com/media/Tariffs/Archived/ferc-98-29-0-transmittal-letter_190703_060304.pdf?mtime=20190702230304&focal=none

¹⁸ https://www.eia.gov/dnav/pet/pet_cons_prim_a_EPD2_P00_Mgalpd_m.htm

¹⁹ https://www.eia.gov/dnav/pet/TblDefs/pet_cons_prim_tbldef2.asp

²⁰ <https://www.eia.gov/petroleum/marketing/prime/#tabs-volumes-1>

Northeast No.2 Distillate Fuel Oil demand as 45% of the PADD 1 Product Supplied for each month.

Further, in the Prime Suppliers Sales data, the EIA does not provide comprehensive state-level data specific to the ultra-low-sulfur classification of No.2 Distillate Fuel Oil. However, the vast majority of diesel demand in the region is ULSD, consistent with the regulatory sulfur requirements outlined earlier. For PADD 1 in total, the EIA reports Product Supplied²¹ of Distillate that is greater than 15ppm (not ULSD), and this averages less than 1% of total Distillate Product Supplied. However, to be conservative, the Exchange assumes all of this higher-sulfur diesel is in the Northeast and deduct the total PADD 1 Product Suppliers of Distillate greater than 15ppm from the Northeast ULSD demand estimate. Over the 3 years from September 2021 to August 2024, Northeast ULSD demand averaged 500,000 barrels per day.

- **Northeast ULSD Exports:** The United States Census Bureau, via the USITC²², provides export detail by port of exit. USITC data for HTS-Code 271019, which is the code the EIA uses for Diesel Fuel,²³ from the Northeast ports is reported in both kilograms and barrels. The Exchange converted the kilograms to barrels using a conversion factor of 1 barrel = 136 kilograms.²⁴ Diesel exports from Northeast ports averaged 43,000 barrels per day. However as with demand, a portion of these exports may be higher sulfur. The Exchange also conservatively reduced the USITC export data for the Northeast by the EIA's total PADD 1 exports for Distillate Fuel oil greater than 15ppm, which averaged 5,000 barrels per day. Northeast exports of ULSD are estimated to have averaged 38,000 barrels per day from September 2021 through August 2024.
- **Northeast Stock Builds:** The EIA directly reports stock changes in PADDs 1A and 1B for Distillate Fuel Oil less than 15ppm,²⁵ which over the three (3)-year period of September 2021 to August 2024 averaged to a small draw of 3,000 barrels per day.
- **Northeast Imports:** According to the EIA's Company-level Import dataset,²⁶ imports of ULSD into port cities within the Northeast averaged 138,000 barrels per day for the three (3)-year period ending August 2024. This includes waterborne imports as well as any imports from Canada over land.
- **Northeast Receipts from PADD 2:** The EIA reports pipeline receipts of ULSD from PADD 2 to PADD 1, averaging 31,000 barrels per day over the three (3)-year period ending August 2024. Refined product pipelines from PADD 2 to PADD 1 only deliver into the Northeast region.²⁷ These pipelines are also shown in Figure 2.

Considering the above factors, the remaining supply needed to balance Northeast ULSD supply and demand is calculated: pipeline deliveries into the Northeast via Colonial Pipeline, as outlined in Table 3. Based on the methodology described above, the average volume of ULSD delivered into the Northeast on Colonial Pipeline is 144,000 barrels per day, which is equivalent to 4.33 million barrels per month, over the September 2021 to August 2024 period.

²¹ https://www.eia.gov/dnav/pet/pet_cons_psup_dc_r10_mbbldpd_m.htm

²² <https://dataweb.usitc.gov/trade/search/TotExp/HTS>

²³ https://www.eia.gov/trilateral/content/documents/sp_energytrade_revised.pdf

²⁴

https://energyeducation.ca/encyclopedia/Barrels_of_oil_equivalent#:~:text=Since%20average%20domestic%20crude%20oil,pounds%20or%20about%20136%20kilograms

²⁵ https://www.eia.gov/dnav/pet/xls/PET_STOC_TS_A_EPDXL0_SAE_MBBL_M.xls

²⁶ <https://www.eia.gov/petroleum/imports/companylevel/>

²⁷ https://www.energy.gov/sites/default/files/2023-08/Pipeline%20Backgrounder_FINAL_508.pdf

Table 3. Northeast Supply/Demand Variables & Receipts of ULSD from Colonial Pipeline

(Thousand Barrels per Day)

	Northeast ULSD Demand	EIA Northeast Stock Build (Draw)	Northeast USITC Diesel Exports	Less EIA P1 Diesel Exports not ULSD	Total Demand	EIA P1b ULSD Production	EIA P1 Pipe from P2	Northeast ULSD Imports	Known Northeast Supply	Receipts on Colonial (Calc'd)
3-yr Average	500	-3	43	5	534	221	31	138	390	144
8/1/2024	382	64	83	1	528	204	24	100	329	200
7/1/2024	381	64	54	1	498	240	35	75	350	148
6/1/2024	394	58	102	1	553	237	33	84	354	199
5/1/2024	424	75	34	9	525	232	30	88	350	175
4/1/2024	505	(103)	80	1	481	226	31	98	354	127
3/1/2024	524	25	86	5	629	224	35	156	415	215
2/1/2024	680	(33)	74	9	712	227	48	151	426	285
1/1/2024	655	(102)	13	1	565	207	40	143	391	175
12/1/2023	568	212	11	1	790	252	37	206	495	295
11/1/2023	501	40	26	1	565	247	33	107	387	178
10/1/2023	464	(70)	11	1	403	200	18	72	290	113
9/1/2023	388	(5)	39	1	421	238	35	73	346	75
8/1/2023	424	24	48	3	493	244	30	91	365	128
7/1/2023	350	70	30	0	449	197	30	88	315	134
6/1/2023	409	(47)	43	0	405	203	24	96	323	82
5/1/2023	438	(15)	20	1	442	233	28	107	368	74
4/1/2023	484	39	9	3	530	251	25	129	405	124
3/1/2023	637	(226)	89	6	494	189	27	120	336	158
2/1/2023	635	67	41	1	742	215	28	254	498	245
1/1/2023	664	13	30	14	692	227	23	229	479	213
12/1/2022	578	91	24	5	688	236	35	176	447	241
11/1/2022	541	84	19	7	637	251	34	196	481	156
10/1/2022	451	33	18	3	500	226	33	82	340	160
9/1/2022	443	(47)	34	1	429	218	26	90	334	95
8/1/2022	349	18	42	1	408	229	25	98	352	55
7/1/2022	358	29	62	8	441	224	24	116	364	77
6/1/2022	395	65	50	5	505	230	30	70	331	174
5/1/2022	400	(0)	16	8	408	232	38	98	368	40
4/1/2022	526	(100)	17	3	440	191	46	84	321	120
3/1/2022	592	(175)	74	21	470	203	35	148	386	84
2/1/2022	680	(33)	36	0	684	213	38	347	598	86
1/1/2022	679	(212)	35	0	503	207	26	192	425	77
12/1/2021	632	(44)	66	28	627	225	33	201	459	168
11/1/2021	563	74	53	25	666	213	34	233	481	185
10/1/2021	488	33	25	9	538	175	27	218	420	118
9/1/2021	415	(75)	36	10	366	183	23	145	352	14

C. Inventories of ULSD in the New York Harbor Market

New York Harbor has a petroleum bulk terminal storage capacity of over 75 million barrels, making it the largest petroleum product hub in the country. For the purposes of ULSD delivery in NY Harbor against the NYMEX NY Harbor ULSD Futures contract, the Exchange has 15 approved delivery terminals. Based on conversations with these facilities the total cumulative working tank capacity for ULSD at all Exchange-approved delivery terminals equals 13,357,333 barrels. Table 4 below details the list of facilities approved by the Exchange.

Table 4 – ULSD Facilities in NY Harbor

Name of Facility	Facility Code
PHILLIPS 66 - TREMLEY POINT	E78
INTERNATIONAL MATEX TANK TERMINAL (IMTT) - BAYONNE	E79
BUCKEYE PERTH AMBOY TERMINAL LLC	E80
CITGO – LINDEN	E82
FEDERAL TERMINAL – ELIZABETH	E84
KINDER MORGAN - CARTERET	E85
KINDER MORGAN - CARTERET TRUCK RACK	E76
BUCKEYE PORT READING TERMINAL LLC	E86
SPRAGUE - BRONX SEC TERMINAL	E88
SHELL OIL PRODUCTS US - SEWAREN	E89
SHELL OIL PRODUCTS US - NEWARK	E83
ST TERMINAL – LINDEN	E91
BUCKEYE BAYONNE TERMINAL	E92
KINDER MORGAN - PERTH AMBOY	E94
PHILLIPS 66 - BAY WAY	E97

In addition to commercial stocks held in New York Harbor terminals, the Northeast Home Heating Oil Reserve (“NEHHOR”), which was established in 2000 to provide heating fuel supply security in the Northeast, has a 1 million barrel supply of ULSD. The ULSD is stored in 4 terminals in the NY Harbor area: Groton, Connecticut; Port Reading, New Jersey; and Chelsea and Revere, Massachusetts.

The three (3)-year average of ULSD stocks held in the Central Atlantic, or PADD 1B, region is approximately 13.6 million barrels (See Table 5). According to market participants, the New York Harbor area, which includes storage terminals in New York and New Jersey, accounts for 50% to 60% of the inventories reported in EIA’s PADD 1B statistics. Using a conservative estimate of 50% of PADD 1B inventories, the average stock level of ULSD is estimated to be approximately 6.8 million barrels in New York Harbor.

Table 5. Central Atlantic (PADD 1B) ULSD Stocks²⁸ (Annual Average based on Weekly Data)

	Nov 2021 - Oct 2022	Nov 2022 - Oct 2023	Nov 2023 - Oct 2024	3-yr Average
Thousand Barrels	12,732	13,158	14,963	13,618

Based on estimates from industry experts, the Exchange determined that the operational minimum levels for storage tanks in the New York Harbor area are approximately 5% to 10%. Using the more conservative estimate of 10%, the Exchange estimates that approximately 680 thousand of the 6.8 million barrels of stored ULSD are used for operational purposes, leaving approximately 6.12 million barrels available for spot month delivery. While the majority of ULSD in storage is available in the spot market, the Exchange applied a 20% reduction on storage figures to account for long-term agreements to arrive at a final 4.9 million barrels per month figure.

D. Imports and Exports

The New York Harbor area is the largest oil product import hub in the U.S. According to the EIA’s

²⁸ https://www.eia.gov/dnav/pet/xls/PET_STOC_WSTK_DCU_R1Y_W.xls

import data by port of entry,²⁹ ULSD imports into the New York Harbor area (which encompasses New Jersey and New York ports) averaged 37,100 barrels per day for the 3-year period of September 2021 through August 2024. Further, ULSD exports from PADD 1 averaged 19,100 barrels per day for the same three 3-year period.³⁰ Based on conversations with industry experts, the Exchange estimates that approximately 50% of the exports figure represents the New York Harbor delivery area. Therefore, applying a 50% reduction to exports resulted in 9,600 b/d in the New York Harbor. As a result, the net imports figure for September 2021-August 2024 was 27,500 barrels per day, or .8 million barrels per month.

ANALYSIS OF DELIVERABLE SUPPLY

Based on the above analysis, the Exchange determined at this time to base its estimates of deliverable supply on the sum of:

- A. *Bayway Refinery Production: 2.5 million barrels per month;*
- B. *ULSD Deliveries on Colonial Pipeline: 4.3 million barrels per month;*
- C. *ULSD Storage: 4.9 million barrels per month; and*
- D. *Net Imports: .8 million barrels per month.*

The Exchange estimates the monthly deliverable supply of ULSD to the New York Harbor to be approximately 12.5 million barrels, which is equivalent to **12,500** contracts per month (contract size 42,000 gallons or 1,000 barrels). Twenty-five percent of deliverable supply would result in a spot month position limit of 3,125 futures equivalent contracts. The Exchange and federal spot month position limit for the NY Harbor ULSD Futures contract is 2,000 contracts or **16.0%** of the estimated monthly deliverable supply.

For position limit purposes, the NY Harbor ULSD Financial Calendar Spread Option (One Month) will aggregate into the NY Harbor ULSD Last Day Financial Futures contract (Code: 23) which is based on the settlement price of the NY Harbor ULSD Futures contract (Code: HO), which is a referenced contract.

APPENDIX

1. PADD 1 and PADD 1B ULSD Stocks (in Thousand Barrels)

Month	PADD 1B³¹
Oct-24	16,580
Sep-24	18,005
Aug-24	17,676
Jul-24	16,423
Jun-24	15,398
May-24	12,858
Apr-24	13,418
Mar-24	13,689
Feb-24	15,668
Jan-24	15,808
Dec-23	13,213
Nov-23	10,826
Oct-23	12,317

²⁹ <http://www.eia.gov/petroleum/imports/companylevel/archive/>

³⁰ https://www.eia.gov/dnav/pet/pet_move_exp_dc_R10-Z00_mbbldpd_m.htm

³¹ EIA, Monthly averages using weekly data: http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WD0ST_R1Y_1&f=W

Sep-23	14,336
Aug-23	13,923
Jul-23	12,716
Jun-23	11,136
May-23	11,091
Apr-23	11,587
Mar-23	14,986
Feb-23	16,733
Jan-23	14,570
Dec-22	14,165
Nov-22	10,333
Oct-22	9,762
Sep-22	11,068
Aug-22	11,341
Jul-22	11,358
Jun-22	9,654
May-22	7,814
Apr-22	9,371
Mar-22	11,850
Feb-22	15,020
Jan-22	17,796
Dec-21	20,274
Nov-21	17,474

RBOB GASOLINE FUTURES

I. Methodology and Data Sources

The Exchange considered three (3) components in evaluating deliverable supply estimates of RBOB Gasoline for the New York Harbor delivery location of the RBOB Gasoline Futures contract:

- (1) Refinery and blender production;
- (2) Pipeline flows and net receipts to the delivery area;
- (3) Storage levels in the delivery area.

The Exchange determined to use data collected by the Energy Information Administration (“EIA”) for its analysis and evaluation of deliverable supply estimates for RBOB Gasoline in New York Harbor. The EIA provides detailed data on each of the three components of deliverable supply.

II. Introduction

The New York Harbor RBOB Gasoline Futures contract is the main benchmark used for pricing of gasoline in the U.S. petroleum products market. The U.S. gasoline market represents a large physical market, with total U.S. production at approximately 9.0 million to 10.0 million barrels per day (b/d) of gasoline.

In the U.S. gasoline market, there are two main formulations for gasoline: Reformulated Gasoline and Conventional Gasoline, as required by a complex network of federal and state regulations. The U.S. Environmental Protection Agency (“EPA”) administers the Clean Air Act (“CAA”) requirements, and various state agencies regulate their own specific air rules. Under the CAA, the urban areas with the highest levels of smog pollution are required to use clean-burning Reformulated Gasoline blended with 10% ethanol. These urban areas include the entire Northeastern United States, California, Chicago, Atlanta, and Houston. These areas account for approximately 40% of U.S. gasoline demand. The 10% ethanol blending requirement in Reformulated Gasoline requires that the ethanol be segregated from the gasoline at the wholesale level in the pipeline distribution system. In the wholesale market, the gasoline is shipped unfinished (without the ethanol), and it is called Reformulated Blendstock for Oxygen Blending (RBOB). The ethanol blending occurs at the last stage of the delivery process when the gasoline is loaded into the tanker truck for retail delivery.

A. New York Harbor Delivery Region

New England and the Central Atlantic Coast of the U.S., collectively defined by the EIA as the “Northeast,” is a well-connected and integrated geographical region in terms of oil and products infrastructure. The region is part of the larger PADD 1³², and is more specifically defined by PADD 1A (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) and PADD 1B (New York, New Jersey, Delaware, Pennsylvania, Maryland, and Washington, DC).³³

Located in both New York and New Jersey, the New York Harbor area is the largest oil product importing port in the nation and is the main refined products pricing and trading hub. Petroleum products in New York Harbor are supplied by refineries located in New Jersey, Delaware and Pennsylvania, all located within 100 miles of the New York Harbor area. East Coast refineries, a majority of which are located in New Jersey, Pennsylvania and Delaware, send products by local pipelines into New York Harbor.

Many of the petroleum products delivered to New York Harbor are redistributed to smaller ports where they supply local demand. In particular, the Hudson River is a major inland water route for petroleum product barges supplying eastern New York and parts of western New England. Significant volumes are shipped to New England via barge from New York Harbor. On the other side of the state, western New

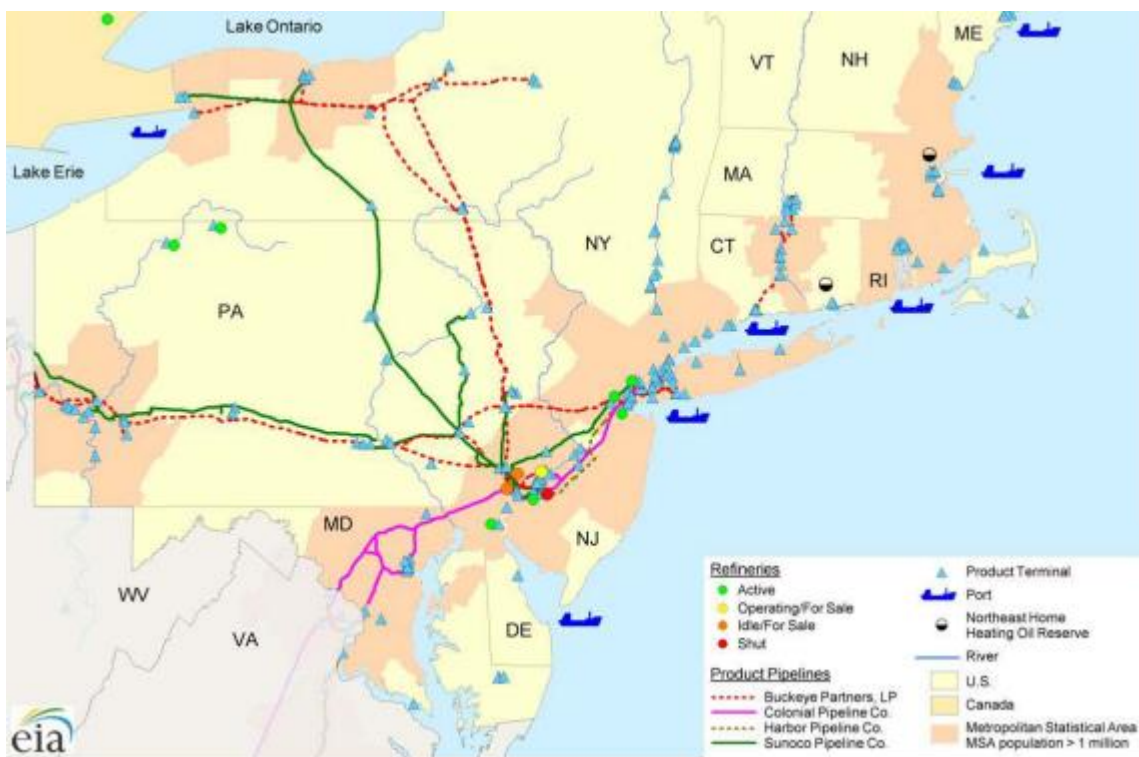
³² https://www.eia.gov/tools/glossary/index.php?id=P#PADD_def

³³ https://www.eia.gov/tools/glossary/index.php?id=P#PADD_def

York product markets are primarily supplied from Canada at the Port of Buffalo, and via the Buckeye and Sunoco pipeline systems from Pennsylvania and the Midwest.³⁴ Figure 1 below illustrates the logistics of refining and products transportation in the Northeast.

Colonial Pipeline is the largest refined products pipeline in the U.S. and a key products supply link for the Northeast. The pipeline connects the Northeast to refinery output from the U.S. Gulf Coast. Colonial's network of pipelines crosses 14 states, serving more than 260 marketing terminals in the Southern and Eastern U.S. It generally takes from 14 to 24 days for a product batch on the Colonial Pipeline to get from Houston, Texas to the New York Harbor area, with 18.5 days being the average time.

Figure 1 - Northeast Refined Products Market Logistics³⁵



B. Refineries and Refinery Capacity Overview

As of January 1, 2024, there were 132 operable refineries, all of which were operating in the U.S. with total atmospheric crude oil distillation capacity of 18.4 million barrels per calendar day.³⁶ On the East Coast (PADD 1), there are eight operable refineries with 910 thousand b/d of atmospheric crude distillation capacity. The region has 310,000 b/d of FCC capacity. PADD 1 includes all states in New England, the Mid-Atlantic, and the South Atlantic and is subdivided into 3 sub-PADDs.

- PADD 1A – Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
- PADD 1B – New York, Pennsylvania, New Jersey, Delaware, Maryland, District of Columbia
- PADD 1C – West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida

³⁴ <https://www.eia.gov/state/analysis.php?sid=NY>

³⁵ <http://www.eia.gov/analysis/petroleum/nerefining/update/pdf/neprodmkts.pdf>

³⁶ http://www.eia.gov/dnav/pet/pet_pnp_cap1_dcu_nus_a.htm

Supply dynamics for each of the three sub-PADDs vary. PADD 1A, which encompasses New England, has no refineries and relies on imports and transfers from other PADDs, primarily PADD 1B. PADD 1C, the South Atlantic, relies primarily on pipeline transfers and marine shipments from PADD 3 and imports. PADD 1B is supplied by a combination of refineries, transfers from other PADDs -- primarily from PADD 3 -- and imports.³⁷

The majority of PADD 1B refineries are located in New Jersey, Delaware and Pennsylvania, and are within 100 miles of the New York Harbor area. These refineries are directly connected to the New York Harbor market by local pipelines and/or waterborne barges. A list of Northeast refineries is provided in Table 1.

Table 1 – Mid-Atlantic (PADD 1B) Refineries³⁸ (Source EIA)

Name	State	Owner	Capacity	Status
Delaware City Refinery Co LLC	Delaware City, DE	PBF Energy Co LLC	171,000 b/d	Operational
Paulsboro Refining Co LLC	Paulsboro, NJ	PBF Energy Co LLC	160,000 b/d	Operational
CPI Operations LLC	Paulsboro, NJ	PBF Energy Co LLC	32,000 b/d	Operational
Phillips 66 Company	Linden, NJ	Phillips 66 Company	258,500 b/d	Operational
American Refining Group Inc	Bradford, PA	American Refining Group Inc	11,000 b/d	Operational
United Refining Co	Warren, PA	Red Apple Group Inc	65,000 b/d	Operational
Monroe Energy LLC	Trainer, PA	Delta Airlines Inc	190,000 b/d	Operational

III. Deliverable Supply Estimates

A. Refinery and Blender Production

The EIA provides gasoline production data for RBOB Gasoline that is produced by both refiners and blenders, under the category of “refiner and blender net production” as shown in Table 2 below. The majority of PADD 1 refineries are located in Delaware, New Jersey, and Pennsylvania, with direct connection to the New York Harbor market by pipelines and/or waterborne barges. In addition, the EIA’s “refiner and blender net production” category includes RBOB produced by refiners and includes blender production which relies on imported gasoline blending components.

Blenders are significant producers of RBOB gasoline, and the majority of RBOB blending components are sourced through imported gasoline blendstocks that enter via the New York Harbor. Typically, gasoline blenders are large trading companies that operate in the global market, such as Vitol, Glencore, and Trafigura. Since the blenders’ production of RBOB is sourced from imported gasoline blending components, these imported blending components are captured in the EIA’s category of “refinery and blender net production.” Consequently, the Exchange will include only the EIA’s “refinery and blender net

³⁷ http://www.eia.gov/pressroom/testimonies/howard_03192012.pdf

³⁸ <https://www.eia.gov/petroleum/refinerycapacity/table3.pdf>

production” category as the key component of New York Harbor supply and *not* include import data. Thus, to prevent potential double-counting of imported gasoline blending components, the Exchange will not use imports in its deliverable supply analysis, but rather utilize the EIA’s data for “refinery and blender net production.”

According to EIA data from November 2021 through October 2024, the three (3)-year average of RBOB production by refiners and blenders in PADD 1 was 1.16 million b/d, or 34.7 million barrels per month, as presented in Table 2 below. The RBOB gasoline that is produced in PADD 1 is in the vicinity of New York Harbor area, with direct connectivity to New York Harbor terminals, and the majority of this RBOB is transshipped and/or stored in New York Harbor terminals.

Table 2 – PADD 1 Production³⁹ (Source: EIA)

RBOB Gasoline in thousands b/d	Nov 2021 - Oct 2022	Nov 2022 - Oct 2023	Nov 2023 - Oct 2024	Average
Refinery and Blender Net Production	1,143	1,154	1,167	1,155

According to input from market participants, approximately 30% to 40% of RBOB production is committed to retail distribution networks, and the remaining portion is available for re-selling in the spot market. Therefore, at least 60% of PADD 1 production of RBOB would be available for re-selling in the New York Harbor spot market. Consequently, we estimate that approximately 20.8 million barrels per month of RBOB (60% of 34.7 million barrels per month) would be deliverable in New York Harbor.

B. Pipeline Flows and Net Receipts

The U.S. Gulf Coast, or PADD 3, refining capacity accounts for 50% of total US production of refined products and provides approximately 266,000 b/d of RBOB gasoline to PADD 1 via pipeline and tanker/barge shipments, as presented in Table 3 below. However, the majority of PADD 1 pipeline and tanker/barge receipts of RBOB from PADD 3 do not end up in the New York Harbor area as they are delivered at points further south of New York Harbor. According to market participants, only about 25% to 30% of PADD 1 gasoline receipts are delivered to the New York Harbor area. Therefore, using the more conservative 25% estimate for RBOB pipeline and tanker/barge shipments from PADD 3, the total receipts from PADD 3 to the New York Harbor area accounts for approximately 66,000 b/d (25% of 266,000 b/d) or 2.0 million barrels per month.

³⁹ EIA, <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WGRRPP12&f=W>

Table 3 – RBOB Movements from PADD 3 into PADD 1⁴⁰ (Source: EIA)

	Sep 2021 - Aug 2022	Sep 2022 - Aug 2023	Sep 2023 - Aug 2024	Average
RBOB Movements, in Thousand Barrels per Day	271	263	264	266

C. Inventories of Gasoline in the New York Harbor Market

The New York Harbor area has petroleum bulk storage capacity of over 75 million barrels, making it the largest petroleum product hub in the country. The three-year average of gasoline stocks held in the Central Atlantic region, or PADD 1B, including New York, New Jersey, and Pennsylvania is approximately 27.8 million barrels as seen in Table 4 below. According to market participants, the New York Harbor RBOB market accounts for 25% to 30% of the inventories reported in EIA’s PADD 1B inventory statistics. Using the more conservative estimate of 25% of PADD 1B inventories, the average stock level of gasoline is estimated to be about 7.0 million barrels in the New York Harbor area. Based on estimates from industry experts, we determined that the operational minimum levels for storage tanks in the New York Harbor area are approximately 5% to 10%. Using the more conservative estimate of 10%, we therefore estimate that approximately 700,000 barrels of the approximately 7.0 million barrels of stored gasoline in the New York Harbor area is used for operational purposes, leaving 6.3 million barrels available for spot month delivery from inventory.

Table 4 – Gasoline Stocks in PADD 1B⁴¹ (Source: EIA)

	Nov 2021 - Oct 2022	Nov 2022 - Oct 2023	Nov 2023 - Oct 2024	Average
PADD 1B (Central Atlantic) Inventory, in thousand barrels	27,100	27,604	28,808	27,838

Analysis of Deliverable Supply

Appendix C to part 38 of the Commission’s regulations defines deliverable supply as “the quantity of the commodity meeting the 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

⁴⁰ EIA, Monthly Data in barrels per day, https://www.eia.gov/dnav/pet/pet_move_ptb_dc_R10-R30_mbbi_m.htm

⁴¹ http://www.eia.gov/dnav/pet/pet_stoc_wstk_dcu_r1y_w.htm

at the derivative contract's delivery points during the specified delivery period, barring abnormal movement in interstate commerce.”

In estimating deliverable supply for the futures contract, the 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.

Term supply contracts do exist but in a typical term agreement in the cash market there is a provision that allows flexibility for re-trading of the contracted quantity in the spot market, so the term agreements do not restrict the potential deliverable supply.

U.S. RBOB Gasoline

Based on the above analysis, the Exchange determined at this time to base its estimates of deliverable supply on the sum of:

- A. *Refinery and Blender Production = 20.8 million barrels*
- B. *Pipeline flows to the delivery area = 2.0 million barrels*
- C. *Storage levels in the delivery area = 6.3 million barrels*

The Exchange estimates the monthly deliverable supply of RBOB gasoline to the New York Harbor to be approximately 29.1 million barrels, which is equivalent to **29,100** contracts per month (contract size 42,000 gallons or 1,000 barrels). The spot month position limit for the New York Harbor RBOB Gasoline Futures contract is 2,000 contracts or **6.9%** of the estimated monthly deliverable supply.

Positions in the RBOB Gasoline Financial Calendar Spread Option (One Month) Option contract will aggregate into the RBOB Gasoline Last Day Financial Futures (Code: 27) which is based on the settlement price of the RBOB Gasoline Futures contract (Code: RB), which is a referenced contract.

APPENDIX B

PADD 1, Refiner and Blender Net Production⁴²

(Source: EIA, Monthly Averages based on Weekly Data)

(Thousand Barrels per Day)

Month/Year	Total
Oct-24	1,174
Sep-24	1,153
Aug-24	1,167
Jul-24	1,184
Jun-24	1,216
May-24	1,180
Apr-24	1,161
Mar-24	1,166
Feb-24	1,136
Jan-24	1,104
Dec-23	1,179
Nov-23	1,181

⁴² <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WGRRPP12&f=W>

Oct-23	1,184
Sep-23	1,159
Aug-23	1,189
Jul-23	1,172
Jun-23	1,153
May-23	1,170
Apr-23	1,158
Mar-23	1,148
Feb-23	1,126
Jan-23	1,075
Dec-22	1,150
Nov-22	1,166
Oct-22	1,165
Sep-22	1,149
Aug-22	1,181
Jul-22	1,159
Jun-22	1,160
May-22	1,165
Apr-22	1,139
Mar-22	1,123
Feb-22	1,104
Jan-22	1,034
Dec-21	1,161
Nov-21	1,180

PADD 1B (Central Atlantic) Total Gasoline Stocks⁴³

(Source: EIA, Monthly Averages based on Weekly Data)

(Thousand Barrels)

Month/Year	Total
Oct-24	29,125
Sep-24	30,823
Aug-24	27,452
Jul-24	26,297
Jun-24	28,815
May-24	28,868
Apr-24	27,003
Mar-24	32,143
Feb-24	32,308
Jan-24	29,707
Dec-23	27,521
Nov-23	25,639
Oct-23	28,895
Sep-23	29,343
Aug-23	26,593
Jul-23	26,761

⁴³ http://www.eia.gov/dnav/pet/pet_stoc_wstk_dc_u_r1y_w.htm

Jun-23	26,658
May-23	25,678
Apr-23	25,983
Mar-23	30,528
Feb-23	32,583
Jan-23	29,788
Dec-22	26,277
Nov-22	22,170
Oct-22	24,852
Sep-22	27,429
Aug-22	23,975
Jul-22	24,710
Jun-22	24,770
May-22	24,207
Apr-22	27,371
Mar-22	31,227
Feb-22	30,212
Jan-22	31,012
Dec-21	29,290
Nov-21	26,146