

SUBMISSION COVER SHEET

IMPORTANT: Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 20-094 (1 of 3)

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): 02/19/2020 Filing Description: Initial Listing of Three (3) Refined Petroleum BALMO Spread Futures 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

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:

February 19, 2020

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. Notification Regarding the Initial Listing of Three (3) Refined Petroleum BALMO Spread Futures Contracts
NYMEX Submission No. 20-094 (1 of 3)**

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is notifying the Commodity Futures Trading Commission (“CFTC” or “Commission”) that it is self-certifying the initial listing of three (3) refined petroleum BALMO spread futures contracts (the “Contracts”) for trading on the CME Globex electronic trading platform and for submission for clearing via CME ClearPort effective on Sunday, March 8, 2020 for trade date Monday, March 9, 2020, as described below.

Contract Title	Gulf Coast CBOB Gasoline A2 (Platts) vs. RBOB Gasoline BALMO Futures
Rulebook Chapter	1321
Commodity Code	BCR
Settlement Type	Financial
Contract Size	42,000 gallons
Pricing Quotation	U.S. dollars and cents per gallon
Minimum Price Fluctuation	\$0.0001 per gallon
Value per tick	\$4.20
First Listed Contract	March 2020
Termination of Trading	Trading shall cease on the last business day of the contract month
Listing Schedule	Monthly BALMO contracts listed for 3 consecutive months
CME Globex Match Algorithm	First-In, First-Out (FIFO)
Block Trade Minimum Threshold	10 contracts– subject to a minimum 15-minute reporting window

Contract Title	Group Three ULSD (Platts) vs. NY Harbor ULSD BALMO Futures
Rulebook Chapter	1322
Commodity Code	AB6
Settlement Type	Financial
Contract Size	42,000 gallons
Pricing Quotation	U.S. dollars and cents per gallon
Minimum Price Fluctuation	\$0.0001 per gallon
Value per tick	\$4.20

First Listed Contract	March 2020
Termination of Trading	Trading shall cease on the last business day of the contract month
Listing Schedule	Monthly BALMO contracts listed for 3 consecutive months
CME Globex Match Algorithm	First-In, First-Out (FIFO)
Block Trade Minimum Threshold	10 contracts – subject to a minimum 15-minute reporting window

Contract Title	Group Three Sub-octane Gasoline (Platts) vs. RBOB Gasoline BALMO Futures
Rulebook Chapter	1323
Commodity Code	A8B
Settlement Type	Financial
Contract Size	42,000 gallons
Pricing Quotation	U.S. dollars and cents per gallon
Minimum Price Fluctuation	\$0.0001 per gallon
Value per tick	\$4.20
First Listed Contract	March 2020
Termination of Trading	Trading shall cease on the last business day of the contract month
Listing Schedule	Monthly BALMO contracts listed for 3 consecutive months
CME Globex Match Algorithm	First-In, First-Out (FIFO)
Block Trade Minimum Threshold	10 contracts– subject to a minimum 15-minute reporting window

Fees

	Member	Non-Member	International Incentive Programs (IIP/IVIP)
CME Globex	\$0.85	\$1.35	\$1.10
EFP	\$0.85	\$1.35	
Block	\$0.85	\$1.35	
EFR/EOO	\$0.85	\$1.35	
Processing Fees			
Cash Settlement		\$0.50	
Facilitation Fee		\$0.60	
Give-Up Surcharge		\$0.05	
Position Adjustment/Position Transfer		\$0.10	

Trading and Clearing Hours

CME Globex and CME ClearPort:	Sunday – Friday 6:00 p.m. – 5:00 p.m. Eastern Time/ET (5:00 p.m. – 4:00 p.m. Central Time/CT) with an hour break each day beginning at 5:00 p.m. ET (4:00 p.m. CT).
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NYMEX is self-certifying block trading for the Contracts with a minimum block threshold of ten (10) contracts for the Gulf Coast CBOB Gasoline A2 (Platts) vs. RBOB Gasoline BALMO Futures, Group Three ULSD

(Platts) vs. NY Harbor ULSD BALMO Futures, and Group Three Sub-octane Gasoline (Platts) vs. RBOB Gasoline BALMO Futures contracts. The minimum block threshold level of ten (10) contracts is aligned with the Exchange's existing petroleum futures and options contracts.

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 Contract may have some bearing on the following Core Principles:

- **Compliance with Rules**: Trading in the Contracts will be subject to the rules in Rulebook Chapter 4 which include prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading in this 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's designated contract markets, activity in the Contracts 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 Contracts are based on a cash price series that is reflective of the underlying cash market and is commonly relied on and used as a reference price by cash market brokers and commercial market participants.
- **Prevention of Market Disruption**: Trading in the Contracts will be subject to the Rules of NYMEX, which include prohibitions on manipulation, price distortion, and disruption to the cash settlement process. As with any new product listed for trading on a CME Group designated contract market, trading activity in the Contracts proposed herein will be subject to 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 the Contracts' specifications, terms, and conditions, as well as daily trading volume, open interest, and price information.
- **Daily Publication of Trading Information**: The Exchange will publish the Contracts' 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 requisite 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 Contracts**: The Contracts will be cleared by the CME Clearing House, a derivatives clearing organization registered with the CFTC and subject to all CFTC regulations related thereto.
- **Protection of Market Participants**: NYMEX Rulebook Chapters 4 and 5 set forth multiple prohibitions that preclude intermediaries from disadvantaging their customers. These rules apply to trading in all of the Exchange's competitive trading venues.

- **Disciplinary Procedures:** Chapter 4 of the Rulebook contains provisions that allow the Exchange to discipline, suspend or expel members or market participants that violate the Rulebook. Trading in 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 products are 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. Chapter 6 allows all nonmembers to submit a claim for financial losses resulting from transactions on the Exchange to arbitration. A member named as a respondent in a claim submitted by a nonmember is required to participate in the arbitration pursuant to Chapter 6. Additionally, the Exchange requires that members resolve all disputes concerning transactions on the Exchange via arbitration.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2(a), the Exchange hereby certifies that listing the Contracts complies with the Act, including regulations under the Act. There were no substantive opposing views to listing of the Contracts.

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

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Christopher Bowen
Managing Director and Chief Regulatory Counsel

Attachments: Exhibit A: NYMEX Rulebook Chapters
Exhibit B: Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the NYMEX Rulebook (attached under separate cover)
Exhibit C: NYMEX Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table
Exhibit D: Cash Market Overview and Analysis of Deliverable Supply

Exhibit A

NYMEX Rulebook

Chapter 1321

Gulf Coast CBOB Gasoline A2 (Platts) vs. RBOB Gasoline BALMO Futures

1321101. 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.

1321102. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance of month arithmetic average of the high and low quotations from Platts Oilgram Price Report for U.S. Gulf Coast CBOB 87 gasoline (Colonial A grade: lowest RVP posted except A1 and A0) pipeline using the Supplemental 9.0 RVP Summer assessment minus the RBOB Gasoline Futures first nearby contract month settlement price for each business day that both are determined starting from the selected start date through the end of the contract month, inclusive.

1321103. TRADING SPECIFICATIONS

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

1321103A. Trading Schedule

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

1321103B. Trading Unit

The contract quantity shall be 42,000 gallons. Each contract shall be valued as the contract quantity (42,000) multiplied by the settlement price.

1321103C. Price Increments

Prices shall be quoted in U.S. dollars and cents per gallon. The minimum price fluctuation shall be \$0.0001 per gallon. There shall be no maximum price fluctuation.

1321103D. 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.

1321103E. Termination of Trading

Trading shall cease on the last business day of the contract month

1321104. FINAL SETTLEMENT

Delivery 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.

1321105. DISCLAIMER

See [NYMEX/COMEX Chapter iv. \("DISCLAIMERS"\)](#) incorporated herein by reference.

Chapter 1322

Group Three ULSD (Platts) vs. NY Harbor ULSD Futures BALMO Futures

1322101. 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.

1322102. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance of month arithmetic average of the Platts Group Three ULSD mean minus the NY Harbor ULSD Futures first nearby contract month settlement price for each business day that both prices are determined starting from the selected start date through the end of the contract month, inclusive. starting from the selected start date through the end of the contract month, inclusive.

For purposes of determining the Floating Price, the Platts GroupThree ULSD mean will be rounded each day to the nearest thousandth of a cent.

1322103. TRADING SPECIFICATIONS

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

1322103A. Trading Schedule

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

1322103B. Trading Unit

The contract quantity shall be 42,000 gallons. Each contract shall be valued as the contract quantity (42,000) multiplied by the settlement price.

1322103C. Price Increments

Prices shall be quoted in U.S. dollars and cents per gallon. The minimum price fluctuation shall be \$0.0001 per gallon. There shall be no maximum price fluctuation.

1322103D. 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.

1322103E. Termination of Trading

Trading shall cease on the last business day of the contract month

1322104. FINAL SETTLEMENT

Delivery 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.

1322105. DISCLAIMER

See [NYMEX/COMEX Chapter iv. \("DISCLAIMERS"\)](#) incorporated herein by reference.

Chapter 1323

Group Three Sub-octane Gasoline (Platts) vs. RBOB Gasoline BALMO Futures

1323101. 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.

1323102. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance of month arithmetic average of Platts Group Three Sub-octane Gasoline mean minus the RBOB Gasoline Futures first nearby contract month settlement price for each business day that both are determined starting from the selected start date through the end of the contract month, inclusive.

For purposes of determining the Floating Price, the Platts Group Three Sub-octane Gasoline mean will be rounded each day to the nearest thousandth of a cent.

1323103. TRADING SPECIFICATIONS

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

1323103A. Trading Schedule

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

1323103B. Trading Unit

The contract quantity shall be 42,000 gallons. Each contract shall be valued as the contract quantity (42,000) multiplied by the settlement price.

1323103C. Price Increments

Prices shall be quoted in U.S. dollars and cents per gallon. The minimum price fluctuation shall be \$0.0001 per gallon. There shall be no maximum price fluctuation.

1323103D. 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.

1323103E. Termination of Trading

Trading shall cease on the last business day of the contract month

1323104. FINAL SETTLEMENT

Delivery 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.

1323105. DISCLAIMER

See [NYMEX/COMEX Chapter iv. \("DISCLAIMERS"\)](#) incorporated herein by reference.

Exhibit B

**NYMEX Rulebook
Chapter 5
("Trading Practices and Qualifications")**

Position Limit, Position Accountability, and Reportable Level Table

(Attached under separate cover)

Exhibit C

NYMEX Rulebook

Chapter 5

(“Trading Practices and Qualifications”)

Rule 588.H. (“Globex Non-Reviewable Ranges”) Table

(Additions are underscored.)

Instrument Name	Globex Symbol	Outright			Spreads	
		Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Ticks	NRR: Globex Format	NRR: Minimum Outright Ticks
<u>Gulf Coast CBOB Gasoline A2 (Platts) vs. RBOB Gasoline BALMO Futures</u>	<u>BCR</u>	<u>\$0.025 per gallon</u>	<u>250</u>	<u>250</u>	<u>N/A</u>	<u>N/A</u>
<u>Group Three Sub-octane Gasoline (Platts) vs. RBOB Gasoline BALMO Futures</u>	<u>A8B</u>	<u>\$0.025 per gallon</u>	<u>250</u>	<u>250</u>	<u>N/A</u>	<u>N/A</u>
<u>Group Three ULSD (Platts) vs. NY Harbor ULSD BALMO Futures</u>	<u>AB6</u>	<u>\$0.025 per gallon</u>	<u>250</u>	<u>250</u>	<u>N/A</u>	<u>N/A</u>

Exhibit D

Cash Market Overview and Analysis of Deliverable Supply

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) will launch three (3) petroleum product BALMO spread contracts based on existing contracts already listed on the Exchange. These contracts will be based on the S&P Global Platts (“Platts”) refined product assessments as noted in the table below.

Contract Title	Commodity Code	NYMEX Rulebook Chapter
Gulf Coast CBOB Gasoline A2 (Platts) vs. RBOB Gasoline BALMO Futures	BCR	1321
Group Three ULSD (Platts) vs. NY Harbor ULSD BALMO Futures	A6B	1322
Group Three Sub-octane Gasoline (Platts) vs. RBOB Gasoline BALMO Futures	A8B	1323

Data Sources:

The Exchange determined to use data collected by the **U.S. Department of Energy (“DOE”) Energy Information Administration (“EIA”)** for its analysis and evaluation of deliverable supply estimates for gasoline in the U.S. Mid-West and Gulf Coast. The EIA provides detailed data on the key components of deliverable supply. The EIA provides such data on a weekly, monthly, and annual basis.

The final settlement prices for the first leg of each of the proposed new contracts are based on the price assessment of the respective underlying physical markets as assessed and published by Platts¹, a division of **S&P Global (“Platts”)**. Platts is a leading global provider of energy, freight, petrochemicals, metals and agriculture information, and a premier source of benchmark price assessments for those commodity markets. Since 1909, Platts has provided information and insights that help customers make sound trading and business decisions and enable the markets to perform with greater transparency and efficiency. The bunker market assessments for Europe and Singapore reflect the transactional value prevailing at 16:30 hours local time but the US Market assessments reflect the transactional value prevailing at 14:30 EST; and align with the closing Futures Settlement Prices as made public by NYMEX. The information is published in real time as it is received on Platts information services and Platts Global Alert; and is published daily in European Marketscan, the Asia Pacific/Arab Gulf Marketscan and the US Marketscan.

The final settlement prices for the second leg of each of the proposed new contracts are based on the NY ULSD and RBOB Gasoline futures contracts as published by the Exchange.

¹ S&P Global Platts - <https://www.spglobal.com/platts/en>

Midwest Gasoline and ULSD

The Group Three gasoline and ULSD markets refer to the refining and trading hub that exists in Tulsa, Oklahoma which is the main supply point for the Midwest region of the U.S. There are eight refineries in Oklahoma and Kansas that are directly linked to the Tulsa hub via pipeline.

Magellan Midstream Partner's refined product pipeline system extends 9,700 miles from the Texas Gulf Coast across the central U.S to North Dakota. The system includes access to 53 directly connected terminals traversing across 15 states.² Shipments originate on their refined products pipeline via direct connections with refineries, various terminals, and interconnections with other pipelines for transport and distribution in the U.S. Specifications for the Megellan Pipeline are available at the following link: <https://www.magellanlp.com/WhatWeDo/~/-/media/24B4A775FE6646D8A264A82590946522.ashx>

The "unleaded" grade of gasoline has been phased out of the Group Three market, and replaced by "sub-octane" grade, which refers to the conventional gasoline blendstock that requires the addition of 10% ethanol, similar to the conventional blendstock referred to as CBOB. In the wholesale gasoline market, the sub-octane grade is shipped unfinished, and the 10% ethanol is blended at the last stage of the delivery process when the gasoline is loaded into the tanker truck for retail delivery.

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

Refinery Production

The U.S. Department of Energy's Energy Information Administration (EIA), provides statistics for the Midwest area, which is called the PADD 2 district. This encompasses the several states in the Midwest with significant refining capacity, including Oklahoma, Kansas, and Illinois.

According to the EIA and table 1 below, the three-year average for refinery and blender production of conventional gasoline blended with ethanol in PADD 2 over the annual period from November 2016 to October 2019 is 466 thousand barrels per day, which is equivalent to approximately 14 million barrels per month or 14,000 contract equivalents.

Table 1. Refinery and Blender Net Production: Oklahoma, Kansas, Missouri (PADD 2), Conventional Motor Gasoline with Fuel Ethanol³

(Thousand Barrels per Day)

Date	Refinery and Blender Net Production: Oklahoma, Kansas, Missouri, Conventional Motor Gasoline with Fuel Ethanol
Nov-2016	471
Dec-2016	467
Jan-2017	413
Feb-2017	436
Mar-2017	461
Apr-2017	466
May-2017	480
Jun-2017	496

² <https://magellanlp.com/WhatWeDo/RefinedProducts.aspx>

³ https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MDORP_R2C_2&f=M

Jul-2017	474
Aug-2017	486
Sep-2017	462
Oct-2017	461
Nov-2017	465
Dec-2017	465
Jan-2018	433
Feb-2018	435
Mar-2018	461
Apr-2018	467
May-2018	499
Jun-2018	498
Jul-2018	483
Aug-2018	486
Sep-2018	458
Oct-2018	469
Nov-2018	469
Dec-2018	450
Jan-2019	419
Feb-2019	429
Mar-2019	446
Apr-2019	483
May-2019	484
Jun-2019	484
Jul-2019	495
Aug-2019	487
Sep-2019	466
Oct-2019	477
Three-Year Average	466

Stocks

Table 2 below provides monthly EIA data for PADD 2 inventories for Conventional gasoline blended with ethanol (CBOB) which also is referred to as “sub-octane” gasoline. According to the EIA, the three-year average for CBOB stocks are estimated at 33.1 million barrels. Over the three year period of November 2016 to October 2019, PADD 2 stocks varied from a high of 39.1 million barrels in January 2019 to a low of 27.3 million barrels in October 2017. According to the most recent EIA data, gasoline inventory levels were at 27.8 million barrels in October 2019.

Table 2. Gasoline Stocks: PADD 2 , Conventional Gasoline Blended with Fuel Ethanol (CBOB)⁴
(Thousand Barrels)

Date	Gasoline Stocks: PADD 2 , Conventional Gasoline Blended with Ethanol (CBOB)
Nov-2016	29,939
Dec-2016	32,212
Jan-2017	37,348
Feb-2017	37,867
Mar-2017	35,817
Apr-2017	36,054
May-2017	35,184
Jun-2017	34,184
Jul-2017	33,426
Aug-2017	32,526
Sep-2017	31,581
Oct-2017	27,319
Nov-2017	29,047
Dec-2017	33,098
Jan-2018	36,419
Feb-2018	38,761
Mar-2018	36,405
Apr-2018	37,283
May-2018	34,660
Jun-2018	33,713
Jul-2018	32,912
Aug-2018	33,635
Sep-2018	32,625
Oct-2018	28,643
Nov-2018	29,696
Dec-2018	35,529
Jan-2019	39,084
Feb-2019	36,459
Mar-2019	32,565
Apr-2019	30,322
May-2019	27,814
Jun-2019	29,453
Jul-2019	29,498
Aug-2019	30,702
Sep-2019	31,246
Oct-2019	27,779
Three-Year Average	33,078

⁴ EIA Inventory Data, https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MO6ST_R20_1&f=M

Refinery Production

According to the EIA and table 3 below, the three-year average for refinery and blender production of distillate fuel oil, 0 to 15 ppm sulfur (ULSD) in PADD 2 over the annual period from November 2016 to October 2019 is 331 thousand barrels per day, which is equivalent to approximately 9.9 million barrels per month or 9,900 contract equivalents.

Table 3. Refinery and Blender Net Production: Oklahoma, Kansas, Missouri (PADD 2), Distillate Fuel Oil, 0 to 15 ppm Sulfur⁵

(Thousand Barrels per Day)

Date	Refinery and Blender Net Production: Oklahoma, Kansas, Missouri, Distillate Fuel Oil, 0 to 15 ppm Sulfur
Nov-2016	333
Dec-2016	329
Jan-2017	300
Feb-2017	305
Mar-2017	306
Apr-2017	345
May-2017	348
Jun-2017	359
Jul-2017	340
Aug-2017	326
Sep-2017	309
Oct-2017	285
Nov-2017	354
Dec-2017	347
Jan-2018	321
Feb-2018	320
Mar-2018	326
Apr-2018	348
May-2018	366
Jun-2018	359
Jul-2018	342
Aug-2018	358
Sep-2018	329
Oct-2018	255
Nov-2018	321
Dec-2018	358
Jan-2019	354
Feb-2019	311
Mar-2019	241
Apr-2019	303
May-2019	334
Jun-2019	366
Jul-2019	359

⁵ https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MDORP_R2C_2&f=M

Aug-2019	363
Sep-2019	357
Oct-2019	323
Three-Year Average	331

Stocks

Table 4 below provides monthly EIA data for PADD 2 inventories for distillate fuel oil, 0 to 15 ppm sulfur. According to the EIA, the three-year average for ULSD stocks are estimated at 31.2 million barrels. Over the three year period of November 2016 to October 2019, PADD 2 stocks varied from a high of 34.3 million barrels in April 2017 to a low of 24.6 million barrels in November 2017. According to the most recent EIA data, ULSD inventory levels were at 26.0 million barrels in October 2019.

Table 4. ULSD Stocks: PADD 2 , Distillate Fuel Oil, 0 to 15 ppm Sulfur ⁶

(Thousand Barrels)

Date	ULSD Stocks: PADD 2, Distillate Fuel Oil, 0 to 15 ppm Sulfur
Nov-2016	30,009
Dec-2016	31,199
Jan-2017	34,141
Feb-2017	34,252
Mar-2017	32,200
Apr-2017	34,344
May-2017	33,497
Jun-2017	31,396
Jul-2017	32,132
Aug-2017	31,179
Sep-2017	29,802
Oct-2017	24,963
Nov-2017	24,568
Dec-2017	28,130
Jan-2018	30,144
Feb-2018	31,766
Mar-2018	31,576
Apr-2018	30,271
May-2018	30,140
Jun-2018	30,728
Jul-2018	31,931
Aug-2018	33,897
Sep-2018	34,179
Oct-2018	26,516
Nov-2018	27,150
Dec-2018	32,978

⁶ EIA Inventory Data, https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MDOST_R20_1&f=M

Jan-2019	33,782
Feb-2019	32,312
Mar-2019	33,882
Apr-2019	34,045
May-2019	32,285
Jun-2019	32,135
Jul-2019	31,781
Aug-2019	33,039
Sep-2019	31,941
Oct-2019	25,985
Three-Year Average	31,230

Gulf Coast Gasoline

The U.S. gasoline market represents a large physical market, with total U.S. refinery capacity to produce 9.0 million to 9.5 million barrels per day of gasoline⁷. In the gasoline wholesale market, the gasoline is shipped unfinished except for the 10% addition of ethanol, and is called Reformulated Blendstock for Oxygen Blending (RBOB). The 10% ethanol blending occurs at the last stage of the delivery process when the gasoline is loaded into the tanker truck for retail delivery.

Similarly, for the majority of the U.S., the EPA requires a “Conventional” gasoline, which accounts for 60% of U.S. gasoline demand, in areas that have less smog pollution. There are two types of conventional gasoline: regular gasoline blended with 10% ethanol, and regular gasoline without ethanol (also called “clear” gasoline). In the wholesale market, the ethanol-blended conventional gasoline is shipped unfinished, and is called Conventional Blendstock for Oxygen Blending (CBOB).

The Gulf Coast gasoline futures references the most actively traded grades of gasoline in the Gulf Coast gasoline market. Specifically, it references the A2 grade of gasoline using the Colonial Pipeline designations for gasoline. The Colonial Pipeline is the main pipeline that connects the Houston refineries to the Eastern U.S. market and serves as the benchmark for physical gasoline and refined products. The Gulf Coast gasoline is priced at a differential to the NYMEX RBOB Gasoline Futures contract. Further specifications for the Colonial Pipeline are available at the following link:

<http://www.colpipe.com/pdfs/Sect%203%20Prod%20Spec%20June%201%202010%20update.pdf>

The A2 grade of gasoline as published by Colonial Pipeline is as follows: Colonial Pipeline “A2” grade refers to the ethanol-blended Conventional Gasoline (CBOB) used in the Northern part of the U.S. with a summertime RVP level of maximum 9.0 psi. In the wholesale market, the ethanol-blended CBOB is shipped unfinished, and the 10% ethanol is blended at the last stage of the delivery process when the gasoline is loaded into the tanker truck for retail delivery.

In addition, ethanol-blended conventional gasoline (CBOB) is transported from the Gulf Coast to the Midwest markets through the Explorer pipeline. The Explorer pipeline is another major pipeline connecting Houston to Chicago. The Explorer pipeline transports petroleum products including gasoline, diesel fuel and jet fuel from the Gulf Coast refineries into the Dallas/Fort Worth, Tulsa, St. Louis and Chicago markets traversing through 16 states and over 70 major cities. The southern part of the system has a current capacity of 660,000 barrels per day, and the northern system north of Tulsa has a current capacity of 450,000 barrels per day⁸

The Gulf Coast gasoline market is linked directly to the New York Harbor market via the Colonial Pipeline, and the Eastern part of the U.S. is a key demand area for gasoline produced in the Gulf Coast

⁷ http://www.eia.gov/dnav/pet/pet_pnp_wprodrb_dcu_nus_w.htm.

⁸ <https://www.expl.com/News/20180605>

region. Further, Gulf Coast gasoline is priced at a differential to the NYMEX RBOB Gasoline Futures contract. The New York Harbor gasoline market is a vibrant hub for gasoline pricing, with sources of supply that include local refineries, imports, and the Colonial Pipeline flows from Houston.

Refinery Production

According to the EIA and table 5 below, the three-year average for refinery and blender production of conventional gasoline blended with ethanol in PADD 3 over the annual period from November 2016 to October 2019 is 1 million barrels per day, which is equivalent to approximately 30 million barrels per month or 30,000 contract equivalents.

Table 5. Refinery and Blender Net Production: PADD 3, Conventional Gasoline Blended with Fuel Ethanol⁹

(Thousand Barrels per Day)

Date	Refinery and Blender Net Production: PADD 3, Conventional Gasoline Blended with Fuel Ethanol
Nov-2016	987
Dec-2016	963
Jan-2017	907
Feb-2017	961
Mar-2017	1,010
Apr-2017	1,010
May-2017	1,014
Jun-2017	1,018
Jul-2017	1,006
Aug-2017	1,011
Sep-2017	998
Oct-2017	993
Nov-2017	979
Dec-2017	965
Jan-2018	900
Feb-2018	954
Mar-2018	1,018
Apr-2018	1,020
May-2018	1,038
Jun-2018	1,029
Jul-2018	1,010
Aug-2018	1,023
Sep-2018	975
Oct-2018	1,006
Nov-2018	1,006
Dec-2018	976
Jan-2019	946

⁹ https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MG5RP_R30_2&f=M

Feb-2019	964
Mar-2019	996
Apr-2019	1,027
May-2019	1,047
Jun-2019	1,047
Jul-2019	1,043
Aug-2019	1,071
Sep-2019	1,035
Oct-2019	1,048
Three-Year Average	1,000

Stocks

Table 6 below provides monthly EIA data for PADD 3 inventories for Conventional gasoline blended with ethanol (CBOB). According to the EIA, the three-year average for CBOB stocks are estimated at 33.5 million barrels. Over the three year period of November 2016 to October 2019, PADD 2 stocks varied from a high of 39.1 million barrels in July 2019 to a low of 30.9 million barrels in March 2019. According to the most recent EIA data, gasoline inventory levels were at 34.6 million barrels in October 2019.

Table 6. Gasoline Stocks: PADD 3 , Conventional Gasoline Blended with Fuel Ethanol¹⁰

(Thousand Barrels)

Date	Gasoline Stocks: PADD 3 , Conventional Gasoline Blended with Fuel Ethanol
Nov-2016	34,362
Dec-2016	32,898
Jan-2017	33,496
Feb-2017	32,793
Mar-2017	31,739
Apr-2017	32,448
May-2017	31,075
Jun-2017	32,497
Jul-2017	33,484
Aug-2017	32,488
Sep-2017	32,975
Oct-2017	32,451
Nov-2017	34,435
Dec-2017	34,082
Jan-2018	34,099
Feb-2018	34,635
Mar-2018	32,692
Apr-2018	32,107
May-2018	31,758

¹⁰ EIA Inventory Data, https://www.eia.gov/dnav/pet/pet_stoc_typ_d_r30_SAE_mbbbl_m.htm

Jun-2018	31,564
Jul-2018	31,912
Aug-2018	35,194
Sep-2018	33,773
Oct-2018	33,564
Nov-2018	34,497
Dec-2018	35,439
Jan-2019	33,003
Feb-2019	35,195
Mar-2019	30,944
Apr-2019	33,811
May-2019	34,170
Jun-2019	34,801
Jul-2019	36,295
Aug-2019	34,768
Sep-2019	35,201
Oct-2019	34,594
Three-Year Average	33,479

ANALYSIS OF DELIVERABLE SUPPLY RBOB GASOLINE FUTURES

In estimating deliverable supply for the RBOB Gasoline Futures, the 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 three 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 U.S. Department of Energy’s 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.

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. refinery capacity of 9.5 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.

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 PADD 1¹¹, and is more specifically defined by PADD 1A

¹¹ <http://www.eia.gov/tools/glossary/index.cfm>

(Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) and PADD 1B (New York, New Jersey, Delaware, Pennsylvania, Maryland, and Washington, DC).¹²

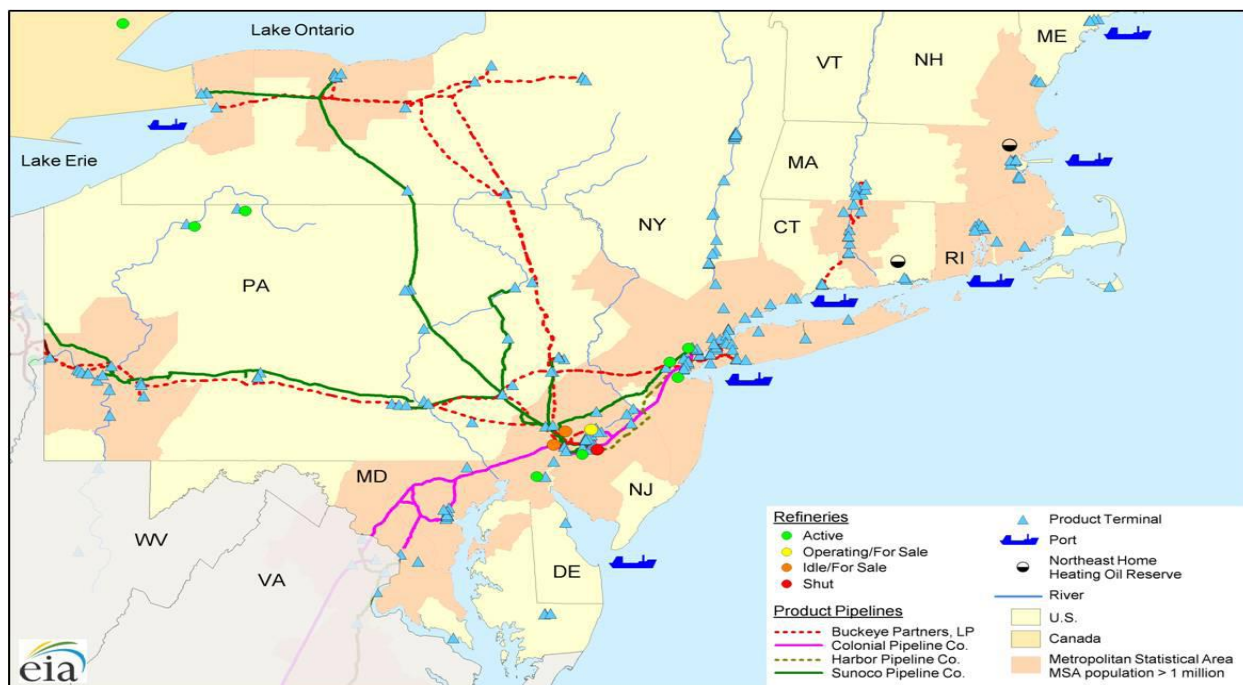
Located in both New York and New Jersey, the New York Harbor area is the largest oil importing and third largest container port in the nation and is the main refined products pricing and trading hub. Petroleum products in New York Harbor are supplied by refineries located in New Jersey, Delaware and 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 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 Midwest¹³.

Refineries and Refinery Capacity Overview

The 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. Colonial's network of pipelines crosses 11 states, serving more than 260 marketing terminals in the Southern and Eastern United States. 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 Logistics¹⁴



In 2011, Colonial Pipeline expanded the northern end of its Houston-to-New York system by adding 100,000 b/d of capacity. In addition, the company completed a series of system upgrades leading to more than

¹² <http://www.eia.gov/analysis/petroleum/nerefining/prelim/>

¹³ <http://205.254.135.7/state/state-energy-profiles-analysis.cfm?sid=NY>

¹⁴ <http://www.eia.gov/analysis/petroleum/nerefining/update/pdf/neprodmkts.pdf>

100,000 b/d of capacity for distillates¹⁵ specifically serving the New Jersey, Pennsylvania, and New York markets. Also, Colonial Pipeline added an additional 100,000 b/d of gasoline and distillates capacity in early 2013¹⁶ to meet demand on the northern portion of the line (Greensboro, NC to Linden, NJ).

In the U.S., there were 135 operating refineries in the US with total atmospheric crude oil distillation capacity (ACDU) of 18.6 million b/d as of January 1, 2018¹⁷. The East Coast (PADD 1) has eight refineries, which are currently operating, with 1.2 million b/d of atmospheric crude distillation capacity. The region has 502,500 b/d of fluid catalytic cracking (FCC) capacity. PADD 1 includes all states in New England, the Mid-Atlantic, and the South Atlantic and is subdivided into three 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 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, has one operating refinery and 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 imports¹⁸. As stated above, 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) Refineries (Source: EIA)

Name	State	Owner	Capacity	Status
Delaware City Refinery Co LLC	Delaware City, DE	PBF Energy Co LLC	182,200 b/d	Operational
Paulsboro Refining Co LLC	Paulsboro, NJ	PBF Energy Co LLC	160,000 b/d	Operational
Phillips 66 Company	Linden, NJ	Phillips 66 Company	258,000	Operational
American Refining Group Inc	Bradford, PA	American Refining Group Inc	11,000 b/d	Operational
Philadelphia Energy Solutions	Philadelphia, PA	Carlyle Group	335,000 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

¹⁵ http://www.eia.gov/pressroom/presentations/sieminski_10102012.pdf

¹⁶ <http://www.colpipe.com/home/news-media/press-releases/pressdetail?ID=7cb2e327-d0b3-6eb4-9c07-ff00009907dd>

¹⁷ <https://www.eia.gov/petroleum/refinerycapacity/>

¹⁸ http://www.eia.gov/pressroom/testimonies/howard_03192012.pdf

Deliverable Supply Estimates

A. Refinery and Blender Production

In recent years, Northeast refineries supplied about 40% of gasoline (and 60% of the ULSD) consumed in the Northeast. Shipments from the U.S. Gulf Coast and imports supply the remainder of the market.¹⁹ 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 also 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 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 will utilize the EIA’s data for “refinery and blender net production”.

According to EIA data from 2015 through 2017, the three-year average of RBOB production by refiners and blenders in PADD 1 was 1.27 million b/d, or 38.1 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 Production²⁰ (Source: EIA)

RBOB Gasoline, in thousands b/d	August 2015 – July 2016	August 2016 – July 2017	August 2017 – July 2018	Average
Refinery and Blender Net Production	1,274	1,271	1,267	1,271

In conversations with market participants, it was determined that a portion of the Philadelphia refinery production is used to supply the Pennsylvania market via the Buckeye Laurel Pipeline. Based on EIA’s prime supplier sales data²¹, the Exchange estimates that the gasoline supplied to Pennsylvania was approximately 200,000 barrels per day for the three-year period of 2015 through 2017. Therefore, the Exchange reduced the total refinery and blender net production by 200,000 barrels per day to account for gasoline supplied to Pennsylvania directly from Philadelphia-area refineries. Consequently, the total refinery and blender net production available for the New York Harbor market is approximately 1.0 million b/d (rounding down), which is equivalent to 30.0 million barrels per month.

¹⁹ http://www.eia.gov/pressroom/testimonies/howard_03192012.pdf

²⁰ EIA, <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WGRRPP12&f=W>

²¹ EIA Prime Supplier Sales Volumes by State, https://www.eia.gov/dnav/pet/pet_cons_prim_dcua_SPA_m.htm

Further, 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 18.0 million barrels per month of RBOB (60% of 30.0 million barrels per month) would be deliverable in New York Harbor.

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 269,000 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 67,250 b/d (25% of 269,000 b/d) or 2.0 million barrels per month.

Table 3 – RBOB Movements from PADD 3 into PADD 1²² (Source: EIA)

	July 2015 – June 2016	July 2016 – June 2017	July 2017 – June 2018	Average
RBOB Movements, in Barrels per Day	282	263	261	269

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 32.8 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 8.2 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 820,000 barrels of the approximately 8.2 million barrels of stored gasoline in the New York Harbor area is used for operational purposes, leaving 7.4 million barrels available for spot month delivery from inventory.

Table 4 – Gasoline Stocks in PADD 1B²³ (Source: EIA)

Inventory, in thousand barrels	PADD 1B (Central Atlantic)
August 2015 – July 2016	33,398

²² EIA, Monthly Data in barrels per day, https://www.eia.gov/dnav/pet/pet_move_ptb_dc_R10-R30_mbb1_m.htm

²³ http://www.eia.gov/dnav/pet/pet_stoc_wstk_dc_r1y_w.htm

August 2016 – July 2017	34,235
August 2017 – July 2018	30,837
Average	32,823

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. *Refinery and Blender Production = 18.0 million barrels*
- B. *Pipeline flows to the delivery area = 2.0 million barrels*
- C. *Storage levels in the delivery area = 7.4 million barrels*

The Exchange estimates the monthly deliverable supply of RBOB gasoline to the New York Harbor to be approximately 27.4 million barrels, which is equivalent to **27,400** contracts per month (contract size 42,000 gallons or 1,000 barrels). The current spot month position limit for the New York Harbor RBOB Gasoline Futures Contract is 1,000 contracts or **3.6%** of the estimated monthly deliverable supply.

APPENDIX A.

PADD 1, Refiner and Blender Net Production²⁴
(Source: EIA, Monthly Averages based on Weekly Data)

(Thousand Barrels per Day)

Year	Month	Total
2015	Aug	1,307
	Sep	1,274
	Oct	1,273
	Nov	1,256
	Dec	1,268
2016	Jan	1,178
	Feb	1,216
	Mar	1,249
	Apr	1,316
	May	1,297
	Jun	1,322
	Jul	1,333
	Aug	1,328
	Sep	1,307
	Oct	1,289
	Nov	1,285
	Dec	1,281
2017	Jan	1,164
	Feb	1,203
	Mar	1,244
	Apr	1,257
	May	1,297
	Jun	1,306
	Jul	1,297
	Aug	1,301
	Sep	1,276
	Oct	1,296
	Nov	1,290
	Dec	1,288
2018	Jan	1,144
	Feb	1,207
	Mar	1,235
	Apr	1,267
	May	1,291
	Jun	1,302
	Jul	1,309

²⁴ <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WGRRPP12&f=W>

A. **PADD 1B (Central Atlantic) Total Gasoline Stocks** ²⁵

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

(Thousand Barrels)

Year	Month	PADD 1B (Central Atlantic) Total Gasoline Stocks
2015	Aug	28,521
	Sep	29,039
	Oct	31,631
	Nov	27,827
	Dec	28,304
2016	Jan	32,682
	Feb	37,227
	Mar	37,433
	Apr	37,100
	May	37,276
	Jun	36,614
	Jul	37,122
	Aug	36,180
	Sep	31,043
	Oct	28,946
	Nov	29,129
	Dec	31,845
2017	Jan	36,925
	Feb	41,031
	Mar	37,005
	Apr	35,456
	May	37,014
	Jun	34,376
	Jul	31,870
	Aug	31,601
	Sep	27,981
	Oct	25,764
	Nov	24,673
	Dec	29,707
2018	Jan	30,745
	Feb	34,686
	Mar	32,363
	Apr	33,428
	May	32,655
	Jun	33,175
	Jul	33,263
Average		32,823

²⁵ http://www.eia.gov/dnav/pet/pet_stoc_wstk_dcu_r1y_w.htm

ANALYSIS OF DELIVERABLE SUPPLY NY HARBOR ULSD FUTURES

In estimating deliverable supply for the NY Harbor ULSD Futures, the 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:

- (4) ULSD production at Bayway Refinery;
- (5) ULSD deliveries to the NY Harbor on Colonial Pipeline;
- (6) ULSD storage levels in the delivery area;
- (7) ULSD imports and exports into the delivery area.

For production, storage and import/exports, the Exchange determined to use data collected by the U.S. Department of Energy (“DOE”) Energy Information Administration (“EIA”) for its analysis and evaluation of deliverable supply estimates for ULSD in New York Harbor. The EIA provides detailed data on the key components of deliverable supply. The EIA provides such data on a weekly, monthly, and annual basis.

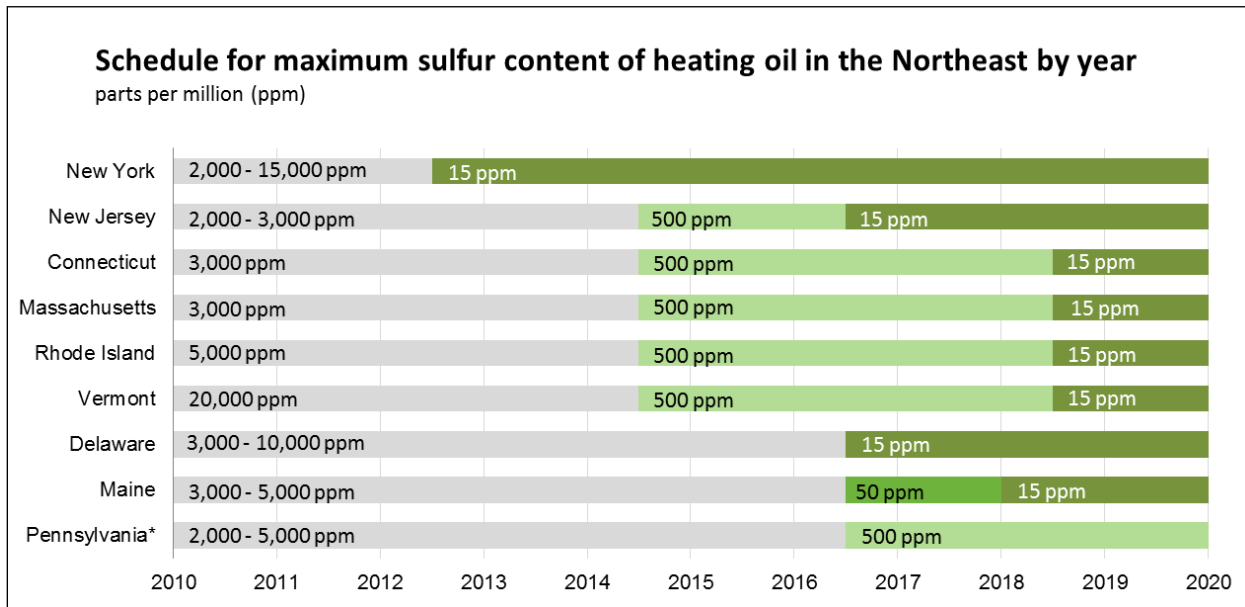
For ULSD pipeline deliveries, the Exchange relied on a combination of public information disseminated by the EIA, Federal Energy Regulatory Commission (“FERC”) as well as private interviews with reliable industry sources with whom the Exchange has had a long-standing relationship.

I. Introduction

ULSD is a distillate fuel that has a dual-use as heating oil and as a transportation fuel. As of December 1, 2010, all on-highway diesel fuel consumed in the United States is ULSD as mandated by federal regulations. 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. As of July 1, 2012 the New York State mandated that all heating oil sold for residential, commercial and industrial heating applications within the State contain no more than 15 parts per million (ppm) of sulfur. Following New York’s footsteps, 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. Figure 1 below is a summary of the specification changes to Heating Oil by State.

a. **Figure 1 - Heating Oil Sulfur Specification Changes per State**²⁶



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 has 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.

After transitioning to lower sulfur grade in May-2013, the NY Harbor ULSD Futures 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. Consequently, due to the phase-out of high-sulfur heating oil delivery specifications, the Exchange has focused its deliverable supply analysis on the ULSD sector of the distillate fuel market.

b. **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 PADD 1 (Petroleum Administration Defense District)²⁷.

Located in both New York and New Jersey, the New York Harbor area is the largest oil importing and third largest container 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 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), hydro de-sulfurization units,

²⁶ http://www.eia.gov/forecasts/steo/special/winter/2014_winter_fuels.pdf

²⁷ <http://www.eia.gov/analysis/petroleum/refining/prelim/>

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/d²⁸.

The Colonial Pipeline is the largest refined products pipeline in the US 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's network of pipelines crosses 11 states, serving more than 260 marketing terminals in the Southern and Eastern United States. The pipeline provides a link from the US Gulf Coast to the New York Harbor area through the south and across the Eastern seaboard. 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, with 18.5 days the average time. The Philadelphia-area refineries are strategically located along the Colonial Pipeline.

Earlier in 2011, Colonial expanded the northern end of its Houston-to-New York system, adding 100,000 barrels per day (b/d) of capacity. In addition, the company completed a series of system upgrades leading to more than 100,000 b/d of capacity for distillates²⁹ specifically serving the New Jersey, Pennsylvania, and New York markets. Also, Colonial Pipeline added an additional 100,000 b/d of gasoline and distillates capacity in early 2013³⁰ to meet demand in on the northern portion of the line (Greensboro, NC to Linden, NJ).

The Harbor Pipeline is an approximately 80-mile 171,000 b/d³¹ refined product common carrier pipeline originating near Woodbury, New Jersey and terminating in Linden, New Jersey. It is majority-owned and operated by Sunoco Logistics.

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 Midwest³². Figure 2 below illustrates the logistics of refining and products transportation in the Northeast.

²⁸ <http://www.phillips66.com/EN/about/our-businesses/refining/Pages/Bayway-Refinery.aspx>

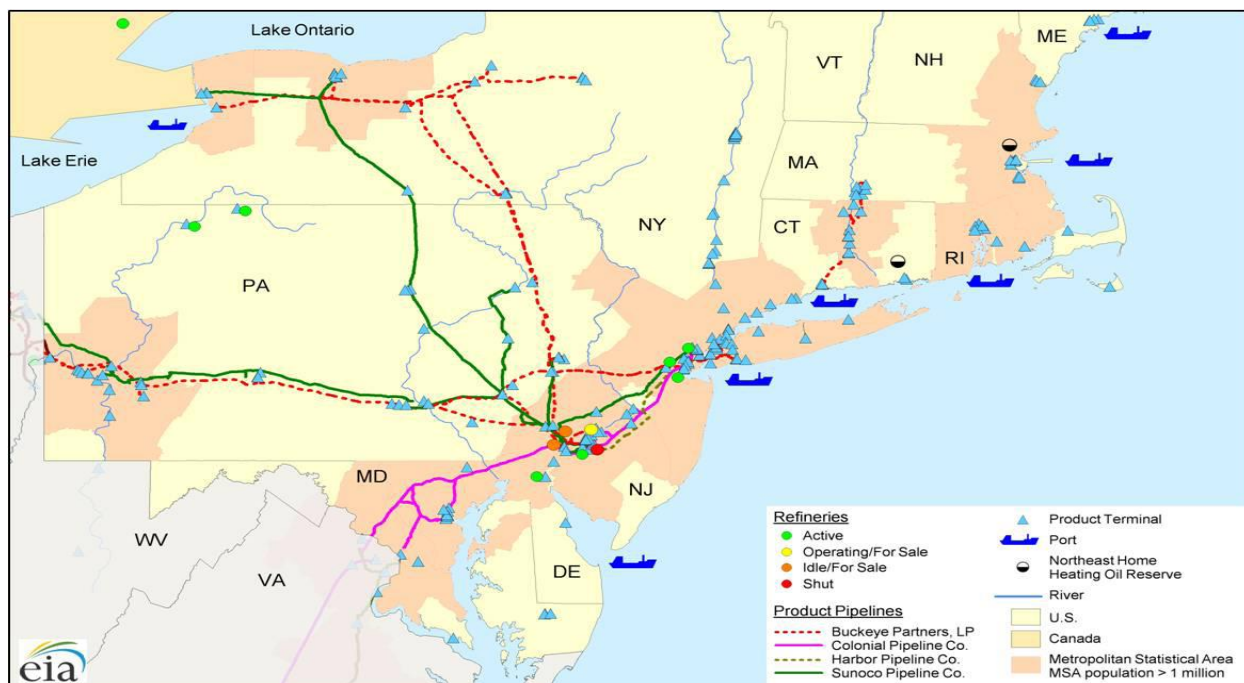
²⁹ http://www.eia.gov/pressroom/presentations/sieminski_10102012.pdf

³⁰ <http://www.colpipe.com/home/news-media/press-releases/pressdetail?ID=7cb2e327-d0b3-6eb4-9c07-ff00009907dd>

³¹ <http://investor.phillips66.com/financial-information/sec-filings/sec-filings-details/default.aspx?FilingId=11867386>

³² <http://205.254.135.7/state/state-energy-profiles-analysis.cfm?sid=NY>

c. **Figure 2 - Northeast Refined Products Market Logistics**³³



As of January 2018, there were 135 operating refineries in the United States with total atmospheric crude oil distillation capacity of over 18.6 million barrels per calendar day³⁴. On the East Coast (PADD 1), there are eight operable refineries, with 1.2 million b/d of atmospheric crude distillation capacity. The region has 502,500 b/d of fluid catalytic cracking (FCC) capacity. PADD 1 includes all states in New England, the Mid-Atlantic, and the South Atlantic and is subdivided into three sub-PADDs.

- PADD 1A – New 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 three sub-PADDs vary. PADD 1A, New England, has no refineries and relies on imports and transfers from other PADDs, primarily PADD 1B. PADD 1C, the South Atlantic, also has no operating refineries and 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 imports³⁵.

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.

³³ <http://www.eia.gov/analysis/petroleum/nerefining/update/pdf/neprodmkts.pdf>

³⁴ http://www.eia.gov/dnav/pet/pet_pnp_cap1_dcu_nus_a.htm

³⁵ http://www.eia.gov/petroleum/refinery/outage/pdf/refinery_outage.pdf

d. Table 1 – Mid-Atlantic (PADD 1B) Refineries

Name	State	Owner	Capacity	Status
Delaware City Refinery Co LLC	Delaware City, DE	PBF Energy Co LLC	182,200 b/d	Operational
Paulsboro Refining Co LLC	Paulsboro, NJ	PBF Energy Co LLC	160,000 b/d	Operational
Phillips 66 Company	Linden, NJ	Phillips 66 Company	258,000	Operational
American Refining Group Inc	Bradford, PA	American Refining Group Inc	11,000 b/d	Operational
Philadelphia Energy Solutions	Philadelphia, PA	Carlyle Group	335,000 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

II. Deliverable Supply Estimates

A. ULSD Production

According to EIA’s “Refinery Capacity by Individual Refinery” data³⁶ as well as data reported by Phillips-66³⁷, 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 110,000 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 87.3% utilization for the three-year period of 2015 through 2017³⁸ (87.5%, 85.9% and 88.4% 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 86,030 b/d, or approximately 2.58 million barrels per month.

e. 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
110,000	87.3%	96,030	10,000	2,580,900

B. ULSD Deliveries

³⁶ See the Excel file at the link: <http://www.eia.gov/petroleum/refinerycapacity/refcap18.xls> , under the category “desulfurization, diesel fuel”

³⁷ <http://www.phillips66.com/EN/about/our-businesses/refining/Pages/Bayway-Refinery.aspx>

³⁸ http://www.eia.gov/dnav/pet/pet_pnp_unc_dcu_rec_a.htm

The main pipeline supplying ULSD to the NY Harbor market is the 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 data and industry interviews.

To estimate the amount of ULSD on the Colonial Pipeline, the Exchange took a five-step approach.

- Step 1: The Exchange first collected data on distillate fuel oil delivered on the pipeline as reported to the FERC in Form 6 for years 2015-2017³⁹. These reports are designed to collect both financial and operational informational from oil pipeline companies subject to FERC jurisdiction. Table 3 illustrates total deliveries in barrels per year. Accordingly, the three-year average is reported at 299,602,093 barrels.

f. Table 3 – Colonial Pipeline Distillate Fuel Deliveries

	Total Delivered Out (YTD Barrels)
2015	320,144,455
2016	296,595,314
2017	282,066,510
Average	299,602,093

- Step 2: To estimate the portion of shipped distillates that is ULSD, the Exchange used the percentage of ULSD shipments for PADD 1 as reported by the EIA. The Exchange believes that the share of ULSD out of total distillates shipped from PADD 3 to PADD 1 is representative of the ULSD shipments on the Colonial Pipeline. As illustrated in Table 4 below, in the 2015-2017 timeframe, total distillates shipped from the Gulf Coast (PADD 3) to PADD 1 averaged at 305,365,000 barrels⁴⁰ per year. In the same time period the ULSD (0-15 ppm Sulfur) shipments from PADD 3 into PADD 1 averaged at 279,145,000 barrels⁴¹ per year, which is 91.38% of all distillates.

g. Table 4 – PADD 1 Receipts by Pipeline, Tanker and Barge from PADD 3 (Thousand Barrels)

	Total Distillates	ULSD (0-15 ppm)	% ULSD
2015	325,364	293,338	90.16%
2016	299,849	274,478	91.54%
2017	291,693	269,618	92.43%
Average	305,635	279,145	91.38%

³⁹ See Page 601.2, Line 19, Column (i) at:

FERC Form 6 for 2015 <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14207820> page 601.2 box i19
 FERC Form 6 for 2016 <https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=14563767> page 601.2 box i19
 FERC Form 6 for 2017 <https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=14893903> page 601.2 box i19

⁴⁰ <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=mdimxp1p31&f=a>

⁴¹ http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=md0mx_r10r30_1&f=a

- Step 3: To estimate ULSD shipments specific to the Colonial Pipeline, the Exchange applied the ULSD percentages applicable to PADD 1 from Step 2 above on total ULSD distillate fuel deliveries from Step 1. Table 5 below shows that approximately 273,617,290 barrels of ULSD per year was shipped on the Colonial Pipeline in the 2015-2017 timeframe.

h. Table 5 – Colonial Pipeline ULSD Deliveries

	Total Delivered (Step 1)	% ULSD (Step 2)	ULSD Shipped on Colonial Pipeline (Barrels)
2014	303,094,355	85.33%	258,629,924
2015	320,144,455	90.16%	288,632,222
2016	296,595,314	91.54%	271,499,617
2017	282,066,510	92.43%	260,720,032
Average 2015- 2017			273,617,290

- Step 4: In Step 3, the Exchange estimated the amount of ULSD shipped on the Colonial Pipeline, which spans from the US Gulf Coast to the East Coast. Not all ULSD shipped on the pipeline is delivered to the NY Harbor delivery region so the Exchange estimated the NYH-specific ULSD shipments using FERC Form 6 and tariff data. Per FERC Order IS07-86⁴² ULSD that is delivered south of Philadelphia (Booth, PA) is subject to an annual total surcharge that is reported to the FERC through Form 6⁴³. According to Table 6 below, in the 2014-2016 timeframe, the ULSD surcharge on the Colonial Pipeline averaged at \$8,837,556. In addition, on January 1, 2017 Colonial Pipeline discontinued the ULSD surcharge, therefore the Exchange used the time period of 2014 – 2016 for which the surcharge data is available⁴⁴.

i. Table 6 – Colonial Pipeline ULSD Surcharge South of Booth

	Total Surcharge (\$)
2014	7,666,428
2015	9,319,899
2016	9,526,342
Average	8,837,556

⁴² http://elibrary.ferc.gov/idmws/file_list.asp?document_id=4472753

⁴³ See Schedule Page 300, Line 2, Column C at:

[FERC Form 6 for 2013 http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13518863](http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13518863) page 601.2 box i19

[FERC Form 6 for 2014 http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13844493](http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13844493) page 601.2 box i19

[FERC Form 6 for 2015 http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14207820](http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14207820) page 601.2 box i19

⁴⁴Docket Number IS17-106, <https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=14442959>.

To calculate the number of ULSD barrels subject to the surcharge, the Exchange used a per barrel surcharge rate applicable to each year. These rates are reported to the FERC via tariff schedules⁴⁵ and illustrated in Table 7 below. Average surcharge was calculated by taking an average of the surcharges that were in place weighted by how long they were in effect over the course of the year. In 2014, the surcharge of \$0.04 was in effect for the first half of the year (January-June) and the surcharge of \$0.054 was in effect for the second half of the year (July-December) so the weights are equally distributed. In 2015, there were three reported surcharges; the surcharge of \$0.054 was effective for the first half of the year (January - June) while the surcharge of \$0.056 was effective July-December, so despite having only three reported surcharges instead of four, the weights are also distributed equally. In 2016, there were four reported surcharges in which the rate remained unchanged. For the 2014-2016 timeframe, the average surcharge rate per barrel was \$0.053.

j. Table 7 – Colonial Pipeline ULSD Surcharge Rate for Delivery South of Booth

Year	Docket Number	Reported Surcharge (per barrel)	Average Annual Surcharge
2014	IS14-122	\$0.040	\$0.047
2014	IS14-272	\$0.040	
2014	IS14-516	\$0.054	
2014	IS14-673	\$0.054	
2015	IS15-51	\$0.054	\$0.055
2015	IS15-124	\$0.054	
2015	IS15-403	\$0.056	
2016	IS16-61	\$0.056	\$0.056
2016	IS16-258	\$0.056	
2016	IS16-628	\$0.056	
2016	IS16-694	\$0.056	

Dividing total surcharge by average surcharge rate gives the estimated ULSD shipments south of Booth, PA as displayed in Table 8. ULSD barrels North of Booth are calculated by subtracting ULSD barrels South of Booth from the total ULSD shipped on Colonial Pipeline values provided in Table 5. The barrels of estimated ULSD shipments delivered North of Booth, PA is 105,360,105 barrels per year in 2014-2016. This is equivalent to 8,780,009 barrels of ULSD per month shipped on the Colonial Pipeline.

Table 8 – Colonial Pipeline ULSD Barrels

	Total Surcharge (\$)	Surcharge Rate per Barrel	ULSD Barrels South of Booth	ULSD Barrels North of Booth (Annual)	ULSD Barrels North of Booth (Monthly)
2014	7,666,428	0.047	163,115,489	95,514,435	7,959,536

⁴⁵ To locate these documents, go to <http://elibrary.ferc.gov/idmws/search/fercgensearch.asp> For the "Date Range" field, select "All". In the "Docket Number" field, type the relevant Docket Numbers provided in Table 7. Then click "Submit" at the bottom. The result will be the full docket file. In the furthest right column, click "FERC Generated PDF". In the PDF, search for Item 125 and the surcharge is found within the text.

2015	9,319,899	0.055	169,452,709	119,179,513	9,931,626
2016	9,526,342	0.056	170,113,250	101,386,367	8,448,864
Average	8,837,556	0.053	167,560,483	105,360,105	8,780,009

- As the last step in estimating the amount of ULSD shipped on the Colonial Pipeline and delivered to the NYH area, the Exchange removed part of the ULSD shipments generating from Philadelphia refiners as these do not end up in the New York Harbor. According to the EIA Prime Suppliers Sale Volume data⁴⁶ for Pennsylvania in 2012-2014 (latest three-year time period available), sales of ULSD from Pennsylvania refineries averaged at 4,703,000 gallons per day (or 111,977 barrels per day), which is equivalent to 3,359,310 barrels per month. To arrive at the final ULSD shipments on the Colonial Pipeline to the NYH area -excluding Philadelphia refinery input, the Exchange subtracted 3,359,310 barrels from 8,780,009 from Table 8 to obtain 5,420,699 barrels per month.

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 19 approved delivery terminals. Based on conversations with these facilities the total cumulative working tank capacity for ULSD at all Exchange-approved delivery terminals equals 19,794,014 barrels. Table 9 below details the list of facilities approved by the Exchange.

Table 9 – 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
BUCKEYE BRONX TERMINAL	E81
CITGO - LINDEN	E82
SHELL OIL PRODUCTS US – NEWARK	E83
FEDERAL TERMINAL - ELIZABETH	E84
KINDER MORGAN - CARTERET	E85
BUCKEYE PORT READING TERMINAL LLC	E86
BUCKEYE BROOKLYN TERMINAL	E87
SPRAGUE - BRONX SEC TERMINAL	E88
MOTIVA ENTERPRISES LLC - SEWAREN	E89
ST TERMINAL – LINDEN	E91
BUCKEYE BAYONNE TERMINAL	E92
KINDER MORGAN - PERTH AMBOY	E94
KINDER MORGAN - STATEN ISLAND	E95
BUCKEYE RARITAN BAY TERMINAL LLC	E96
PHILLIPS 66 - BAY WAY	E97

⁴⁶ <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=C720012421&f=A>

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 one million barrel supply of ultra low sulfur diesel. The ULSD is stored in three terminals in the NY Harbor area: Groton, Connecticut, Port Reading, New Jersey, and Revere, Massachusetts.

The three-year average of ULSD stocks held in the Central Atlantic, or PADD 1B, region is approximately 28.02 million barrels (See Table 10). 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 14.01 million barrels in New York Harbor.

Table 10 – Central Atlantic (PADD 1B) ULSD Stocks

Thousand Barrels (Annual Averages using Weekly Data)	PADD 1 ⁴⁷	PADD 1B (Central Atlantic) ⁴⁸
July 2015 – June 2016	45,879	29,312
July 2016 – June 2017	49,852	32,167
July 2017 – June 2018	37,082	22,585
Average	44,271	28,021

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 1.40 million of the 14.0 million barrels of stored ULSD are used for operational purposes, leaving approximately 12.61 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% haircut on storage figures to account for long-term agreements to arrive at a final 10.09 million barrels per month figure.

D. Imports and Exports

The New York Harbor area is the largest oil import hub in the US. According to the EIA's import data by port of entry⁴⁹, ULSD imports into the New York Harbor area (which encompasses New Jersey and New York ports) averaged 25,000 barrels per day for the three-year period of July 2015 through June 2018. Further, ULSD exports from PADD 1 averaged 45,000 barrels per day for the same three-year period⁵⁰. Based on conversations with industry experts, the Exchange believes that approximately 30% of the exports figure represents the NYH delivery area. Therefore, applying a 70% haircut to exports resulted in 13,600 b/d in NYH. As a result, the net imports figure for July 2015 - June 2018 was 11,400 barrels per day, or 342,000 barrels per month.

⁴⁷ http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WD0ST_R10_1&f=W

⁴⁸ http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WD0ST_R1Y_1&f=W

⁴⁹ <http://www.eia.gov/petroleum/imports/companylevel/archive/>

⁵⁰ http://www.eia.gov/dnav/pet/pet_move_exp_dc_R10-Z00_mbbldpd_a.htm

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: 2.58 million barrels per month*
- B. *ULSD Deliveries on Colonial Pipeline: 5.42 million barrels per month*
- C. *ULSD Storage: 10.09 million barrels per month*
- D. *Net Imports: 342,000 barrels per month*

The Exchange estimates the monthly deliverable supply of ULSD to the New York Harbor (NYH) to be approximately 18.43 million barrels, which is equivalent to 18,430 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 4,608 futures equivalent contracts. The current spot month position limit for the NY Harbor ULSD Futures contract is 1,000 contracts or 5.4% of the estimated monthly deliverable supply.

APPENDIX

k. 1. PADD 1⁵¹ and PADD 1B⁵² ULSD Stocks (in Thousand Barrels)

Year	Month	PADD 1	PADD 1B
2015	Jul	38,696	24,234
	Aug	43,727	28,200
	Sep	45,626	29,817
	Oct	46,297	30,557
	Nov	46,952	31,025
	Dec	48,336	31,303
2016	Jan	49,362	32,047
	Feb	47,632	30,874
	Mar	45,163	28,751
	Apr	45,415	27,560
	May	45,986	28,732
	Jun	47,363	28,644
	Jul	48,673	30,461
	Aug	49,500	31,340
	Sep	52,341	34,029
	Oct	52,240	34,360
	Nov	51,215	33,795
	Dec	53,417	35,331
2017	Jan	53,681	35,382
	Feb	51,914	33,431
	Mar	47,276	30,349
	Apr	45,578	28,614
	May	45,947	29,452
	Jun	46,440	29,458
	Jul	46,319	29,522
	Aug	45,360	29,471
	Sep	39,460	24,959
	Oct	36,457	22,447
	Nov	38,418	24,392
	Dec	41,345	26,544
2018	Jan	38,253	23,704
	Feb	37,566	22,758
	Mar	36,990	22,842
	Apr	30,144	17,089
	May	26,720	13,696
	Jun	27,950	13,594

⁵¹ EIA, Monthly averages using weekly data: http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WD0ST_R10_1&f=W

⁵² EIA, Monthly averages using weekly data: http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WD0ST_R1Y_1&f=W

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

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.

At this time, the Exchange is not including stocks data in its analysis of deliverable supply for Group 3 and Gulf Coast refined products. Stocks data tend to vary and, at least upon launch of products, we would rather not condition recommended position limits based on stock data.

In its analysis of deliverable supply, the Exchange concentrated on data in the Midwest region (PADD 2), refinery production for gasoline and ULSD, which is the main supply point for the Group 3 market. The existing spot month position limits for each leg of the spread contracts are 1,000 contracts.

In its analysis of deliverable supply, the Exchange concentrated on data in the Gulf Coast region (PADD 3) for refinery production for gasoline. The existing spot month position limits for each leg of the spread contracts are 1,000 contracts.

Position limits in the Gulf Coast CBOB Gasoline A2 (Platts) vs. RBOB Gasoline BALMO Futures will aggregate into the Gulf Coast CBOB Gasoline A2 (Platts) Futures (commodity code CRG; rulebook chapter 977) and RBOB Gasoline Last Day Financial Futures (commodity code 27 and rulebook chapter 830). The deliverable supply of Gulf Coast gasoline is estimated at 30 million barrels month, which is equivalent to 30,000 contracts. The Exchange has set spot month limits at 1,000 contracts (equivalent to 1,000,000 barrels), which is approximately 3% of the monthly deliverable supply. The Exchange estimates the monthly deliverable supply of RBOB gasoline to the New York Harbor to be approximately 27.4 million barrels, which is equivalent to 27,400 contracts per month (contract size 42,000 gallons or 1,000 barrels). The current spot month position limit for the New York Harbor RBOB Gasoline Futures Contract is 1,000 contracts or 3.6% of the estimated monthly deliverable supply.

Position limits in the Group Three ULSD (Platts) vs. NY Harbor ULSD BALMO Futures will aggregate into the Group Three ULSD (Platts) Futures (commodity code A7; rulebook chapter 324) and NY Harbor ULSD Last Day Financial Futures (commodity code 23; rulebook chapter 829). The deliverable supply of Group 3 ULSD is estimated at 9.93 million barrels month, which is equivalent to 9,930 contracts. The Exchange has set spot month limits at 1,000 contracts (equivalent to 1,000,000 barrels), which is approximately 10% of the monthly deliverable supply. The Exchange estimates the monthly deliverable supply of ULSD to the New York Harbor (NYH) to be approximately 18.43 million barrels, which is equivalent to 18,430 contracts per month (contract size 42,000 gallons or 1,000 barrels). The current spot month position limit for the NY Harbor ULSD Futures contract is 1,000 contracts or 5.4% of the estimated monthly deliverable supply.

Position limits in the Group Three Sub-octane Gasoline (Platts) vs. RBOB Gasoline BALMO Futures will aggregate into the Group Three Sub-Octane Gasoline (Platts) Futures (commodity code A9; rulebook chapter 322) and RBOB Gasoline Last Day Financial Futures (commodity code 27; rulebook chapter 830). The deliverable supply of Gulf Coast gasoline is estimated at 13.98 million barrels month, which is equivalent to 13,980 contracts. The Exchange has set spot month limits at 1,000 contracts (equivalent to 1,000,000 barrels), which is approximately 7% of the monthly deliverable supply. The Exchange estimates the monthly deliverable supply of RBOB gasoline to the New York Harbor to be approximately 27.4 million barrels, which is equivalent to 27,400 contracts per month (contract size 42,000 gallons or 1,000 barrels). The current spot month position limit for the New York Harbor RBOB Gasoline Futures Contract is 1,000 contracts or 3.6% of the estimated monthly deliverable supply.