

**SUBMISSION COVER SHEET**

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

Registered Entity Identifier Code (optional): 15-526 (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): 12/03/2015 Filing Description: Listing Two (2) New Renewable Identification Number (RIN) 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

Official Product Names: 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 3, 2015

**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 Two (2) New Renewable Identification Number (RIN) Futures Contracts. NYMEX Submission No. 15-526 (2 of 2)**

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is notifying the Commodity Futures Trading Commission (“CFTC” or “Commission”) that it is self-certifying the listing of two (2) new Renewable Identification Number (RIN) futures contracts (the “Contracts”) for trading on CME Globex and for submission for clearing via CME ClearPort, effective on Sunday, December 20, 2015 for trade date Monday, December 21, 2015, as set forth in the table below.

The Contracts’ specifications are as follows:

<b>Contract Title</b>	<b>D4 Biodiesel RINs (Argus) 2016 Futures</b>	<b>D6 Ethanol RINs (Argus) 2016 Futures</b>
<b>Rule Chapter</b>	1303	1305
<b>Commodity Code</b>	D46	D66
<b>Venue</b>	CME Globex, CME ClearPort	CME Globex, CME ClearPort
<b>Listing Schedule</b>	All months including and between January 2016 – February 2018	All months including and between January 2016 – February 2018
<b>Contract Size</b>	50,000 RINs	50,000 RINs
<b>Settlement Method</b>	Financial	Financial
<b>Minimum Price Fluctuation</b>	0.0001	0.0001
<b>Value per Tick</b>	\$5.00	\$5.00
<b>First Listed Contract</b>	January 2016	January 2016

<b>Block Trade Minimum Threshold</b>	5 contracts	5 contracts
<b>Termination of Trading</b>	Trading ceases on the last business day of the contract month	Trading ceases on the last business day of the contract month
<b>CME Match Algorithm</b>	First In First Out (F)	First In First Out (F)

### **TRADING AND CLEARING HOURS**

CME Globex and CME ClearPort	Sunday - Friday 6:00 p.m. - 5:00 p.m. (5:00 p.m. - 4:00 p.m. Chicago Time/CT) with a 60-minute break each day beginning at 5:00 p.m. (4:00 p.m. CT)
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### **FEES**

<b>Exchange Fees</b>	<b>Pit*</b>	<b>CME Globex</b>	<b>CME ClearPort</b>	<b>Agency Cross</b>
Member Day Rate	0.85	0.85		
Member Overnight Rate	0.85	0.85	0.85	0.85
Cross Division Rate	1.10	1.10		
Non-Member Rate	1.35	1.35	1.35	1.35
International Incentive Program (IIP)		1.10		
<b>Other Processing Surcharges</b>	<b>Member</b>	<b>Non-Member</b>		
Cash Settlement	0.50	0.50		
Facilitation Fee	0.30			
Give-up Surcharge	0.05			
Position Transfer/Position Adjustment	0.10			

\* Effective as of the close of trading on July 2, 2015, the NYMEX and COMEX futures pit will be closed for open outcry trading. Brokers will still be able to submit Block Trades, EFPs, EFRs through Front-End Clearing System (FEC); these trades will be assessed Pit Exchange Fees in addition to any surcharges.

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

NYMEX is self-certifying block trading on this contract with a minimum block threshold of five (5) contracts. This block level aligns with the Exchange's currently listed RIN futures contracts.

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

Compliance with Rules: Trading in the Contracts will be subject to all CME Rules, including prohibitions against fraudulent, noncompetitive, unfair and abusive practices as outlined in CME Rule Chapter 4, the Exchange's trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the CME Rulebook, and the dispute resolution and arbitration procedures of CME Rule Chapter 6. As with all products listed for trading on one of CME Group's designated contract markets, trading activity in the Contracts will be subject to 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 not readily subject to manipulation as a result of the deep liquidity and robustness of the underlying cash market and the settlement index. Pursuant to the Exchange's obligations under this core principle, the final settlement indices are published by Argus Media and sub-licensed to CME. The indices are based on the volume weighted-average price of transactions done during the entire trading day.

Prevention of Market Disruption: Trading in the Contracts will be subject to the Rules of CME, 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 Exchange has a detailed calculation methodology for the position limits in the Contracts.

Availability of General Information: The Exchange will publish on its website information in regard to Contracts' 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 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 platform and for clearing through the CME ClearPort platform. The CME Globex trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity. The CME ClearPort platform provides a competitive, open and efficient mechanism for novating transactions that are competitively executed by brokers.

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 Contract: The Contracts will be cleared by the CME Clearing House, a derivatives clearing organization registered with the Commodity Futures Trading Commission and subject to all CFTC regulations related thereto.

Protection of Market Participants: CME 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 comply with the Act, including regulations under the Act. There were no substantive opposing views to the 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](mailto:CMEGSubmissionInquiry@cmegroup.com).

Sincerely,

/s/ Christopher Bowen  
Managing Director and Chief Regulatory Counsel

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

## **APPENDIX A**

### **NYMEX Rulebook Chapters**

#### **Chapter 1303**

#### **D4 Biodiesel RINs (Argus) 2016 Futures**

##### **1303100. SCOPE OF CHAPTER**

The provisions of these Rules shall apply to all futures contracts based on D4 Biodiesel RINs for vintage year 2016 bought or sold on the Exchange for cash settlement based on the Floating Price. The term "RIN" refers to the Renewable Identification Number (RIN) which is utilized to identify each gallon of renewable fuel that is produced or imported as mandated by the U.S. Environmental Protection Agency for compliance with the Renewable Fuels Standard (RFS2). 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.

##### **1303101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the monthly arithmetic average of the midpoint of the high and low daily closing prices from Argus Media for D4 Biodiesel RINs for vintage year 2016 for each business day during the contract month.

##### **1303102. TRADING SPECIFICATIONS**

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

###### **1303102.A. Trading Schedule**

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

###### **1303102.B. Trading Unit**

The contract quantity shall be 50,000 RINs. Each contract shall be valued as the contract quantity (50,000) multiplied by the settlement price.

###### **1303102.C. Price Increments**

Prices shall be quoted in dollars and cents per RIN. The minimum price fluctuation shall be \$.0001 (0.01 cents) per RIN.

###### **1303102.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.

###### **1303102.E. Termination of Trading**

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

##### **1303103. FINAL SETTLEMENT**

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

##### **1303104. DISCLAIMER**

Argus Media ("Argus") licenses the New York Mercantile Exchange, Inc. ("NYMEX") to use various Argus price assessments in connection with the trading and/or clearing of the contract.

NYMEX, ITS AFFILIATES AND ARGUS MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE RESULTS TO BE OBTAINED BY ANY PERSON OR ENTITY FROM USE OF THE PRICE ASSESSMENT, TRADING AND/OR CLEARING BASED ON THE PRICE ASSESSMENT, OR ANY DATA INCLUDED THEREIN IN CONNECTION WITH THE TRADING AND/OR CLEARING OF THE CONTRACT, OR, FOR ANY OTHER USE. NYMEX, ITS AFFILIATES AND ARGUS MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AND HEREBY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE PRICE ASSESSMENT OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL NYMEX, ITS AFFILIATES OR ARGUS HAVE ANY LIABILITY FOR ANY LOST PROFITS OR INDIRECT, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

**Chapter 1305**  
**D6 Ethanol RINs (Argus) 2016 Futures**

**1305100. SCOPE OF CHAPTER**

The provisions of these Rules shall apply to all futures contracts based on D6 Ethanol RINs for vintage year 2016 bought or sold on the Exchange for cash settlement based on the Floating Price. The term "RIN" refers to the Renewable Identification Number (RIN) which is utilized to identify each gallon of renewable fuel that is produced or imported as mandated by the U.S. Environmental Protection Agency for compliance with the Renewable Fuels Standard (RFS2). 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.

**1305101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the monthly arithmetic average of the midpoint of the high and low daily closing prices from Argus Media for D6 Ethanol RINs for vintage year 2016 for each business day during the contract month.

**1305102. TRADING SPECIFICATIONS**

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

**1305102.A. Trading Schedule**

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

**1305102.B. Trading Unit**

The contract quantity shall be 50,000 RINs. Each contract shall be valued as the contract quantity (50,000) multiplied by the settlement price.

**1305102.C. Price Increments**

Prices shall be quoted in dollars and cents per RIN. The minimum price fluctuation shall be \$.0001 (0.01 cents) per RIN.

**1305102.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.

**1305102.E. Termination of Trading**

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

**1305103. FINAL SETTLEMENT**

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

**1305104. DISCLAIMER**

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**APPENDIX B**

**Position Limit, Position Accountability, and Reportable Level Table in Chapter 5  
of the NYMEX Rulebook**

(attached under separate cover)

## APPENDIX C

### NYMEX Rule 588.H. – Globex Non-Reviewable Trading Ranges

<b>Instrument Name</b>	<b>Globex Symbol</b>	<b>Globex Non-Reviewable Ranges (NRR)</b>	<b>NRR: Globex Format</b>	<b>NRR: Ticks</b>
<u>D4 Biodiesel RINs (Argus) 2016 Futures</u>	<u>D46</u>	<u>\$0.02 per RIN</u>	<u>200</u>	<u>200</u>
<u>D6 Biodiesel RINs (Argus) 2016 Futures</u>	<u>D66</u>	<u>\$0.02 per RIN</u>	<u>200</u>	<u>200</u>

## APPENDIX D

### Cash Market Overview and Analysis of Deliverable Supply

#### Introduction

New York Mercantile Exchange, Inc. ("NYMEX" or "Exchange") is self-certifying the listing of two new futures contracts for vintage year 2016 for two categories of Renewable Identification Numbers ("RINs"). The contract rule chapters and titles are listed in the following table:

<b>NYMEX Rule Chapter</b>	<b>Commodity Code</b>	<b>Product Title</b>
1303	D46	D4 Biodiesel RINs (Argus) 2016 Futures
1305	D66	D6 Ethanol RINs (Argus) 2016 Futures

Exchange staff conducted a review of the underlying cash market and deliverable supply of RINs. In estimating deliverable supply for the contracts and relying on the Commodity Futures Trading Commission ("CFTC" or "Commission") long-standing precedent, the key component of estimated deliverable supply is the portion of typical production and supply stocks that could reasonably be considered to be reliably available for delivery. Most recently, the Commission stated in its final position limit rulemaking that:

[t]he term "deliverable supply" generally means the quantity of the commodity meeting a derivative contract's delivery specifications that can reasonably be expected to be readily available to short traders and saleable by long traders at its market value in normal cash marketing channels at the derivative contract's delivery points during the specified delivery period, barring abnormal movement in interstate commerce.

For the two RIN Futures contracts, the Exchange has set a conservative speculative limit at 20% of the monthly deliverable supply. This is based on net generation of RINs as published by the EPA (a full breakdown can be seen in the table below).

	<b><i>Monthly Deliverable Supply (Net Generation)</i></b>	<b><i>Contract-Equivalent (Contract Size: 50,000 RINs)</i></b>	<b><i>Spot Position Limit</i></b>	<b><i>Limit in % of Supply</i></b>
<b>D4 Biodiesel RIN Futures</b>	201,521,503	4,030	805	20%
<b>D6 Ethanol RIN Futures</b>	1,125,947,374	22,519	4,500	20%

## Data Sources

The US Environmental Protection Agency (EPA) is responsible for developing and implementing regulations to ensure that transportation and heating fuel sold in the United States contains a minimum volume of renewable fuel. Renewable Fuel Standard (RFS) regulations require renewable fuel producers and importers, gasoline and diesel refiners, renewable fuel exporters, Renewable Identification Number owners, and any other regulated party to submit all RIN generation information and other RIN transactions into the EPA Moderated Transaction System (EMTS). Using data generated from EMTS, EPA provides aggregated monthly data on RIN generation and renewable fuel volume production for specific fuel categories.

- Data collection began in July 1, 2010.
- Data submitted by all parties regulated under RFS, including: renewable fuel producers and importers, gasoline and diesel refiners, renewable fuel exporters, and RIN owners
- Data collected from RIN transactions submitted in the EMTS.
- Data may change due to remedial actions for incorrect transactions.

As of July 1, 2010, the RFS2 regulations require all regulated parties to submit all RIN generation information and other RIN transactions to EMTS<sup>1</sup>. Any party that owns RINs at any point during the year (including domestic and foreign producers, refiners, exporters, and importers of renewable fuels) must register with the EPA and follow RIN record-keeping and reporting guidelines<sup>2</sup>.

EMTS allows for real-time recording of transactions involving RINs and provides a mechanism for screening and tracking RIN credits. The screening process checks that the information provided by the RIN generator is consistent with an existing registration. After RINs have entered EPA's EMTS system, parties may then trade them based on agreements outside of EMTS. The system simplifies trading by allowing RINs to be traded generically. Only some specifying information will be needed to trade RINs, such as RIN quantity, fuel type, RIN assignment, RIN year, RIN price or price per gallon.

Recordkeeping, including product transfer documents (PTD) support the enforcement of the use of RINs for compliance purposes. Obligated parties keep copies of all PTDs they generate and receive, as well as copies of all reports submitted to EPA and all records related to the sale, purchase, brokering or transfer of RINs, for five years.

An underlying principle of RIN ownership is one of "buyer beware" and the EPA has no "good faith" provision to RIN ownership. RINs may be prohibited from use at any time if they are found to be invalid. Because of the "buyer beware" aspect, the EPA offers the option for a buyer to accept or reject RINs from specific RIN generators or from classes of RIN generators.

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<sup>1</sup> <http://www.epa.gov/otag/fuels/rfsdata/>

<sup>2</sup> <http://www.fas.org/sgp/crs/misc/R40155.pdf>

## Definitions

D-Code (D#) identifies the renewable fuel standard category for a particular fuel based on lifecycle analysis and is defined in 40 CFR Part 80.1426<sup>3</sup>. Equivalence Value (EV) is the number used to determine how many RINs shall be generated for each gallon of renewable fuel as defined in 40 CFR Part 80.1415<sup>4</sup>.

*Table 1: D-Code Definitions per RFS2*

Code	RFS2 Definition	Fuel Examples
<b>D3</b>	Cellulosic Biofuel	Ethanol (cellulosic)
<b>D4</b>	Biomass-based Diesel (incl. jet fuel and heating oil)	Biodiesel (mono alkyl esters), Non-ester renewable diesel
<b>D5</b>	Advanced Biofuel	Ethanol (sugarcane), Naphtha/LPG from camelina oil
<b>D6</b>	Renewable Fuel	Ethanol (corn), Biobutanol (corn)
<b>D7</b>	Cellulosic Diesel	Cellulosic diesel

Assignment of the D code includes a consideration of the type of feedstock and the process used to produce the renewable fuel. For instance, cellulosic biofuel (D3) must be made from cellulosic feedstock, advanced biofuel (D5) cannot be corn starch ethanol, and biomass-based diesel (D4) cannot be produced from co-processing renewable biomass and petroleum. Table 2 shows the share of each type of fuel within a D-Code using EPA data from 2014.

*Table 2: RIN Fuel Composition per D-Code (As of 2014)<sup>5</sup>*

<b>D4 Biodiesel RIN</b>	
<b>Biodiesel (EV 1.5)</b>	79.46%
<b>Non-ester Renewable Diesel (EV 1.7)</b>	20.09%
<b>Non-ester Renewable Diesel (EV 1.6)</b>	0.44%
<b>Non-ester Renewable Diesel (EV 1.5)</b>	0.01%
<b>D6 Ethanol RIN</b>	
<b>Non-cellulosic Ethanol (EV 1.0)</b>	97.65%
<b>Non-ester Renewable Diesel (EV 1.7)</b>	1.79%
<b>Biodiesel (EV 1.5)</b>	0.56%

Under RFS2, each RIN generated uniquely identifies not only a specific batch of renewable fuel, but also every gallon assigned to that batch. Equivalence Values (EV) are used to calculate the number of RINs, or RIN-gallons, that can be claimed for compliance purposes for every physical gallon of renewable fuel. EV varies depending on the energy content of the fuel. The following equation is used to determine the RIN volume to be generated from a volume of fuel:

<sup>3</sup> <http://www.ecfr.gov/cgi-bin/text-idx?rgn=div6&node=40:17.0.1.1.9.13>

<sup>4</sup> <http://www.law.cornell.edu/cfr/text/40/80.1415>

<sup>5</sup> <http://www.epa.gov/otag/fuels/rfsdata/2014emts.htm>

$$\text{Number of RINs} = \text{EV} * \text{Physical Volume in gallons}$$

**Table 3: Renewable Fuel D-Code Classification and Equivalence Values<sup>6</sup>**

<b>Fuel</b>	<b>EV</b>
<b>Biodiesel</b>	1.5
<b>Ethanol</b>	1.0
<b>Non-ester Renewable Diesel</b>	1.5/1.6/1.7
<b>Heating Oil</b>	1.1/1.2/1.6
<b>Biogas</b>	1.0

### Regulatory Overview

The EPA is responsible for developing and implementing regulations to ensure that transportation and heating fuel sold in the United States contains a minimum volume of renewable fuel. The Renewable Fuel Standard (RFS)<sup>7</sup> program was created pursuant to the requirements of Clean Air Act (CAA) section 211(o)<sup>8</sup>, which were added through the Energy Policy Act (EPA) of 2005<sup>9</sup>. The program, which was developed in collaboration with refiners, renewable fuel producers and other stakeholders established the first renewable fuel volume mandate in the United States.

The original RFS program that began in 2006 is known as RFS1 and required 7.5 billion gallons (bgal) of renewable fuel to be blended into gasoline by 2012, with at least 250 million gallons of cellulosic biofuels starting in 2013. The statutory requirements for the RFS program were subsequently modified, resulting in the promulgation of major revisions to the regulatory requirements on March 26, 2010<sup>10</sup>. The Energy Independence and Security Act (EISA) of 2007 established RFS2, which included diesel in addition to gasoline.

RFS2 expanded and significantly increased volume requirements, setting a target renewable fuel requirement of 36 billion gallons by 2022, with at least 16 billion gallons from cellulosic biofuels, and a cap of 15 billion gallons for corn-starch ethanol. RFS volume mandates are not exclusive, and generally result in nested requirements. For example, any renewable fuel that meets the requirement for cellulosic biofuel or biomass-based diesel is also valid for meeting the advanced biofuel requirement.

RFS2 also established four separate categories of renewable fuels, each with a separate, but nested, volume requirement, and included greenhouse gas (GHG) reduction levels in the definitions of each

<sup>6</sup> <http://www.epa.gov/otag/fuels/rfsdata/2012emts.htm>

<sup>7</sup> <http://www.epa.gov/otag/fuels/renewablefuels/index.htm>

<sup>8</sup> <http://www.law.cornell.edu/uscode/text/42/7545>

<sup>9</sup> <http://www.gpo.gov/fdsys/pkg/PLAW-109publ58/pdf/PLAW-109publ58.pdf>

<sup>10</sup> <http://www.gpo.gov/fdsys/pkg/FR-2010-03-26/html/2010-3851.htm>

category. Table 4 illustrates the categories and associated GHG levels and Table 5 details EPA statutory mandates through 2022.

*Table 4: RFS Fuel Categories and Target GHG Reduction<sup>11</sup> Thresholds*

<b>Renewable Fuel</b>	20%
<b>Cellulosic Biofuel</b>	60%
<b>Biomass-based Diesel</b>	50%
<b>Advanced Biofuel</b>	50%

*Table 5: Renewable Fuel Volume Requirements for RFS2 (billion gallons)<sup>12,13</sup>*

<b>Year</b>	<b>Cellulosic Biofuel</b>	<b>Biomass-Based Diesel</b>	<b>Advanced Biofuel</b>	<b>Total Renewable Fuel</b>
<b>2009</b>	NA	0.50	0.60	11.10
<b>2010</b>	0.10	0.65	0.95	12.95
<b>2011</b>	0.25	0.80	1.35	13.95
<b>2012</b>	0.50	1.00	2.00	15.20
<b>2013</b>	1.00	1.00 min	2.75	16.55
<b>2014</b>	1.75	1.00 min	3.75	18.15
<b>2015</b>	3.00	1.00 min	5.50	20.5
<b>2016</b>	4.25	1.00 min	7.25	22.25
<b>2017</b>	5.5	1.00 min	9.00	24.00
<b>2018</b>	7.00	1.00 min	11.00	26.00
<b>2019</b>	8.50	1.00 min	13.00	28.00
<b>2020</b>	10.50	1.00 min	15.00	30.00
<b>2021</b>	13.50	1.00 min	18.00	33.00
<b>2022</b>	16.00	1.00 min	21.00	36.00

The RFS program requires the EPA to set the volumes of renewable fuel annually by November 30<sup>th</sup> for the following year. If the projected volume, which is based in part on information provided from the Energy Information Agency (EIA), is lower than statutory volumes illustrated in Table 5, the EPA has the authority to waive RFS requirements in whole or in part. In setting annual target volumes, EPA first estimates the total volume of transportation fuel that is expected to be used in the United States during the upcoming year using EIA data. EPA then publishes applicable percentage standard of renewable fuel annually that apply to the sum of all gasoline and diesel produced or imported. The percentage

<sup>11</sup> Percent reduction from a 2005 gasoline or diesel baseline

<sup>12</sup> <http://www2.epa.gov/renewable-fuel-standard-program/program-overview-renewable-fuel-standard-program#structure>

<sup>13</sup> For years 2008-2013 table reflects actual volumes and may differ from original statutory limits. Volumes beyond 2013, except for the full compliance year of 2022, are statutory, and may change as the EPA sets annual targets each November.



standards are set so that if every obligated party<sup>14</sup> meets them, then the amount of renewable fuel, cellulosic biofuel, biomass-based diesel, and advanced biofuel used meet the volumes required on a nationwide basis. The percentage standards are used to determine each individual company's renewable volume obligation (RVO); or the volume of renewables of which an obligated party is required to prove ownership on a scheduled timeline. An obligated party may comply for all of its refineries in the aggregate, or for each refinery individually.

Table 6 below illustrates the annual volume standards that have been finalized for 2010 to 2013.

*Table 6: Annual Volume Standards (million gallons)<sup>15</sup>*

<b>Biofuel Category</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Cellulosic Biofuel	6.50	6.00	0 <sup>16</sup>	0.80
Biomass-based Diesel	1,150	800	1,000	1,280
Advanced Biofuel	950	1,350	2,000	2,750
<b>Total Renewable Fuel</b>	<b>1,295</b>	<b>13,950</b>	<b>15,200</b>	<b>16,550</b>

#### **Volume Standards Timeline for 2014-2017<sup>17</sup>**

A consent decree in litigation brought against EPA, by the American Petroleum Institute (API) and the American Fuel and Petrochemical Manufacturers (AFPM), established the following schedule for issuing Renewable Fuel Standards for 2014 and 2015:

- By June 1, 2015, the agency will propose volume requirements for 2015;
- By November 30, 2015, EPA will finalize volume requirements for 2014 and 2015 and resolve a pending waiver petition for 2014.

Outside the scope of the consent decree, EPA also committed to:

- Propose the RFS volume requirements for 2016 by June 1, 2015 and finalize them by November 30, 2015;
- Propose and finalize the RFS biomass-based diesel volume requirement for 2017 on the same schedule; and
- Re-propose volume requirements for 2014, by June 1, that reflect the volumes of renewable fuel that were actually used in 2014.

#### Proposed Renewable Fuel Standards<sup>18</sup>

<sup>14</sup> A refiner that produces or an importer that imports gasoline and diesel fuel within the 48 contiguous states

<sup>15</sup> <http://www2.epa.gov/renewable-fuel-standard-program/renewable-fuel-annual-standards>

<sup>16</sup> In a January 2013 decision, the D.C. Circuit Court vacated the 2012 cellulosic standard

<sup>17</sup> <http://www2.epa.gov/sites/production/files/2015-08/documents/consent-decree-proposed-2015-04-10.pdf>

<sup>18</sup> <http://www2.epa.gov/renewable-fuel-standard-program/proposed-renewable-fuel-standards-2014-2015-and-2016-and-biomass>

Per the consent decree summarized above, on June 10, 2015 the EPA has proposed the volume requirements and associated percentage standards that would apply under the RFS program in calendar years 2014, 2015, and 2016 for cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel<sup>19</sup>. The EPA has concluded that due to constraints in the fuel market to accommodate increasing volumes of ethanol, along with limits on the availability of non-ethanol renewable fuels, the volume targets specified by Congress in the Clean Air Act for 2014, 2015 and 2016 could not be achieved. EPA’s proposed volumes are detailed in Table 7 below.

*Table 7: Annual Volume Standards 2014-2016 (million gallons)<sup>20</sup>*

<b>Biofuel Category</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Cellulosic biofuel	33	106	206	
Biomass-based diesel	1,630	1,700	1,800	1,900
Advanced biofuel	2,680	2,900	3,400	
Total renewable fuel	15,930	16,300	17,400	

### **RIN Trading**

In addition to compliance demonstration, RINs can be used as tradable paper environmental credits as either attached or separated. Specifically, RINs can be obtained through acquisition of physical fuel, which have RINs attached (K1-coded RINs) or through acquisition of just the RINs (K2-coded RINs) from parties who participate in the RINs market.

RINs generated during the current year may be used to satisfy either the current year or the following year’s volume requirement; essentially giving them a two-year lifespan. If a fuel supplier has already met its mandated share and has supplied surplus biofuels for a particular biofuel category, it can sell the extra RINs to another supplier (who has failed to meet its mandate for that same biofuel standard) or it can hold onto the RINs for future use. Deficit carryovers can be any amount but for any individual company, up to 20% of the current year’s RVO may be met by RINs from the previous calendar year.

A RIN assigned to a volume can be separated when the volume that the RIN is assigned to is blended with gasoline or diesel to produce a motor fuel or the volume is exported. Assignment of a RIN occurs when the producer or importer of the renewable fuel transfers a RIN to another party along with a volume of renewable fuel.

Since biofuels supply and demand can vary over time and across regions, a market has developed for RINs. Because four separate biofuel mandates must be met, the RIN value may vary across the individual biofuel categories as well as geographically with variations in specific biofuels supply and demand conditions<sup>21</sup>.

As the magnitude of the renewable fuel mandates increase, obligated parties such as petroleum refiners have greater need for forward RIN instruments as a mechanism to manage their fuel obligations. By

<sup>19</sup> <http://www.gpo.gov/fdsys/pkg/FR-2015-06-10/pdf/2015-13956.pdf>

<sup>20</sup> <http://www.gpo.gov/fdsys/pkg/FR-2015-06-10/pdf/2015-13956.pdf>

<sup>21</sup> <http://www.fas.org/spp/crs/misc/R40155.pdf>

purchasing a RIN contract, a refiner could hedge its price exposure in a rising market. Similarly, a biodiesel manufacturer seeks to lock in the value of the RINs associated with a portion of its production in order to hedge downward price risk exposure.

Currently, without a forward market, the spot RINs market operates mostly through bilateral contracts. However, as market size grows, so does the need for forward instruments to manage the volatility in RIN prices. As the value of a RIN can account for a significant portion of a gallon of fuel, obligated parties seek mechanisms to stabilize cash flows and manage risk. Furthermore, the availability of a RINs market will help biofuel producers and processor to manage their price volatility by locking in a significant portion of the biofuel price. A financially settled RINs futures contract will allow biofuel producers to lock in RIN values.

### Market Participants

The regulations outline the following types of RIN market participant categories:

- Obligated parties (refiners and importers of gasoline or diesel)
- Renewable fuel exporters
- Renewable fuel producers
- Registered RIN market participants

Participants include both domestic and foreign companies. A company may fall under one or more categories and can change from year to year based on their trading or business activities.

### **RIN Imports**

EPA allows importers of renewable fuel to generate RINs only if the foreign producer of that renewable fuel had not already done so. In order to generate RINs, importers would need to obtain information from the registered foreign producers concerning the point of origin of their fuel's feedstock and whether it meets the definition of renewable biomass. If a batch of foreign-produced renewable fuel does not have RINs accompanying it when it arrives at a US port, an importer must obtain documentation that proves that the fuel's feedstock meets the definition of renewable biomass from the fuel's producer, who must have registered with the RFS program and conducted a third-party engineering review. With such documentation, the importer could generate RINs prior to introducing the fuel into commerce in the US<sup>22</sup>.

The majority of RINs that trade in the US are domestically-generated by renewable fuel producers. Direct Brazilian imports have typically made up a sizeable portion of total ethanol imported into the US. The most current and complete estimate indicates that total Brazilian ethanol exports will likely reach 3.8-4.2 billion gallons by 2022<sup>23</sup>. Table 8 provides the annual breakdown of RINs generated by source.

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<sup>22</sup> <http://www.gpo.gov/fdsys/pkg/FR-2010-03-26/html/2010-3851.htm>

<sup>23</sup> <http://www.gpo.gov/fdsys/pkg/FR-2010-03-26/html/2010-3851.htm>

*Table 8: Number of RINs Generated by Source<sup>24</sup>*

Year	D-Code	Domestic Generated	Importer Generated	Foreign Generated
2012	D4	1,591,526,666	50,170,499	95,636,832
	D6	12,987,841,601	0	0
2013	D4	2,185,987,174	266,262,275	286,883,870
	D6	13,107,997,361	46,157,135	196,357,089
2014	D4	2,213,913,956	203,985,011	291,970,178
	D6	14,017,277,937	79,009,021	257,366,277
2015 (Q1-Q3)	D4	1,640,030,006	232,334,294	180,103,624
	D6	10,673,707,264	92,803,855	253,729,881

### RIN Production

RINs are generated for each gallon of qualified renewable fuel by the fuel manufacturer or importer at the time of production or import. Table 9 below provides the number of RINs generated on an annual basis as well as the monthly average for the whole time period. The monthly average of the data was calculated by dividing annual numbers by 12 (for 2012-2014) and 11 (for 2015).

*Table 9: Number of Net RINs Generated, Annual<sup>25</sup>*

Category	2012	2013	2014	2015 (Through November)	Monthly Average
<b>D4</b>					
Biodiesel	1,728,388,365	2,729,681,144	2,702,872,708	2,302,749,082	<b>201,521,503</b>
<b>D6</b>					
Ethanol	12,980,888,061	13,325,609,720	14,339,300,001	12,283,036,490	<b>1,125,947,374</b>

### DELIVERABLE SUPPLY

In determining the deliverable supply components of the RINs market, the Exchange considered both the supply and demand sides as the two are closely aligned. The net number of RINs generated by renewable fuel producers represents the supply, or production side, while the number of retired RINs represents the demand, or the quantity that importers and producers of gasoline and diesel consumed in order to comply with RFS. The difference between the two components is explained by locked<sup>26</sup> RINs and unused RINs, which are carried over to the following year.

<sup>24</sup> <http://www2.epa.gov/fuels-registration-reporting-and-compliance-help/2015-renewable-fuel-standard-data>

<sup>25</sup> <http://www2.epa.gov/fuels-registration-reporting-and-compliance-help/public-data-renewable-fuel-standard>

<sup>26</sup> Per the EPA, locked RINs are those either been locked by a RIN holder or in rare circumstances, the EPA. Locked RINs are not available for any transactions.

<http://www.epa.gov/otaq/fuels/renewablefuels/emtsdocs/420b13024.pdf>

In its final determination of deliverable supply, the Exchange used the three-year average of net generation as published by the EPA and illustrated in Table 9 above. Net RINs generated is the total number of RINs generated minus the invalid RINs generated and reported by the EPA<sup>27</sup>.

As previously stated RINs generated during the current year may be used to satisfy either the current year or the following year’s volume requirement. If a fuel supplier has already met its mandated share and has supplied surplus biofuels for a particular biofuel category, it can sell the extra RINs to another supplier (who has failed to meet its mandate for that same biofuel standard) or it can hold onto the RINs for future use. Therefore, RINs that are valid in a given year are composed of 20% of RINs produced in the previous year (per the 20% carryover limit) and those RINs that are generated in the current year. Specifically:

Available RINs in 2015 = 20% (Net Generation in 2014) + Net Generation in 2015
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Because 20% of generated RINs may be used in the following year, the Exchange determined this percentage appropriate in setting conservative position limits. Table 10 below summarizes deliverable supply and position limits for each RIN category using three-year (2012-2015) averages. The monthly deliverable supply was obtained by dividing annual numbers by 12 (for 2012-2014) and 11 (for 2015). Contract-equivalent values are calculated by dividing monthly deliverable supply by contract size of 50,000 RINs.

*Table 10: Deliverable Supply and Position Limits*

Category	Deliverable Supply (Monthly)	Deliverable Supply (Contract-Equivalent)	Position Limits (No. of Contract)	Position Limit (% of Supply)
<b>D4 Biodiesel RIN</b>	201,521,503	4,030	805	20%
<b>D6 Ethanol RIN</b>	1,125,947,374	22,519	4,500	20%

<sup>27</sup> <http://www2.epa.gov/fuels-registration-reporting-and-compliance-help/2015-renewable-fuel-standard-data>