

Quarterly Compliance Proposal

On numerous occasions, RFS stakeholders have asked for the EPA to modify aspects of the RFS market mechanism to minimize volatility in RIN prices and maximize transparency. A quarterly compliance requirement would achieve both of these goals without significant disruption to the way RFS participants conduct business today.

Background

Today, RINs are generated in a relatively ratable manner over the course of each month as biofuels are blended. Similarly, obligated parties generate an RVO in a relatively ratable manner as gasoline and diesel fuels are produced or imported. Theoretically, both RIN sellers and RIN purchasers can engage the market ratably to sell their asset or secure their compliance obligation. In this ratable scenario, if obligated parties require more RINs than are generated, then the RIN price should rise encouraging more biofuel production and blending to meet the compliance need. Likewise, if more RINs are available than demanded by obligated parties, the RIN price should fall signaling a need for less biofuel production and blending.

Biofuel producers and blenders are incentivized by the need for operational cash to make their RINs available for sale in the market ratably. The need to fund operations is on-going throughout the year and cannot be delayed into one-time annual cash infusions.

However, an annual compliance deadline allows obligated parties to significantly delay the purchase of their obligation. An obligated party may feel inclined to delay this purchasing and take risk on being able to cover their obligation in the future in order to realize one or multiple of the following benefits:

- Positive cash flow: instead of using cash to purchase RINs today, deploy that cash to other purposes and purchase RINs later with cash from future operations
- Exemption: cease participating in the RIN market while awaiting ruling from EPA on economic hardship request
- Regulatory Uncertainty: cease participating in the RIN market while awaiting EPA to propose new rules or changes to the RFS in the hopes that the requirement will change or lessen
- Deficit: Preserve the option to carry a deficit to the next compliance period

This misalignment in incentives between RIN seller and RIN buyer timing creates unnecessary volatility. When obligated parties delay purchasing RINs for any of the reasons above, RIN sellers reduce their prices to incentive buying. This results in artificially low prices that are not representative of the true supply and demand balance. This sends the incorrect price signal that too many RINs are available because in fact obligated parties have generated an RVO and will need the RINs that are for sale eventually, they simply aren't coming to market to buy them. After such a price reduction, obligated parties who have delayed purchasing will be enticed by the lower than fundamentally justified price and come back to market to buy those RINs, creating an environment of strong demand thereby pushing prices back up and often above the supply and demand balancing point before it normalizes. This creates volatility in the RFS market that is unnecessary.

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Proposed Solution

To align RIN sale timing and RIN purchase timing, the following proposal is that EPA modify the regulation to require quarterly compliance of the applicable RVO basket from obligated parties at the following schedule:

- RVO created in Q1 due last day of Q2
- RVO created in Q2 due last day of Q3
- RVO created in Q3 due last day of Q4
- RVO created in Q4 due last day of Q1 Y+1

This solution should reduce volatility by preventing obligated parties from knowingly or unknowingly building up a large RIN obligation without engaging the RIN market to purchase those RINs for an extended period. This schedule will achieve the minimum disruption to current business practices as it follows current compliance practices, just more frequently. By having the compliance deadline lagged by 1 quarter, there will be 2 quarters worth of RIN generation available for each deadline ensuring enough supply liquidity available for the 1Q, 2Q, and 3Q deadlines.

Each calendar year will continue to create a vintage RIN that will be eligible for retirement in any of the quarters for that calendar year obligation or for up to 20% of the following year's obligation (i.e. no change to carryover capability or RINs bank). Deficit carryover will only be allowed at the time of Q4 compliance (Q1 Y+1) if EPA determines through the use of EMTS data in January of Y+1 that there are insufficient RINs generated for compliance.

Interdependencies

This solution is only feasible in tandem with a Cellulosic Biofuel Waiver Credit (CWC) solution; otherwise each quarter that CWCs are purchased while physical RINs remain available will represent permanent demand destruction that cannot be recouped. (See Cellulosic Biofuel Waiver Credit proposal on pages 3-7)

Once a quarterly compliance submission has taken place, EPA cannot go backward and grant an SRE for that quarter's obligation. Forward looking exemptions will still be permitted. By removing the option for backward granting of SRE's, parties seeking an exemption will be forced to do so prospectively and EPA will have to act sooner both of which will provide the market with earlier information to factor into supply and demand fundamentals. A reduction in these surprise changes to the supply and demand fundamentals will additionally help in reducing volatility.

Questions to consider:

How does the audit/attest schedule change?

Does this change any aspect of the annual rulemaking?

Cellulosic Biofuel Waiver Credit Proposal

Rules that encourage Obligated Parties to use good-faith efforts to purchase D3 RINs rather than rely on cellulosic biofuel waiver credits (CWC) for compliance with the cellulosic target will help lower volatility. This paper includes recommendations to improve the cellulosic biofuel waiver credit (CWC) mechanism to encourage the use of physical RINs over waiver credits, while at the same time maintaining compliance flexibility for OPs.

EPA can Improve D3 RIN Trading by Changing the Cellulosic Biofuel Waiver Credit

EPA asked for comments on how changes to the current RIN trading structure could address perceptions of market manipulation. Improving the functionality of the CWC mechanism will improve market liquidity by encouraging the use of D3 RINs. Further, we believe these suggested changes will continue to provide obligated parties with the compliance flexibility and price protection they enjoy today. Improvements to price reporting and transparency also are addressed in more detail below.

The current CWC mechanism, whereby 100% of the cellulosic mandate can be fulfilled through CWCs, provides OPs with a risk-free alternative to purchasing D3 RINs throughout the compliance year. OPs have no need to secure D3 RINs for compliance knowing that as many CWCs as needed for compliance can always be purchased up until the last minute of the deadline. While great improvement has occurred in the liquidity of D3 RINs transacted over the last 18 months, the current structure of the CWC mechanism continues to disrupt rational market behavior and removes demand for D3 RINs.

The following tables highlight this problem.

D3 RIN Annual Supply & Demand (mn RINs)		2014	2015	2016
Supply	D3 RIN Generation	33	140	190
	<i>plus</i> Prior Year D3 RINs	0	12.6	42.1
	Total RIN Supply	33	152.6	232.1
Demand	D3 RVO	33	123	230
	<i>less</i> CWC Purchases	12.6	12.5	33.7
	Total RIN Demand	20.5	110.5	196.3
D3 Surplus (+)/Deficit (-)		+12.6	+42.1	+35.8

In 2014, following a delay in setting the annual mandate, EPA was able to set the RVO retroactively to match actual year RIN generation exactly. This retroactive mandate guaranteed that 100% of compliance was achievable with D3 RINs. Nevertheless, 38% of the mandate was met with CWCs rather than the purchase of 2014 D3 RINs. In 2015, D3 availability was 124% of the 2015 D3 mandate, yet 10% of the total 2015 D3 mandate was filled by purchases of CWCs despite the D3 RIN being available at values cheaper than the CWC plus the cost of an advanced RIN. In 2016, D3 availability was 101% of the 2016 D3 mandate, yet 14.6% of the total 2016 D3 mandate was filled by purchase of CWCs.¹

¹ EPA EMTS Data

The use of CWCs by obligated parties for compliance in years where sufficient cellulosic RINs are generated decreases cash flow to D3 biofuel producers, inhibiting the growth of that industry in contravention to the intent of the EISA. Using the annual average price of the D3 RIN, the use of CWCs has resulted in diverting approximately \$78M from the cellulosic biofuel industry since 2014. That diverted cash flow has been a significant factor in inhibiting the growth of that industry contrary to the intent of the EISA.

	Avg. D3 Price	CWC Used (mn)	\$mn Diverted
2014	\$ 0.42	12.6	\$ 5.29
2015	\$ 0.59	12.5	\$ 7.38
2016	\$ 1.93	33.7	\$ 65.17
Total			\$ 77.84

A purpose of the D3 mandate is to provide an expectation for demand of cellulosic biofuels to the cellulosic biofuel production industry. By allowing 100% of the cellulosic mandate to be fulfilled with CWCs removes that clarity for the biofuels industry. As a result, there is great uncertainty regarding how much of the biofuel demand will be filled by waiver credits. A cellulosic biofuel developer's main barrier to securing investment is the uncertainty of future cash flow due to the lack of transparency to future demand.

Congress intended for the RFS to foster growth in cellulosic biofuel production and EPA has the authority to revise the implementation of the CWC mechanism to better meet Congressional intent. EPA has recognized this authority, stating "Congress afforded the Agency considerable flexibility in implementing the system of cellulosic biofuel credits. EISA states EPA; 'shall include such provisions, including limiting the credits' uses and useful life, as the Administrator deems appropriate to assist market liquidity and transparency, to provide appropriate certainty for regulated entities and renewable fuel producers, and to limit any potential misuse of cellulosic biofuel credits to reduce the use of other renewable fuels, and for such other purposes as the Administrator determines will help achieve the goals of this subsection.'². Additionally, EPA recognizes that the CWC was not meant to displace the use of physical D3 RINs for compliance, further elaborating: "These restrictions help ensure that waiver credits are not overutilized at the expense of actual renewable volume."³

As the above tables depict, the CWC mechanism as is currently implemented has indeed been utilized at the expense of actual D3 RINs. EPA should act now to prevent further erosion of the cellulosic biofuel industry.

² CAA 211(o)(7)(D)(iii) and 75 Fed. Reg. 14727 (March 26, 2010)

³ 75 Fed. Reg. 14727 (March 26, 2010).

The following are revised CWC framework assumptions:

1. EPA maintains its established goal to aim for accuracy in setting the cellulosic mandate.
2. OPs with a negligible D3 obligation, defined as less than 200,000 D3 RINs annually, should be eligible to fulfill 100% of their cellulosic mandate with CWCs for ease of transacting if they so choose.
3. EPA continues to require OPs to retire all D3 RINs in their EMTS account before allowing the use of CWCs.
4. Base conditions are established providing CWCs to cover invalid, fraudulent or de minimus requirements.
5. Additional CWC credits are released if actual D3 generation lags the RVO.
6. A price relief valve is established whereby if the annual average price for D3 RINs exceeds the CWC + Annual Average D5 RIN price, then 100% of the mandate will be made available as CWCs.

A detailed analysis of the proposal is contained in the **APPENDIX** on pages 6-7.

Cellulosic Waiver Credit Proposal

- 1) **Base case** – the only CWCs made available within a compliance period are:
 - i) Replacing invalid or fraudulent D3 RINs
 - ii) Use by obligated parties with a D3 obligation less than 200,000 RINs
- 2) **Additional CWC Supply Triggers**
 - i) **Supply Shortfall Trigger**
 - (a) 3 check in points will be established to determine if additional CWC will be released for use in a compliance year
 - (i) Upon the release of EMTS data for RINs generated through June 30th Year_x, through September 30th Year_x, and through December 31st Year_x
 - (ii) By establishing these check-in points Obligated Parties can use EMTS data to evaluate and track the likelihood of being able to use CWCs for a percentage of their D3 requirement
 - (b) If RIN generation at any one of these 3 check-in points is lagging behind the mandate, CWCs will be made available for purchase to fill the gap
 - (i) Volume of CWCs released at Jun 30 Check-in = 50% D3 Mandate – Actual D3 RIN Generation through Jun 30th
 - (ii) Volume of CWCs released at Sep 30 Check-in = 75% D3 Mandate – Actual D3 RIN Generation through Sep 30th – Vol CWCs released Jun 30
 - (iii) Volume of CWCs released at Dec 31 Check-in = 100% D3 Mandate – Actual D3 RIN Generation through Dec 31st – Vol CWCs released June 30 – Vol CWCs released Sep 30
 - (iv) If any of the above equations result in a negative number, the volume of CWCs made available for that period will be 0 (once CWCs are released they can't be clawed back)
 - (v) Whatever % is established in the end by comparing CWC released vs. D3 Mandate is the maximum % any given entity is allowed to use CWC to meet compliance.
 - ii) **Price Relief Valve Trigger**
 - (a) By January 15th following the end of the compliance year, EPA will assess the annual average price of D3's for the compliance year. If the annual average price of D3's exceeded the annual average price of a D5 + CWC, the percentage of OP's D3 obligation that can be filled with CWC's will automatically be adjusted to 100%

- 3) The resulting formula:

$$\text{\% of D3 Obligation Eligible for CWCs in Year}_x = \frac{(\text{IR} + \text{Q}_2 + \text{Q}_3 + \text{Q}_4)}{(\text{M}_{\text{d3}} - \text{SOP})}$$

Where:

Year_x = Compliance Year

IR = Invalid D3 RINs replaced in Year_x

M_{d3} = D3 Mandate for Year_x

Q₂ = 50% * M_{d3} – Actual D3 RIN Generation through Jun 30th

Q₃ = 75% * M_{d3} – Actual D3 RIN Generation through Sep 30th – Q₂

Q₄ = 100% * M_{d3} – Actual D3 RIN Generation through Dec 31st – Q₂ – Q₃

SOP = Cumulative D3 mandate of all obligated parties with D3 requirement < 200,000 RINs each in Year_x

Example (numbers are for illustrative purposes):

IR = 0

Md3 = 400

Q2: 50% * 400 – 150 = 50

Q3: 75% * 400 – 300 – 50 = -50, therefore 0

Q4: 100% * 400 – 385 – 0 – 50 = -35, therefore 0

SOP: 10

$$\% \text{ of D3 obligation eligible for CWCs} = \frac{(0 + 50 + 0 + 0)}{(400 - 10)} = 12.8\%$$