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December 22, 2023

The Honorable Michael Regan, Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1101A *Via e-mail: Regan.Michael@epa.gov*
Washington, D.C. 20460

RE: Petition for Partial Waiver of 2023 Cellulosic Biofuel Volumetric Requirements

Dear Administrator Regan:

The American Fuel & Petrochemical Manufacturers (AFPM), on behalf of its U.S. refining members, hereby petitions the Environmental Protection Agency (EPA or the Agency) to waive a portion of the Renewable Fuel Standards (RFS) for the 2023 compliance year. AFPM is filing this petition to address a significant shortfall in cellulosic biofuel production under the RFS, which if not corrected will harm U.S. refineries and consumers and create additional volatility in the D3 Renewable Identification Number (RIN) market. AFPM also requests that EPA promptly announce that it will make available cellulosic biofuel credits to address the short supply of D3 RINs and guard against potential manipulation in the cellulosic RIN market.

Time is of the essence with obligated parties facing a 2023 RFS compliance date of March 31, 2024. Thus, it is imperative that EPA meet its 90-day statutory obligation to respond to this petition.

BACKGROUND

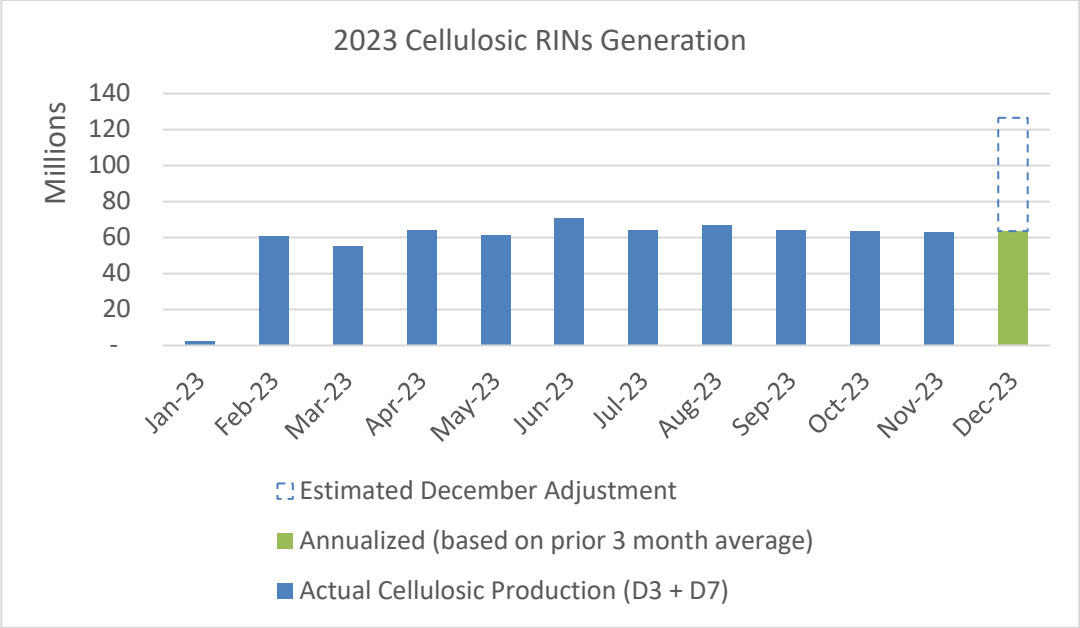
AFPM members produce most of the refined petroleum products and petrochemicals manufactured in the United States and are obligated parties under the RFS. EPA's aspirational cellulosic biofuel mandates are adversely impacting AFPM's refining members, all of whom are facing high cellulosic RIN prices and some of whom may be unable to acquire enough cellulosic RINs to comply with their 2023 RFS obligations.

In July 2023, EPA promulgated RFS requirements for compliance years 2023-2025.[1] This rulemaking included an 840 million ethanol-equivalent gallon cellulosic biofuel mandate for 2023. At current rates of cellulosic biofuel production, however, cellulosic production will fall

[1] *See* 88 *Federal Register* 44468 (July 12, 2023) (hereinafter the Set Rule").

short of the 2023 cellulosic mandate by approximately 81 million gallons, even after adjusting for a typical December surge in D3 production.[2]

Figure 1. 2023 Actual and Projected Cellulosic RIN Generation[3]



To put this shortfall in perspective, the price of D3 cellulosic RINs is hovering around $3. This equates to a cellulosic compliance cost of approximately $237 million. Congress gave EPA the instructions and tools to remedy the problem of EPA's cellulosic mandate exceeding actual production, and EPA should grant this Petition to waive a portion of the cellulosic mandate equal to the 2023 production shortfall.

DISCUSSION

When enacting the RFS program, Congress foresaw the possibility that projected renewable fuel targets may be unachievable and gave EPA explicit authority to grant a cellulosic waiver under CAA Section 211(o)(7)(D). EPA's data demonstrate that cellulosic production in 2023 is far below the Agency's estimates. Moreover, the depleted supply of cellulosic carryover RINs portends significant compliance and liquidity problems in the cellulosic RIN market from an undersupplied RIN bank. Therefore, EPA should use the cellulosic waiver and other statutory authorities to grant this petition.

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[2] Turner Mason Company, D3 RIN Analysis (December 21, 2023).

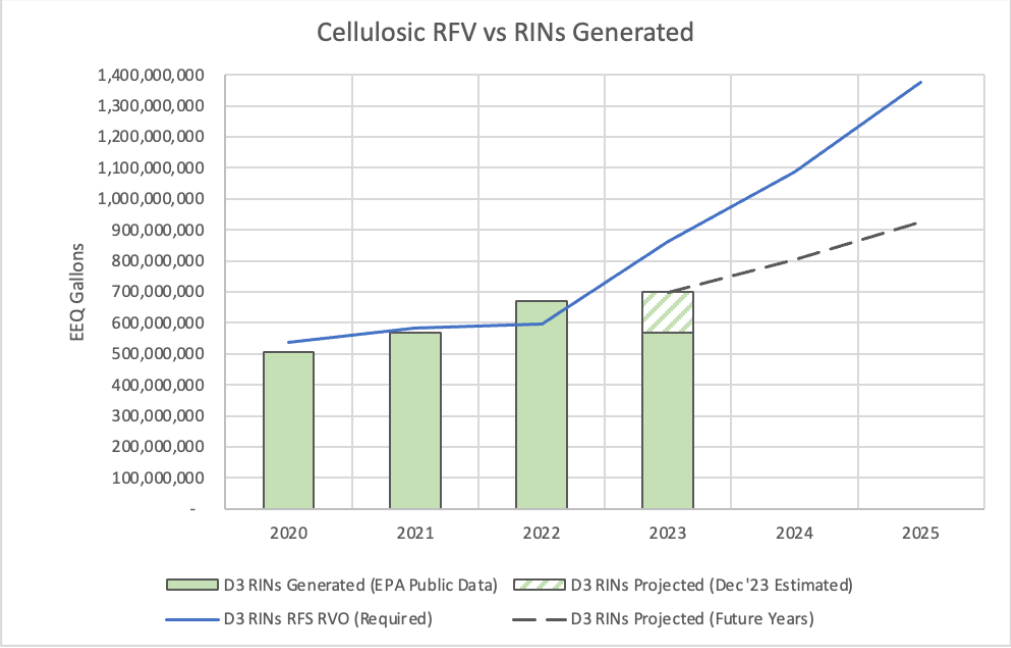
[3] *See* EPA Moderated Transaction System, *Total Net Generation Report* (available at: https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rins-generated-transactions, last accessed December 22, 2023), and AFPM analysis.

A. EPA's 2023 Cellulosic Mandate Far Exceeds the Amount of Cellulosic Biofuel Available for Compliance Under the RFS

According to EPA's Moderated Transaction System (EMTS), there is a very high probability of a significant cellulosic biofuel production shortfall this year. Available EMTS data indicate that annualized cellulosic production this year will be 698 million gallons, 142 million ethanol-equivalent gallons less than the 840-million gallon mandate.[4] Factoring in an expected increase in December cellulosic production, estimated to be 61-million gallons based on historical data, the total amount of cellulosic biofuel produced could reach 759 million gallons – a shortfall of 81 million gallons.[5] This is the exact situation that the cellulosic waiver is intended to remedy.

The following chart depicts the estimated shortfall with the green bars showing actual production and the blue line EPA's cellulosic biofuel mandates.[6] As significant as the shortfall is in 2023, it is expected to get even worse in 2024 and 2025, and EPA should address this problem as the 2024 compliance year begins.

Figure 2. Cellulosic Biofuel Volume vs RINs Generated (2020-2025)[7]



[4] *Id.* AFPM recognizes that the production data for December 2023 is not yet available. EPA should resolve this waiver request using volumes that correspond to the actual shortfall of cellulosic RINs.
[5] *See* EPA, *RIN Price Report* at RIN Trades and Price Information | US EPA (Last accessed December 14, 2023). This shortfall is economically significant. One interesting metric to consider is that at current cellulosic RIN prices of approximately $3, the shortfall represents approximately $243 million dollars of the cost of RFS compliance.
[6] Turner Mason Company, D3 RIN Analysis (December 21, 2023).
[7] Turner, Mason & Company - RIN Analysis Model, 2023.

Based on these data, AFPM requests that EPA waive the 2023 cellulosic biofuel mandate by an amount equal to the 2023 production shortfall and immediately announce its intent to make the cellulosic waiver credits available.

B. Cellulosic RIN Bank Depletion

EPA addressed the treatment of carryover RINs in the preamble to the proposed Set Rule, indicating that the 2023, 2024, and 2025 volumes would not be set to intentionally draw down the bank of carryover RINs.[8] In the final Set Rule, EPA acknowledged that for 2022 compliance, "the effective number of cellulosic and non-cellulosic advanced biofuel carryover RINs is zero."[9] Not issuing a cellulosic a waiver and making the cellulosic waiver credit available for 2023 would be contrary to EPAs own expressed intent.

AFPM and EPA have repeatedly highlighted the importance of carryover RINs and the "RIN bank."[10] One purpose of the RIN bank is to ensure liquidity in the market and moderate significant price spikes that may result from supply imbalances; another is to provide a cushion for errors in EPA's predictions.

> A bank of carryover RINs is extremely important in providing a liquid and well-functioning RIN market upon which success of the entire program depends, and in providing obligated parties compliance flexibility in the face of substantial uncertainties in the transportation fuel marketplace.[11]

Unfortunately, this year's cellulosic shortfall is not minor and has left obligated parties with an unachievable mandate. Following refineries' 2022 RFS compliance obligations, there are an estimated 57 million cellulosic carryover RINs available for 2023 compliance.[12] This amount of carryover RINs is insufficient to offset the cellulosic production shortfall caused by EPA's aspirational mandate. Moreover, the existence of carryover RINs at the macro level does not mean those RINs are available to all obligated parties on an open market. Because RINs are valid for two compliance years, individual obligated parties may "bank" carryover RINs to mitigate the risks of supply fluctuations and ensure compliance in future years, rather than sell them to other obligated parties. Indeed, given EPA's history of overestimating cellulosic biofuel production, some obligated parties may be incentivized to retain these surplus RINs rather than

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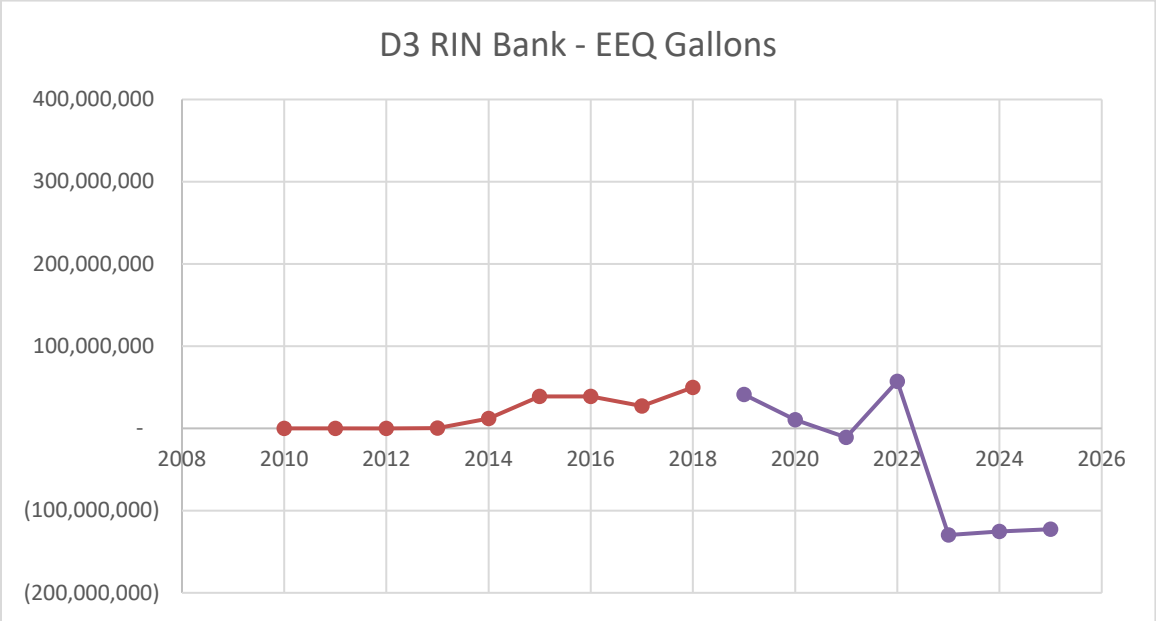
[8] See 87 *Federal Register* 80605 (December 30, 2022).
[9] See 88 *Federal Register* 44495 (July 12, 2023).
[10] *See e.g.,* 80 *Federal Register* 77482-87 (December 14, 2015), 81 *Federal Register* 89754-55 (December 12, 2016), 82 *Federal Register* 58493-95 (December 12, 2017), 83 *Federal Register* 63708-10 (December 11, 2018), 85 *Federal Register* 7016 (February 6, 2020), 87 *Federal Register* 39600 (July 1, 2022).
[11] 87 *Federal Register* 39613 (July 1, 2022).
[12] Turner Mason Company, RFS RIN Data Analysis Model (Fall 2023).

sell them to other obligated parties. As a result, carryover RINs are not always available to all obligated parties, even when a surplus exists.

Figure 3. RIN Bank Depletion



Compliance with the current 2023 cellulosic mandate is projected to completely deplete the D3 RIN Bank. In other words, the cellulosic biofuel RIN Bank goes "negative." Of course, that is just an expression that in the real world means that some refineries and other obligated parties may be unable to comply with the RFS. While some refineries may be able to run a deficit for one year, others may have already done so in 2022, removing this option. Moreover, deferred compliance is not a true compliance solution, because it is unlikely that the RIN Bank will be replenished in 2024, given that year's aspirational targets.

In Figure 3 above it shows that the D3 RIN Bank has gone negative before.[13] In 2021, for example, the cellulosic mandate exceeded cellulosic production by almost 11 million RINs. The difference now, however, is that EPA has not made cellulosic biofuel credits available for compliance. As a result, compliance will come at an excessive cost for some refineries, while others that carried a D3 deficit in 2022 may simply be unable to comply.

C. <u>The Clean Air Act (CAA) Authorizes the Filing of this Petition</u>

Congress anticipated that projected renewable fuel targets might not be achievable and established several waiver provisions to relieve obligated parties of the duty to comply with

[13] *Id.*

unachievable mandates. Under CAA Section 211(o)(7)(A), any person subject to the requirements of the RFS may petition EPA to exercise its waiver authority:

> The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the requirements of paragraph (2) in whole or in part on petition by one or more States, *by any person subject to the requirements of this subsection*, or by the Administrator on his own motion by reducing the national quantity of renewable fuel required.[14]

This provision authorizes AFPM, on behalf of its U.S. refining members subject to the RFS, to file this petition for a partial waiver of the 2023 renewable biofuel standards in an amount equal to the shortfall of cellulosic biofuel production. We further request that EPA make available cellulosic waiver credits as contemplated in the Set Rule.[15]

D. <u>EPA Must Use its Cellulosic Waiver Authority</u>

EPA has explicit authority to issue a cellulosic waiver under Section 211(o)(7)(D) and *must* use that authority in any calendar year where the volume of cellulosic biofuel produced is less than the volume EPA mandates under the RFS.

> For any calendar year for which the projected volume of cellulosic biofuel production is less than the minimum applicable volume established under paragraph (2)(B) … the administrator *shall* reduce the applicable volume of the cellulosic biofuel required under paragraph (2)(B) to the projected volume available during that calendar year. [16]

A partial waiver of the 2023 cellulosic biofuel mandate is necessary to prevent a situation where in the face of an unreasonably high cellulosic mandate certain obligated parties are unable to comply with the RFS.

This is not what Congress intended. Congress intended to provide refiners relief when EPA set an unachievable standard. Indeed, the D.C. Circuit has looked unfavorably upon EPA's prior suggestion that obligated parties could simply purchase cellulosic waiver credits for the portion of the cellulosic mandate that was unfulfilled due to an overly aggressive mandate that led to cellulosic biofuel production shortfalls:

[14] 42 U.S.C. §7545(o)(7)(A)(ii) (emphasis added).
[15] *See* Set Rule at 44479 ("When EPA reduces cellulosic volumes under the cellulosic waiver authority, EPA is also required to make CWCs available under CAA section 211(o)(7)(D).").
[16] 42 U.S.C. §7545(o)(7)(A), emphasis added.

> Apart from their role as captive consumers, the refiners are in no position to ensure, or even contribute to, growth in the cellulosic biofuel industry. 'Do a good job, cellulosic fuel producers. If you fail, we'll fine your customers.'[17]

As the D.C. Circuit noted, it is unfair to penalize refiners for failing to purchase fuel that is not available. Congress recognized that such a situation could occur and granted EPA waiver authority to remedy this inequity. EPA should invoke its waiver authority here as it has done in previous years to align the cellulosic biofuel mandate to actual production volumes.

A partial waiver of the 2023 cellulosic biofuel volume obligation to reflect actual production numbers would be consistent with EPA's prior practice. In the past when production fell short of the mandated volume, EPA and the D.C. Circuit have revised the cellulosic biofuel mandate to match actual production. For example, in 2011, EPA responded to AFPM's petition for reconsideration and petition for review by "rescinding the 2011 cellulosic biofuel applicable standard and … refund[ing] the money paid by obligated parties to purchase cellulosic waiver credits to comply with the standard."[18] In a challenge to EPA's 2012 cellulosic mandate, the D.C. Circuit vacated the cellulosic mandate, noting that even though EPA originally waived most of the 500 million gallon statutory cellulosic mandate (*i.e.*, establishing the mandate at 10.45 million ethanol-equivalent gallons), that mandate resulted in cellulosic biofuel shortfalls that unfairly penalized obligated parties.[19]

Similarly, in 2013, EPA issued its final RFS rule approximately eight months after the compliance year had begun. In response, AFPM filed a petition for reconsideration demonstrating to the Agency that there would be a significant cellulosic production shortfall. EPA granted AFPM's petition for reconsideration and reduced the 2013 cellulosic mandate to reflect actual production.[20] In support of its decision, EPA cited to its overestimation of cellulosic biofuel production and the ensuing inequitable burden on obligated parties:

> Finalizing this adjusted 2013 cellulosic biofuel standard expeditiously will reduce regulatory uncertainty and avoid unnecessary cost or burden for obligated parties. Until this adjusted cellulosic biofuel standard is finalized, obligated parties will have to comply with the current and significantly higher 2013 cellulosic biofuel standard. This would likely involve a substantial purchase of cellulosic waiver credits, which EPA would subsequently need to reimburse.[21]

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[17] *American Petroleum Institute v. EPA*, 706 F.3d 474, 480 (DC Cir. 2013).
[18] 80 *Federal Register* at 77419, 77508-09 (December 14, 2015).
[19] *See also* 78 *Federal Register* 49794, 49828 (August 15, 2013) where, in the final RFS rule for 2013, EPA implemented the January 2013 court decision for 2012 cellulosic biofuels.
[20] *See* 79 *Federal Register* 25025 (May 2, 2014).
[21] *Id.*

In numerous subsequent years, EPA utilized its cellulosic waiver authority to lower the statutory volumes to match actual production volumes. EPA did not need to issue a supplemental waiver for these years because it finalized the standards after (or near) the conclusion of the compliance years. These cellulosic biofuel volume obligations were "achievable" because they did not exceed the actual number of cellulosic RINs produced in those years.[22]

Following 2022, the last year of the statutory volumetric tables, the CAA directs EPA to set the cellulosic biofuel standard "based on the assumption that the Administrator will not need to issue a waiver for such years under paragraph (7)(D)."[23] The statute's reference to the cellulosic waiver in the context of setting the post 2022 cellulosic standard is strong evidence that Congress intended EPA to set an achievable cellulosic standard and to use the cellulosic waiver in the event of a shortfall. Indeed, EPA recognized the obligation to establish an achievable cellulosic standard in the preamble to the Set Rule.[24] Having promulgated an unachievable cellulosic standard, the RFS now requires EPA to "reduce the applicable volume of cellulosic biofuel … to the projected volume available during that calendar year."[25] Accordingly, AFPM requests that EPA grant this petition and exercise its waiver authority to reduce the cellulosic biofuel mandate by that amount.[26]

The statute also requires EPA to make cellulosic biofuel credits available whenever the Administrator reduces the cellulosic biofuel standard.[27]

E. Cellulosic Waiver Credits Protect Consumers

The existence of the cellulosic waiver credit is not an alternative compliance mechanism to address shortfalls resulting from EPA's overly aggressive mandates. Congress included a provision for obligated parties to purchase cellulosic waiver credits at a fixed price to limit the premium cellulosic biofuel producers could charge for their fuel and ensure consumers were not held hostage to purchase cellulosic RINs in a thinly traded market at prices that are uneconomical. The statute contains a formula that establishes Congress's thinking on the maximum premium that may be charged for cellulosic biofuel.[28] The availability of these credits creates a ceiling on the price cellulosic biofuel producers may charge for their fuel. This ceiling is equal to the price of an advanced biofuel RIN plus the calculated price for the cellulosic

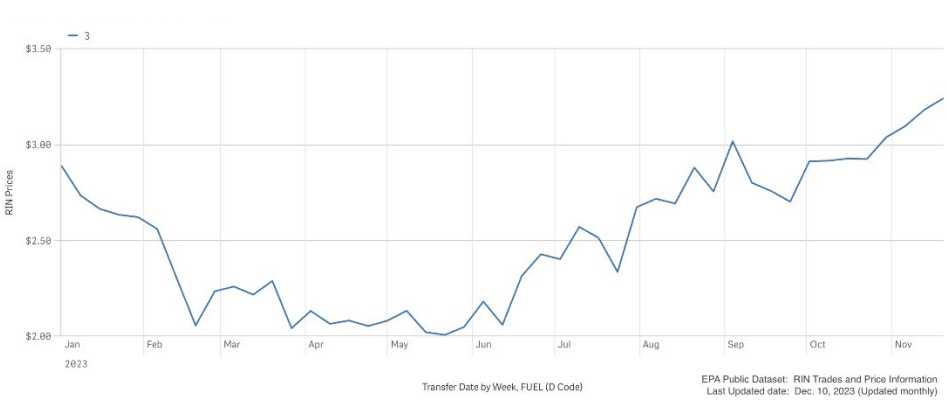
[22] *See* 80 *Federal Register* 77420 (December 14, 2015).
[23] *Id. at* §7545(o)(2)(B)(iv).
[24] *See* Set Rule at 44477.
[25] *See* 42 U.S.C. §7545(o)(7)(D)(i).
[26] EPA should update EMTS and adjust this waiver request to correspond to the actual shortfall of cellulosic RINs.
[27] *Id. at* §7545(o)(7)(D)(ii).
[28] *Id.*

waiver credit.[29] This important consumer protection mechanism protects obligated parties from the obligation to purchase cellulosic biofuel, regardless of its price and should be implemented for 2023, as EPA knows cellulosic biofuel waivers will be necessary and the aspirational cellulosic mandates are adversely impacting the RIN market.

On December 1, 2022, EPA released its proposed 2023 cellulosic volume target of 720 million gallons. For the first half of the 2023 year, approximately 312 million cellulosic RINs (D3+D7) were generated, which when annualized and adjusted for typical increases in December RIN generation, equates to an approximate total of 740 million RINs expected in 2023. EPA signed the Set rule on June 21, 2023, and announced a much higher, aspirational obligation of 840 million gallons. As is shown in figure 4 below, the RIN market responded to EPA's aspirational final Set Rule with D3 prices surging from an average of $2.22 for the period before the Set Rule was issued, to an average of $2.89 through the end of November, according to the latest data available on EPA's website.[30]

EPA's proposed volume functioned as a market signal for RIN demand for the first half of 2023, and a feasible standard resulted in stable prices. Once the final Set Rule was issued the price for D3 RINs increased significantly. The increase in average prices (*i.e.*, $0.67), multiplied by the number of RINs generated after the final Set Rule was issued (approximately 378 million), yields an increase in RFS compliance costs of about $253 million. This quarter billion dollar cost may be referred to as the "aspirational premium" that results when EPA sets a cellulosic biofuel standard that is unachievable and there are insufficient cellulosic carryover RINs to ensure market liquidity.

Figure 4. Weekly RIN Prices



[29] Using EPA's methodology, Turner Mason Company estimated the cellulosic waiver credit to be $1.38 plus the cost of a D5 or D4 RIN, which currently is trading at approximately 82 cents.

[30] *See* EPA, *RIN Trades and Price Information, https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rin-trades-and-price-information, (Last accessed December 22, 2023).*

F. EPA Should Use its General Waiver Authority as an Alternative Rationale for Reducing the 2023 RFS Cellulosic Mandate

The same cellulosic biofuel shortfall supporting EPA's exercise of its cellulosic waiver authority under CAA Section 211(o)(7)(D), also supports EPA's exercise of its general waiver authority under either standard set forth at Section 211(o)(7)(A). Congress delegated to EPA the authority to waive RFS standards in whole or in part in the event (i) "that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States; or" (ii) there is "an inadequate domestic supply."[31]

The cellulosic biofuel shortfall discussion in Sections A and B, *supra,* provides ample evidence that there is an inadequate domestic supply of renewable fuel, as contemplated by Congress, and the D.C. Circuit.[32]

With respect to the severe economic harm waiver prong, EPA should be aware that several refineries ran a deficit in 2022 and may be legally prohibited to do so again in 2023. With cellulosic biofuel production below the mandated level and a D3 RIN carryover insufficient to cover the shortfall and without cellulosic waiver credits, these refineries may have no compliance alternative. If these refineries limit production to match the availability of RINs they can secure, it would severely harm the economy in the regions in which they operate, which is exactly the type of harm Congress intended to prevent. Additionally, the $237 million in RIN costs is inflationary as it increases transportation fuel costs without increasing the amount of cellulosic fuel production in 2023.

EPA should express its intent to rely secondarily on both prongs of its general waiver authority, as both conditions needed to support that waiver are presented by the cellulosic biofuel shortage in 2023.

CONCLUSION

Given the clear shortfall in cellulosic biofuel produced in 2023, EPA must exercise its cellulosic waiver authority to reduce the 2023 cellulosic biofuel mandate by an amount equal to the shortfall in cellulosic biofuel actually produced. EPA should seek to maintain the cellulosic RIN bank at a level sufficient to support D3 RIN market liquidity and to cover errors in EPA's forecasts of cellulosic biofuel production estimates, which has depleted the cellulosic RIN bank. EPA should also take advantage of its authority to issue cellulosic waiver credits. These credits are an important consumer protection mechanism, and EPA should quickly announce its intention to make them available.

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[31] *Id.* at §7545(o)(7)(A).

[32] *See Americans for Clean Energy v. EPA*, 864 F.3d. 691 (D.C. Cir. 2017).

EPA should take prompt action on this petition. While the CAA requires EPA to act on this petition within 90 days,[33] we respectfully request a more expeditious decision because the 2023 compliance must be assured on or before March 30, 2024.[34]

Finally, we recommend that the Agency begin thinking about the aspirational cellulosic standards it has set for 2024 and 2025 to the extent that they do not reflect market realities as was the case this year.

If you have any questions concerning the issues raised in this petition, please contact the undersigned at (202) 457-0840.

Respectfully submitted,

Richard Moskowitz
General Counsel

cc: Joseph Goffman
Sarah Dunham
Paul Machiele

[33] *See* 42 U.S.C. §7545 (o)(7)(B).

[34] Note that the regulatory compliance date (March 31, 2024) is a Sunday.