

# **Renewable Fuel Standard (RFS) Program - Partial Waiver of 2024 Cellulosic Biofuel Volume Requirement: Response to Comments**

## **Final Report**

# **Renewable Fuel Standard (RFS) Program - Partial Waiver of 2024 Cellulosic Biofuel Volume Requirement: Response to Comments**

Assessment and Standards Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

## **NOTICE**

This technical report does not necessarily represent final EPA decisions or positions. It is intended to present technical analysis of issues using data that are currently available. The purpose in the release of such reports is to facilitate the exchange of technical information and to inform the public of technical developments.

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## List of Acronyms and Abbreviations

Numerous acronyms and abbreviations are included in this document. While this may not be an exhaustive list, to ease the reading of this document and for reference purposes, the following acronyms and abbreviations are defined here:

CAA	Clean Air Act
CG	conventional gasoline
CNG	compressed natural gas
CWA	cellulosic waiver authority
CWC	cellulosic waiver credit
EPA	U.S. Environmental Protection Agency
GWA	general waiver authority
LHV	lower heating value
LNG	liquefied natural gas
RBOB	reformulated gasoline before oxygenate blending
RFS	Renewable Fuel Standard
RIN	Renewable Identification Number
RVO	Renewable Volume Obligation
SRE	small refinery exemption

## List of Organizations Submitting Comments on the Proposed Rule

<b>Docket Item Number<sup>a</sup></b>	<b>Commenter or Organization Name</b>
0016	Michael Ravnitzky
0017	EcoEngineers
0018	City of Mesa, Arizona
0019	Clean Fuels Alliance America
0020	Beta Analytic, Inc.
0021	Ameresco, Inc.
0022	Paul Winters
0023	Vision RNG, L.L.C.
0024	Iowa Renewable Fuels Association (IRFA)
0025	American Coalition for Ethanol (ACE)
0026	LF Bioenergy LLC
0027	Marathon Petroleum Company (MPC)
0028	Sustainable Advanced Biofuel Refiners Coalition
0029	Growth Energy
0030	Coalition for Renewable Natural Gas (RNG Coalition)
0031	The San Antonio Refinery LLC (TSAR)
0032	Clean Energy
0033	Gevo, Inc.
0034	American Petroleum Institute (API)
0035	American Biogas Council (ABC)
0036	Renewable Fuels Association (RFA)
0037	Maas Energy Works
0038	POET
0039	Waste Management (WM)
0040	California Bioenergy LLC
0041	Edeniq, Inc.
0042	STX Commodities, LLC
0043	Amp Americas
0044	Weaver and Tidwell, L.L.P.
0045	Neogen Corporation
0046	DTE Vantage
0047	American Fuel & Petrochemical Manufacturers (AFPM)
0048	City of Roseville, California
0049	Taxpayers for Common Sense (TCS) et al.
0050	Clean Energy Fuels, Trillium Energy, U.S. Venture, Waste Management (WM)
0051	OPAL Fuels
0052	Anew Climate
0053	Small Refinery Coalition
0054	Countrysmark Refining and Logistics, LLC
0056 <sup>b</sup>	Iogen Corporation

<b>Docket Item Number<sup>a</sup></b>	<b>Commenter or Organization Name</b>
0059 <sup>b</sup>	Coalition for Renewable Natural Gas (RNG Coalition)

<sup>a</sup> Individual comments from the public (and attachments submitted with comments) submitted to Docket No. EPA-HQ-OAR-2024-0411 are assigned a unique 4-digit docket number that follows the base docket number (i.e., XXXX, where “XXXX” represents the unique 4-digit document docket number). For example, Docket Item No. EPA-HQ-OAR-2024-0411-0025 is presented as 0025 in this table.

<sup>b</sup> Late comment submitted after the close of the comment period.

# 1. General Waiver Authority

## Comment:

EPA received a range of comments regarding the proposal to use the general waiver authority (GWA) provided by Clean Air Act (CAA) section 211(o)(7)(A). One commenter voiced general support for use of this authority to alleviate the undisputed cellulosic biofuel production shortage in 2024, while another commenter suggested that use of the GWA would be appropriate given the inadequate domestic supply of cellulosic biofuel.

A majority of commenters, however, disagreed with EPA's proposed use of the GWA. Many commenters suggested that EPA failed to adequately demonstrate that there is an "inadequate domestic supply" of either cellulosic biofuel used for transportation purposes or renewable fuel as required by the statute; one commenter submitted data to support their contention that there is adequate supply. Commenters also stated that EPA failed to demonstrate that the Renewable Fuel Standard (RFS) has "severely harm[ed] the economy" as required by the statute, while others believe that EPA incorrectly assessed the domestic supply of renewable fuel by considering Renewable Identification Number (RIN) deficits and other demand-side factors rather than only supply-side factors. Other commenters faulted EPA for not considering the availability of renewable natural gas (RNG) in assessing the domestic supply of cellulosic biofuel. Another commenter felt that the existing RFS programmatic flexibilities are adequate to allow obligated parties to comply without a waiver. Other commenters opposed EPA's use of the GWA to retroactively reduce previously established cellulosic biofuel volume obligations, believing that only forward-looking use of the GWA is appropriate and to do otherwise would undermine the goals of the RFS program.

Other commenters opposed use of the GWA, arguing that because it is discretionary, EPA failed to properly assess the negative impacts of a potential waiver on the RFS program, the cellulosic biofuel market, and RNG producers. Others suggested that in proposing to implement a general waiver for 2024, EPA arbitrarily ignored the effects on the RFS market from its other initiatives, including implementation of recent revisions to the RFS program's biogas regulations—which has delayed the registration of new and existing cellulosic biofuel facilities and slowed cellulosic RIN generation—EPA's failure to approve new pathways such as renewable electricity from cellulosic sources, and the new Phase III truck regulations that discourage the use of RNG as a transportation fuel for heavy-duty trucking.

And finally, some commenters suggested that EPA is unable to use the GWA as proposed based on legal precedent from *Americans for Clean Energy et al. v. EPA et al.*, 864 F.3d 691 (2017), in which the D.C. Circuit Court of Appeals vacated and remanded EPA's decision to reduce the total renewable fuel volume requirements for 2016 based on the GWA. The commenters highlighted that the court held that the GWA provision authorized EPA to consider "supply-side factors affecting the volume of renewable fuel that is available to refiners, blenders, and importers to meet the statutory volume requirements" but did not permit EPA to "consider the volume of renewable fuel that is available to ultimate consumers or the demand-side constraints that affect the consumption of renewable fuel by consumers."

**Response:**

In the final rule, EPA implements a partial waiver of the 2024 cellulosic biofuel requirement using the CAA section 211(o)(7)(D) cellulosic waiver authority (CWA) and not the CAA section 211(o)(7)(A) GWA. Response to these comments is therefore unnecessary to support this final action.

## **2. Cellulosic Waiver Authority**

### **2.1 General Support for Implementation of the Cellulosic Waiver Authority**

#### **Comment:**

A number of commenters expressed support for EPA's implementation of the CWA. One commenter stated that the CWA is the preferred mechanism over the GWA since it is designed specifically to address cellulosic biofuel production shortfalls and that use of the CWA best serves the purpose of the RFS program through balancing the market-forcing intentions of the program and mitigating uncertainty around the supply of cellulosic biofuel. Another suggested that use of the CWA is a "more targeted" and "narrow" approach. Others suggested that the CWA is specific to cellulosic biofuel and thus preferred.

One commenter suggested that the CWA is mandatory, particularly in this circumstance where EPA has identified that the necessary preconditions are met, and that EPA cannot substitute the GWA to accomplish the same thing.

#### **Response:**

In this action we are implementing the CWA to reduce the 2024 cellulosic biofuel volume requirement. We appreciate commenters' support of this action. As noted in Preamble Section II.B, the use of the CWA is mandatory when the "projected volume of cellulosic biofuel production is less than the minimum applicable volume established under [CAA section 211(o)](2)(B)], as determined by the Administrator based on the estimate provided under paragraph (3)(A)."

## **2.2 Implementation of the Cellulosic Waiver Authority**

### **Comment:**

EPA received a number of comments regarding how the cellulosic waiver should be implemented. One commenter suggested that if EPA implements the CWA to reduce the volume of cellulosic biofuel for 2024, EPA should only reduce the volume to the level of production and issue cellulosic waiver credits (CWCs).

### **Response:**

In this action, EPA is implementing the CWA to reduce the 2024 cellulosic biofuel volume to the projected volume available in 2024, excluding consideration of any cellulosic carryover RINs or cellulosic biofuel deficits carried forward from 2023. EPA is also making available CWCs as a compliance flexibility, consistent with CAA section 211(o)(7)(D).

### **Comment:**

A commenter suggested that if EPA implements the CWA for a given year, it should only make CWCs available to obligated parties after December 31 of that compliance year, and only if cellulosic RIN generation has fallen short of the Renewable Volume Obligation (RVO) for that year. The commenter believes this would ensure RVOs are binding while affording obligated parties the opportunity to meet their obligations.

### **Response:**

While EPA believes that this comment is beyond the scope of this action as it suggests how EPA should act in the future, the commenter's suggestion that EPA may condition the timing and number of CWCs it makes available in a given year is incorrect because CWCs are only available to an obligated party at the time of its compliance demonstration (i.e., CWCs are typically available after the compliance year, just prior to the applicable RFS annual compliance reporting deadline). CAA section 211(o)(7)(D)(ii) prescribes that whenever EPA reduces the minimum cellulosic biofuel volume under this provision, EPA is to make CWCs available. CAA section 211(o)(7)(D)(iii) and 40 CFR 80.1456(a)(2) provide the number of CWCs that EPA shall make available can be no more than the reduced cellulosic biofuel volume.

### **Comment:**

A commenter suggested that the use of the CWA by November 30 of the preceding year allows obligated parties to plan for compliance, and that a late waiver would penalize producers and obligated parties that made plans on the assumption that CWCs would not be available. The commenter suggested that making CWCs available at this time would not further "EPA's goal of providing a reliable, sustained market signal to cellulosic biogas producers and investors."

**Response:**

In years where it is possible for EPA to determine that cellulosic biofuel production is going to fall short of the RFS volume requirement for the following year, EPA agrees with this commenter that doing so by November 30 of the preceding year is preferable. Nevertheless, EPA is required to reduce the cellulosic biofuel volume when the statutory criteria are met, as is the case for 2024.

## 2.3 Opposition to Implementation of Cellulosic Waiver Authority

### 2.3.1 General Opposition to Waiver

#### Comment:

Several commenters suggested that EPA should not reduce the current 2024 cellulosic biofuel volume of 1.09 billion RINs but should make CWCs available using the new pricing mechanisms proposed, because these steps would encourage continued growth of the cellulosic biofuels market. Another commenter suggested that the shortfall could be managed by the “CWC mechanism” without explanation about how EPA could make CWCs available without use of the CWA.

#### Response:

The commenters did not provide any legal analysis to support their suggestions that EPA has the authority to make CWCs available if it does not waive the cellulosic biofuel volume requirement using the CWA under CAA section 211(o)(7)(D).

EPA disagrees with these commenters because EPA does not have the statutory authority to issue CWCs in the absence of implementing a waiver under the CWA. As we stated in our response to comments on a past RFS rulemaking on similar comments:

While the statute does not explicitly prohibit the issuance of CWCs in circumstances other than those articulated in CAA section 211(o)(7)(D), the statute’s explicit direction in CAA section 211(o)(7)(D) suggests that Congress did not intend for EPA to have the authority to issue CWCs in other circumstances. We agree with the commenter we have broad discretion to govern the RFS credit market, but we do not find we have authority to issue CWCs in this rule because we are not exercising the cellulosic waiver authority. While CAA section 211(o)(7)(D)(iii) authorizes EPA to promulgate regulations associated with governing the issuance of CWCs, we do not read this provision as granting additional authority to issue CWCs in the absence of a waiver under CAA section 211(o)(7)(D). Additionally CAA section 211(o)(7)(D)(iii) expressly contemplates that regulation promulgated under that authority would apply “*in the event of a waiver.*” Our regulations at 40 CFR 80.1456(a) and (b) also expressly contemplate CWC availability only “[i]f EPA reduces the applicable volume of cellulosic biofuel.”<sup>1</sup>

#### Comment:

A commenter opposed the implementation of the CWA because there would be negative impacts of waiving the cellulosic biofuel requirement, including reducing demand for cellulosic RINs

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<sup>1</sup> Section 2.2, “Renewable Fuel Standard (RFS) Program: Standards for 2023–2025 and Other Changes Response to Comments,” EPA-420-R-23-014, June 2023 (“Set 1 Rule RTC”).

and decreasing cellulosic RIN prices, creating volatility in the market, and reducing potential revenues, particularly for new and future projects.

Another commenter suggested opposition to implementation of the cellulosic waiver “many months after the start of the compliance year,” and in light of the “disconnect between the cellulosic waiver mechanism and a true market signal to produce RNG.”

Several commenters noted EPA’s statements in the Set 1 Rule suggesting that “[r]evising standards has the potential to decrease market certainty and create unnecessary market disruption.” Relatedly, commenters suggested that waiving volumes introduces market uncertainty and harms producers’ investments. Some commenters noted that obligated parties anticipating a waiver could incentivize a “wait-and-see” approach to purchasing RINs in the hope of a waiver, which would lead to pricing instability and threaten continued investment in the market for cellulosic biofuel.

### **Response:**

While we recognize the potential impacts on the cellulosic biofuel market and cellulosic RIN prices, as well as EPA’s delay in issuance of the partial waiver, the use of the CWA is mandatory and thus we lack the discretion to consider the factors suggested by the commenters in implementing the CWA to waive the 2024 cellulosic biofuel requirement. We note that in the Set 1 Rule, EPA highlighted the potential availability of the waiver authorities, including the CWA.<sup>2</sup> Additionally, the mandatory and prescriptive nature of the CWA should provide stakeholders with certainty about the circumstances under which EPA would be required to implement a waiver under the CWA.

As to commenters’ suggestion that obligated parties might postpone cellulosic RIN purchases to evoke a partial waiver of the cellulosic biofuel standard, we note that we have articulated a similar concern in denying past requests for a waiver of the cellulosic biofuel standard.<sup>3</sup> However, in contrast to the circumstances there, without this action, obligated parties would lack the certainty of CWCs as an alternative compliance mechanism, and thus delaying cellulosic RIN purchases would likely to be higher-risk option for obligated parties, were EPA to not ultimately reduce the cellulosic biofuel volume using the CWA. Further, the cellulosic biofuel industry has developed significantly in recent years. The relatively mature status of the RNG industry, along with the relatively large number of potential buyers for RNG and other cellulosic biofuels, reduce the risk that obligated parties would be able to directly influence cellulosic biofuel production by delaying RIN purchases. Therefore, we believe the likelihood of such actions is diminished.

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<sup>2</sup> 88 FR 44479 (July 12, 2023) (“While we are establishing applicable volume requirements in this action for future years that are achievable and appropriate based on our consideration of the statutory factors, we retain our legal authority to waive volumes in the future under the waiver authorities should circumstances so warrant.”). See also Set 1 Rule RTC Section 2.2.

<sup>3</sup> “Denial of AFPM Petition for Waiver of 2016 Cellulosic Biofuel Standard,” January 17, 2017.

**Comment:**

Several commenters suggested that EPA had not demonstrated that there is a shortfall in cellulosic biofuel justifying a reduction in the 2024 cellulosic biofuel standard or that a proposed waiver was premature. Many comments were made in the context of the meaning of “supply,” as EPA proposed to reduce the cellulosic biofuel requirement under the GWA. Some commenters suggested there were “no constraints” on RNG production, and that there were 1.442 billion ethanol equivalent gallons of operational RNG production, and no infrastructure-related constraints. Another commenter suggested that there would be around “1.67 billion RINs [available] if fully allocated to transportation use.” A commenter suggested that EPA should assess production data “including fuel produced that was ultimately is used outside the RFS program.” Some commenters were critical of EPA’s use of “the number of cellulosic RINs available to obligated parties” to assess the production of cellulosic biofuel and identified issues with EPA’s projection of cellulosic RINs available in the proposed rulemaking.

**Response:**

In the proposed rule, we projected the available volume of cellulosic biofuel for 2024 using the data available at that time. In this final rule, we have complete information on the number of cellulosic RINs generated in 2024 and available for use to demonstrate compliance with the 2024 cellulosic biofuel standard.<sup>4</sup> We indicated our intention to use actual data for this final rule in the proposed rule. Actual RIN generation data is the best source to determine the volume of cellulosic biofuel available for compliance. This is consistent with EPA’s past actions in implementing the CWA after the compliance year has passed.<sup>5</sup> Because we are using actual data on 2024 RIN generation and availability, any comments related to the projection methodology in the proposed rule are not relevant for this final rule.

We recognize that the RNG production capacity and total quantity of RNG produced in 2024 are both higher than the number of 2024 cellulosic RINs generated for RNG. We do not, however, think that it would be appropriate to set the 2024 cellulosic biofuel volume requirement at the production capacity for RNG or the total quantity of RNG produced in 2024. When using the CWA, CAA section 211(o)(7)(D)(i) directs EPA to “reduce the applicable volume of cellulosic biofuel... to the projected volume available during that calendar year.” There are many reasons that the projected volume of RNG would fall short of the production capacity, including facility downtime for maintenance and repairs, unexpected production stoppages, lower than expected production yields, and poor weather conditions. The RNG production capacity is therefore not an appropriate means for projecting the volume of RNG available during the calendar year.

Further, not all RNG qualifies as cellulosic biofuel. To qualify as cellulosic biofuel, RNG must be produced from qualifying feedstocks and be used as transportation fuel. Total RNG

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<sup>4</sup> One commenter noted that changes to the regulations related to how RINs are generated for RNG derived from biogas in the Set 1 Rule may result in a higher number of cellulosic RINs generated in November and December 2024 than EPA projected based on data from previous years. We acknowledge that the implementation of these changes may have impacted the number of cellulosic RINs generated in late 2024. In using actual RIN generation data for 2024 in this final rule, we are accounting for any impact the changes to these regulations had on cellulosic RIN generation.

<sup>5</sup> See 80 FR 77420, 77428 (December 14, 2015); 87 FR 39600, 39602–03 (July 1, 2022).

production in the U.S. includes both RNG that is produced from non-cellulosic feedstocks (e.g., food waste) and RNG that is not used as transportation fuel (e.g., for electricity or process heat). RNG produced from non-cellulosic feedstocks or not used as transportation fuel does not qualify as cellulosic biofuel under the RFS program. It would therefore be inconsistent with the CAA to determine the “projected volume available” for cellulosic biofuel based on total RNG production, as not all RNG qualifies as cellulosic biofuel.

### 2.3.2 Availability of the Cellulosic Waiver Authority

#### **Comment:**

Some commenters suggested that the CWA is only available to waive the statutory volumes and that the reference to estimates from EIA only through 2021 (for the 2022 compliance year) further indicates that the CWA cannot be used to waive cellulosic biofuel volumes that EPA has “set” under CAA section 211(o)(2)(B)(ii) for compliance years after 2022. A commenter suggested that given the directive in CAA section 211(o)(2)(B)(iv) that EPA set the cellulosic biofuel applicable volume such that the administrator shall not need to issue a waiver, there is not “a logical scenario where the CWA is applicable.” Other commenters suggested that the availability of the CWA is “not clear.”

Others stated that even if the CWA is still available, the language of CAA section 211(o)(7)(D) precludes it from being implemented to retroactively waive cellulosic biofuel volumes or make CWCs available after November 30, 2023 (i.e., the statutory language is that EPA shall reduce the established volumes prior to a compliance year to “the projected volume available” for that year and it must do so “not later than November 30 of the preceding calendar year”). A commenter suggested that the November 30 deadline “functions to provide certainty and stability to the market for cellulosic biofuels and reflects the general policy against applying the cellulosic waiver authority retroactively.” Another commenter suggested that this interpretation is appropriate because EPA’s regulations are similarly written in prospective terms; for example, the price of CWCs is to be based on data available “as of September 30 of the year preceding the compliance period” and the inflation index “for June of the year preceding the compliance period.” The commenter believes this language is because CWCs are intended to serve as a price stabilizer during the compliance year to avoid potential substantial increases in RIN prices while cellulosic biofuel production ramps up. The commenter asserted this can’t occur if EPA makes a determination that CWCs can be available after the end of the compliance year.

One commenter further stated that EPA has failed to explain why the CWA is still available post-2022, but that commenter did not provide any analysis of why it is not available. Some commenters implied that EPA’s decision not to implement the CWA to partially waive cellulosic biofuel volumes in 2023 means that EPA recognized that “that the statute does not allow for retroactive waivers” and it would be inconsistent to implement the CWA for 2024.

#### **Response:**

As described in Preamble Section II.B, the best reading of the statute is that the CWA remains available to EPA to waive the volume requirements established under CAA section 211(o)(2)(B)(ii) and after the EIA estimates are no longer provided under CAA section 211(o)(3)(A).

In response to comments regarding availability of the CWA after the November 30, 2023, deadline articulated in the statute for the 2024 cellulosic biofuel standard, we refer to Preamble Section II.B.

Additionally, the RFS program includes statutory deadlines for many of EPA's actions and, historically, EPA has missed some of those deadlines. Courts have held that when we miss a deadline, EPA retains its ability to act, but that in doing so EPA must act reasonably and mitigate burdens on obligated parties.<sup>6</sup> For example, EPA missed the deadline to act under the “reset authority” under CAA section 211(o)(7)(E), which required EPA action to modify the volume requirements by December 11, 2019.<sup>7</sup> In that action, consistent with D.C. Circuit case law, EPA reasonably considered and mitigated burdens on obligated parties caused by the issuance of these rules after the statutory deadline.<sup>8</sup> In *NPRA v. EPA*, the court suggested EPA must balance the burden on obligated parties with the broader goal of the RFS program to increase renewable fuel use.<sup>9</sup> Here, as in the 2020–2022 RFS Rule where EPA exercised the reset authority after the statutory deadline, we find that the late exercise of the CWA is appropriate and permissible.

We note first that use of the CWA is mandatory, and thus we are satisfying our statutory obligation to reduce the cellulosic biofuel volume in these circumstances. We acknowledge as well that the statutory text of the CWA does contemplate a prospective waiver of the cellulosic biofuel standard. This is not, however, different from other statutory authorities in the RFS program, which also contemplate prospective actions, but nevertheless, we have exercised retroactively, and which the D.C. Circuit has permitted upon review.<sup>10</sup>

Second, we provided notice of a potential waiver of the cellulosic biofuel volume requirement in the proposal in December 2024. Relatively less time is needed to provide adequate notice to obligated parties for the reduction of RFS standards because EPA is reducing the stringency of the standard, which facilitates compliance by obligated parties. Earlier this year, we delayed the 2024 RFS compliance deadline until the next quarterly reporting deadline after the effective date of this final rule.<sup>11</sup> This will provide obligated parties with no less than two months after the publication of this final rule in the Federal Register, and no less than eight months after the publication of the proposal, to comply with their 2024 obligations. Had we not adjusted the compliance deadline, obligated parties would have needed to demonstrate compliance by March 31, 2025. Obligated parties will also retain compliance flexibilities such as the ability to use carryover RINs and carry forward deficits into 2025. This action has the potential to preserve any available cellulosic carryover RINs rather than require their use for compliance.

The direction provided by the CWA to reduce the cellulosic biofuel volume to the “projected volume available” reflects congressional intent for this RFS category as modified by use of the CWA. Thus, the resulting volume will require the use of the available cellulosic RINs, without requiring obligated parties to carry forward deficits or utilize carryover RINs. Because 2024 has

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<sup>6</sup> *Americans for Clean Energy v. EPA*, 864 F.3d 691, 720 (D.C. Cir. 2017) (*ACE*); *Monroe Energy, LLC v. EPA*, 750 F.3d 909 (D.C. Cir. 2014) (*Monroe Energy*); *Nat'l Petrochemical & Refiners Ass'n v. EPA*, 630 F.3d 145, 154–58 (D.C. Cir. 2010) (*NPRA*).

<sup>7</sup> 87 FR 39600 (July 1, 2022).

<sup>8</sup> *Id.* at 39609, 39621–22.

<sup>9</sup> 630 F.3d at 154–58.

<sup>10</sup> See, e.g., CAA section 211(o)(3)(B)(i) (requiring EPA to establish standards by November 30 of the preceding year), section (o)(7)(E) (requiring EPA to modify the applicable volumes under the “reset authority” no later than one year after the necessary conditions are triggered), and section (o)(2)(B)(ii) (requiring EPA to establish volumes 14 months before they apply). See, also, *NPRA*, *Monroe Energy*, and *ACE*.

<sup>11</sup> 90 FR 12109 (March 14, 2025).

already passed, this rulemaking has no ability to affect actual production, import, or use of cellulosic biofuel in 2024. While we lack discretion to adjust the 2024 cellulosic biofuel volume to anything other than the “projected volume available,” the notice and delayed compliance deadline provide mitigation of burdens for obligated parties.

As discussed in Preamble Section II.B, we read the statutory provisions in harmony to allow for the continued availability of the CWA.

Based on this statutory construct, we disagree that EPA must evaluate whether there is a “logical scenario” in which implementing the CWA is appropriate. Instead, EPA need only determine that the conditions enumerated by CAA section 211(o)(7)(D) have been met for a given year; if they have, the CWA must be used to reduce the cellulosic biofuel volume.

As discussed Preamble Section II.B, though CAA section 211(o)(7)(D)(i) requires EPA to make a determination “based on the estimate provided [by EIA],” the D.C. Circuit, in evaluating this provision held that the Act “[p]lainly . . . [does not] contemplate slavish adherence by EPA to the EIA estimate,” and had Congress so intended “it could have skipped the EPA ‘determination’ altogether.”<sup>12</sup>

We also disagree with a commenter’s suggestion that CAA section 211(o)(2)(B)(iv) cannot be harmonized with use of the CWA under CAA section 211(o)(7)(D) for the applicable volumes established under EPA’s “set authority.” Given that, per the statute, EPA is to set the applicable volumes “14 months before they will apply,” it is entirely possible that EPA could set standards based on a projection of the cellulosic biofuel standard that, at the time the standard is established, EPA understands would not need to be waived, but for which changed circumstances at a later point in time indicate that a waiver is required. Regarding comments about the effect of EPA’s decision to not waive the 2023 cellulosic biofuel volume requirement, in evaluating the request from AFPM to do so, EPA did not address whether the conditions for use of the CWA to waive the cellulosic biofuel requirement were met, but instead stated that “[t]he statute does not specify that it authorizes petitions to waive cellulosic biofuel volumes under CAA section 211(o)(7)(D). Accordingly, we do not consider AFPM’s request to waive volumes under CAA section 211(o)(7)(D) to be properly before the Agency. Accordingly, to the extent the AFPM Petition raises issues relating solely to CAA section 211(o)(7)(D), we do not address those issues in this document.” Therefore, we disagree with the commenters’ assertion that EPA acknowledged that the statute does not allow for retroactive waivers, as EPA made no such assertion in the *Denial of AFPM Petition for a Partial Waiver of 2023 Cellulosic Biofuel Standard* (“AFPM 2023 Denial”).

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<sup>12</sup> *API*, 607 F.3d at 478. See also *Alon Refining Krotz Springs, Inc. v. EPA*, 396 F.3d 628, 660 (D.C. Cir. 2019).

### 2.3.3 Notice to Implement the Cellulosic Waiver Authority

#### Comment:

Several commenters asserted that EPA's request for comment on the use of the CWA is not sufficient notice to use the authority to partially waive the 2024 cellulosic biofuel volume because changes to that standard require amending the regulations through notice-and-comment rulemaking. A commenter stated that EPA has not justified a legal or factual basis to implement the CWA instead of relying on volumes of other advanced biofuels to make up the shortfall in production of cellulosic biofuel consistent with the D.C. Circuit's opinion in *API*. Another commenter asserted that use of the CWA would violate 40 CFR 80.1456, but did not specify how or why that would be the case.

#### Response:

In the proposal, EPA made it clear that a reduction of the 2024 cellulosic biofuel volume was necessary. While EPA proposed to use its GWA to do so, we also specifically sought comment on whether the CWA was available to EPA to do the same or whether both authorities should be used in conjunction.<sup>13</sup> In addition to seeking input from stakeholders on the potential use of the GWA and CWA, we also provided information on the resulting volume after reductions implementing the waiver under either authority.<sup>14</sup> EPA also proposed edits to the data source used to calculate the CWC price, even though CWCs are only available in circumstances where EPA waives the cellulosic biofuel volume requirement under the CWA. Taken together, EPA believes that the proposal provided parties with ample notice that EPA was considering the use of either or both the GWA and the CWA. We also note that the statutory text of the CWA, in contrast to the GWA, does not require EPA to provide notice and opportunity for public comment. Nevertheless, EPA did provide sufficient notice and opportunity for comment in the NPRM.

As to one commenter's assertion that EPA has not justified a "legal or factual basis" to implement the CWA, we understand the comment to be related to EPA's request for comment on discretionary reductions in the advanced and total renewable fuel standards under the CWA. As we are not finalizing reductions in the advanced biofuel and total renewable fuel standards in this action, we need not address this comment.

Comments suggesting EPA's actions are inconsistent with 40 CFR 80.1456 lacked specificity and thus do not require further response.

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<sup>13</sup> See 89 FR 100442, 100447-49 (December 12, 2024).

<sup>14</sup> *Id.* at 100448 ("If applied alone in the current circumstances—that is, if EPA were to use only the cellulosic waiver authority to reduce the 2024 cellulosic biofuel volume requirement and exclude consideration of the 0.09 billion total cellulosic RIN deficit from 2023 carried into 2024—then EPA could only reduce the cellulosic biofuel volume requirement to the projected volume available of 0.97 billion RINs in 2024.")

### **3. Use of Both Waiver Authorities**

#### **Comment:**

Several commenters suggested that EPA should use both the GWA and the CWA to waive the 2024 cellulosic biofuel requirement. These commenters suggested that the reduction to the “projected volume available” under the CWA is insufficient to address the shortfall, particularly in light of deficits carried forward from 2023. The commenters also suggested that the evidence supports a conclusion that there is an inadequate domestic supply of cellulosic biofuel and that EPA “should waive an additional 90 million RINs to address the 2023 cellulosic biofuel RIN deficit” under the GWA. Doing so, the commenters suggest, would prevent noncompliance by obligated parties who carried a RIN deficit into 2024 from their 2023 obligations. A commenter stated that EPA should waive additional volumes to restore the number of available cellulosic carryover RINs and suggested an additional volume of 9–17% of the 2025 cellulosic biofuel mandate would be appropriate.

#### **Response:**

We do not believe that additional reductions in the 2024 cellulosic biofuel volume requirement are justified or appropriate. As discussed in Preamble Section III, reductions under the CWA trigger the availability of CWCs as a compliance mechanism. CWCs, used in conjunction with advanced or BBD RINs, are equivalent to cellulosic RINs for compliance purposes. There are sufficient advanced and BBD RINs in the market to be used in conjunction with CWCs to make up the 2023 cellulosic RIN deficit. Therefore, we do not believe that additional reductions under the GWA are justified or appropriate on this basis.

As to the concept of reducing the 2024 cellulosic biofuel volume further to inflate the number of cellulosic carryover RINs, EPA has never used its waiver authorities to do so. While EPA acknowledges the important role of carryover RINs, we do not find that inflating the number of carryover RINs at this time through the use of the GWA would be appropriate, particularly in light of EPA’s use of the CWA for 2024 and the corresponding availability of CWCs.

#### **Comment:**

A commenter suggested that reductions below the projected volume available through the use of the GWA would “disproportionately harm[] the remaining obligated parties that have worked diligently to meet their RVO obligations.” Other commenters suggested EPA should not use both waiver authorities.

#### **Response:**

In this action, EPA is only using the CWA to waive the 2024 cellulosic biofuel volume requirement to the projected volume available.

**Comment:**

One commenter opposed implementation of the GWA and CWA sequentially rather than concurrently to calculate volume requirements, opining that doing so would reduce the demand for cellulosic RINs and decrease cellulosic RIN prices, thereby creating volatility in the biofuels market and potentially affect the viability of new biofuels projects. Another commenter suggested that EPA can use the GWA in tandem with the mandatory CWA. Other commenters voiced confusion regarding how the two waiver authorities would be implemented either concurrently or sequentially, to what levels the cellulosic volume requirements would be reduced, and why CWCs should be available for purchase if obligated parties are not required to purchase them.

**Response:**

In this final action, EPA is exclusively implementing the CWA to reduce the 2024 cellulosic biofuel volume. Response to these comments is therefore not needed to support this action.

## 4. Magnitude of the Partial Waiver

### 4.1 Consideration of RIN Deficits and Carryover RINs

#### Comment:

EPA received many comments about the magnitude of the reduction in the 2024 cellulosic biofuel volume. Many comments suggested that EPA should factor RIN deficits and carryover RINs into its consideration of an appropriate reduction of 2024 cellulosic biofuel volumes, particularly in the context of EPA implementing a reduction under the GWA.

Regarding the magnitude of the volume reduction using the CWA, some commenters pointed out that the D.C. Circuit found that EPA may only consider supply-side factors in assessing whether there is sufficient supply to meet the volume requirement, while others stated that EPA must only consider the supply of renewable fuel and cellulosic biofuel available for refiners, blenders, and importers to meet their volume obligations, not the factors affecting the demand for renewable fuel, excluding carryover RIN deficits.

Another commenter recommended that it would be inappropriate for EPA to consider the carryover RIN deficit from 2023 as proposed, because it would go against EPA's prior stance on the topic as stated in the AFPM 2023 Denial:

“[w]e expect that some obligated parties may carry forward a cellulosic RIN deficit from 2023 into 2024, as obligated parties have done in the past. We are unaware of any reason why carrying forward a relatively small number of cellulosic RIN deficits into 2024 . . . would be expected to disrupt the functioning of the RIN market.”

On the other hand, the same commenter felt it would be appropriate and necessary to consider the number of carryover 2023 RINs, pointing to EPA's statement in the AFPM 2023 Denial: “Although carryover RINs are not a constituent of the ‘supply,’ EPA has nevertheless considered the availability of carryover RINs as a relevant factor when determining whether to issue a waiver of total renewable fuel volumes on the basis of an ‘inadequate domestic supply’ of physical gallons of renewable fuel produced in the relevant compliance year.”

A commenter suggested that EPA's past statements regarding qualifying renewable fuel should not limit its assessment of available cellulosic biofuel to fuel for which RINs have been generated. The commenter stated that “RNG is qualifying fuel that can generate RINs,” and thus EPA should include it, particularly in light of the Supreme Court's decision in *Loper Bright*.

Another commenter suggested that if a reduction to the 2024 cellulosic biofuel volume is required, it should only be lowered to 0.97 billion cellulosic RINs—the amount of cellulosic biofuel projected in the proposal—through the use of the EPA's CWA along with making CWCs available to obligated parties, because this would reduce disproportionate harm to the remaining obligated parties that have worked diligently to meet their RVO obligations.

**Response:**

EPA is reducing the 2024 cellulosic biofuel requirement under the CWA, which is prescriptive as to the level at which EPA is to set the cellulosic biofuel volume requirement. CAA section 211(o)(7)(D) states that EPA is to reduce the applicable cellulosic biofuel volume to “the projected volume available,” which EPA has consistently interpreted to mean the projected volume of qualifying cellulosic biofuel production. In doing so, EPA does not increase the volume to include carryover RINs from 2023, nor does it reduce the volume to account for 2023 RIN deficits that need to be fulfilled in 2024.

We recognize that some commenters suggested that the statutory criteria for a waiver under the GWA were not met as there was not an “inadequate domestic supply” of cellulosic biofuel. The commenters pointed to sufficient supply of RNG (as opposed to cellulosic RINs, or qualifying cellulosic biofuel) and suggested that assessing “supply” by looking at RIN generation improperly considered “demand side factors.” When reducing volumes under the CWA, EPA is not required to consider “supply” nor are we bound by the case law dictating the meaning of “supply.” Instead, the trigger for use of the CWA is that the “projected volume of cellulosic biofuel production is less than the minimum applicable volume established under [CAA section 211(o)(2)(B)].” In determining the “projected volume of cellulosic biofuel production” and “the projected volume available,” EPA has historically only included qualifying cellulosic biofuel.<sup>15</sup> RNG, in contrast to qualifying cellulosic biofuel, could be used in non-transportation fuel endpoints, and thus would not properly be counted as “cellulosic biofuel production” in the context of the RFS program, which has specific statutory requirements for renewable fuel, including that it be used as transportation fuel, and not some other non-transportation fuel use.

As for the commenter who suggested that EPA reduce the cellulosic biofuel volume to 0.97 billion RINs as proposed, since EPA issued that proposal in December 2024, EPA has updated its projection of the number of cellulosic RINs produced in 2024 from 0.97 billion RINs to 1.01 billion RINs. EPA has therefore reduced the 2024 cellulosic biofuel volume to 1.01 billion RINs.

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<sup>15</sup> See “Renewable Fuel Standard (RFS) Program: RFS Annual Rules Response to Comments,” EPA-420-R-22-009, June 2022, Section 3.1 (explaining the need to ensure a “qualifying feedstock,” and “use[] as a transportation fuel” prior to including a fuel in our estimates.) See also 88 FR 44468, 44481-82 (July 12, 2023) (describing our assessment of the rate of production of *qualifying* cellulosic biofuel).

## 4.2 Consideration of Small Refinery Exemption Volumes

### Comment:

One commenter suggested that the likelihood that small refinery exemptions (SREs) will be granted for the 2023 and 2024 compliance years should be taken into consideration when determining the number of RINs that will be available for 2024 compliance. At the time the commenter submitted their comment, there were 12 and 15 outstanding pending SREs for 2023 and 2024, respectively. While the exact volume of cellulosic RINs that represents is unclear due to lack of publicly available information, the commenter estimated it could range from 40–60 million RINs.

Another commenter suggested that EPA’s assumption that no SREs would be granted for 2024 was improper given the number of pending exemption requests, and the potential for the grant of exemptions impacting the number of RINs available.

Another commenter suggested EPA should make a decision on SREs prior to considering a waiver. The commenter suggested that EPA should project exempt gasoline and diesel volumes due to SREs in the calculation of the percentage standard, as well as “correct many of the variables” used in the percentage standard equation due to the inclusion a 3.5% adjustment factor from the Set 1 Rule and provided numerical values for some terms in the formula.

Commenters also suggested that recent court decisions remanding SRE petitions to EPA could result in RINs being returned to the market through SREs. A commenter highlighted uncertainties in the number of RINs that “might be returned to the market through small refinery exemptions,” or other forms of relief, including through congressional action.

### Response:

While we recognize the uncertainty surrounding SREs, EPA does not account for SREs in determining the RFS volume requirements themselves. This is particularly true for the cellulosic biofuel volume when reduced under the CWA. The CWA prescribes that EPA must set the volume at the projected volume available, and thus EPA cannot include consideration of SREs in determining that volume.

Because we lack information at this time that would allow us to consider the impact of potential SREs on the market dynamics, and we are not considering 2023 RIN deficits in determining the 2024 projected volume available, we do not need to adjust our assessment of 2024 cellulosic biofuel production to account for potential SREs. Our assessment of the projected volume available reflects the total number of cellulosic RINs available for compliance with the 2024 cellulosic biofuel volume requirement and thus is not impacted by SREs. Given this, we do not believe that it is necessary to resolve pending SRE petitions prior to the issuance of this final rule.

The commenter that provided numerical values for exempt gasoline and diesel volumes due to SREs for calculation of the revised cellulosic biofuel percentage standard did not provide further

explanation as to how the values were calculated. As stated in the proposal, EPA is using the same values for the variables in the cellulosic biofuel percentage standard formula as were used to calculate all the 2024 RFS percentage standards in the Set 1 Rule.<sup>16</sup> This approach ensures that the same values for these variables—including gasoline and diesel projections—are used for the calculation of all four 2024 RFS percentage standards with which obligated parties must comply. Due to the nested nature of the standards, it is appropriate to use the same values for the variables used in calculating the percentage standards for all four 2024 RFS standards.

Furthermore, the gasoline and diesel volumes provided by the commenter (G and D, respectively) appear to be approximately the same as those used by EPA in the Set 1 Rule and the proposal for this rule without the 3.5% adjustment factor. As discussed in the Set 1 Rule, using unadjusted, lower gasoline and diesel values results in an overly stringent percentage standard.<sup>17</sup> And notably, this commenter suggested only a partial correction of the volumes at issue, making the suggested approach incomplete.<sup>18</sup>

Nevertheless, the 3.5% adjustment factor was just adopted by EPA in the Set 1 Rule and was not reopened by EPA in the proposal and is beyond the scope of this final rule.

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<sup>16</sup> 89 FR 100449 (December 12, 2024).

<sup>17</sup> “Renewable Fuel Standard (RFS) Program: Standards for 2023–2025 and Other Changes Regulatory Impact Analysis,” EPA-420-R-23-015, June 2023 (“Set 1 Rule RIA”), Chapter 1.11. The 3.5% adjustment factor is used to correct the petroleum portions of gasoline and diesel projected by EIA. Because the EIA projections of gasoline and diesel include volumes of renewable fuels blended into those fuels (e.g., ethanol, biodiesel, and renewable diesel), the petroleum portions of gasoline and diesel are calculated in the percentage standard equations as  $(G - RG)$  and  $(D - RD)$ , respectively (i.e., the adjustment factor is applied to each of G, D, RG, and RD).

<sup>18</sup> The commenter here only provided “corrected” values (i.e., without the 3.5% adjustment factor) for G and D. The commenter did not provide “corrected” values for the estimates of renewables in gasoline and diesel (RG and RD, respectively). Use of the original (or “uncorrected”) RG and RD values with the “corrected” G and D values from the commenter would increase the percentage standard as compared to using “corrected” RG and RD values (i.e., it would make the percentage standard overly stringent).

## **5. Other Miscellaneous Comments**

### **Comment:**

Several commenters expressed concern about the precedent-setting nature of waiving established cellulosic biofuel volumes and the impact on the RFS program goals to “drive production and innovation of biofuels.”

### **Response:**

Under CAA section 211(o)(7)(D), the CWA requires EPA to reduce the required cellulosic biofuel volume for a given year if projected production falls short of the minimum required volume established under CAA section 211(o)(2)(B). For compliance years after 2022, CAA section 211(o)(2)(B)(iv) requires that “the applicable volume of cellulosic biofuel established by the Administrator shall be based on the assumption that the Administrator will not need to issue a waiver for such years under paragraph (7)(D).” As such, in determining the applicable cellulosic biofuel volume, EPA will strive to set a volume that does not need to be waived. Given this provision, the statute directs EPA to evaluate each year on a case-by-case basis, thereby reducing the precedential value of the implementation of the CWA in any given year.

### **Comment:**

AFPM, in its comments, noted its November 1, 2024, petition for a partial waiver of the 2024 cellulosic biofuel requirement.

### **Response:**

This final rule reduces the 2024 cellulosic biofuel volume using the CWA and makes cellulosic waiver credits available as an additional compliance flexibility. We acknowledge that AFPM’s November 1, 2024, petition made the same request; however, as a result of this independent action taken by EPA, we believe that petition is moot.

### **Comment:**

Several commenters supported the proposal to not implement corresponding reductions in the advanced biofuel and total renewable fuel volume requirements under the CWA.

### **Response:**

In this action, EPA is not reducing the advanced biofuel and total renewable fuel volume requirements.

### **Comment:**

Several commenters suggested that by reducing the 2024 cellulosic biofuel volume and not making corresponding reductions in advanced biofuel and total renewable fuel volumes, EPA is

requiring additional non-cellulosic advanced biofuel, which is likely to be met with soy-based biodiesel. The commenters suggested that soy-based biodiesel would result in significant costs on taxpayers, consumers, and the environment.

**Response:**

As proposed, EPA is not adjusting the 2024 advanced biofuel and total renewable fuel volumes in this action. The CWA provides that when EPA reduces the cellulosic biofuel volume, EPA may also reduce the advanced biofuel and total renewable fuel volumes by the same or a lesser amount. We are electing not to do so in this action. While the CWA requires EPA to reduce the cellulosic biofuel volume, corresponding reductions in the advanced biofuel and total renewable fuel volumes are discretionary.

We elect not to reduce the 2024 advanced biofuel and total renewable fuel volumes for several reasons. First, the market has provided sufficient advanced biofuel and total renewable fuel to meet the 2024 standards even after the reduction in the cellulosic biofuel volume. As discussed in Preamble Section III.A, the supply of advanced biofuel and total renewable fuel in 2024 exceeded the volume requirements by a significant amount. Reducing the advanced biofuel and total renewable fuel volumes at this time would therefore only serve to inflate the number of carryover RINs.

Second, the 2024 compliance year has passed and the advanced biofuel and total renewable fuel volumes have already been produced and used in the market. This limits the impact of retaining the advanced biofuel and total renewable fuel standards as such fuels have already been produced and any impacts have already occurred.

Finally, we note that the actual cost of biofuel in 2024 was lower than the cost EPA projected in the Set 1 Rule.<sup>19</sup> We justified the volume requirements at higher costs in the Set 1 Rule for the reasons discussed there; we also use the same reasoning to justify our decision not to reduce the 2024 advanced biofuel and total renewable fuel volume requirements today at lower costs. As to the environmental impacts, commenters were not specific as to the impacts of the proposed action on the environment. Nevertheless, we find that the small increase in the advanced biofuel requirement as a result of this action is not likely to result in environmental impacts that would justify reducing additional advanced biofuel or total renewable fuel volumes.<sup>20</sup>

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<sup>19</sup> EPA projected production costs of biodiesel in 2024 that ranged from \$4.59 to \$6.59 per gallon in the Set 1 Rule RIA. According to data from Argus, the actual price for biodiesel (B100) in 2024 was approximately \$4.20 per gallon.

<sup>20</sup> According to the USDA's Oil Crops Data: Yearbook Tables, domestic soybean oil production in 2024 was approximately 27.5 billion gallons. The quantity of soybean oil needed to produce 80 million RINs (53 million gallons) of biodiesel is approximately 425 million pounds. This represents about 1.5% of total soybean oil production in the U.S. in 2024.

## 6. Calculation of Cellulosic Waiver Credit Price

### Comment:

A number of commenters stated their support of EPA's proposal to update the data sources used for the average wholesale price of gasoline to be used in the calculation of the CWC price, as well as the specific data sources and weighting factors proposed by EPA.

Several of these commenters, however, expressed concern regarding the use of Los Angeles reformulated gasoline before oxygenate blending (RBOB) prices as representative of RBOB prices nationwide. One commenter suggested that EPA re-evaluate the data sources and weighting factors used in the CWC price formula in the future, while another commenter suggested that EPA rely solely on the U.S. Gulf Coast conventional gasoline (CG) price as representative of the nationwide average wholesale price of gasoline.

Another commenter supported the proposed gasoline spot price data sources because they are likely the best source of wholesale gasoline prices publicly available today, but nonetheless questioned the weighting factors EPA used, suggesting that the illustrative 2024 CWC price of \$1.61 EPA calculated in the proposal was significantly less than CWC prices for the previous five years and urged EPA to evaluate and confirm the appropriateness of the EIA data sources and weighting factors used to calculate the CWC price.

A commenter noted that the CWC credit price formula is "completely removed from the cost structure of cellulosic biofuel."

### Response:

We thank the commenters for their support and are finalizing as proposed the new data source for the CWC price calculation. We appreciate the concerns raised by the commenters regarding the specific data sources proposed by EPA, including the use of Los Angeles RBOB price as representative of RBOB prices nationwide, and the acknowledgement that there are very limited public data sources available for EPA to use to calculate a nationwide average wholesale price of gasoline.

In response to suggestions that EPA re-evaluate the data sources and weighting factors used in the CWC price formula, as well as the suggestion that EPA rely solely on the U.S. Gulf Coast CG price as representative of the nationwide average wholesale price of gasoline, we conducted an analysis of the accuracy of the proposed new data sources and weighting factors compared to the previous data source.<sup>21</sup> This analysis shows that, over a 10-year period (2012 to 2022, which is the last year for which the previous EIA U.S. Total Gasoline Bulk Sales Price by Refiners data is available), the proposed new data sources and weighting factors had an average difference of \$0.01 (or 0.7%) compared to previous data source. Using only Gulf Coast CG prices, however, resulted in an average difference of \$0.08 (or 4.7%) compared to the previous data source. Thus, our analysis shows that it would be less accurate to rely solely on Gulf Coast CG spot prices as

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<sup>21</sup> See "CWC Wholesale Price of Gasoline Analysis," is available in the docket for this action.

the data source for determining the nationwide average wholesale price of gasoline. This analysis also shows that the proposed new data sources and weighting factors provide a reasonable estimate of this price and we are therefore finalizing the new data sources and weighting factors as proposed.

Finally, as discussed in Preamble Section IV, the CWC price formula is specified in CAA section 211(o)(7)(D)(ii). EPA does not have the authority to deviate from this pricing formula.

## 7. Measurement of Renewable CNG/LNG Using Documentation

### Comment:

Several commenters stated their support of EPA's proposal to allow RNG RIN separators to measure natural gas or renewable compressed natural gas (CNG) and liquefied natural gas (LNG) using documentation such as pipeline or utility statements. Commenters also requested that EPA clarify that scale tickets and bills of lading are also acceptable documentation, particularly for LNG.

In addition, one commenter noted that documentation is not always provided in Btu and requested that EPA specify conversion factors for scf to Btu LHV (for CNG) and pounds to Btu LHV (for LNG). The commenter suggested using data sources from EIA and GREET to develop the conversion factors for scf to Btu LHV and pounds to Btu LHV, respectively.

### Response:

We thank the commenters for their support and have added the suggested additional examples of documentation to establish volume for LNG (scale tickets and bills of lading) to 40 CFR 80.155(a)(5).

Regarding the conversion factors for CNG and LNG, we agree that it is appropriate to specify specific conversion factors that all parties must use. For CNG, we agree with the general approach suggested by the commenter to develop the conversion factor. Specifically, we used EIA data from 2019–2024 to calculate the average heat content of natural gas consumed was 1,037 Btu/scf.<sup>22</sup> Using the 0.9004 conversion factor from ASTM D3588 specified by the commenter to convert from Btu HHV to Btu LHV results in an energy content of 934 Btu LHV/scf for CNG.

For LNG, we believe that the most appropriate data source for the LNG conversion factor is the U.S. Department of Energy's Alternative Fuels Data Center (AFDC), rather than the GREET model suggested by the commenter.<sup>23</sup> Specifically, the AFDC specifies an energy content of 21,240 Btu LHV/lb for LNG.

We have included both conversion factors in 40 CFR 80.155(f).

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<sup>22</sup> [https://www.eia.gov/dnav/ng/ng\\_cons\\_heat\\_a\\_EPG0\\_VGTH\\_btucf\\_a.htm](https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm).

<sup>23</sup> <https://afdc.energy.gov/fuels/properties?fuels=LNG>.

## **8. Beyond the Scope**

### **Comment:**

Commenters addressed numerous additional topics, including but not limited to the following:

- Adjusting the BBD and advanced biofuel standards upward.
- E15 approval.
- The 2025 cellulosic biofuel volume requirement.
- Future RFS volume requirements.
- Renewable fuel pathways and registrations.
- Lifecycle emissions modeling.
- Regulatory amendments related to cellulosic RIN generation.

### **Response:**

These comments are all beyond the scope of this rulemaking. While we did propose several changes to the RFS program as part of this action, we did not propose any of the changes described above or otherwise seek comment on these issues. The other changes to the RFS program proposed but not finalized in this final rule are also beyond the scope of this action. Several of these issues, moreover, are being addressed in separate proceedings. These topics are not further addressed in this document.