UNITED STATES COURT OF APPEALS
FOR THE ELEVENTH CIRCUIT

HUNT REFINING COMPANY, Petitioner, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Respondent.	Case No. _____

PETITION FOR REVIEW

Pursuant to Section 307(b) of the Clean Air Act, 42 U.S.C. § 7607(b), and Federal Rule of Appellate Procedure 15(a), Petitioner Hunt Refining Company petitions this Court for review of the final actions of the Administrator of the United States Environmental Protection Agency ("EPA") on June 3, 2022 denying Petitioner's petitions for small refinery hardship relief from the requirements of the Renewable Fuel Standard for the 2019–2021 compliance years and titled "June 2022 Denial of Petitions for RFS Small Refinery Exemptions" (attached as Exhibit A). Notice of these actions was published in the Federal Register on June 8, 2022. 87 Fed. Reg. 34873 (June 8, 2022). This Petition is timely filed within 60 days of the notice published in the Federal Register. *See* 42 U.S.C. § 7607(b)(1).

The Certificate of Interested Persons and Corporate Disclosure Statement required by Federal Rule of Appellate Procedure 26.1 and 11th Circuit Rule 26.1-1 is attached as Exhibit B.

Dated: August 3, 2022

Respectfully submitted,

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EXHIBIT A

June 2022 Denial of Petitions for RFS Small Refinery Exemptions

United States Environmental Protection Agency

June 2022 Denial of Petitions for RFS Small Refinery Exemptions

United States Environmental Protection Agency

EPA United States Environmental Protection Agency

EPA-420-R-22-011
June 2022

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EXECUTIVE SUMMARY

Small Refinery Exemption (SRE) Denial and Related Compliance Actions

In this action, the Environmental Protection Agency (EPA or "the Agency") is denying 69 petitions from 33 small refinery petitioners seeking exemption from their Renewable Fuel Standard (RFS) obligations for the 2016–2021 compliance years. This final action (hereinafter the "SRE Denial") is a single action, but it is comprised of the adjudications of 69 SRE petitions.

On December 7, 2021, EPA proposed to deny 65 pending SRE petitions (the "Proposed Denial") based on a proposed revision of EPA's interpretation of Clean Air Act ("CAA" or "the Act") SRE provisions. On April 7, 2022, EPA acted on 36 SRE petitions that were remanded to the Agency by the U.S. Court of Appeals for the D.C. Circuit on December 8, 2021.[1]

In this action, EPA is acting on 69 SRE petitions that remain pending after the April 2022 SRE Denial. EPA has received and considered all the comments received on the Proposed Denial and addresses those comments in this action.

In separate actions, EPA is providing: (1) A supplement to the alternative compliance demonstration issued on April 7, 2022,[2] for 31 small refineries whose SRE petitions EPA initially granted for the 2016–2018 compliance years, but now, on remand, were denied in this action or the April 2022 SRE Denial; and (2) A notice of proposed rulemaking for an alternative RIN retirement schedule for all small refineries for their renewable volume obligations (RVOs or "RFS obligations") for the 2020 compliance year.[3] Under the June 2022 Compliance Action, EPA has determined that, if it were to require these 31 small refineries to comply with their newly created 2016–2018 RFS obligations[4] under the existing compliance scheme, the impact on the RFS program as a whole, in addition to the impacts on the individual small refineries, would be unacceptable due to the unavailability of sufficient RINs to satisfy these new obligations. Thus, that concurrent action provides an alternate compliance approach by which these small refineries can demonstrate compliance with their 2016–2018 RFS obligations that they otherwise would not be able to meet.

The Alternative RIN Retirement Schedule NPRM would provide small refineries with more time to comply with their 2020 RFS obligations by creating quarterly RIN retirement

[1] "April 2022 Denial of Petitions for RFS Small Refinery Exemptions," EPA-420-R-22-006, April 2022 (hereinafter the "April 2022 SRE Denial"). On January 3, 2022, EPA provided notice that the 36 remanded 2018 SRE petitions were again before the Agency, and that EPA was expanding the Proposed Denial to include them and requesting comment on that approach. Memorandum: Scope of Action and Notification," EPA-HQ-OAR-2021-0566-0027.
[2] "June 2022 Alternative RFS Compliance Demonstration Approach for Certain Small Refineries," EPA-420-R-22-012, June 2022 (hereinafter the "June 2022 Compliance Action").
[3] "Renewable Fuel Standard (RFS) Program: Alternative RIN Retirement Schedule for Small Refineries Notice of Proposed Rulemaking" (hereinafter the "Alternative RIN Retirement Schedule NPRM"). A pre-publication version of this proposed rule is available at https://www.epa.gov/renewable-fuel-standard-program/proposed-alternative-rin-retirement-schedule-small-refineries. A small refinery's 2020 RVOs would also include any RIN deficit carried forward from the 2019 compliance year.
[4] The 2018 RFS obligations were newly created by the April 2022 SRE Denial. The 2016 and 2017 RFS obligations are newly created by this action.

deadlines by which a small refinery must comply with certain percentages of its 2020 RFS obligations; it would also expand the range of RIN vintages that a small refinery could use to demonstrate compliance with its 2020 obligations. EPA is proposing this action because small refineries need more flexibility to comply with their RFS obligations given EPA's reasonable delay in deciding SRE petitions and setting the associated RFS compliance deadlines. This proposed action initiates a rulemaking that is separate from EPA's June 2022 SRE Denial and for which EPA is establishing a public comment period.

Grounds for the SRE Denial

The Proposed Denial

EPA issued the Proposed Denial in response to the conclusion of litigation that addressed historical inconsistencies in EPA's treatment of SREs since 2011. First, in *Renewable Fuels Association v. EPA*, the U.S. Court of Appeals for the Tenth Circuit Court found that EPA had exceeded its statutory authority by granting extensions of the SREs held by certain small refineries and remanded those decisions to the Agency for reconsideration. The court held that: (1) In granting exemptions based on economic factors unrelated to compliance with the RFS program, EPA had exceeded its statutory authority to exempt small refineries from their RFS obligations "for the reason of disproportionate economic hardship [DEH]" because the statute authorizes EPA to extend exemptions only where RFS compliance costs are the cause of the small refinery's hardship; (2) EPA had acted arbitrarily and capriciously in granting exemptions without explaining whether and how the subject SRE grants were consistent with EPA's firmly established position that all parties subject to RFS obligations recover their compliance costs through a feature of the market EPA identified as "RIN cost passthrough;" and (3) In order to be eligible to petition for extension of an SRE, a small refinery needed a continuous, uninterrupted exemption history beginning with the CAA section 211(*o*)(9) blanket statutory exemption period for small refineries.

Following the Tenth Circuit's *RFA* opinion, the small refinery intervenors in that case appealed only the holding that, to be eligible for exemption, a small refinery needed a continuous, uninterrupted exemption history. In *HollyFrontier Cheyenne Refining, LLC, et al. v. Renewable Fuels Association, et al*., the Supreme Court held that the term "extension" as used in CAA section 211(*o*)(9)(B) does not include a continuity requirement and reversed the Tenth Circuit opinion on that issue.

After evaluating this jurisprudence, refinery-specific materials submitted by many small refineries to support of their SRE petitions in the wake of the Supreme Court's ruling, years of experience and data collected by implementing the RFS program and SRE provisions, and our exhaustive analysis of how the RFS credit market functions, EPA determined that the Tenth Circuit provided the best reading of the SRE statutory provisions and issued the Proposed Denial, based on EPA's conclusion that small refineries cannot demonstrate they suffer DEH caused by the cost of compliance with the RFS program. EPA proposed the following findings: (1) Regardless of the mechanism by which any obligated party—including small refineries—comply with their RFS obligations, RFS compliance costs are the same for all obligated parties and thus no party bears RFS compliance costs that are disproportionate relative to others' costs;

(2) Any obligated party—including small refineries—recovers their compliance costs through the market price they receive when they sell their fuel products and thus do not bear a hardship created by compliance with the RFS program; and (3) With no disproportionality and no economic hardship, there can be no DEH pursuant to the statute. EPA therefore proposed to revise its CAA statutory interpretation to extend SREs only to small refineries whose claimed DEH is caused by the cost of complying with the RFS program and not by other factors and to deny 65 pending SRE petitions on this basis. Further, EPA proposed to deny SRE petitions submitted by any small refinery that had not received the initial blanket statutory exemption under CAA section 211(*o*)(9).

The Notice-and-Comment Process

Recognizing the complexity of the Agency's past implementation of the SRE provisions, recent litigation, and the significance and potential ramifications of the proposed changes in SRE interpretations to refineries and the entire RFS program, EPA requested comment on the Proposed Denial to ensure that RFS stakeholders and the public had an opportunity to provide input on the proposed shift in interpretation of the SRE statutory provisions, as well as to submit refinery-specific information related to the proposed SRE petition denials. EPA chose to undertake a notice-and-comment process to provide maximum transparency, as we proposed to address past inconsistencies in SRE implementation and new case law providing a better read of the SRE statutory provisions.

As set forth herein, EPA received numerous individual comments from various RFS stakeholders, most of which are available in the public docket for this action; however, some of the comments from petitioning small refineries provided unique, refinery-specific information submitted under claims of confidentiality that are, therefore, being addressed in appendices that will be provided only to the individual commenters. EPA has carefully considered all comments received and provides responses to those comments in Appendix B and in confidential, refinery-specific appendices to this action. While this final action adjudicates 69 SRE petitions for the 2016–2021 compliance years, many small refineries' comments raised arguments and provided data applicable to more than one of their pending SRE petitions. EPA considered and responded to all information relevant to the remanded 2018 SRE petitions in the April 2022 SRE Denial. In this action, EPA considers and responds to comments relating to 69 SRE petitions for the 2016–2021 compliance years.

First, EPA received similar comments from most small refineries and their trade associations challenging the validity of the Proposed Denial's approach to DEH. Many submitted refinery-specific information about their operations, finances, and the fuels markets in which they participate to support their arguments that they should receive SREs. Because the same arguments were repeated by most, if not all, SRE petitioners, EPA presents and responds to them as a group in Section IV.D.3. These comments articulate the following general themes:

(a) Small refineries face unique challenges that prevent them from achieving RIN cost passthrough and EPA must consider their specific circumstances;
(b) EPA's Point of Obligation denial is not relevant to SRE policy because it did not address their situations and does not apply to them;

(c) The Point of Obligation denial is out of date and inapplicable;
(d) Revenue from RIN sales allows large retailers to undercut small refineries;
(e) Large integrated refiners set prices in fuels markets, undercutting small refineries on price because of their market position and because large integrated refiners have lower or no RIN costs;
(f) EPA is incorrect about there being parity between the cost of obtaining a RIN through blending and the cost of buying a RIN on the market;
(g) Single-site refineries are disadvantaged relative to large integrated refiners because they only have access to a limited market; and
(h) Small refineries that produce primarily diesel fuel are at a disadvantage because they cannot blend as much renewable fuel into their product as can refineries that produce gasoline.

After addressing the universal comments described above, EPA presents and responds to unique comments received from a range of RFS stakeholders—including refineries and their trade organizations, biofuel producers and their trade organizations, and a number of local, state, and federal officials—in Appendix B and, where applicable, in confidential, refinery-specific appendices to this action. The comments addressed in Appendix B focus on EPA's notice-and-comment process for proposing and finalizing the SRE Denial, EPA's legal authority to take this final action, and how the SRE Denial may affect the RFS program as a whole. The comments addressed in the refinery-specific appendices focus on information submitted by many refineries under claims of confidentiality regarding their specific operations and finances, and studies commissioned based on such confidential information to evaluate the RFS economic findings described in the Proposed Denial.

After careful consideration of all the comments received as well as all other available information regarding the RFS program, the operation of the RIN market, and the validity of our DEH analysis, EPA is here adopting and applying its proposed SRE statutory interpretations and denying 69 pending SRE petitions.

I. Final Adjudication Summary and Process

This section summarizes EPA's final action and the public process the Agency has followed to reach its decision. EPA has determined that any small refinery seeking an exemption from its RFS obligations must: (1) Demonstrate that any DEH it claims to experience is caused by compliance with the RFS program; and (2) Reconcile any such showing with RIN cost passthrough.[5] EPA has also changed its criteria for assessing a refinery's eligibility to receive an exemption from its RFS obligations; we now require a small refinery to have received the original statutory exemption under CAA section 211(*o*)(9)(A)(i) in order to be eligible to petition for an extension of that exemption, though, consistent with the Supreme Court's holding in *HollyFrontier*,[6] a small refinery need not have received continuous exemptions since the original statutory exemption.[7]

On December 7, 2021, EPA issued the Proposed Denial. On December 8, 2021, the D.C. Circuit remanded 36 2018 SRE petitions.[8] On January 3, 2022, EPA provided notice that it was considering deciding the 36 SRE petitions under the Proposed Denial and requested comment on that approach. On April 7, 2022, EPA denied the 36 2018 SRE petitions consistent with the Proposed Denial. After analyzing the petitions, applying the new approach to DEH, and for the reasons described in this document, EPA is denying 69 pending SRE petitions for the 2016–2021 compliance years. EPA received numerous comments on the process utilized in reaching this final action, and we have responded to those comments in Appendix B.

In addition to denying 69 pending SRE petitions on DEH grounds, EPA is also finding that there are alternative grounds to deny four pending SRE petitions from two refineries, each for the 2019 and 2020 compliance years, because they did not receive the original statutory blanket exemption under CAA section 211(*o*)(9)(A)(i).[9] Additionally, EPA is finding that one of the two refineries is ineligible to petition for an exemption for the 2019 and 2020 compliance years because it exceeded the crude oil throughput limit of 75,000 barrels per day in 2019, thereby making the refinery ineligible for an exemption in those two years pursuant to applicable EPA regulations.[10] EPA received comments from these refineries under claims of confidentiality and has responded to those comments in confidential, refinery-specific appendices. EPA has also responded to generalized comments on eligibility to petition for an SRE in Appendix B.

This final agency action therefore adjudicates 69 pending SRE petitions by: (1) Clearly articulating EPA's current interpretation of its statutory authority to grant SREs; (2) Presenting

[5] This approach is described in more detail in Section III. The RIN cost passthrough phenomenon is explained in Section IV.D.2.
[6] *See HollyFrontier Cheyenne Refining, LLC, et al. v. Renewable Fuels Ass'n, et al.*, 114 S.Ct. 2172, 2181 (2021) (*HollyFrontier*).
[7] Refinery eligibility is explained in Section IV.A.
[8] *See, e.g.*, Order, Doc. No. 1925942, Dec. 8, 2021, *Sinclair Wyo. Refining Co. v. EPA*, No. 19-1196 (consol. with 19-1197) (D.C. Cir.).
[9] While we determine in this action that these two refineries are ineligible to petition for SREs, this determination is made in the alternative, because EPA has denied these four petitions as part of the 69 pending SRE petitions denied by this action on DEH grounds for the reasons described herein. Therefore, even if the refineries are later deemed eligible to petition for exemptions, their four SRE petitions pending before EPA are denied for substantive reasons.
[10] 40 CFR 80.1401 and 80.1441(e)(2)(iii).

our analysis of all available data on RFS costs and market dynamics, including our response to comments received on the Proposed Denial; and (3) Denying 69 pending SRE petitions based on the current statutory interpretation and analysis described herein in a single action. EPA's final action on the pending SRE petitions is based on the legal and factual analysis presented herein, after consulting with the Department of Energy (DOE), and considering the 2011 DOE small refinery study, "other economic factors," and public comments submitted in response to our request for comment on the Proposed Denial.[11]

While this single final action adjudicates 69 SRE petitions, we intend for this adjudication to be severable in these articulated ways. First, we intend for the two distinct statutory interpretations we adopt in this action to be severable. If a reviewing court invalidates our interpretation that DEH must be caused by compliance with the RFS program, our interpretation on eligibility to petition for and receive an exemption would still stand. Second, it is our intent that the separate action we are taking to provide an alternative compliance demonstration be severable from the decision to deny the SRE petitions. While the need for the alternative compliance demonstration flows from this adjudication, each action is separate and independent from the other. This adjudication, consistent with the statute and applicable case law, denies 69 SRE petitions. The separate June 2022 Compliance Action providing compliance flexibility determines how the identified 31 small refineries will demonstrate compliance with their newly created 2016–2018 obligations. As these actions utilize differing authorities and operate independently, we intend for them to be severable.

This document provides a sequential explanation of EPA's current approach to SRE petition evaluation and the data we analyzed to support this approach. It begins, in Section II, by providing background on the RFS program, compliance with the RFS program, and the SRE provisions of that program. Section II also provides a brief history of EPA's approach to evaluating SRE petitions and judicial review of EPA's past SRE decisions. Section III presents the statutory requirements for EPA's evaluation of SRE petitions and EPA's new approach to SRE evaluation. Section IV provides EPA's analysis of the SRE eligibility and petition requirements and statutory construction of the CAA's SRE provisions. It also presents a detailed explanation of RFS market economics including the costs of RFS compliance on obligated parties, and the implications of those costs on DEH. Section IV also includes a description of how EPA satisfied the statutory requirements for this action,[12] then summarizes and responds to the arguments advanced by the petitioning small refineries, and others that commented on the Proposed Denial, as to how and why RFS compliance could cause DEH.[13] Section V describes the separate, concurrent actions EPA is taking to provide certain small refineries with an alternative compliance demonstration for their 2016–2018 RFS obligations and all small

[11] EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2021-0566. Supporting materials for this action and comments received on the Proposed Denial can be found there.

[12] In evaluating SRE petitions, CAA section 211(*o*)(9)(B)(ii) requires the Administrator, in consultation with the Secretary of Energy, to consider the findings of the DOE study performed under CAA section 211(*o*)(9)(A)(ii)(I) and other economic factors. A memorandum summarizing the consultation between EPA and DOE can be found in the docket for this action.

[13] A summary of the substantive comments EPA received that were not submitted under claims of confidentiality, and EPA's responses to those comments, can be found in Appendix B. EPA has responded to confidential information submitted by the petitioning small refineries in their comments through confidential, refinery-specific appendices to this action.

refineries with an alternative RIN retirement schedule for their 2020 RFS obligations. Lastly, Section VI provides EPA's conclusion to deny 69 SRE petitions based on all the information presented herein and information regarding judicial review of this final action.

II. Background

This section describes the RFS program in general, including the SRE provisions of the program, as well as how EPA has implemented the SRE provisions in the past.

A. RFS Program

In 2005 and 2007, Congress amended the CAA to establish the RFS program.[14] Congress enacted this program to "move the United States toward greater energy independence and security" and to "increase the production of clean renewable fuels," among other purposes.[15] The statute specifies increasing annual "applicable volumes" for four categories of renewable fuel for the transportation sector: total renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel (BBD).[16] The specified applicable volumes for renewable fuel, advanced biofuel, and cellulosic biofuel are prescribed for each year through 2022, and for BBD through 2012; EPA must determine the applicable volumes for subsequent years.[17]

Congress directed EPA to establish a compliance program and annual percentage standards to ensure that the applicable volumes are used each year.[18] To calculate these percentage standards, EPA divides the applicable volume for each type of renewable fuel established in the CAA or determined by EPA[19] by the Energy Information Administration's estimate of the national volume of transportation fuel that will be introduced into commerce in that year.[20] For example, if EPA set the percentage standard for total renewable fuel at 10%, an obligated party that produced 1,000,000 gallons of gasoline one year would need to ensure that 100,000 gallons of renewable fuel was introduced into the market that year.

Congress authorized EPA to place the obligation to satisfy the applicable percentage standards on "refineries, blenders, and importers, as appropriate."[21] By regulation, EPA determined that refineries and importers of gasoline and diesel fuel must fulfill the requirements of the RFS program.[22] These "obligated parties" apply the percentage standards to their own annual production (or importation) of gasoline and diesel fuel to calculate their individual renewable volume obligation (RVO or "RFS obligation") for each category of renewable fuel. Thus, the RFS standards place the same obligation on all producers and importers of gasoline and diesel fuel in proportion to their production (or importation) volume.

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[14] *See* Energy Policy Act of 2005 (EPAct), Pub. L. No. 109-58, 119 Stat. 594; Energy Independence and Security Act of 2007 (EISA), Pub. L. No. 110-140, 121 Stat. 1492
[15] 121 Stat. 1492.
[16] CAA section 211(*o*)(2)(B)(i)(I)-(IV).
[17] *Id*.
[18] *Id*.; CAA section 211(*o*)(2)(A)(i), (iii), and (3)(B)(i).
[19] CAA section 211(*o*)(2)(B), (7)(A), and (7)(D)-(F).
[20] CAA section 211(*o*)(3)(A).
[21] CAA section 211(*o*)(3)(B)(ii)(I).
[22] 40 CFR 80.1406. For simplicity this document focuses on refiners; however, the same concepts of RIN costs, RIN cost passthrough, and RIN discount for blended fuel also apply to importers.

B. Renewable Identification Numbers (RINs)

The CAA requires EPA to establish a credit trading program allowing obligated parties that acquire excess credits in one year to apply credits toward compliance in a subsequent year or to sell the credits to another obligated party for use in its own compliance.[23] In conjunction with EPA's authority under CAA section 211(*o*)(2)(B) to put in place implementing regulations for the RFS program, and in compliance with CAA section 211(*o*)(5), EPA designed a flexible and comprehensive system of tradable credits (Renewable Identification Numbers or RINs). Section 211(*o*)(5) required only that EPA allow for the generation and trading of credits for obligated parties that refine, blend, or import excess renewable fuel. The RIN system fulfills that statutory provision, and also creates a fungible system of credit trading by not just obligated parties but also renewable fuel producers and others, creating an open, liquid market for RINs to allow obligated parties to comply with their RFS obligations.

Under the RIN system, producers and importers of renewable fuel generate RINs for each gallon of renewable fuel they import or produce for use in the United States.[24] RINs are "assigned" to batches of renewable fuel by the producers and importers of renewable fuel.[25] RINs may be "separated" from those batches by a party that blends the renewable fuel into gasoline or fossil-based diesel fuel to produce a transportation fuel, heating oil, or jet fuel.[26] Once separated, RINs may be kept for compliance or sold.[27] Obligated parties may use a RIN to demonstrate compliance for the compliance year in which the RIN is generated, or for the following compliance year (for up to 20% of an obligated party's obligations).[28] An obligated party may not use a RIN for any subsequent compliance years because the RIN has expired, is now invalid, and therefore not useable for compliance purposes.[29] Obligated parties meet their RFS obligations by accumulating RINs and "retiring" them in an annual compliance demonstration.[30] The statute and RFS regulations also provide that, in lieu of retiring the requisite number of RINs to show compliance for a particular compliance year, an obligated party may choose to carry forward a RIN deficit into the following compliance year under certain conditions.[31] An obligated party may carry forward a RIN deficit equal to its full or partial RFS obligations in a given compliance year, but must satisfy the deficit in full the subsequent compliance year, along with the obligations for that subsequent year in full (i.e., the obligated party cannot carry forward the subsequent compliance year's obligations as a deficit).

The price of the RIN is expected to reflect the marginal difference between the supply price for the renewable fuel and the demand price for the renewable fuel, which is the price the market is willing to pay for the renewable fuel as a transportation fuel.[32] In other words, if it

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[23] CAA section 211(*o*)(5)(A)-(C).
[24] 40 CFR 80.1426(a).
[25] 40 CFR 80.1426(e).
[26] 40 CFR 80.1429(b).
[27] 40 CFR 80.1425–29.
[28] 40 CFR 80.1427(a)(6), 80.1428(c), and 80.1431(a).
[29] 40 CFR 80.1427(a)(6), 80.1428(c), and 80.1431(a).
[30] 40 CFR 80.1427(a).
[31] CAA section 211(*o*)(5)(D), 40 CFR 80.1427(b).
[32] *See* "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effect," Dallas Burkholder, Office of Transportation and Air Quality, US EPA, May 14, 2015, pg. 7 (hereinafter the "Burkholder memo").

costs more to produce the renewable fuel than consumers are willing to pay for it, the RIN price would be expected to match that cost difference so that, in the end, the fuel price for consumers is the same.[33] The price of the RIN, therefore, provides the "discount" on the renewable fuel necessary for the market to consume the renewable fuel. This dynamic functions to incentivize blending and use of the renewable fuel up to the mandated volume even if the market demand price for the renewable fuel would not cover the cost of its production. In this way, the RIN price facilitates greater use of renewable fuel as the RFS program was designed to do. Throughout this document we refer to the cost difference described here as the "RIN discount."

The design of the RIN trading system enabled parties that were already producing and blending renewable fuel to continue to do so. They could then sell excess RINs to obligated parties that lacked blending capability. This open trading market for RINs provides three main benefits. First, it allows all obligated parties, regardless of size or situation, equal ability to comply with their RFS obligations immediately without having to invest capital or resources. They can contract with others already providing the services and/or go into the open market to acquire RINs. Second, this system averts the need for each individual obligated party to purchase and blend renewable fuel into its own gasoline and diesel fuel.[34] Thus, the program was designed to "preserve[] existing business practices for the production, distribution, and use of both [petroleum] and renewable fuel."[35] Third, it levels the playing field for the cost of compliance, with all obligated parties having access to the RINs needed for compliance at the same cost, regardless of whether they acquire the needed RINs by purchasing them on the open market or by blending renewable fuel themselves. The RFS program, through the RIN system, was designed to avoid creating DEH based on whether compliance is achieved through blending of renewable fuel or through purchasing RINs.

C. RFS Compliance and RIN Market Dynamics

Congress structured the RFS program to impose proportional requirements on all obligated parties, including small refineries. The RFS obligations are established as a percentage of an obligated party's production (or importation) of gasoline and diesel fuel;[36] therefore, by definition, the obligation is proportional to the quantity of gasoline and diesel fuel that a party produces (or imports) each year.[37] Obligated parties must acquire RINs to meet their RFS obligations,[38] either through their own blending of renewable fuel or through the purchase of

[33] Throughout this document we use the term "consumer" to refer to wholesale and retail consumers alike as RIN prices pass through both levels of the market. Where we are specifically describing the sale from terminals or refinery racks we refer to the purchaser of the fuel at wholesale as the "wholesale purchaser."

[34] Complying with such a requirement would have been difficult, if not impractical for obligated parties, as different renewable fuels are blended into gasoline and diesel fuel and pipeline operators normally do not allow gasoline or diesel fuel containing renewable fuel to be transported through their pipelines.

[35] "RFS1 Summary and Analysis of Comments," EPA-420-R-07-006 at 1-6, April 2007.

[36] *See supra*, Sections II.A and B.

[37] *See* CAA section 211(*o)*(3)(B); 40 CFR 80.1407.

[38] For purposes of the RFS program, transportation fuel is defined as "fuel for use in motor vehicles, motor vehicle engines, nonroad vehicles, or nonroad engines (except fuel for use in ocean-going vessels)." 40 CFR 80.1401. The regulations at 40 CFR 80.1406 establish that "[a]n obligated party is any refiner that produces gasoline or diesel fuel within the 48 contiguous states or Hawaii, or any importer that imports gasoline or diesel fuel into the 48 contiguous states or Hawaii during a compliance period." The regulations at 40 CFR 80.1407 establish that, in practice, an RFS

RINs from other parties that produce or blend renewable fuel. Obligated parties must demonstrate compliance annually by retiring RINs requisite with their RFS obligations.

The cost of acquiring RINs is the same for all parties regardless of whether the RINs needed to comply are acquired by blending renewable fuel or by procuring RINs from others.[39] This occurs through the phenomena of RIN discount and RIN cost passthrough, introduced in the Executive Summary and explained in detail throughout this document. Parties that blend more renewable fuel than they need to satisfy their RFS obligations may show an apparent revenue source from the sale of those RINs. However, in the competitive fuels market, parties that sell RINs acquired through blending renewale fuels must discount the price of their blended fuel by the value of the RINs associated with the renewable fuel in the fuel blend.[40] If parties that blend renewable fuel into transportation fuel do not discount the price of their blended fuel by the market price of the RIN, then their blended fuel would be priced higher than the same fuel where the producer has discounted the fuel by the price of the RIN, and the non-discounted fuel would never sell. Therefore, in order to price their products competitively in the fuels market, parties that blend renewable fuel into transportation fuel must reduce the price of their blended fuel by the price of the RIN (RIN discount). Thus, the revenue from the RIN sale is used to offset the discounted sales price of the blended fuel and is passed through to consumers through reduced market prices for the blended fuels. Moreover, the RFS program imposes the same cost on all parties that produce (or import) gasoline or diesel fuel nationwide[41] because the market price for all gasoline and diesel fuel increases to reflect this RIN price (RIN cost passthrough), much as it would increase in response to a new tax. This relationship between RIN prices and the market prices for blended fuels was first analyzed by EPA in 2015.[42]

In this document we refer to an obligated party's ability to recover the cost of the RINs it acquires for compliance as "RIN cost passthrough," since obligated parties are passing these costs through to wholesale purchasers. We refer to the lower prices received for blended fuel (i.e., gasoline and diesel fuel blended with renewable fuel) enabled by the sale of RINs as "RIN discount," since the sale of the RIN allows blenders to discount the price of the blended fuel. We find that all types of obligated parties have the same cost to acquire RINs, and that all types of obligated parties recover these costs when they sell the gasoline and diesel fuel they produce (or import) at the market price (RIN cost passthrough). Further, we find that blenders use revenue

obligation is imposed only on gasoline and ultra-low-sulfur diesel (ULSD) used in motor vehicles, nonroad engines, locomotives, and marine engines (historically called MVNRLM diesel fuel). Such gasoline and diesel fuel only incur an obligation if used in the RFS "covered location" as defined in 40 CFR 80.1401. Throughout this document we refer to fuel that incurs an RFS obligation (i.e., gasoline and diesel fuel) as "obligated fuel" and fuel that does not incur an RFS obligation (e.g., heating oil, jet fuel) as "non-obligated fuel."

[39] *See infra*, Section IV.D.2.

[40] Burkholder Memo, pg. 24.

[41] In this document, the term "nationwide" refers to the RFS "covered location," which the RFS regulations define as "the contiguous 48 states of the United States, Hawaii, and any state or territory that has received an approval from the Administrator to opt-in to the RFS program under §80.1443." 40 CFR 80.1401.

[42] Burkholder Memo, pg. 22.

from RIN sales to discount the price of blended fuel (RIN discount). We therefore conclude that compliance with the RFS program cannot cause DEH for small refineries.[43]

D. History of SREs

A small refinery is defined by the CAA as "a refinery for which the average aggregate daily crude oil throughput for a calendar year . . . does not exceed 75,000 barrels."[44] Both the original RFS statutory provisions enacted pursuant to the Energy Policy Act (EPAct) and the current text of the statute as amended by the Energy Independence and Security Act (EISA) provided all small refineries an initial blanket exemption from their obligations under the RFS program until calendar year 2011.[45] Under EPA's regulations, small refineries that were producing either "gasoline" under RFS1[46] or "transportation fuel" under RFS2[47] were required to notify EPA that they qualified for the temporary exemption by submitting verification letters stating their average crude oil throughput rate during the applicable qualification period.[48] Further discussion of EPA's past and current interpretation of small refinery eligibility criteria is provided in Section IV.A.

The CAA includes two additional provisions regarding extensions of the SRE for the period after the initial blanket exemption expired:

1) Under the first statutory mechanism, applicable to 2011 and 2012, if DOE determined, through a study mandated under the CAA, that compliance with the RFS requirements would impose DEH on a small refinery, EPA was required to extend the small refinery's exemption by at least two years.[49] In 2009, DOE completed its study and found that, in a liquid and competitive RIN market, compliance with the RFS requirements would *not* impose DEH on any small refinery. Subsequently, some members of Congress directed DOE to revisit the 2009 DOE Small Refinery Study[50] and in so doing to solicit input from the small refineries themselves.[51] In 2011, DOE completed a second study that used the small refinery input to develop a set of financial and operational metrics intended to inform DOE whether a small refinery was likely to experience DEH.[52] Contrary to the

[43] The economic theory supporting EPA's findings on RIN cost passthrough and the RIN discount, the market data we have evaluated in reaching these findings, and more detailed explanations on how various parties in the fuels market are affected by the RFS program are discussed in Section IV.D.2.
[44] CAA section 211(*o*)(1)(K). Thus, a "small refinery" is determined based on the annual volume of crude oil processed at the refinery, not on the size of the company that owns the refinery. Indeed, many "small refineries" are owned by large multi-national companies.
[45] CAA section 211(*o*)(9)(A)(i).
[46] "Regulation of Fuels and Fuel Additives: Renewable Fuel Standard Program," 72 FR 23900 (May 1, 2007).
[47] 40 CFR 80.1441(a)(1).
[48] 72 FR 23900, 23924 (May 1, 2007); 40 CFR 80.1441(b). EPA's regulations allowed for small refineries that had submitted verification letters to qualify for the original statutory exemption under EPAct / RFS1 to also qualify under the SRE provisions in EISA / RFS2. The small refineries were not required to re-certify their throughput to maintain eligibility under the RFS2 program.
[49] CAA section 211(*o*)(9)(A)(ii)(II).
[50] "EPACT 2005 Section 1501 Small Refineries Exemption Study," Office of Policy and Internation Affairs, U.S. Department of Energy, February 2009 (hereinafter the "2009 DOE Study").
[51] Senate Report 111-45, at 109 (2009).
[52] "Small Refinery Exemption Study, An Investigation into Disproportionate Economic Hardship," Office of Policy and International Affairs, U.S. Department of Energy, March 2011 (hereinafter the "2011 DOE Study").

2009 DOE Study, the 2011 DOE Study did not assume that RFS compliance costs would be the same for all refineries in a competitive market, and instead, assumed that small refineries could face higher compliance costs by purchasing RINs when compared to large integrated refiners that would acquire RINs through blending. Furthermore, neither study considered the possibility that refineries would recover the cost of RINs through higher prices for their products.[53] DOE organized the metrics into a two-part matrix with sections addressing "disproportionate impacts" and "viability impairment."[54] DOE also developed a scoring protocol for the matrix that required the score in both sections of the matrix to exceed an established threshold for DOE to find that DEH existed at a given small refinery. Using this regime, the 2011 DOE Study found that DEH existed at 14 small refineries, but again, assumed that small refineries bore a higher cost of compliance in the acquisition of RINs and that no refineries recovered the RIN compliance costs in the prices for their products. As required by the statute, EPA granted those small refineries a two-year extension of the original exemption (through 2012).

2) The second statutory mechanism provided that small refineries "may at any time petition the Administrator for an extension of the exemption under [section 211(*o*)(9)(A)] for the reason of [DEH]."[55] The Supreme Court recently opined on the meaning of "extension" in the context of CAA section 211(*o*)(9)(B), overturning one holding in the Tenth Circuit's *RFA* opinion that required a small refinery to have continuous exemptions to be eligible for further exemption extensions.[56] When evaluating SRE petitions, the Act directs the Administrator, "in consultation with the Secretary of Energy," to "consider the findings of the study under [CAA section 211(*o*)(9)(A)(ii)(I)] and other economic factors."[57] After DOE conducted its 2011 DOE Study and EPA granted two-year extensions to the 14 refineries the study identified, additional refineries came forward to EPA to seek exemptions for 2011 and 2012. EPA shared these new petitions with DOE, which applied the matrix scoring methodology developed in the 2011 DOE Study and shared the scoring results with EPA. EPA chose to satisfy the statutory requirements for consultation and consideration of the 2011 DOE Study by using DOE's scoring results in its evaluation of each SRE petition. Consistent with the extensions of exemptions it granted to the 14 small refineries through the 2011 DOE Study, EPA then decided to grant an extension of the exemption to an additional ten small refineries for 2011, and to nine for 2012. Since 2013, EPA has shared all incoming SRE petitions and supplemental information with DOE.[58]

Since 2013, DOE and EPA have changed their treatment of the scoring matrix several times as informed by direction from members of Congress, court decisions, and changing

[53] *See infra*, Section IV.D.
[54] 2011 DOE Study at 32–36.
[55] CAA section 211(*o*)(9)(B)(i).
[56] *See HollyFrontier*, 114 S.Ct. at 2181. Consistent with that decision, small refineries that received the initial blanket exemption but have not received continuous exemption extensions remain eligible to petition for future exemptions.
[57] CAA section 211(o)(9)(B)(ii).
[58] DOE continued to make findings to EPA based on its scoring matrix, which does not assess the degree to which small refineries recover their RFS compliance costs in higher prices for their refined products (i.e., it does not consider RIN cost passthrough). *See infra*, Section IV.C, for a description of EPA's current consultation process.

administration policies. For DOE, the most significant change in approach did not involve the matrix evaluation or the scoring methodology. Rather, in 2016 DOE modified the finding it provided to EPA for a given score on the matrix (i.e., as described below, DOE implemented new direction from Congressional report language to recommend 50% exemptions, as opposed to the exclusively 0% or 100% recommendations in prior years). For EPA, the changes involved the weight EPA afforded DOE's findings relative to the "other economic factors" EPA considered when evaluating SRE petitions. However, in none of these years did EPA require small refineries to demonstrate that they faced RFS compliance costs that were higher than for other obligated parties (i.e., disproportionate), nor did EPA require a demonstration that the hardship was caused by compliance with the RFS program, including an explanation for how compliance costs harmed them in a market characterized by RIN cost passthrough.

In some prior decisions, DOE and EPA concluded that DEH existed only when a small refinery experienced both disproportionate impacts and viability impairment, as measured by the matrix. In response to concerns that the two agencies' threshold for establishing DEH was too stringent, Consolidated Appropriations Act report language directed DOE to recommend 50% relief when a small refinery's score on either section of the matrix exceeded the applicable threshold.[59] Subsequent Senate Report language directed EPA to follow DOE's recommendation, and to report to Congress if it did not.[60] This direction was not included in the Explanatory Statements for the 2022 fiscal year appropriations bill.[61]

The Congressional direction, along with changing administration policies, prompted EPA to change its approach to finding DEH at a small refinery. Whereas EPA had previously exercised discretion in evaluating "other economic factors" in its analysis of a small refinery's petition, EPA changed its approach to instead rely on DOE's findings and began granting a full exemption whenever DOE findings indicated that the small refinery could receive at least 50% relief, based on its matrix score.[62] Under this approach, EPA exempted small refineries from their RFS obligations solely based on this DOE finding, which was derived from metrics that assumed some refineries faced higher RFS compliance costs and that did not account for RIN cost passthrough. Thus, neither EPA nor DOE required any demonstration that the DEH a small

[59] Consolidated Appropriations Act, 2016, Pub. L. No. 114-113 (2015). The Explanatory Statement is available at 161 Cong. Rec. H9693, H10105 (daily ed. Dec. 17, 2015): "If the Secretary finds that either of these two components exists, the Secretary is directed to recommend to the EPA Administrator a 50 percent waiver of RFS requirements for the petitioner."

[60] Senate Report 114-281, 71 ("When making decisions about small refinery exemptions under the RFS program, the Agency is directed to follow DOE's recommendations which are to be based on the original 2011 Small Refinery Exemption Study prepared for Congress and the conference report to division D of the Consolidated Appropriations Act of 2016. Should the Administrator disagree with a waiver recommendation from the Secretary of Energy, either to approve or deny, the Agency shall provide a report to the Committee on Appropriations and to the Secretary of Energy that explains the Agency position. Such report shall be provided 10 days prior to issuing a decision on a waiver petition.").

[61] Consolidated Appropriations Act, 2022, Pub. L. No. 117-103 (2022). ("The Committees recognize that the Renewable Fuel Standard (RFS) under Clean Air Act Section 211(*o*)(9) provides that EPA may exempt small refineries from compliance with the RFS in certain circumstances and that a small refinery "may at any time petition the Administrator for an extension of the exemption … for the reason of disproportionate economic hardship.")

[62] We note that under this approach, EPA granted full SREs to some very profitable refineries. A substantial number of small refineries that showed no viability impairment on the matrix received a 50% waiver finding from DOE, based only on the small refinery's disproportionate impacts score.

refinery claimed to experience was due to the RFS program. Nor did EPA reconcile this reasoning with EPA's own finding that the costs of RINs used for compliance with the RFS program are the same for all obligated parties and passed through by all obligated parties to consumers (RIN cost passthrough).

EPA's approach to evaluating SRE petitions has been challenged several times by small refineries and other parties in different U.S. Courts of Appeals, as well as in the Supreme Court.[63] The approach to evaluating DEH we apply in this action is informed by the outcome of the *RFA* litigation in the Tenth Circuit. Biofuels groups led by the Renewable Fuels Association challenged EPA's actions in granting three individual SREs, and the affected small refineries intervened on EPA's behalf.[64] The court vacated and remanded EPA's actions for three reasons. First, under the Tenth Circuit's reading of the CAA, a small refinery would be eligible for SRE relief only if it has received extensions of the initial exemption in every year since 2010.[65] Second, the court found that EPA may grant relief only when it finds that the small refinery would suffer DEH caused by compliance with the RFS program and not due, even in part, to other factors.[66] Third, the court held that EPA had acted arbitrarily and capriciously by failing to explain how granting the exemptions was consistent with the Agency's longstanding findings on RIN cost passthrough.[67]

After the Tenth Circuit's *RFA* opinion, the small refinery intervenors petitioned the Supreme Court for a writ of certiorari, appealing only the Tenth Circuit's first holding that, in order to be eligible for exemption, a small refinery needed a continuous, uninterrupted exemption history.[68] The Supreme Court granted the petition for a writ of certiorari and reviewed the Tenth Circuit's holding. EPA—which changed its prior litigation position—and RFA filed briefs in opposition, arguing that the Court should uphold the Tenth Circuit's ruling. On June 25, 2021, the Supreme Court held that the term "extension" as used in CAA section 211(*o*)(9)(B) does not include a continuity requirement and reversed the Tenth Circuit opinion only on that issue.[69] The Supreme Court did not review the other two holdings in *RFA* as those were not appealed by the small refineries, and on July 29, 2021, the Tenth Circuit issued its mandate in *RFA*. On August 19, 2021, EPA filed a motion for clarification regarding the legal effect of the court's mandate. The Agency stated that, if the court concluded no further clarification was needed, EPA would proceed with its understanding that the alternative holdings of RFA remain in effect and the SRE decisions at issue in *RFA* are remanded to EPA without vacatur.[70]

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[63] *See e.g., Hermes Consol., LLC v. EPA*, 787 F.3d 568 (D.C. Cir. 2015); *Lion Oil Co. v. EPA*, 792 F.3d 978 (8th Cir. 2015); *Sinclair Wyoming Refining Co. v. EPA*, 887 F.3d 986 (10th Cir. 2017); *Ergon-West Virginia, Inc. v. EPA*, 896 F.3d 600 (4th Cir. 2019) (*EWV-I*); *Ergon-West Virginia, Inc. v. EPA*, 980 F.3d 403 (4th Cir. 2020) (*EWV-II*); *Renewable Fuels Ass'n, et al. v. EPA*, 948 F.3d 1206 (10th Cir. 2020) (*RFA*); *Renewable Fuels Ass'n., et al. v. EPA*, No. 19-1220 (D.C. Cir.).
[64] *RFA* at 1206.
[65] *RFA* at 1244–49.
[66] *Id.* at 1253–54.
[67] *Id.*
[68] Pet. for Writ of Certiorari at (i), *HollyFrontier*.
[69] *HollyFrontier*, 141 S.Ct. at 2183.
[70] EPA's Motion for Clarification of the Court's July 29, 2021 Mandate at 2, *RFA*, 948 F.3d 1206 (10th Cir. August 19, 2021).

On August 26, 2021, the court denied EPA's motion.[71] Accordingly, EPA considers the remaining holdings of *RFA* to remain in effect, as explained to the court in its motion.

After the Supreme Court issued its opinion in the *HollyFrontier* case, EPA met with several of the petitioning small refineries in individual meetings,[72] received additional supplemental information from petitioning small refineries,[73] informed all petitioning small refineries of the opportunity to submit additional information to EPA for consideration,[74] and conducted an open meeting with the small refineries, inviting them to participate and provide feedback.[75] EPA then issued its Proposed Denial[76] on December 7, 2021, which initiated a public comment period allowing all interested parties to inform this final analysis and decision.[77] We especially sought additional information that would support or refute the proposed finding that small refineries do not experience DEH *caused* by compliance with the RFS program. We also requested information demonstrating that the cost of compliance with the RFS program is the same for all obligated parties and is passed on to consumers.

On December 8, 2021, the U.S. Court of Appeals for the D.C. Circuit granted EPA's motion for voluntary remand without vacatur of EPA's final action granting or denying 36 SRE petitions for the 2018 compliance year and ordered EPA to issue new decisions by April 7, 2022. EPA had requested remand without vacatur to reconsider the final action in light of the intervening judicial opinions and to provide a more robust explanation for any action taken on remand.[78] After the court granted EPA's motion for remand, EPA notified the 2018 SRE petitioners of the remand via emails to each individual petitioner, requesting comment on "whether or not to include those 36 petitions under the Proposed Denial of other pending SRE petitions or to adjudicate the petitions separately," and inviting comment on "any aspect of this issue."[79] On April 7, 2022, EPA denied the 36 remanded SRE petitions for the 2018 compliance year. EPA is now taking final action on 69 SRE petitions consistent with the April 2022 SRE Denial and the Proposed Denial.

[71] Order, *id*. (10th Cir. August 26, 2021).
[72] *See* "Memorandum on EPA Meetings with Individual Small Refinery Petitioners Between June 25, 2021, and December 7, 2021," available in the docket for this action.
[73] These supplemental materials were submitted under claims of confidentiality and are, therefore, not included in the public record. Where the supplemental information was not confidential or such that EPA could aggregate and summarize it, we have done so and provided this information and our responses to it in Appendix B. We have also responded to confidential information through confidential, refinery-specific appendices to this action.
[74] Email from Karen Nelson, EPA, sent bcc to all SRE petitioners (August 17, 2021) (email on record with EPA).
[75] Email from Byron Bunker, EPA, with meeting invite sent bcc to all SRE petitioners (August 16, 2021) (email on record with EPA).
[76] "Proposed RFS Small Refinery Exemption Decision," EPA-420-D-21-001, December 2021 (hereinafter the "Proposed Denial").
[77] 86 FR 70999 (December 7, 2021).
[78] *See, e.g.*, EPA's Motion for Voluntary Remand Without Vacatur, *Sinclair Wyoming Refining Co. v. EPA*, No. 19-1196 (D.C. Cir. August 25, 2021), pg. 5.
[79] "Memorandum: Scope of Action and Notification," EPA-HQ-OAR-2021-0566-0027.

III. EPA's Approach to Determining DEH When Evaluating SRE Petitions

This section describes EPA's approach to evaluating SRE petitions based on DEH, as explained in more detail in the remainder of this document. Section 211(*o*)(9)(B)(i) of the CAA authorizes the EPA Administrator to temporarily exempt small refineries from their RFS obligations for the reason of DEH. The statute directs EPA, in consultation with DOE, to consider the DOE Study and other economic factors in evaluating SRE petitions. The statute does not define "disproportionate economic hardship" and identifies no particular "economic factors" to be considered, giving EPA "substantial discretion" for purposes of implementing these exemption provisions.[80] EPA, however, must interpret these provisions in a reasonable manner, consistent with the purpose of the statutory provisions at issue.

In the past, EPA's approach to interpreting these statutory provisions and evaluating SRE petitions was that a small refinery could receive an exemption from its RFS obligations by demonstrating it was experiencing DEH for any reason, including reasons unrelated to RFS compliance.[81] In this action, EPA is applying the approach proposed on December 7, 2021, and adopted in the April 2022 SRE Denial, requiring the small refinery to demonstrate that compliance with the RFS program is the cause of the DEH experienced by the small refinery. EPA has previously performed analyses and reviewed academic studies on the RIN market that verify the passthrough of RFS compliance costs to wholesale purchasers. However, our prior approach to evaluating SRE petitions did not require a showing that DEH was caused by RFS compliance because we concluded that our consideration of "other economic factors" extended beyond economic factors addressing DEH caused by RFS compliance. The Tenth Circuit in *RFA* determined that EPA's prior approach was contrary to the language of the CAA authorizing exemptions only due to DEH *caused by* compliance with the requirements of the RFS program.[82] Under our current approach, a small refinery must demonstrate a direct causal relationship between its RFS compliance costs and the DEH it alleges; assertions regarding other real but unrelated financial difficulties a small refinery may be experiencing will not satisfy this requirement. Additionally, a small refinery must demonstrate how its specific RFS compliance costs are disproportionate compared to other refineries' RFS compliance costs and are of sufficient magnitude to warrant the exemption. EPA has weighed several considerations in developing this new approach and this interpretation is consistent with the language of the Act, the purpose of the SRE provisions, and is the most reasonable approach for implementing the RFS program.[83]

Our change in approach is primarily informed by the *RFA* opinion, which laid out a rationale for the Tenth Circuit's conclusion that the statutory SRE provisions require DEH to be caused by RFS compliance.[84] Additionally, the court in *RFA* held that EPA had acted arbitrarily

[80] *Hermes*, 787 F.3d at 575 ("The statute gives no further instruction and identifies no particular economic factors or metrics to be considered. That sort of statutory silence about the particular factors that an agency must consider conveys 'nothing more than a refusal to tie the agency's hands' (internal citation omitted). As long as EPA consults with DOE and considers the 2011 Study and 'other economic factors,' EPA retains substantial discretion to decide how to evaluate hardship petitions.").
[81] *See supra*, Section II.D.
[82] *RFA*, 948 F.3d at 1253–54.
[83] *See infra*, Section IV.D.1.
[84] *RFA*, 948 F.3d at 1253–54.

and capriciously when the Agency ignored the relevant evidence in granting three SREs without addressing EPA's long-standing position that RIN costs are passed through by refineries and ultimately borne by consumers. After review of the court's decision, EPA agrees that these holdings both reflect a better interpretation of the Act and comport with EPA's longstanding conclusions regarding RIN cost passthrough.[85]

Our change in approach is also supported by DOE's definition of DEH in the 2011 DOE Study. Under the CAA, DOE was directed to "conduct for the Administrator a study to determine whether compliance with the requirements of [the RFS] would impose a [DEH] on small refineries."[86] In the 2011 DOE Study, DOE stated that DEH "must encompass two broad components: a high cost of compliance relative to the industry average, and an effect sufficient to cause a significant impairment of the refinery operations."[87] In other words, for a small refinery to demonstrate DEH, it must have disproportionate RFS compliance costs and actual economic hardship due to those disproportionate RFS compliance costs. The approach adopted in the April 2022 SRE Denial, and applied in this action, aligns with DOE's definition: EPA's analysis shows that the costs of compliance with the RFS program through blending or buying RINs are the same; therefore, small refineries do not have disproportionate RFS compliance costs.[88] Additionally, the RIN cost passthrough analysis demonstrates that there is no economic hardship caused by RFS compliance costs; therefore, no small refinery experiences DEH as a result of compliance with the RFS program.[89] EPA now has data to demonstrate that the assumption DOE relied on in the 2011 DOE Study that RINs generated through blending renewable fuels would be free to those generating them—whereas RINs purchased through the market would represent a disproportionately high costs of compliance on obligated parties that complied that way—is false.[90]

EPA also considered "other economic factors" in evaluating whether a small refinery's RFS compliance costs cause DEH. While the CAA does not require EPA to consider any particular number or types of economic factors, it does require that DEH be caused by compliance with the RFS program. Thus, it is clear that the "other economic factors" EPA may consider when evaluating SRE petitions must still be related to determining whether the small refinery's compliance with its RFS obligations is what caused its alleged DEH. EPA may not consider economic factors in its evaluation of SRE petitions that may show a small refinery is struggling financially when those struggles are unrelated to its RFS compliance. By performing the analyses described in Section IV.D.2, and in the responses to comments in Appendix B and in the confidential, refinery-specific appendices, EPA has evaluated and considered many "other economic factors," including, but not limited to, the dynamics and characteristics of the fuels and RIN markets, publicly available price data, confidential financial and other refinery-specific data submitted by the petitioning small refineries, and all the data other commenters submitted on the Proposed Denial. Fundamentally, EPA has reviewed all the information the small refineries and other interested parties submitted to ensure the Agency has considered all the appropriate "other

[85] *See infra*, Section IV.D.2.
[86] CAA section 211(*o*)(9)(A)(ii)(I).
[87] 2011 DOE Study at 3.
[88] *See infra*, Section IV.D.2.
[89] *Id*.
[90] *See infra* Section IV.D.2.

economic factors" provided in determining that small refineries do not experience DEH caused by RFS compliance.

Using this new approach, we evaluated the information and data available to us, including data we received responding to our request for comment, to assess whether any of the petitioning small refineries demonstrated DEH. The data confirm that the market-based design of the RFS program with the RIN system for compliance has equalized the cost of compliance among all market participants, making it highly unlikely any one refinery would face a disproportionate cost of compliance. We have evaluated an extensive amount of data and available literature, including academic and commissioned studies submitted by commenters, and our analysis shows that the cost of RINs is the same whether refineries acquire the RINs by blending renewable fuel or by buying RINs on the open market.[91] The data and available literature also informed our finding that RFS compliance costs are passed through in the price of refined products. Therefore, considering all of this information and analysis as more fully explained in later sections of this document, we find that no small refinery experiences DEH due to its compliance with the RFS program.

As described in the April 2022 SRE Denial, when an agency changes its position, it must "provide a reasoned explanation for its action" and "display awareness that it is changing position."[92] In doing so, EPA does not need to show "that the reasons for the new policy are *better* than the reasons for the old one; it suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better, which the conscious change of course adequately indicates."[93] The approach explained in this final action is reasonable as it is supported by the language and construction of the CAA and data analyses performed by EPA and independent parties.[94] For the reasons described herein, EPA believes that this approach is the best interpretation of—and the most reasonable way to implement—the statutory SRE provisions. Therefore, we apply it here.

[91] *See infra*, Section IV.D.2.
[92] *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).
[93] *Id*. (emphasis in the original).
[94] *See infra*, Section IV.D.

IV. EPA Evaluation

This section explains in detail EPA's evaluation of the 69 SRE petitions on which it is taking final action, including its evaluation of eligibility for the exemption, of DEH, and of other economic factors.

A. Eligibility to Petition for Extension of a Small Refinery Exemption

EPA is denying 69 pending SRE petitions for failing to demonstrate DEH. In addition, we determine that two of the refineries receiving denials were additionally ineligible to petition for SREs for the 2019 and 2020 compliance years, each for failing to meet one or more requirements for eligibility. One refinery is ineligible because its throughput exceeded 75,000 barrels per day (bpd) in a petitioning year—making it ineligible to petition for an SRE in the petitioning year and the subsequent year—and also because it did not receive the initial RFS blanket exemption under CAA section 211(*o*)(9)(A).[95] The second refinery is ineligible because it did not receive the initial blanket exemption.

In making this finding, we are adopting the interpretation proposed in the Proposed Denial and applied in the April 2022 SRE Denial interpreting the RFS statute to mean that only small refineries that received the initial blanket exemption are eligible to petition for an extension of that initial exemption, consistent with a prior EPA interpretation.[96] Note that this does not mean that any refinery that met the definition of "small refinery" at the start of the RFS program is qualified to seek exemption for later years; the small refinery must have actually received the blanket exemption for the years before 2011 pursuant to the RFS statute and implementing regulations. This means that the small refinery must have been producing transportation fuel, such that it was an obligated party under the RFS program to qualify for the blanket exemption from the RFS requirements (i.e., a refinery processing fewer than 75,000 bpd of crude oil into products only other than transportation fuel could not have received an exemption from an RFS obligation it did not have). This is why, under the RFS program, a refinery that met the definition of a "small refinery" was additionally required to submit a verification letter to EPA confirming its status as a small refinery before receiving the blanket exemption.

1. Definition of Small Refinery

As part of EPAct, Congress defined a small refinery as "a refinery for which the average aggregate daily crude oil throughput for a calendar year (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels."[97] This definition was maintained in EISA.[98] These definitions informed EPA's

[95] This initial exemption is sometimes called the "blanket exemption" since it could be obtained by all eligible small refineries producing transportation fuel for the years 2006–2010.
[96] At the same time, we are maintaining our approach to size-based eligibility—only small refineries with an average aggregate daily crude oil throughput that does not exceed 75,000 bpd for the calendar year they petition and the prior year are eligible to petition for an SRE. *See* CAA section 211(*o*)(1)(K), 40 CFR 80.1401, 40 CFR 80.1441(e)(2)(iii).
[97] CAA section 211(*o*)(1)(K); EPAct of 2005, Pub. L. No. 109-58, 119 Stat. 594 (2005).
[98] EISA of 2007, Pub. L. No. 110-140, 121 Stat. 1492 (2007).

implementing regulations in 2007 and 2010, which similarly defined a small refinery as processing less than 75,000 bpd in 2004 and 2006, respectively, for purposes of determining eligibility for the initial blanket statutory exemption from 2006–2010.[99] In 2014, EPA promulgated regulations related to eligibility and requirements for SRE petition extensions.[100] In these regulations, EPA modified the eligibility requirements such that small refineries qualified to seek exemption extensions based on their crude oil throughput for the petition year and the prior year.[101] This requirement is still in effect and means that, to qualify as a small refinery eligible to seek an extension of its exemption, a refinery must have processed no more than 75,000 bpd of crude oil in both the year for which the refinery requests an exemption and the prior year.[102]

2. Requirement to Have Received Initial Blanket Statutory Exemption

In 2016, EPA took an action finding a refinery ineligible to petition for an exemption extension because the refinery did not exist in 2006 and, thus, could not have received the initial blanket exemption.[103] In that adjudication, EPA relied on the RFS regulations that state "a refiner may petition the Administrator for an extension of *its* small refinery exemption…." (emphasis added).[104] Additionally, EPA reasoned that "newer small refineries have the ability to consider whether they believe the establishment of the RFS program and its requirements will cause economic hardship before beginning operations."[105] Beginning in 2017, EPA shifted to a different approach to small refinery eligibility and granted exemptions for refineries that had not received the initial blanket exemption. With the April 2022 SRE Denial, consistent with the Supreme Court's holding in *HollyFrontier*, we adopted and applied the requirement that, to be eligible to petition for an SRE, a refinery must have actually been an obligated party under the RFS program prior to 2011 and received the initial blanket exemption, though a small refinery need not have had a continuous exemption since the original statutory exemption. In this action, we are again applying this interpretation.

3. Changed Approach to Eligibility

In the April 2022 SRE Denial, EPA explained that it had changed its approach to SRE eligibility to require that a petitioning small refinery must have received the initial statutory exemption prior to 2011 in order to qualify for an extension of the initial exemption under CAA section 211(*o*)(9)(B) because we believe this policy aligns with the text of the CAA, which describes a small refinery's ability to "at any time petition the Administrator for an extension *of*

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[99] 40 CFR 80.1101(g), 72 FR 23900 (May 1, 2007); 40 CFR 80.1401, 80.1441(a)(1), 75 FR 14670 (March 26, 2010).
[100] 79 FR 42128 (July 18, 2014).
[101] 40 CFR 80.1441(e)(2)(iii) ("In order to qualify for an extension of *its* small refinery exemption, a refinery must meet the definition of 'small refinery' in §80.1401 for the most recent full calendar year prior to seeking an extension and must be projected to meet the definition of 'small refinery' in §80.1401 for the year or years for which an exemption is sought. Failure to meet the definition of small refinery for any calendar year for which an exemption was granted would invalidate the exemption for that calendar year." (emphasis added)). *See also* 79 FR 42128 (July 18, 2014).
[102] 40 CFR 80.1401. We are not modifying this regulation in this action.
[103] *See* Pet. for Review, *Dakota Prairie Refining, LLC v. EPA*, No. 16-2692, at 8 of 17 (8th Cir. June 13, 2016).
[104] 40 CFR 80.1441(e)(2).
[105] Pet. for Review, *Dakota Prairie*¸ at 8–9 of 17.

the exemption in subparagraph (A) for the reason of [DEH]."[106] Furthermore, we believe this interpretation best supports the policy interests of implementing the RFS program in promoting greater use of renewable fuels. This is particularly true since exemptions provide a significant windfall profit to exempted small refineries, as the small refineries passthrough their RIN costs and then, when exempted, sell any RINs they had acquired or generated. Such a result would be particularly unfair if granted to new participants in the RFS program that were not producing transportation fuel during the statutory blanket exemption period of 2006–2010 because these new participants would have had the opportunity to prepare and plan for compliance with the RFS program prior to starting operations or otherwise being subject to an RFS obligation, unlike the refineries that received the initial blanket exemption.[107] Additionally, refineries that exceeded the 75,000 bpd throughput threshold in 2006 were not the intended recipients of the initial exemption for small refineries, and new entrants to the transportation fuels industry after this blanket exemption ended have knowledge of the requirements of the RFS program, and make an informed decision whether to enter the transportation fuels business. Thus, we are acting consistently with congressional intent by continuing to exclude these parties from receiving an SRE.

While the Supreme Court has held that a small refinery need not have had a continuous exemption since receiving the initial blanket exemption, the Court's decision suggests that an exemption must have existed at some point for it to be extended.[108] The Court agreed with the Tenth Circuit that, as used in CAA section 211(*o*)(9), the word "extension" has a temporal meaning (i.e., an extension of time), and not the alternative meaning of "extension" to grant or offer.[109] The Court, however, clarified that an extension may still be given after a lapse.[110] In order for something to lapse, it must have existed to begin with. The Court applied several analogies to illustrate this, including that of a student requesting an extension of a deadline to submit a paper after the deadline has already passed.[111] Applying that analogy to a small refinery that did not receive the original exemption, but requests an extension of that exemption, would be like a student that was never in the class asking the professor for an extension of a deadline for a paper that was never assigned to that student to begin with (i.e., there is no due date for the professor to extend just as there is no exemption period for EPA to extend). Thus, the language

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[106] CAA section 211(*o*)(9)(B)(i) (emphasis added).
[107] *See infra*, Section IV.D.2.
[108] *See HollyFrontier*, 141 S. Ct. at 2177 ("It is entirely natural—and consistent with ordinary usage—to seek an "extension" of time even after some lapse."); *id.* at 2181 ("And fairly read, the key phrase at issue before us—'A small refinery may at any time petition the Administrator for an extension of the exemption under subparagraph (A) for the reason of disproportionate economic hardship'—simply does not contain the continuity requirement the court of appeals supposed."); *id.* at 2184 (Barrett, J. dissenting) ("Yet, HollyFrontier insists, the term "extension" is not *always* used that way. Instead, it might *sometimes* refer to a "non-continuous extension"—in other words, an extension of something that used to exist but no longer does. . . . [T]he Court concludes that Holly-Frontier's reading must be right—which means that EPA can provide an "extension" of an exemption that is no longer in effect."); *id.* at 2177–78 (the Court's extension analogies assume something existed initially to be extended, i.e. "a term paper after the deadline has passed, the tenant who does the same after overstaying his lease, or parties who negotiate an 'extension' of a contract after its expiration.").
[109] *See supra*, Section II.D.
[110] *HollyFrontier*, 141 S.Ct. at 2177 ("Ultimately, however, we agree with the renewable fuel producers and the court of appeals that subparagraph (B)(i) uses "extension" in its temporal sense—referring to the lengthening of a period of time."). The *HollyFrontier* decision is further discussed in Section II.D.
[111] *Id.* at 2177–78.

of the statute indicates that, without having received "the exemption under subparagraph (A)," there is nothing for a small refinery to petition EPA to extend temporally.[112] Thus, if a small refinery did not receive the original statutory blanket exemption, it is ineligible to have EPA extend the duration of that exemption.[113]

4. Alternative Eligibility Determinations for Two Refineries

In this final action, EPA is denying four SRE petitions for the 2019 and 2020 compliance years from two refineries, not just because they have failed to demonstrate DEH, but also on alternative grounds: EPA here determines that both refineries are ineligible to petition for SREs. These two refineries submitted refinery-specific comments under claims of confidentiality specifically addressing their eligibility to submit SRE petitions. EPA addresses general eligibility comments in Appendix B and addresses refinery-specific eligibility comments in confidential, refinery-specific appendices to this action.

For the first refinery, EPA determines that it is ineligible to petition for an SRE under the approach described in Section IV.A.3. The refinery did not receive the initial blanket exemption because it did not qualify as a "small refinery" in 2004 or 2006, since its average aggregate daily crude oil throughput exceeded 75,000 bpd during those qualification years.[114] The refinery, therefore, did not submit the verification letter required by regulation to receive the initial blanket exemption, and, because it did not receive that exemption, it is ineligible to petition for an SRE. EPA additionally determines that this refinery is ineligible for to petition for an SRE for the 2019 and 2020 compliance years because it exceeded the 75,000 bpd throughput limit in 2019, thereby making the refinery ineligible to petition for an SRE in both 2019 and 2020.[115] This eligibility determination is alternative and added to our denial of its 2019 and 2020 SRE petitions because the refinery did not demonstrate that it experienced DEH caused by RFS compliance as described generally for all small refineries in Section IV.D.2, based on our review of the petitions, supplemental information, and comments submitted by the refinery. As such, even if this refinery was eligible to petition for an SRE for the 2019 and 2020 compliance years—which EPA determines it was not—the petitions are denied on DEH grounds.

For the second refinery, EPA determines that it is also ineligible to petition for an SRE under the approach described in Section IV.A.3. The refinery did not receive the initial blanket exemption because it was not an RFS obligated party at the time the initial blanket exemption was available prior to 2011. Even though this refinery met the statutory definition of a "small refinery," it did not receive the blanket exemption because it did not produce transportation fuel from 2006–2010; therefore, it had no RFS obligation, and thus, there was nothing to exempt. Therefore, the refinery did not submit the verification letter required by the RFS regulations to receive the initial blanket exemption, and because it did not receive that exemption, it is

[112] *Id.* at 2181–82 ("Indeed, the dissent finds it 'odd' that our reading would permit hardship relief only to small refineries in existence in 2008 and not to new ones, *post*, at 2189-2190 … Nor is there anything odd about the fact that Congress chose only to protect existing small refineries rather than new entrants. Often Congress chooses to protect existing market participants from shifts in the law while applying new restrictions fully to future entrants.")
[113] We note that this issue was not before the courts in *RFA* or in *HollyFrontier* because the three small refineries at issue in those cases had all received the initial blanket exemption.
[114] 40 CFR 80.1141(a)(1), 72 FR 23900 (May 1, 2007); 40 CFR 80.1441(b), 75 FR 14670 (March 26, 2010).
[115] 40 CFR 80.1441(e)(2)(iii).

ineligible to petition for an SRE. This eligibility determination is alternative and added to our denial of its 2019 and 2020 SRE petitions because the refinery also did not demonstrate that it experienced DEH caused by RFS compliance described generally for all small refineries in Section IV.D.2 for these compliance years, based on our review of the petitions, supplemental information, and comments submitted by the refinery. As such, even if this refinery was eligible to petition for an SRE for the 2019 and 2020 compliance years—which EPA determines it was not—the petitions are denied on DEH grounds.

B. Compliance with SRE Petition Requirements

When submitting an SRE petition to EPA, the small refinery bears the burden of demonstrating that compliance with the requirements of the RFS program causes DEH for that small refinery. The RFS regulations require that an SRE petition specify the factors that demonstrate DEH, provide a detailed discussion regarding the hardship the refinery would face in complying with the RFS requirements, and identify the date by which the small refinery anticipates that compliance with the RFS requirements can reasonably be achieved.[116] Since the Tenth Circuit issued its opinion in *RFA*, many small refineries have contacted EPA to supplement their original SRE petitions and to provide additional information about their financial situations. In addition, EPA received extensive input in response to its request for comment on the Proposed Denial. EPA greatly appreciates this information. EPA has completed a thorough evaluation of the data and information provided in the SRE petitions, supplemental submissions, and comments to determine if any of the petitioners have demonstrated that the cost of compliance with the RFS is the cause of their alleged DEH and that such costs are not passed through by that small refinery to the wholesale purchasers under the RIN cost passthrough principle.[117]

C. DOE Consultation and EPA Consideration of the DOE Study

CAA section 211(*o*)(9)(A)(ii) required that EPA grant exemptions for "not less than 2 additional years" (i.e., 2010 and 2011) upon DOE's determination that a small refinery "would be subject to a disproportionate economic hardship."[118] Section 211(*o*)(9)(B), in contrast, provides how EPA will evaluate petitions, "in consultation with the Secretary of Energy," but does not dictate any particular action that EPA must take following that consultation, nor does it not provide any further direction on the form EPA's consultation with DOE must take. In fact, "Congress placed no limits on how DOE should provide its consultation to EPA under [the RFS]."[119] This absence of direction provides "substantial discretion" to the agencies to determine how DOE will provide consultation for the pending SRE petitions.[120] Both agencies previously relied on DOE's findings through its application of the DOE scoring matrix to effectuate DOE's consultation on each SRE petition.[121] For this action, EPA shared all SRE petition and comment information with DOE. However, DOE did not apply the scoring matrix because it was not

[116] 40 CFR 80.1441(e)(2).
[117] See *infra*, Appendix B, for a summary of the comments and EPA's responses.
[118] *See supra*, Section II.D.
[119] *Hermes*, 787 F.3d at 577.
[120] *Id*. at 575.
[121] *See supra*, Section II.D.

designed to account for RIN cost passthrough. Rather, EPA consulted with DOE through discussions in meetings and phone conversations regarding the pending SRE petitions, the supplemental supporting information the small refineries provided, other comments submitted in response to the Proposed Denial, and the analysis and determinations that supply the basis for this final action.[122]

In evaluating petitions for SREs under CAA section 211(*o*)(9)(B), EPA is directed to "consider the findings of the [DOE] study." DOE, in fact, conducted two studies, one in 2009 and an update to the study in 2011.[123] The original 2009 DOE Study concluded that small refineries would not face DEH from compliance with the RFS program given the proportional obligations of the program as a function of their gasoline and diesel fuel production and the opportunity for refineries to comply by blending or by purchasing RINs, provided that the RIN market proved to be liquid and competitive. The RIN market has developed to be open, competitive, liquid, and functioning as intended;[124] hence, the 2009 DOE Study accurately forecasted what was likely to occur given the highly competitive fuels market with which DOE was familiar.

When DOE expanded its study in 2011, it posited that small refineries could face DEH "*if* blending renewable fuel into their transportation fuel or purchasing RINs increase[d] their cost of products relative to competitors."[125] DOE expressed a similar possibility another way noting, "*If* certain small refineries must purchase RINs that are far more expensive than those that may be generated through blending, this will lead to disproportionate economic hardship for those affected entities."[126] Looking to a potential future where RIN prices rose significantly (as they have since done), DOE projected, "there are numerous circumstances when RIN prices could rise, increasing the cost of compliance and *perhaps* increasing the cost of compliance more for refineries that rely on [purchasing] RINs for compliance compared to those that do not."[127] To make clearer the circumstances it was envisioning where such disproportionate costs *could* arise, DOE provided a detailed appendix (Appendix B) that laid out scenarios for three refiners in different circumstances relative to the RFS program.[128] The first case was a refiner that blends all its production with ethanol and does not have to purchase ethanol RINs. The second case was for a refiner that does not do any blending and must purchase all its RINs to meet its RVOs. Finally, the third case was for a refiner with excess RINs to sell into the market. DOE assumed in Appendix B that the refiner that got its RINs through blending ethanol would get the RINs at nearly no cost, while the refiners that had to buy RINs would be forced to pay the higher market cost for compliance. Based on this assumption, DOE projected that some refineries *could* face a disproportionate cost of compliance. Through the matrices in its report, DOE evaluated whether those disproportionate costs rose to a level such that a refinery faced DEH due to those higher costs. DOE articulated bringing those two elements together when it stated: "[d]isproportionate

[122] While not legally required, EPA has added a memorandum to the docket for this action describing the EPA-DOE consultation process. *See* "Memorandum on DOE Consultation from Byron Bunker," available in the docket for this action (hereinafter the "DOE Consultation Memo").
[123] *See supra*, Section II.D.
[124] *See infra*, Section IV.D.2.
[125] 2011 DOE Study at vii (emphasis added).
[126] *Id*. at 2 (emphasis added).
[127] *Id*. at 3 (emphasis added).
[128] *Id*. at B-4.

economic hardship must encompass two broad components: a high cost of compliance relative to the industry average, and an effect sufficient to cause a significant impairment of the refinery operations."[129] However, DOE did not assess in its 2011 study whether its assumptions that refiners bear different costs for blending or purchasing RINs and that they may not be able to pass these costs on to wholesale purchasers in the marketplace would actually occur.[130]

A number of small refineries have stated to EPA that DOE's projection in the 2011 DOE Study is exactly what has come to pass, reiterating these assertions in their comments on the Proposed Denial. Ethanol (D6) RIN prices have risen significantly, and small refineries argue that they bear these higher RIN costs while integrated refiners (refiners that blend renewable fuels) and non-obligated blenders receive RINs at almost no cost. Further, they argue that these disproportionate costs are significant enough that they constitute DEH for the refineries just as DOE articulated. EPA has carefully reviewed data, contracts, and other information from small refineries to evaluate if, as DOE posited in 2011, refineries that acquire RINs through blending get them at a lower cost than do refineries that purchase RINs on the open market.[131] What we have found is that the RIN discount phenomenon applies—blenders, in fact, discount their sales price for E10 by the market price of the RIN (i.e., the sales price of E10 reflects the cost to buy ethanol minus the market price for selling the RIN). Hence, while the blender gets the RIN for "free" when it purchases a gallon of ethanol, it has to discount the price of that ethanol when sold as E10 by the full current market price of the RIN. This means the blending refinery pays the full market cost of the RIN through the discount it gives in the price of the E10 it sells. The 2011 DOE Study did *not* consider that blending refineries would have to discount blended fuel by the price of the RIN; therefore, the projections envisioned by the 2011 DOE study *have not occurred* in practice. Rather, as the 2009 DOE Study anticipated, the competitive market forces have resulted in the same cost of compliance whether that cost comes through the purchasing of RINs on the open market or through the discounting of the price for blended fuel sold by blenders. Moreover, neither the 2009 DOE Study nor the 2011 DOE Study anticipated the even more significant finding that, without regard to how refineries experience their RFS compliance costs, the RIN cost passthrough phenomenon applies—refineries pass those higher costs through to their customers in higher prices for the refined products they sell.

For the reasons described above and after considering the "other economic factors" described in Section IV.D.2, we find small refineries do not face disproportionate costs to comply with the RFS program. Further, we find there is no economic harm—much less a hardship significant enough to impair refinery operations—that qualifies as DEH caused by RFS compliance. For these reasons, we find, consistent with the broad criteria for relief described in the 2009 and 2011 DOE Studies, that DEH is not demonstrated in the 69 SRE petitions EPA has evaluated and is denying in this action.

[129] *Id*. at 3.
[130] *See* DOE Consultation Memo.
[131] *See infra*, Section IV.D.2.

D. Hardship Must Be Caused by RFS Compliance

1. The CAA Requires That DEH Must Be Caused by RFS Compliance

As discussed above, the best reading of the statutory provisions at CAA section 211(*o*)(9) is that EPA's authority to grant an SRE "for the reason of (DEH)" requires that the hardship is caused by RFS compliance. This interpretation aligns with the statutory text as well as with the purpose of the RFS program and the SRE provisions. EPA has considered the comments received on this interpretation and provides specific responses to those comments in Appendix B. This section summarizes EPA's analysis supporting its conclusions.

a. The Text of the Statute Provides That DEH Must Be Caused by Compliance with the RFS Program

On January 24, 2020, the Tenth Circuit in *RFA* held that the EPA only has the authority to grant SREs when the refinery experiences DEH caused by the RFS program.[132] The court pointed to statements in the three decision documents at issue indicating that relief from the RFS obligations could relieve the refinery's hardship "in whole or in part," and concluded that granting relief on the basis of something other than DEH caused by RFS compliance was impermissible.[133] We have evaluated the court's opinion and the text of the statute, and, in this final action and going forward, we will require that petitioning small refineries demonstrate that DEH is caused by RFS compliance as discussed further in this section.

The CAA's SRE provisions are structured in two sections. Section "(A) Temporary exemption" provides the blanket exemption to all small refineries through 2010 and then lays out the conditions in which a small refinery may receive an extension of the initial exemption following the study conducted by DOE. Section "(B) Petitions based on [DEH]" addresses ongoing case-by-case SRE petitions and the basis for EPA's evaluation of those petitions.

Section A refers to the "requirements of paragraph [211(*o*)(2)]," which provides, among other things, the applicable annual volume targets for the required categories of renewable fuel. The "requirements of paragraph [211(*o*)(2)]" are utilized in describing what an exemption means: "The requirements of paragraph [211(*o*)(2)] shall not apply to small refineries until calendar year 2011,"[134] as well as identifying the subject of the DOE's study: "[T]he Secretary of Energy shall conduct for the Administrator a study to determine whether compliance with the requirements of paragraph [211(*o*)(2)] would impose a [DEH] on small refineries."[135] It also describes the basis under which an exemption can be extended: "[i]n the case of a small refinery that the Secretary of Energy determines under subclause (I) would be subject to a [DEH] *if required to comply with paragraph [211(o)(2)],* the Administrator shall extend the exemption under clause (i) for the small refinery for a period of not less than 2 additional years."[136] These repeated references to paragraph 211(*o*)(2) indicate a direct link between the RFS requirements,

[132] *RFA*, 948 F.3d at 1254.
[133] *Id.*
[134] CAA section 211(*o*)(9)(A)(i).
[135] CAA section 211(*o*)(9)(A)(ii)(I).
[136] CAA section 211(*o*)(9)(A)(ii)(II) (emphasis added).

SREs, and DEH. Given the focus by Congress in the SRE provisions on compliance with the RFS volume requirements, the best reading of the statutory language is that compliance with the RFS program must be the reason for DEH warranting an SRE under section A. DOE reached the same conclusion in the 2011 DOE Study:"Disproportionate economic hardship must encompass two broad components: a high cost of [RFS] compliance relative to the industry average, and an effect sufficient to cause a significant impairment of the refinery operations."[137] This means that a small refinery may not simply experience a year of poor economic performance or struggle with disadvantageous operational or market constraints to merit an SRE because these impacts are not based on compliance with the RFS program. Nor can a refinery rely on unplanned and unanticipated events like a fire or a natural disaster, or on planned events unrelated to RFS compliance, such as paying out stock dividends or other capital purchases/loans to qualify for relief from its RFS obligations.[138] Rather, section A of the SRE provisions provides that DEH must be caused by the small refinery's compliance with the requirements of the RFS program.[139]

Section B of the SRE provisions states that a small refinery may "at any time petition the Administrator for an extension of the exemption *under subparagraph (A)* for the reason of [DEH]."[140] By making any future SREs "extension[s] of the exemption under subparagraph (A)," Congress carried over the causal requirement in section A to section B.[141] While section B uses the language "for the reason of [DEH]" without a modifying clause tying it to compliance with the RFS program, section B cannot be read outside of the context of section A; section B is merely providing an opportunity for small refineries to request continuation of the exemption in section A. Therefore, the causal requirement in section A tying DEH to RFS compliance applies to section B as well. Additionally, it is section A that provides the basis on which DEH must be founded: compliance with the RFS program. Thus, even if the exemption under section B could be interpreted as a distinct exemption from the exemption under section A, it must be "for the reason of [DEH]" as defined in section A as being "impose[d]" by, or existing "if [a small refinery was] required to comply with" its RFS obligations. In this way, the use and meaning of "disproportionate economic hardship" is the same in both sections A and B. Therefore, we agree with the Tenth Circuit that the "language of these provisions indicates that renewable fuels compliance must be the cause of any disproportionate hardship."[142] As described above, EPA believes this is the best interpretation of the interrelated provisions of CAA sections 211(*o*)(9)(A) and (B) and is therefore adopting this interpretation going forward.

b. The Purpose of the RFS Program Supports a Requirement That DEH Must Be Caused by Compliance with the RFS Program

Requiring that DEH be caused by RFS compliance also furthers the goals of the RFS program, which include encouraging the use of renewable fuel and reducing greenhouse gas emissions from the transportation sector. Historically, SREs have resulted in reductions in the

[137] 2011 DOE Study at 3.
[138] *RFA*, 948 F.3d at 1254 ("Granting extensions of exemptions based at least in part on hardships not caused by RFS compliance was outside the scope of the EPA's statutory authority.").
[139] *Id*.
[140] CAA section 211(*o*)(9)(B)(i) (emphasis added).
[141] *RFA*, 948 F.3d at 1253.
[142] *Id*.

volume of renewable fuel required to be used in the United States.[143] Moreover, allowing relief from RFS obligations for hardship unrelated to the RFS program would be an inappropriate use of the SRE provisions, particularly where the text of the statute requires demonstration of a causal relationship between the hardship and the RFS program. Had Congress intended that EPA provide relief for hardship due to something other than the RFS program, it could have easily done so, and the statutory language would have been more explicit in providing such broad authority. Instead, Congress adopted a "temporary hardship" provision followed by the ability to petition for an "extension" of the temporary exemption based on the same type of hardship. This limited approach to providing hardship relief all but precludes an interpretation that the exemption is available to provide financial assistance to small refineries for reasons wholly unrelated to the RFS program, the program from which an exemption would provide relief. It would only make sense that, in implementing the RFS program, EPA would provide relief from impacts of the RFS program that result from the RFS program itself. It is hard to imagine that Congress intended the SRE provisions be used to provide relief from the financial distress some small refineries may otherwise face, especially when other legal and policy options exist to provide compliance flexibility, and, significantly, when that distress may be caused by a broad array of circumstances unrelated to the RFS program, ranging from higher transportation and production costs to adverse business decisions.[144]

Finally, in light of EPA's findings regarding RIN cost passthrough, granting SREs would mean that exempted small refineries would not only be relieved of their RFS obligations, but would also get a financial *benefit* through the sale of their petroleum fuel that includes the value of the RIN but no associated RFS compliance costs.[145] This windfall to small refineries does not further the goals of the RFS program, and only provides a disproportionate net benefit to small refineries granted exemptions in comparison to other refineries that are either ineligible to petition for an exemption or are denied an exemption on the lack of merit of their petition.[146] Furthermore, when small refineries gain this benefit through exemption, RFS compliance is incrementally shifted to other parties that, in turn, pass on that increment in their compliance costs to wholesale purchasers. In essence, the significant financial benefit of exemptions granted to small refineries is still paid for by wholesale purchasers in higher transportation fuel costs.[147]

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[143] We acknowledge that beginning in 2020, we have projected the amount of SREs such that when the projections accurately reflect the volume of fuel exempted, the volume of renewable fuel required under the RFS program is not reduced by the granting of SREs.

[144] For example, a small refinery may not choose to pay discretionary dividends and simultaneously claim DEH in an SRE petition. The D.C. Circuit in *Hermes* said of this method, "Allowing small refineries to perpetuate that manner of self-inflicted hardship would conflict with the terms of the statute which contemplate a "*[t]emporary* exemption" for small refineries with an eye toward eventual compliance with the renewable fuels program for all refienries." 787 F.3d at 578.

[145] *See infra*, Section IV.D.2.

[146] *See*, e.g., Comments from API on 2020 RFS Annual Rule, Docket Item No. EPA-HQ-OAR-2019-0136-0721.

[147] In the 2020 RFS Annual Rule, EPA finalized regulations that shift the projected exempted volumes for small refineries to the remaining obligated parties instead of reducing the renewable fuel volumes as had been common practice in prior years. 85 FR 7016 (February 6, 2020).

2. DEH and RIN Cost Passthrough

An additional holding of the Tenth Circuit in *RFA* was that EPA failed to explain how a finding of DEH comports with EPA's findings on RIN cost passthrough.[148] In this action, we are adopting an interpretation of the statute that DEH must be caused by compliance with the RFS program. It follows, then, that in making a finding of DEH we must explain how the RFS program could cause DEH for a small refinery in light of EPA's longstanding and consistent findings on RIN cost passthrough. EPA considers RIN cost passthrough as part of its consideration of "other economic factors" when evaluating SRE petitions. As such, the section that follows presents EPA's consideration of "other economic factors" in evaluating the SRE petitions and determining that compliance with the RFS program does not impose DEH on small refineries. In other words, the analysis in this section, and the data that it relies on, is part of EPA's careful consideration of "other economic factors" relevant to demonstrating whether RFS compliance will cause DEH. Additional "other economic factors" EPA considered in its evaluation of SRE petitions are described in the responses to comments in Appendix B and in the confidential, refinery-specific appendices.

After reviewing the available data and analysis, including analyses conducted by EPA and outside parties,[149] as well as data and analyses submitted by petitioning small refineries, and comments, data, and analyses submitted in response to the request for comment on the Proposed Denial, we find that all obligated parties recover the cost of acquiring RINs by selling the gasoline and diesel fuel they produce at the market price, which reflects these RIN costs (RIN cost passthrough). Further, we find that blenders use the revenue from RIN sales to discount the price of the blended fuel they sell (RIN discount). Furthermore, since refining and fuel blending markets are highly competitive, we find that: (1) The RFS obligation is the same for every gallon of gasoline and diesel fuel; (2) RINs are generally widely available in an open and liquid market; and (3) The cost of acquiring RINs is the same for all parties. All types of obligated parties bear the same cost from compliance with the RFS program as these aspects of the RFS program and the RIN market facilitate the RIN cost passthrough and the RIN discount principles discussed above. While some parties dispute EPA's findings on RIN cost passthrough and the RIN discount, those same parties have made business decisions over the last decade that implicitly acknowledge that RIN cost passthrough and RIN discount do occur. For example, if RIN cost passthrough did not exist, we would expect to see refiners shift production to non-obligated fuel (e.g., heating oil, jet fuel) and/or export fuel in order to avoid RFS obligations. We would also expect to see actions to expand or modify their business models to include additional blending of renewable fuel to reap the alleged rewards that they claim independent blenders and marketers enjoy. However, we see neither of those practices occurring. Therefore, for all these reasons taken together, we conclude that the RFS program does not impose DEH on small refineries.

Assessing the impact of the RFS program on refiners and blenders is complicated for several reasons. First, many parties may operate in several different roles, such as merchant refiners, integrated refiners, and blenders, in any given year.[150] Second, the impact of RIN costs

[148] *RFA*, 948 F.3d at 1256–57.
[149] These outside parties include academics as well as consultants associated with one or more petitioning small refineries.
[150] *See infra*, Section IV.D.2.c.

on the price of fuels is not often apparent in the market pricing data.[151] Third, while market prices for renewable fuel with RINs attached are readily available in posted prices, renewable fuel is less commonly traded without RINs and hence prices of renewable fuel without the RIN are also rarely available outside of contracts between parties that are claimed as confidential.[152] Finally, terminology and accounting practices vary between different parties, often making apples-to-apples comparisons less obvious.[153]

In this section, we again present the data and analysis that we provided in the Proposed Denial and the April 2022 SRE Denial to support our findings that small refineries do not suffer DEH from their RFS obligations because RIN costs are fully passed through to wholesale purchasers. We include some brief discussion of the comments here, but primarily respond to comments submitted on this analysis in Appendix B. Here, we show that any such RFS compliance costs are not disproportionate because the cost to acquire RINs, whether via blending or through the RIN market, are the same, making the costs of RIN acquisition the same for all parties. After presenting some of the assertions made by small refineries below, we provide a brief description of prior publications on RIN cost passthrough and the RIN discount. We then reiterate the general economic theory that supports the premises of RIN cost passthrough and the RIN discount before briefly discussing the different market participants and how we expect their operations to be affected based on economic theory. Finally, we analyze the most current data available to the Agency to determine whether the finished fuel and RIN markets move in the way the economic theory predicts.

Small refineries alleging DEH generally claim that: (1) They are unable to recover the cost of the RINs they purchase in the sales prices of the gasoline and diesel fuel they produce because of their geography or market position; and/or that (2) They face higher costs for acquiring RINs than their competitors (usually integrated refiners or non-obligated blenders) that acquire RINs by blending qualifying renewable fuel. In the first case, petitioners argue that they are unable to recover the added cost of RIN purchases needed for RFS compliance and/or that the market price for gasoline and diesel fuel does not fully reflect these costs. In the second case, petitioners argue that their competitors (non-obligated blenders and/or integrated refiners) do not have to discount the blended fuel they sell to wholesale purchasers by the price of the RIN and, therefore, are able to acquire these RINs at a lower net cost than parties that purchase RINs. EPA has not found evidence to support either of these arguments, as shown by the data and analysis presented below. It is notable that the data we evaluated in doing this analysis and the market behavior they describe are very consistent with each other across the markets we observed. Some comments we received on the Proposed Denial included studies and market analyses that suggested different market behavior in certain geographical locations and therefore questioned EPA's conclusions about RIN cost passthrough. We respond to those studies and analyses in Appendix B and in confidential, refinery-specific appendices to this action.

[151] *See infra*, Section IV.D.2.b.
[152] *See infra*, Section IV.D.2.d.
[153] *See infra*, Section IV.D.2.d.ii.

a. Assessments of RIN Market Dynamics

The degree to which the cost is "passed through" to wholesale purchasers (RIN cost passthrough) and revenue from RIN sales is used to discount the price of blended fuel (RIN discount) has been a longstanding area of interest, especially since D6 RIN prices increased dramatically in 2013. EPA first published results of an assessment of obligated parties' ability to "pass through" RIN costs and the impact of RIN prices on the price of blended fuel in a technical memorandum in 2015.[154] EPA explained the economic principles at work that enabled obligated parties to recover their RIN costs through RIN cost passthrough and the discount of renewable fuel blends by the price of the RIN. EPA then examined several sources of market data to test those principles. We concluded that both the costs in refined products and discounts in blended fuel prices due to RINs were being fully passed through to wholesale purchasers.

EPA next considered this issue in the context of petitions to reconsider the point of obligation in the RFS program in 2017.[155] While RIN cost passthrough was not the only topic at issue in our consideration of changing the point of obligation in the RFS program, the degree to which RIN costs and the RIN discount were passed through to wholesale purchasers was a central argument in the various petitions. In considering these requests, EPA again examined available market data, as well as studies by outside parties and numerous public comments.[156] Once again, EPA concluded that the RIN costs and RIN discount were fully passed through to wholesale purchasers and reflected in the market prices of petroleum fuel and blended fuel, and that blenders used revenue from RIN sales to discount the price of blended fuel. This decision was reviewed and upheld by the U.S. Court of Appeals for the D.C. Circuit.[157]

In evaluating the SRE petitions currently before the Agency, EPA has again evaluated the available market data, and has evaluated data from additional markets submitted in comments to supplement that analysis. EPA has examined data through 2020 to determine whether more recent data continues to support EPA's views on the economic principles at play in the RIN market and whether these new data reconfirm our prior conclusions about both RIN cost passthrough and the RIN discount. EPA's prior analyses were generally based on publicly

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[154] *See* Burkholder memo.

[155] "Denial of Petitions for Rulemaking to Change the RFS Point of Obligation," EPA-420-R-17-008 at 21–31, November 2017 (hereinafter the "POO Denial").

[156] C.R. Knittel, B.S. Meiselman, & J.H. Stock, "The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard," Journal of the Association of Environmental and Resource Economists, 2017. C.R. Knittel, B.S. Meiselman, & J.H. Stock, "The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard: Analysis of Post-March 2015 Data," Working Paper. *See also* Letter from RaceTrac to Administrator McCarthy, August 17, 2016, Docket Item No. EPA-HQ-OAR-2016-0544-0014; Letter from QuikTrip to Administrator McCarthy, August 17, 2016, Docket Item No. EPA-HQ-OAR-2016-0544-0013; Presentation from Murphy USA to EPA, August 16, 2016, Docket Item No. EPA-HQ-OAR-2016-0544-0028.

[157] *Alon Refining Krotz Springs, Inc v. EPA*, 936 F.3d 628 (D.C. Cir. 2019). In its decision, the D.C. Circuit found that in determining whether refiners recover the cost of the RINs they purchase for RFS compliance, EPA "grounded that conclusion in studies and data in the record." *Id.* at 649. The D.C. Circuit also supported EPA's findings that there is a cost for integrated refiners and non-obligated blenders to acquire RINs, even if they do not purchase separated RINs, through lower prices for blended fuels. "In a competitive market there's no such thing as a free lunch, and blenders and integrated refiners pay their tab just as other do; they just do so indirectly. To offer finished fuel without attached RINs at a competitive price, these entities must discount their blended fuel by roughly the value of the RINs that they detach and kept for themselves." *Id.* at 650.

available data reported by the Energy Information Administration (EIA), which reports spot fuel prices for large fuels markets such as the New York Harbor and the Gulf Coast. Several small refineries claimed that, while RIN cost passthrough and the RIN discount may occur in these larger and more competitive fuels markets, RIN cost passthrough and the RIN discount were not occurring in the local markets into which these small refineries sold gasoline and diesel fuel. To assess these claims, EPA analyzed the data we received, including data sets provided by some of the small refinery petitioners located in smaller markets. The petitioners submitted the datasets to disprove EPA's conclusions on RIN cost passthrough. However, EPA found that the available data, including the more recent data through 2020 and the data received in comments, either could not be used to draw conclusions regarding RIN market dynamics, or, in contrast to the petitioner's claims, actually *supported* the conclusions that RIN costs are passed through in higher refined product prices and that blended fuel prices are discounted by the price of the RIN and passed through to wholesale purchasers.[158] In light of EPA's prior assessments of RIN cost passthrough, its recent assessment for the Proposed Denial and April 2022 SRE Denial, and its latest assessment of the comments and data provided in response to the Proposed Denial, EPA continues to conclude that no obligated party has a structural advantage or disadvantage from the RFS program. EPA found these conclusions held not only in the large fuels market previously assessed, but also in the smaller markets EPA examined using non-public market data, as well as the data submitted by the small refineries. Each of these assessments is discussed in further detail in the following sections.

While EPA recognizes that much of this data may not be specific to the compliance years at issue in this action, it demonstrates the price dynamics in the fuels and RIN markets. Moreover, EPA's prior analyses indicate that RIN costs were passed through prior to and during the 2016–2021 compliance years.[159] EPA's analysis provided herein confirms and supports our prior findings regarding RIN cost passthrough using more recent data.

b. Economic Principles of RIN Cost Passthrough

The market for gasoline and diesel fuel in the United States is extremely competitive at all levels from the wholesale level (terminals and refinery racks) to the retail level (gas stations and truck stops). At the wholesale level, there are currently more than 1,300 terminals across the United States.[160] At the retail level, there are currently about 145,000 retail stations across the United States.[161] The majority of these stations are owned by parties that own fewer than ten retail stations, and, in many cases, only a single retail station.[162] All of these parties are selling fungible products (gasoline and diesel fuel) to a consumer base that is very sensitive to fuel prices, with prices posted on large signs making prices transparent. At the wholesale level, there

[158] *See infra*, Section IV.D.2.d.
[159] *See* Burkholder memo. *See also* POO Denial.
[160] Internal Revenue Service, Active Fuel Terminals, February 28, 2022, available at https://www.irs.gov/pub/irs-utl/tcn-db.pdf.
[161] National Association of Convenience Stores, *Convenience Stores Sell the Most Fuel*, March 10, 2022, https://www.convenience.org/Topics/Fuels/Who-Sells-Americas-Fuel.
[162] *Id*. According to this data, 57.1% of retail fuel stations are owned by parties that own only one station, and an additional 3.8% of all retail fuel stations are owned by parties that own 2–10 retail stations.

are 129 petroleum refineries in the United States.[163] The market for renewable fuel and RINs is similarly very competitive. In 2020, more than 300 companies generated RINs for qualifying renewable fuel.[164] On average, approximately 5 billion RINs are traded between registered parties each month.[165] Prices for petroleum fuel, renewable fuel, and RINs are regularly reported by a variety of price reporting services.[166]

Refineries within the United States compete with each other, as well as with many other refineries overseas, and importers capable of sourcing gasoline and diesel fuel from a global fuels market. Low transportation costs for gasoline and diesel fuel, enabled by an extensive pipeline network, and the low cost of shipping these fuels via pipeline, barge, and petroleum tankers, mean that fuels markets across the United States are linked and that refiners are not only competing with other local refineries, but with parties across the country and in many cases the world. This can be seen clearly in the structure of many fuel supply contracts across the country that establish pricing based on the price of fuel at a major market (e.g., Houston or New York Harbor) plus or minus transportation costs between the local market and the major market, depending on the direction of product flow.[167] If a small refinery is facing competition in its local market from a larger remote market, the local price will typically be higher than the price in the major market, reflecting the cost of shipping the fuel to the local market from the larger remote market.[168] Conversely, if the small refinery is shipping its fuel to the larger remote market to sell, it will need to price its fuel below the larger remote market price to cover the cost of shipping the fuel to the larger remote market. Through thousands of decisions made by all the market participants each day, the prices between the markets generally equilibrate to the same level, offset by the transportation costs between the markets. This means at the terminals where wholesale gasoline and diesel fuel are sold, competition forces all of the market participants to accept the same price for their products in the same way that gas stations across the street from each other must price their fuel at the same price.[169]

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[163] According to data from EIA, there were 129 operable refineries in the United States as of January 1, 2021 (EIA, *When was the last refinery built in the United States?*, Frequently Asked Questions (FAQs), June 25, 2021, https://www.eia.gov/tools/faqs/faq.php?id=29&t=6). Some of these refineries are located outside of the RFS covered location or do not produce gasoline or diesel fuel, and thus are not subject to the RFS program.

[164] The number of companies that generated RINs is from data accessed from EPA's Moderated Transaction System (EMTS).

[165] RIN trade and price information reported to EMTS is available at https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rin-trades-and-price-information.

[166] *See*, e.g., fuel price data from EIA (https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm) and RIN price data from EPA (https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rin-trades-and-price-information).

[167] Scott Berhang, "Pricing 101 Part 3: Wholesale Rack Fuel Pricing Essentials," September 12, 2017, available at http://blog.opisnet.com/wholesale-rack-fuel-pricing-essentials. Several small refinery petitioners included examples of contracts, some of which were based on the fuel price at a larger fuel market plus (or minus) transportation costs. This information has been claimed as confidential by the petitioners.

[168] This is because the price in the local market will be set by the marginal supplier of fuel. In a market with both a local and remote supplier, the marginal supply price will be no lower than the fuel sourced from the remote market, which will include transportation costs.

[169] There are very minor variations at the wholesale and retail level where branded fuels that include proprietary fuel additives command a marginally higher price than do unbranded fuels which retail consumers may perceive as being of lower quality. These differences in the prices for the products are unrelated to RFS because there are no distinguishing features or branding of the renewable components in gasoline or diesel fuel (i.e., one E10 fuel blend does not sell for more than another because it contains "higher quality" branded ethanol).

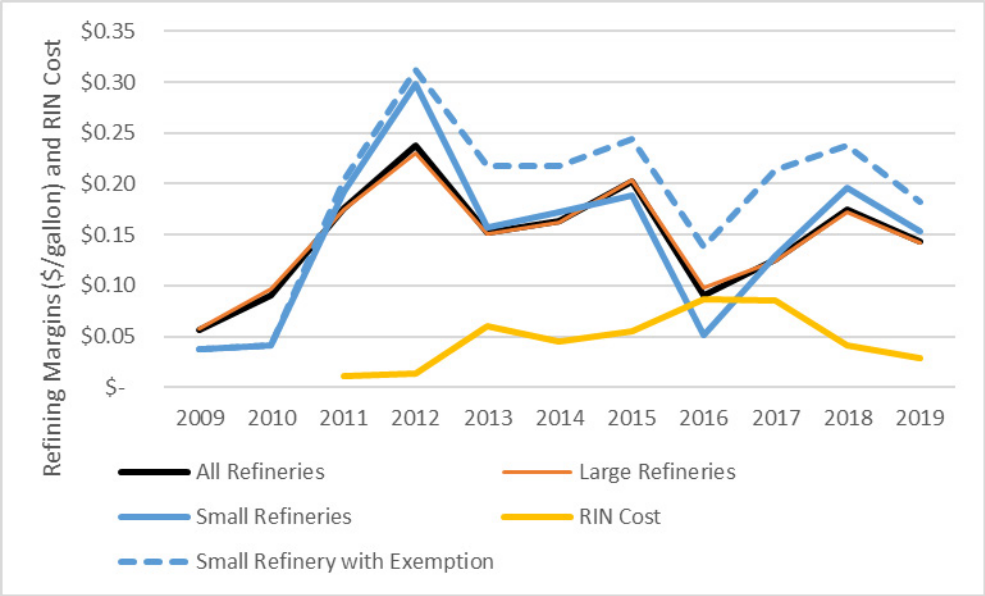
Economic theory suggests that in competitive markets like the fuels market where demand is nearly inelastic, competitive market forces would drive market participants to pass through the costs and revenue from RINs to wholesale purchasers in the prices of the products they sell.[170] This means that higher RIN prices should not advantage any one group of refineries over another, and that RIN prices should not impact refining margins. As an initial assessment of the impact of RIN prices on refineries, EPA examined the refining margins for three groups of refineries—small refineries, large refineries, and all refineries—based on available public data (e.g., financial data from publicly traded companies) and confidential data, including data provided by petitioners. We compared these refining margins (operating profit per gallon of fuel produced) to the average RIN cost per gallon (the per gallon cost to acquire the RINs necessary to meet a refinery's RVO).[171] These data are presented in Figure IV.D.2.b-1. Consistent with the economic theory, we see no correlation between refining margins and RIN prices, nor do we see any indication that higher RIN prices put small refineries at an advantage or disadvantage relative to large refineries. This result is consistent with findings of Burkhardt 2019: "full pass-through of RIN costs to nationwide output prices on average, and no statistical difference between pass-through rates for large and small refineries."[172] Figure IV.D.2.b-1 also includes an estimate of the refining margin for small refineries if they received an exemption from their RFS obligations. The estimate was calculated by adding the RFS RIN compliance cost per gallon to the refining margins for small refineries each year, since exempting small refineries from their RFS obligations means they do not have to acquire RINs. This estimate demonstrates that exempting small refineries from their RFS obligations results in small refineries, as a class, having consistently higher refining margins than large refineries or the average of all refineries. This advantage is significant and increases as RIN prices increase.

[170] RBB Economics, "The price effect of cost changes: passing through and here to stay," December 2014, available at https://www.rbbecon.com/downloads/2014/12/RBB_B48_Brief_WEB.pdf. RBB Economics, "Cost pass-through: theory, measurement, and potential policy implications," December 2014, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/320912/Cost_Pass-Through_Report.pdf.

[171] We calculated the RIN cost per gallon based on the RFS obligation and the average RIN prices for each year.

[172] Jesse Burkhardt, "The impact of the Renewable Fuel Standard on US Oil refineries," 130 Energy Policy 429, 435 (2019) available at https://doi.org/10.1016/j.enpol.2019.03.058.

Figure IV.D.2.b-1: Refining Margins and RIN Costs (2009–2019)[a]



Data from SRE petitions and financial statements from publicly traded companies.
[a] The "Small Refinery with Exemption" line was calculated by adding the "RIN cost" line to the "Small Refineries" line. If a small refinery had already accounted for the financial benefit of an SRE in their reported margin for a given year, the effect would be to make the "Small Refinery with Exemption" line slightly less than shown for that year.

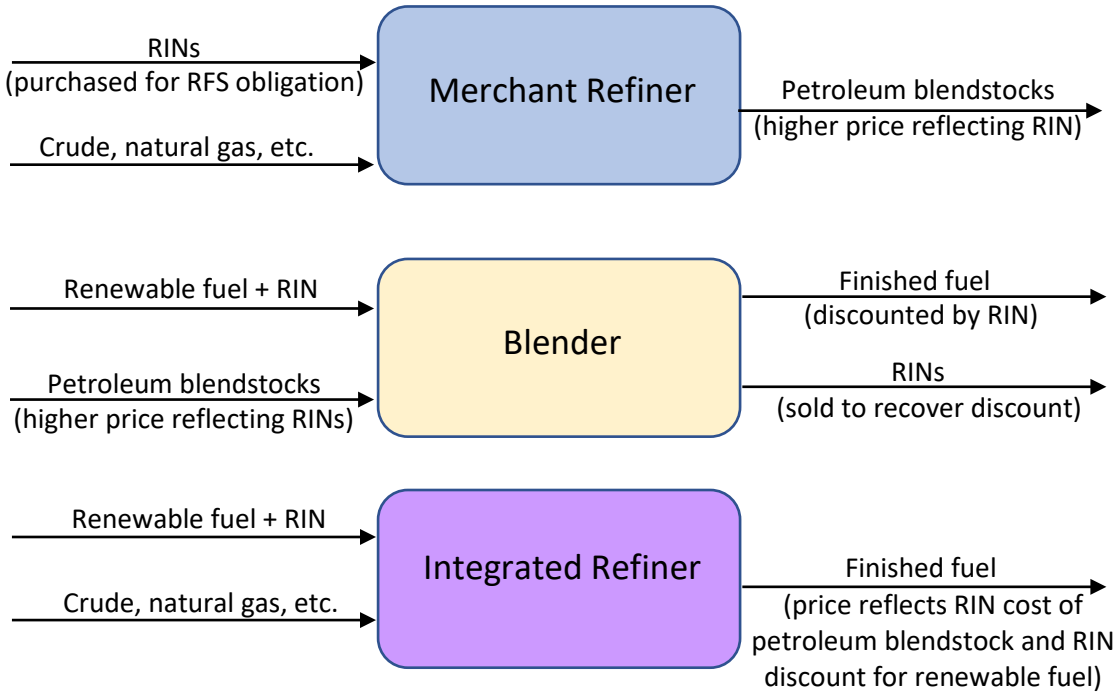
Understanding the impacts of the RFS program on the various parties that participate in the fuels market is complicated by the fact that different parties may participate in different activities within the fuels market. When analyzing the impact of the RFS program on the fuels market, we generally consider three different types of market participants: (1) Parties that produce and sell petroleum fuel, including blendstocks[173] (generally referred to as merchant refiners); (2) Parties that purchase petroleum fuel and renewable fuel, and sell blended fuel (blenders); and (3) Parties that produce petroleum fuel, purchase renewable fuel, and sell blended fuel (integrated refiners). The latter two of these market participants compete directly with each other at the wholesale fuel terminals where gasoline and diesel fuel "breaks bulk" and is sold into tanker trucks for delivery to retail stations. A typical fuel terminal may have a dozen different companies that sell the gasoline and diesel fuel dispensed from the terminal.[174] A simplified version of the business activities each of these parties engage in, as well as the impact of the RFS program on their costs and revenue, is illustrated in Figure IV.D.2.b-2.

Merchant refiners produce, market, and sell petroleum fuel and buy the RINs they need for compliance with their RFS obligations; they do not purchase or blend renewable fuel. Integrated refiners also produce petroleum fuel, but unlike merchant refiners, they also purchase and blend renewable fuel to produce, and ultimately sell, blended fuel that contains some volume of renewable fuel. Integrated refiners generally do not purchase RINs, but instead purchase renewable fuel with attached RINs and acquire most of the RINs they need for compliance when

[173] A "blendstock" is defined as "any liquid compound or mixture of compounds (not including fuel or fuel additive) that is used or intended for use as a component of a fuel." 40 CFR 1090.80.
[174] Kristi Moriarty, "High Octane Fuel: Terminal Backgrounder," NREL, February 2016, available at: https://afdc.energy.gov/files/u/publication/hof_terminal_backgrounder.pdf.

they blend the renewable fuel.[175] Non-obligated blenders do not produce petroleum fuel components, but instead purchase these products from merchant refiners. They then purchase renewable fuel with attached RINs that they use to produce, and ultimately sell, blended fuel (e.g., E10 and B5[176]). Because these parties do not have RFS obligations, they can also sell the RINs associated with the renewable fuel they blend. In practice there are few refineries that fall entirely into a single category, with most refiners having business interests that fall into at least two categories. Nevertheless, these distinctions help to clarify the context for RIN cost passthrough and the RIN discount in the price of blended fuel.

Figure IV.D.2.b-2: Simplified Illustration of Fuels Market Participants



The place in the fuel supply chain where we can see the *cost* of the RIN being passed through to wholesale purchasers is in the price of the petroleum products. Since all parties have

[175] Very few, if any, integrated refiners acquire all the RINs they need by blending renewable fuel. Petroleum fuel is subject to an RFS obligation for all four categories of renewable fuel, but it is generally only blended with one type of renewable fuel (i.e., ethanol in the case of gasoline and biodiesel or renewable diesel in the case of diesel fuel). Based on the 2020 RFS percentage standards, integrated refiners would generate a small amount of excess conventional biofuel (D6) RINs when blending ethanol as E10, but would need to purchase a small number of advanced biofuel (D5), biomass-based diesel (D4), and cellulosic biofuel (D3) RINs to meet the RFS obligation associated with the petroleum-based portion of the E10 blend. Similarly, integrated refiners that blend biodiesel as B5 would generate excess D4 RINs but would need to purchase D6 and D3 RINs to meet the RFS obligation associated with the petroleum-based portion of the B5 blend. In practice, nearly every gallon of blended fuel produced by an integrated refiner generates some quantity of excess RINs of one type and simultaneously incurs an obligation for other types of RINs.

[176] B5 refers to diesel fuel blended with 5% biodiesel.

the same cost to acquire RINs (on a per gallon basis),[177] whether they blend renewable fuel or purchase separated RINs, one would expect the price for petroleum fuel subject to an RFS obligation (i.e., gasoline and diesel fuel) to increase when RIN prices increase and to decrease when RIN prices decrease. Just as the prices of gasoline and diesel fuel increase if fuel taxes increase,[178] they also increase when RIN prices increase. Merchant refiners fully recover the cost of their RFS obligations when the difference between the market price of gasoline and diesel fuel and the market price for these fuels in the absence of the RFS obligation is equal to the cost of purchasing the RINs to satisfy the RFS obligation. Equations showing the expected RIN price impacts on the prices of gasoline and diesel fuel, assuming RIN costs are fully passed through, are shown below.

Equation 1: Expected Impact on Gasoline (E0) Prices Assuming Full RIN Cost Passthrough

Gasoline Price = Gasoline Price with no RFS Obligation + RIN Costs

Equation 2: Expected Impact on Diesel Fuel (B0) Prices Assuming Full RIN Cost Passthrough

Diesel Fuel Price = Diesel Fuel Price with no RFS Obligation + RIN Costs

EPA once again examined these economic principles by looking at available market data, including recent market data that was submitted by commenters.[179] The data EPA examined show that the market prices for gasoline and diesel fuel operate as shown in Equations 1 and 2, supporting EPA's findings that all obligated parties recover the cost of their RFS obligations in the sale prices for the gasoline and diesel fuel they produce.[180] The ability for an obligated party to recover its RIN costs is not dependent on the obligated party's ability to set the price for these fuels in the markets where they are sold. Rather, because all obligated parties face the same RIN costs per gallon of gasoline and diesel fuel produced nationwide,[181] the market prices for these fuels rise and fall with changes in RIN prices in all markets by the same amount on any given day (after accounting for other factors that impact the prices of these fuels), such that all parties that sell gasoline and diesel fuel recover their RIN costs.[182]

The place in the fuel supply chain where we see the RIN discount is the point at which renewable fuel is blended with gasoline or diesel fuel and sold for distribution to fuel retailers (i.e., at bulk terminals). Parties that blend renewable fuel with gasoline or diesel fuel to produce blended transportation fuel must discount the price of the blended fuel by the price of the

[177] *See infra*, Section IV.D.2.c.
[178] EIA, *Gasoline explained: Factors affecting gasoline prices*, March 15, 2022, https://www.eia.gov/energyexplained/gasoline/factors-affecting-gasoline-prices.php.
[179] EPA's analysis of the market data to determine the degree to which RIN costs are passed through to wholesale purchasers through higher prices for gasoline and diesel fuel is provided in Section IV.D.2.d.i.
[180] *See infra*, Figures IV.D.2.d.i.1 through 4, where EPA compared the price difference between a fuel subject to an RFS obligation to a very similar fuel not subject to an RFS obligation and the RIN cost per gallon of diesel fuel.
[181] *See infra* Section IV.D.2.d.ii, *see also* the "RVO ¢/USG" value reported in the Argus Americas Biofuels Report, which reports the RVO cost per gallon of fuel produced based on current RIN prices.
[182] *See infra* Section IV.D.2.d.i.

associated RIN.[183] These parties can then separate any RINs that are attached to the renewable fuel and either use these RINs to demonstrate compliance with their RFS obligations (if they are an obligated party) or sell these RINs to other parties. In either case, the point at which they acquired the RIN at the market price, or, rather, incurred a market rate cost for the RIN, is what determines the cost to acquire the RIN. This distinction is not necessarily intuitive as many market participants assume the cost to acquire the RIN is set when the renewable fuel is purchased at a cost that includes the RIN rather than when the renewable fuel is blended and sold as described further below.

The sale of a RIN by a party that blends renewable fuel and separates the RIN creates a separate revenue stream in addition to the revenue from the sale of the blended fuel itself. Competitive forces require that blenders price their blended fuel based on the *net* price of renewable fuel, or the price of the renewable fuel less the price of the RIN associated with the fuel (e.g., net ethanol price = ethanol price – D6 RIN price; net biodiesel price = biodiesel – 1.5*D4 RIN price[184]). Any party that attempts to retain the revenue from the RIN sales, rather than passing it on to wholesale purchasers via the RIN discount, is unable to offer blended fuel at a competitive price. If the market price for blended fuel is equal to the prices of the fuels used to create the blended fuel (e.g., 0.9 gallons of gasoline blendstock and 0.1 gallons of ethanol in the case of E10) without discounting the price for the renewable fuel by the price of the RIN, the RIN sales would result in profits for the blender. In the competitive fuels market, however, blenders are forced to reduce the price of the blended fuel to be competitive, consistent with the RIN discount phenomenon. If they do not, their competitors will give up the revenue from the sale of RINs to maximize profits by increasing fuel sales. These competitive forces require that blenders use the revenue from the RIN sales to effectively subsidize the price of the blended fuel they sell.

This market phenomenon has been relatively obvious to program participants looking at the market for biodiesel blends where it was understood from the start of the RFS2 program that a higher D4 RIN price was necessary to reduce the effective market price of biodiesel to make it equivalent to petroleum diesel fuel. Integrated refiners and non-obligated blenders pay the higher cost for renewable fuel through their purchase and blending. Merchant refiners pay the non-obligated blenders the incremental cost of the renewable fuel for doing the blending of renewable fuel on their behalf when they purchase the separated RINs. As an illustrative example, if petroleum diesel fuel is selling at $3.00 per gallon, and it costs $4.50 per gallon to produce biodiesel (net of tax credits and state LCFS credits) and generate 1.5 D4 RINs, the price of a D4 RIN would need to be $1.00 for biodiesel to compete with petroleum diesel fuel so that the revenue from the sale of the 1.5 D4 RINs for $1.50 would lower the effective cost of the biodiesel to match the cost of the petroleum diesel fuel.[185] Any blender attempting to retain the revenue from the sale of the D4 RINs (rather than using it to discount the price of the blended

[183] Another way to think about the RIN discount is that, to remain competitive, parties that blend renewable fuel must base the final price for the blended fuel on the net price of the renewable fuel (after accounting for the sale of the RIN) rather than on the price they paid for the renewable fuel with an attached RIN.
[184] Each gallon of biodiesel generates 1.5 RINs.
[185] In this example we are assuming that the RIN value tracks the cost of biodiesel production after accounting for the federal biodiesel tax credit and state LCFS credits (if applicable) in order to bring the net or effective price of biodiesel to parity with diesel fuel.

fuel) could not offer a competitively-priced blended fuel, since any biodiesel the blender used in its product would increase the cost of the fuel blend.

As described in greater detail below both in terms of economic principles and the recent data EPA received from small refineries, this market dynamic was previously not well understood when applied to the blending of ethanol to make E10. From the start of the RFS program until recently, there was no need to discount ethanol to create parity with gasoline blendstocks because ethanol had been relatively inexpensive and highly valued as an octane improver when blended to produce E10. As a result, both in the period prior to the RFS program and for the early parts of the RFS program, the market price for E10 was simply the weighted price for gasoline blendstock and ethanol. When D6 RIN prices increased, it was not obvious to many program participants how these high RIN prices impacted E10 prices, which many program participants simply assumed should continue to reflect the weighted costs of gasoline blendstock and ethanol. In fact, what has happened is that the high RIN prices have increased the production cost of gasoline blendstock (i.e., the RIN cost passthrough described in the preceding section) while simultaneously lowering the net cost of ethanol in almost equal proportion (the RIN discount), resulting in little change in the actual cost of E10 to consumers.[186] While this competitive market response has meant little change in E10 prices due to the RFS program, it has created confusion among market participants who perceive that D6 RINs are "free" to parties that blend E10, while obligated parties that must buy the D6 RINs at market prices bear a very high cost.[187] Instead, as we will show here based both on economic theory and the new small refinery data submissions, all sellers of E10 discount the price of E10 by the *price* of the D6 RIN, meaning fuel blenders pay for the RIN through this discounted E10 price at the same cost as if they purchased the RIN on the open market. As a result, parties that acquire RINs through fuel blending and parties that acquire RINs from the open market incur the same cost to acquire RINs.

Equations showing a generalized fuel blending example, and an example specific to E10, are provided below. These equations and the discussion that follows describe what one would expect if RIN prices are fully passed through to wholesale purchasers. The subsequent sections examine market data to test these equations and determine the degree to which RIN prices are passed through to wholesale purchasers.

[186] This does not mean that there is no cost to the RFS program. The RFS program requires the use of renewable fuels, which often have higher prices than the petroleum fuels they displace. This is particularly true for advanced biofuels such as biodiesel and renewable diesel. By requiring the use of higher cost fuels, the RFS program marginally increases the cost of transportation fuel in the United States.

[187] In fact, the RFS compliance cost estimates that small refineries submit to EPA as part of their SRE petitions reflect this misunderstanding by estimating the D6 RIN cost as the gasoline price minus the ethanol pricing meaning that, when ethanol is less expensive than gasoline, D6 RIN prices are negative.

Equation 3: Generalized Fuel Blending Example Assuming Full RIN Discount

Blended Fuel Price = PFP * PF% + (RFP – RIN Value) * RF%

Where: PFP = Petroleum Fuel Price

PF% = Petroleum Fuel Percentage in the fuel blend

RFP = Renewable Fuel Price

RIN Value = RIN Price * Equivalence Value[188]

RF% = Renewable Fuel Percentage in the fuel blend

Equation 4: Fuel Blending Example for E10 Assuming Full RIN Discount

E10 Price = Gasoline Blendstock Price * 90% + (Ethanol Price – D6 RIN Price) * 10%

EPA's analysis of the market data confirms these economic principles that the RIN value is passed through to wholesale purchasers in the price of blended fuel.[189] The analysis—comparing the market prices for petroleum fuel, ethanol, RINs, and E10—shows that the market prices for blended fuel operate as shown in Equations 3 and 4, supporting EPA's findings that blenders are passing on the value of the RIN to wholesale purchasers.[190] Importantly, this means that, although blenders do not purchase RINs directly, there is still a cost for blenders to acquire RINs. This cost is realized when blenders discount the price for the finished blended fuel, pricing it based on the net price of the renewable fuel, after accounting for the sale of any RINs attached to the renewable fuel. The data EPA analyzed support our finding that the RIN value is fully passed through from blenders to wholesale purchasers, as described in Equations 3 and 4. Because the market is competitive, a blender cannot attempt to sell RINs at higher prices, as wholesale purchasers would merely go to a competitor selling at the market price. Thus, the cost of acquiring a RIN by blending renewable fuel and the cost of purchasing a separated RIN are equal as would be expected from the design of the RFS program and RIN system. Commenters submitted studies that they claim refute EPA's analysis; however, these studies are imperfect and, as described in Appendix B, EPA did not find it appropriate to rely on the conclusions presented in those comments and the studies they included.

c. Impacts on Different Market Participants

Before turning to the data analysis of RIN cost passthrough and the RIN discount as reflected in the prices of refined products and blended fuel, respectively, we first provide an

[188] The equivalence value is an RFS regulatory term that relates the number of RINs generated per gallon of renewable fuel produced. Ethanol has an equivalence value of 1.0. Other renewable fuels have equivalence values that are determined by their energy content relative to ethanol. For example, biodiesel has an equivalence value of 1.5 RINs per gallon of biodiesel reflecting that biodiesel has approximately 150% the energy content of ethanol.
[189] *See infra*, Section IV.D.2.d.
[190] *See infra*, Section IV.D.2.d.ii.

illustrative example to examine the implications of RIN cost passthrough and the RIN discount on the three types of market participants described above: a merchant refiner, an integrated refiner, and a non-obligated blender. We present examples for producing both E10 and B5, two common fuel blends present in many fuels markets. Each of these parties produces, purchases, and sells different products within the E10 and B5 markets, but, as this example demonstrates, no party has a structural advantage or disadvantage since both the RIN cost and the RIN discount are passed through to wholesale purchasers.

As briefly discussed previously, in reality very few parties fit entirely within only one of these three categories. Most refiners, both small and large, sell some volume of petroleum fuel (acting as merchant refiners) and blend some of their petroleum fuel with renewable fuel (acting as integrated refiners). Some also purchase gasoline or diesel fuel from other parties and blend it with ethanol to sell as E10 (acting as non-obligated blenders). Further, some refiners are also renewable fuel producers that produce the renewable fuel they blend rather than purchasing it from other parties and sell excess renewable fuel to others. Therefore, to better understand how various parties are affected by the RFS program and RIN prices, it is better to consider the role the party is playing in the fuels market (producing gasoline or diesel fuel, blending renewable fuel, etc.) than the predominant role of the company.

To illustrate the impact of the RFS program and RIN prices on parties acting in each of these roles, EPA evaluated scenarios with fuel prices, RIN prices, and RVOs as they existed on December 30, 2020. EPA also evaluated an alternative scenario where there was no RFS obligation. The fuel and RIN prices used in these scenarios, as well as the sources of these prices, are shown in Table IV.D.2.c-1 for the E10 example and Table IV.D.2.c-3 for the B5 example. The costs, revenue, and profit/loss for each party, both with and without the RFS program, are shown in Table IV.D.2.c-2 for E10 and Table IV.D.2.c-4 for B5. We recognize that fuel and RIN prices have changed, in some cases significantly, since December 30, 2020, and again since the Proposed Denial. However, because the purpose of these tables is to provide illustrative examples of how various parties are impacted by fuel and RIN prices and demonstrate that RIN cost passthrough occurs, and because several commenters reference these tables as provided in the Proposed Denial, we believe it is appropriate to maintain consistent examples between the Proposed Denial and this SRE Denial. Accordingly, we have not updated the price data used in these examples. We have, however, provided updated examples using more recent price data in Appendix V, which show that the outcome of our analysis does not change.

The 2011 DOE Study included a very similar hypothetical value breakdown for various types of refiners in Appendix B of that study.[191] At the time, DOE projected that *if* integrated refiners did not have to discount the E10 that they sell, then they could acquire RINs through blending at little or no cost. In this hypothetical scenario, integrated refiners that acquired RINs at little or no cost through blending renewable fuel would have a significant advantage relative to merchant refiners that purchased RINs at a higher market price. However, as the examples below illustrate, integrated refiners must compete with non-obligated blenders in the blended fuels market. To offer competitively priced blended fuel, integrated refiners (like blenders) must discount the price of the blended fuel by the price of the RIN attached to the renewable fuel contained in the blended fuel. Market data reviewed by EPA confirm that the price of blended

[191] *See supra*, Section II.D.

fuel reflects the RIN discount.[192] Thus, contrary to the hypothetical example in the 2011 DOE Study,[193] we find that all obligated parties have the same cost to acquire RINs, whether they acquire RINs through blending renewable fuel or purchasing separated RINs. We address comments on these findings in a generalized manner in Appendix B and in confidential refinery-specific appendices to this action.

Table IV.D.2.c-1: BOB,[194] Ethanol, E10, and RIN Prices on December 30, 2020[195]

Product	Price	Data Source
BOB Cost of Production	$1.34	Assumed to be equal to the BOB Market Price without RIN Cost
BOB Market Price without RIN Cost	$1.34	Calculated (BOB Market Price with RIN Cost less RIN Cost)
BOB Market Price with RIN Cost	$1.44	EIA
Ethanol Market Price	$1.50	OPIS
E10 Market Price with the RFS Program	$1.37	Calculated using BOB Market Price with RIN Cost, Ethanol Market Price, and D6 RIN Price
E10 Market Price without the RFS Program	$1.36	Calculated using BOB Market Price without RIN Cost and Ethanol Market Price
D6 RIN Price	$0.77	OPIS
RIN Cost per Gallon of BOB	$0.10	Calculated from 2020 RVO and OPIS RIN Prices
D6 RIN Cost per Gallon of E10	$0.06	Calculated from 2020 RVO and OPIS RIN Prices
D3, D4, and D5 RIN cost per gallon of E10	$0.03	Calculated from 2020 RVO and OPIS RIN Prices

[192] *See infra*, Section IV.D.2.d.ii.
[193] DOE's example in Appendix B of the 2011 DOE Study included a comparison of Company A that blends all its production with ethanol and does not need to purchase ethanol RINs, with Company B that does not do any blending and must purchase RINs to meet its entire RFS obligation, and with Company C that blends in excess of its obligation and has RINs to sell into the market. In DOE's hypothetical case, Company A acquired RINs at no cost (n/a in the estimate) while Company B faced a 15 cent per RIN cost to purchase RINs. 2011 DOE Study at B-4.
[194] BOB is an intermediate petroleum product that is used in making finished gasoline and is generally blended with ethanol to make E10. BOB represents the petroleum-based portion of blended gasoline that has a RIN obligation attached to it. Therefore, BOB can be used to show the price impacts of the RIN market on the petroleum component of blended fuel.
[195] Updated examples using more recent price data are provided in Appendix V.

Table IV.D.2.c-2: Illustrative Costs, Revenue, and Profit for E10 Production

Line		Merchant Refiner		Integrated Refiner		Non-Obligated Blender	
		With RFS	No RFS	With RFS	No RFS	With RFS	No RFS
2-1	0.9*BOB Cost of Production	$(1.21)	$(1.21)	$(1.21)	$(1.21)	-	-
2-2	0.9*RIN Cost	$(0.09)	-	$(0.09)	-	-	-
2-3	0.9*BOB Market Price	$1.30	$1.21	-	-	$(1.30)	$(1.21)
2-4	0.1*Ethanol Market Price (with RIN)	-	-	$(0.15)	$(0.15)	$(0.15)	$(0.15)
2-5	0.1*Net Ethanol Market Price (no RIN)	-	-	$(0.07)	$(0.15)	$(0.07)	$(0.15)
2-6	E10 Market Price (per Gallon)	-	-	$1.37	$1.36	$1.37	$1.36
2-7	D6 RIN Purchases	$(0.06)	-	-	-	-	-
2-8	D3, D4, and D5 RIN Purchases	$(0.03)	-	$(0.03)	-	-	-
2-9	D6 RIN Sales	-	-	$0.02	-	$0.08	-
2-10	Profit/Loss per Gallon E10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Table IV.D.2.c-3: Diesel Fuel, Biodiesel, B5 and RIN Prices on December 30, 2020

Product	Price	Data Source
ULSD[196] Cost of Production	$1.38	Assumed to be equal to the ULSD Market Price without RIN Cost
ULSD Market Price without RIN Cost	$1.38	Calculated (ULSD Market Price with RIN Cost less RIN Cost)
ULSD Market Price with RIN Cost	$1.48	EIA
Biodiesel Market Price	$3.66	OPIS
Biodiesel Tax Credit	$1.00	N/A
B5 Market Price with the RFS Program	$1.46	Calculated using ULSD Market Price with RIN Cost, Biodiesel Market Price, and D4 RIN Price, and Tax Credit Price
B5 Market Price without the RFS Program	$1.44	Calculated using ULSD Market Price without RIN Cost, Biodiesel Market Price, and Tax Credit Price
D4 RIN Price	$1.00	OPIS
RIN Cost per Gallon of ULSD	$0.10	Calculated from 2020 RVO and OPIS RIN Prices
D4 RIN Cost per Gallon of B5	$0.02	Calculated from 2020 RVO and OPIS RIN Prices
D3, D5, and D6 RIN cost per gallon of B5	$0.07	Calculated from 2020 RVO and OPIS RIN Prices

[196] ULSD stands for “ultra-low-sulfur diesel” fuel.

Table IV.D.2.c-4: Illustrative Costs, Revenue, and Profit for B5 Production

Line		Merchant Refiner		Integrated Refiner		Non-Obligated Blender	
		With RFS	No RFS	With RFS	No RFS	With RFS	No RFS
4-1	0.95*ULSD Cost of Production	$(1.31)	$(1.31)	$(1.31)	$(1.31)	-	-
4-2	0.95*RIN Cost	$(0.09)	-	$(0.09)	-	-	-
4-3	0.95*ULSD Market Price	$1.41	$1.31	-	-	$(1.41)	$(1.31)
4-4	0.05*Biodiesel Market Price (with RIN)	-	-	$(0.18)	$(0.18)	$(0.18)	$(0.18)
4-5	0.05*Tax Credit	-	-	$0.05	$0.05	$0.05	$0.05
4-6[197]	0.05*Net Biodiesel Price			$(0.06)	$(0.13)	$(0.06)	$(0.13)
4-7	B5 Market Price (per Gallon)	-	-	$1.46	$1.44	$1.46	$1.44
4-8	D4 RIN Purchases	$(0.02)	-	-	-	-	-
4-9	D3, D5, and D6 RIN Purchases	$(0.07)	-	$(0.07)	-	-	-
4-10	D4 RIN Sales	-	-	$0.05	-	$0.07	-
4-11	Profit/Loss per Gallon E10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

The illustrative examples presented in Tables IV.D.2.c-2 and 4 demonstrate several important points about the impact of the RFS program and RIN prices on merchant refiners, integrated refiners, and non-obligated blenders. First, since the RIN cost (lines 2-2 and 4-2) and the RIN discount (blended fuel prices based on net renewable fuel prices; lines 2-6 and 4-7) are fully passed through to wholesale purchasers, no party benefits or is harmed by the RFS program, either in absolute terms or relative to their competitors.[198] This can be seen in lines 2-10 and 4-11. In each of the examples, the revenues and costs of various products change as a result of the RFS program, but the profit/loss and, thus, the potential harm for each of these three parties is identical with and without the RFS program.

Second, a merchant refiner's ability to recover its RIN costs in the price of the fuel it produces does not depend on its ability to be a "price setter" or to receive a price for its fuel that is above the market price. Instead, the market price for fuel increases to account for the RIN cost associated with producing the fuel (RIN cost passthrough). Whether and the degree to which a refiner is a "price setter" or "price taker" is not influenced by the RFS program. Rather, the RFS

[197] The equation for this line was mistakenly described as "0.95*Net Biodiesel Price" in both the Proposed Denial and the April 2022 SRE Denial. However, this error was merely a typo in the line description for line 4-6, and not in the corresponding calculations presented in that line. Thus, the values presented in this table in both the Proposed Denial and the April 2022 SRE Denial were correct and calculated using "0.05*Net Biodiesel Price" as line 4-6 appears here.

[198] Throughout Section IV.D.2.c, references to "lines" are to Table IV.D.2.c-2 (lines beginning with 2-) and Table IV.D.2.c-4 (lines beginning with 4-).

program merely shifts upward the price at which this competitive dynamic is at play. This price impact can be seen by comparing the market prices for gasoline and diesel fuel with and without the RFS program (lines 2-3 and 4-3 respectively). Merchant refiners automatically receive a price for their fuel that reflects the cost increase due to the RFS program (i.e., the cost of the RIN) when they sell the fuel at the market price.

Third, if a refiner (merchant or integrated) has a higher cost of production than the market price without the RFS program, it will lose money for each gallon of fuel it produces. This is true both with and without the RFS program. Any party that has a higher cost of production than the market price for the goods it produces will lose money when selling those goods. However, the higher market prices for fuels can obscure these underlying fundamentals. In the example presented in Table IV.D.2.c-1, if a merchant refiner's cost to produce 0.9 gallons of gasoline is $1.30, it may appear that the refiner would break even by selling gasoline at the market price (line 2-3) but for the RIN purchases (lines 2-7 and 2-8). Several petitioners have made this very claim, that their refineries would be profitable if they did not have to purchase RINs but are not profitable after accounting for their RIN costs. However, such claims ignore the fact that in the absence of the RFS program, the market price for 0.9 gallons of gasoline (line 2-3) would fall to $1.21, resulting in a $0.09 loss. If a refiner's cost of production exceeds the marginal supply price for its market, the refiner will lose money for every gallon of fuel it produces due to its high cost of production, regardless of the presence or absence of the RFS program. As demonstrated by the identical results for all parties in Tables IV.D.2.c-2 and 4, the RIN compliance costs associated with the RFS program do not have a differential impact on the refiner's situation.

Fourth, while integrated refiners that do their own blending have the same cost to acquire RINs as merchant refiners, they spend less on separated RIN purchases when they produce E10 or B5 (lines 2-7 and 4-8, respectively). Integrated refiners are acting both as merchant refiners (producing fuel that carries an RFS obligation) and as blenders (blending renewable fuel and separating the attached RINs) at the same time. However, rather than purchasing all the RINs they need from other parties or selling all the RINs they acquire through blending renewable fuel, integrated refiners keep the RINs they need for compliance from blending renewable fuel rather than purchasing these RINs. The transfer of RINs from the blending operation of an integrated refiner to the refining operation is an internal transfer, rather than an external purchase or sale that is easier to see in financial reports. While it may appear that integrated refiners are at an advantage relative to merchant refiners under the RFS program because they purchase fewer RINs per gallon of fuel produced (lines 2-7 and 4-8) than merchant refiners, they also sell fewer RINs than non-obligated blenders (lines 2-9 and 4-10). These two impacts—the higher RIN purchases relative to merchant refiners and the lower RIN sales relative to non-obligated blenders—offset each other such that integrated refiners neither benefit from the RFS program, nor are at a disadvantage relative to merchant refiners or non-obligated blenders under the RFS program.

Another way to understand the impact of the RFS program on integrated refiners is to consider the opportunity cost to these parties of selling blended fuel rather than petroleum fuel. Integrated refiners are competing with non-obligated blenders when they sell blended fuel (lines 2-6 and 4-7). These blenders must discount the price of the blended fuel they sell because of the

revenue they realize when they sell the RINs associated with the renewable fuel (lines 2-9 and 4-10). Integrated refiners generally keep the RINs they acquire when they blend renewable fuel, so they do not have this revenue source to reduce the price of their blended fuel to compete with blenders. Instead of revenue from RIN sales, integrated refiners can use their own production of petroleum fuel, which has a lower cost of production than the market price for the fuel (lines 2-1 and 2-3 and lines 4-1 and 4-3), to produce blended fuel. Access to these lower-cost fuels allows integrated refiners the ability to offer blended fuel at the same price as non-obligated blenders—which use the revenue from RIN sales to discount the price of their blended fuel—despite the fact that they use the RINs they acquire through blending for RFS compliance, rather than selling them to other parties. In doing so they give up the opportunity to sell their petroleum fuel at the higher market rate, which reflects the RIN cost (lines 2-2 and 4-2).

Fifth, the fact that refiners are able to recover the cost of the RINs they need for compliance and that blenders pass through the RIN discount to wholesale purchasers does not mean that the RFS program has no impact on fuel prices.[199] The RFS program functions as a cross-subsidy, where RINs increase the market price of petroleum fuel (lines 2-3 and 4-3) and decrease the net price of renewable fuel (lines 2-5 and 4-6). This means that the RFS program reduces the market price for fuel with higher renewable fuel content (e.g., E85 or B20) and increases the market price for fuel with little or no renewable content (e.g., E0 or B0). Notably, the RIN cost and the RIN discount are not the same for all blended fuels. RIN costs (lines 2-2 and 4-2) are proportional to the quantity of petroleum fuel in the blended fuel while the RIN value used to discount the price of the renewable fuel is proportional to the quantity and type (D6 ethanol, D4 biodiesel, etc.) of renewable fuel in the blended fuel. In the two examples in Tables IV.D.2.c-2 and 4, the RIN cost and the RIN discount for E10 and B5 are very similar and as a result the prices for E10 and B5 with and without the RFS program (lines 2-6 and 4-7, respectively) are very similar. This is not the case for fuels with significantly higher or lower proportions of renewable fuel.

Finally, while non-obligated blenders realize revenue from RIN sales (lines 2-9 and 4-10), this revenue is not a windfall profit. Instead, RIN revenues result in lower net prices for renewable fuels (lines 2-5 and 4-6). The prices of the blended fuel (lines 2-6 and 4-7) then reflect the lower net cost for the renewable fuel under the RFS program. For fuels such as E10 and B5, when the RIN value of the renewable fuel in the blend is approximately equal to the RIN cost associated with the petroleum fuel in the blend, it can be difficult to see the impact of the RFS program in the blended fuel price. For fuels with significantly higher or lower renewable fuel content, the impact is more pronounced. RINs decrease the price for fuel with a high renewable content (e.g., B20 or E85), while RINs increase the price for fuel with little or no renewable content (e.g., E0 or B0). This is the mechanism by which the RFS program was intended to increase the production and use of renewable fuel in the United States.

In the calculations in Tables IV.D.2.c-2 and 4, we have made several simplifying assumptions. First, we have assumed that the fuel cost of production for both the merchant refiner and the integrated refiner (lines 2-1 and 4-1) is equal to the market price for the fuel

[199] The RFS program requires the use of renewable fuels, which often have higher prices than the petroleum fuels they displace. This is particularly true for advanced biofuels such as biodiesel and renewable diesel. By requiring the use of higher cost fuels, the RFS program marginally increases the cost of transportation fuel in the United States.

without the RFS program. In practice, the marginal cost to supply fuel to any given market sets the market price. Each refiner's refining margin would, therefore, be determined by its actual fuel cost of production relative to the market price for the fuel. RIN costs increase the market price for the fuel by an amount equal to the RIN cost, since all parties have the same RIN costs. However, since the market price for fuel reflects the RIN cost, the merchant refiner's profit/loss is determined by its cost of production relative to the marginal cost of production for its market, with or without the RFS program. Said another way, different refineries in a market will have differing profit margins for the fuel they produce and ultimately distribute to terminals. But since RFS compliance costs (i.e., RINs) apply equally to every gallon of fuel produced, these costs directly impact all gasoline and diesel fuel volumes equally, raising the marginal supply price for these products. Thus, RIN prices increase a refinery's costs and the market price for their production, but the difference between the refining margins for the different refineries will remain the same with and without the RFS program.

Similarly, in this example we have assumed no blending margin or cost for blending beyond the purchase of petroleum fuel and renewable fuel. This is a simplification that does not reflect the fact that, in addition to the cost of purchasing fuel, blenders—whether operating at a gasoline terminal or their own truck rack—also have operating costs and fixed costs. These costs include, among others, labor costs, maintenance costs, and capital recovery costs. Blenders must earn a margin when they sell blended fuel to cover these fixed and operating costs, and the market price for blended fuel reflects the fixed and operating costs of the marginal fuel blender.[200] However, not all blenders will have the same fixed and operating costs. Much like the previous example, we would expect a blender's (or integrated refiner's) profit/loss for blending renewable fuel to be equal to its fixed and operating costs relative to the fixed and operating costs of the marginal blender. Blenders and integrated refiners with relatively low blending costs are expected to earn greater profits through blending, while blenders and integrated refiners with relatively high blending costs are expected to earn relatively lower profits (or losses) through blending. This is true independent of the RFS program, as RIN costs/revenues are neutral. Notably, the design of the RFS program enables the market to function efficiently by allowing those refiners that have relatively high fixed and operating costs of blending renewable fuel to purchase RINs from blenders that have lower fixed and operating costs of blending renewable fuel. We acknowledge this simplification and note that our decision to exclude a blending margin from the examples presented in Tables IV.D.2.c-2 and 4 does not affect the conclusions highlighted above.

d. EPA Evaluation of Available Market Data

EPA analyzed the available market data to verify the economic principles at work and to verify that the RIN cost and the RIN discount are being reflected in the retail price of blended fuel.[201] These analyses, including analyses conducted for previous assessments of the

[200] We note that, in some of the contracts that have been submitted to EPA, this blending margin is represented by a fixed price, while in other cases the fuel purchaser appears to be accepting slightly less than full passthrough of the RIN value, possibly to pay for part or all of the blending margin or blending cost. In either case, these blending margins are negotiated between fuel buyers and fuel blenders and are generally not made public. EPA has provided a more detailed assessment of the individual refinery contracts provided to the Agency in the confidential refinery-specific CBI appendices.

[201] *See supra*, Section IV.D.2.b.

passthrough of both the RIN cost and the RIN discount, as well as new analyses using more recent data, are presented in this section. These analyses confirm that both the *cost* of the RINs—which is reflected in the prices for fuel and blendstocks—and the *discount* of the RINs are passed through to wholesale purchasers in the marketplace in the price they pay for blended fuel. In Appendix B, we address the RIN market studies included in the comments we received on the Proposed Denial. Some small refineries also submitted analyses specific to their operations under claims of confidentiality, and we have responded to those in confidential, refinery-specific appendices to this action.

i. Assessment of Data on RIN Cost Passthrough

EPA first assessed available data to determine whether refiners are able to recover the *cost* of the RINs they need to demonstrate compliance with their RFS obligations through higher prices for the petroleum fuel they produce, as described in Equations 1 and 2. This analysis is complicated by the fact that the terms in Equations 1 and 2 for the gasoline price with no RFS obligation and the diesel fuel price with no RFS obligation cannot be found in market data from the United States, as the reported data will always reflect the cost of the RFS obligation. As described below, however, there are market data on the prices of fuels that are very similar (and in some cases identical) where one fuel has an RFS obligation and the other does not.

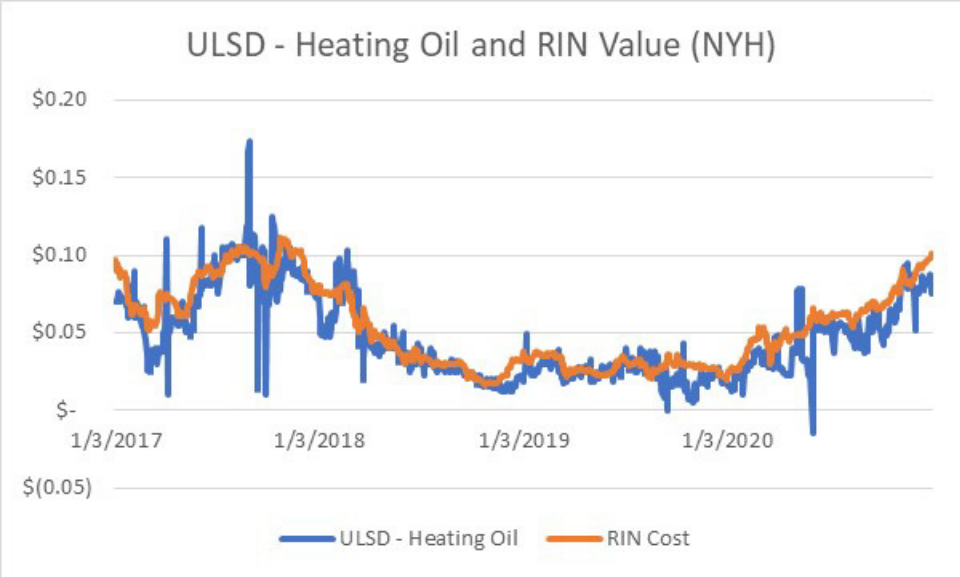
In 2015, EPA identified prices for near-identical fuels (in terms of technical fuel specifications, and, therefore, presumably cost of production) except for the fact that one fuel was subject to an RFS obligation while the other was not.[202] We then used the price of the non-obligated fuel to approximate what the cost of the obligated fuel would be in the absence of the RFS obligation. We then compared the price difference between these two fuels, which represents the increase in the market price of the obligated fuel as a result of its RFS obligation, to the RIN cost for producing or importing a gallon of fuel subject to an RFS obligation. The strong correlations between the price differences for similar fuels with and without an RFS obligation and the RIN cost per gallon of obligated fuel led to the conclusion that the market prices for gasoline and diesel fuel are higher than they would otherwise be in the absence of the RFS program. Further, the observed price difference was equal to the cost of purchasing the RINs needed to meet the compliance obligations for a gallon of gasoline or diesel fuel. We therefore concluded that all refiners recovered the full cost of the RINs they purchase through the prices of the fuel they sell.

EPA subsequently repeated the analytical techniques first developed in 2015 using more recent data from 2017–2020. Figure IV.D.2.d.i-1 shows the price difference in New York Harbor between ULSD, which is subject to an RFS obligation, and heating oil, which is essentially an identical product except that it is not subject to an RFS obligation. As expected, there is a very strong correlation between these data sets, as shown in Figure IV.D.2.d.i-2. The market price premium for ULSD over that for heating oil consistently matches the RIN cost (i.e., the cost of purchasing the RINs needed to meet the RFS obligation). EPA received both public and confidential comments on its analysis, and has responded to those comments in Appendix B and in confidential, refinery-specific appendices to this action.

[202] *See* Burkholder memo.

Similarly, Figure IV.D.2.d.i-3 shows the price difference in the Gulf Coast between ULSD, which is subject to an RFS obligation, and jet fuel, which is not. However, as shown in Figure IV.D.2.d.i-4, the correlation between the price difference of ULSD and jet fuel and the RIN cost is not as strong as the correlation between the price difference of ULSD and heating oil and the RIN cost. This is to be expected, as there are more significant product quality differences between ULSD and jet fuel such that they are not one-for-one replacements of each other. Furthermore, they are used primarily in different markets with distinct supply/demand dynamics that would also contribute to differences in their market prices.[203] Thus, there is more noise in these data, but a general relationship between the price difference among these fuels and the RIN cost can be seen. Also apparent in Figure IV.D.2.d.i-3 is the impact of the COVID-19 pandemic. In late March 2020, air travel and demand for jet fuel decreased dramatically, resulting in an over-supply of jet fuel and a spike in the price premium for ULSD over jet fuel.[204] Over time, as demand for jet fuel gradually increased and refiners adjusted their production to better match fuel demand, the price difference between jet fuel and ULSD returned to match the RIN cost. Taken together, these more recent data confirm EPA's original conclusion that the market prices for gasoline and diesel fuel reflect the RIN cost, and, therefore, all refiners are able to recover their RIN costs through the sales prices of these fuels.

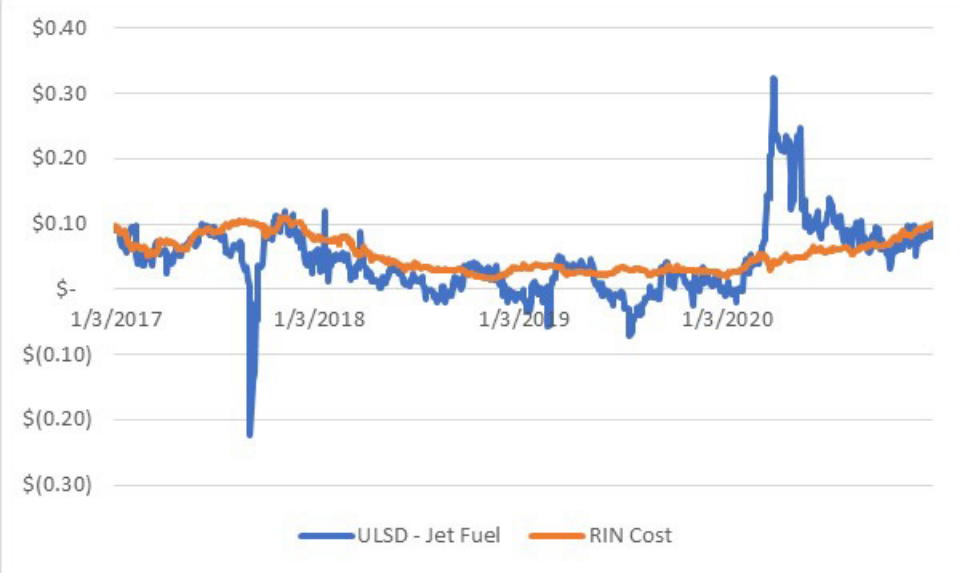
Figure IV.D.2.d.i-1: Price Difference Between ULSD and Heating Oil in New York Harbor and RIN Cost (2017–2020)[205]



[203] Jet fuel generally contains more sulfur than ULSD. While the properties of jet fuel are closer to #1 diesel than to #2 diesel, EPA's public data does not contain prices for #1 diesel.
[204] EIA, *COVID-19's impact on commercial jet fuel demand has been significant and uneven*, Today in Energy (August 7, 2020), https://www.eia.gov/todayinenergy/detail.php?id=44676.
[205] Prices for ULSD and heating oil are reported by EIA and are available at https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm.

Figure IV.D.2.d.i-2: Correlation Between Price Difference of ULSD and Heating Oil and RIN Cost (2017–2020)

Figure IV.D.2.d.i-3: Price Difference Between ULSD and Jet Fuel in the Gulf Coast and RIN Cost (2017–2020)[206]



[206] Prices for ULSD and jet fuel are reported by EIA and are available at https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm.

Figure IV.D.2.d.i-4: Correlation Between Price Difference of ULSD and Jet Fuel and RIN Cost (2017–2020)

In their SRE petitions and in their subsequent comments on the Proposed Denial, several small refineries submitted examples of fuel pricing contracts in their local markets under claims of confidentiality. EPA has responded to the general comments in Appendix B and to the confidential information in confidential refinery-specific appendices to this action. Notably, many of these contracts indexed the sales price for fuel in the typically smaller markets into which the small refineries sell fuel to larger fuels markets, usually with the addition of transportation costs. The structure of these contracts supports EPA's finding that the inclusion of the RIN cost in the price of obligated fuel is not unique to larger, coastal fuels markets, but is true across the United States. If the RIN cost is reflected in the sales price of fuel in New York Harbor and the Gulf Coast, it is certainly reflected in markets (including smaller markets) that *index* their pricing to these larger markets.

One piece of evidence that the pricing of fuel in smaller markets is commonly indexed to the price in larger spot markets is the reporting of the Spot Replacement Index (SRI) by a major industry source of fuel pricing information. A contractor to EPA described the SRI as follows:

> "The starting point for both the gasoline and ULSD SRI is the average of the prior-day's closing spot range in each of the seven U.S. spot markets. Each day the price reporting service surveys traders and brokers and publishes a full day range (high, low, mean, settlement) that represents their assessment of the value of spot transactions for gasoline and diesel fuel that day. The price service provider has mapped over 250 rack markets from their theoretical spot origin points. From the full day spot price assessment, the service provider then adds current pipeline tariffs based on the distance that product flows in the line from the spot origin point to the destination rack terminal location. The price provider then adds in line loss (due to evaporation in the line), terminaling and storage (transfer) fees if product moves from line to line, an estimated fee for proprietary additives (when required), a cost of money factor (based upon transit time from origin to

> destination), pipeline security charges and trucking fees for applicable markets where product requires transportation using vehicles in addition to pipelines. For distillates, the service provider also approximates the cost of various additives (lubricity, red dye, etc.). For each date in the analysis the day's SRI shows yesterday's closing spot price delivered into a specific market. The service provider developed this methodology after more than a year of discussion with major oil suppliers, marketers, and resellers."[207]

EPA considers the existence and common use by the refining industry of the SRI as strong evidence that the prices in local markets are indexed to the seven major U.S. spot markets; otherwise this tool would be of little use to the industry participants that helped to create and use it.

Furthermore, because of the highly connected and competitive nature of fuels markets across the United States, one would expect every fuels market to reflect these same pricing dynamics. To date, no petitioning small refinery has provided EPA with data that contradict this position, either in their SRE petitions or in their comments on the Proposed Denial, nor have we found other data that is in conflict with this expectation. In fact, small refineries that participate in both larger markets and smaller markets have consistently highlighted to EPA that they are in direct competition with larger and better resourced refineries regardless of their location. Even in cases where the small refineries themselves may not distribute fuel beyond a relatively small geographic area, the large integrated refiners with which they compete in those local markets do sell fuels into the larger distributed markets. It would not make economic sense for these large integrated refiners, which have access to larger fuels markets where market prices reflect the cost of RINs, to choose to sell into the smaller markets occupied by small refineries unless the market prices in those smaller markets also reflected the RIN cost. Some small refineries asserted that large refineries engage in predatory pricing (i.e., the illegal act of setting prices low to attempt to eliminate the competition) in the local markets where the small refineries compete. The U.S. Federal Trade Commission (FTC) has looked into such claims in the past and has generally found that in "markets with a large number of sellers, such as gasoline retailing, it is unlikely that one company could price below cost long enough to drive out a significant number of rivals and attain a dominant position."[208] Even if such claims were true, such predatory pricing would presumably be for the purpose of increasing the predatory refinery's share of the refined products market (the thing they produce) and not the renewable fuels market (the thing they also buy). In other words, such predatory pricing for refined products would not be a basis for EPA to find DEH due to the cost of compliance with the RFS program. Consistent with the historic findings of the FTC, EPA in its review of the materials submitted by small refineries in their SRE petitions and comments has not found a basis to conclude that the wholesale fuel markets are anything but highly competitive.

Another important observation from these data is that neither the RIN cost nor the additional revenue a refiner receives for an obligated fuel compared to a non-obligated fuel (the

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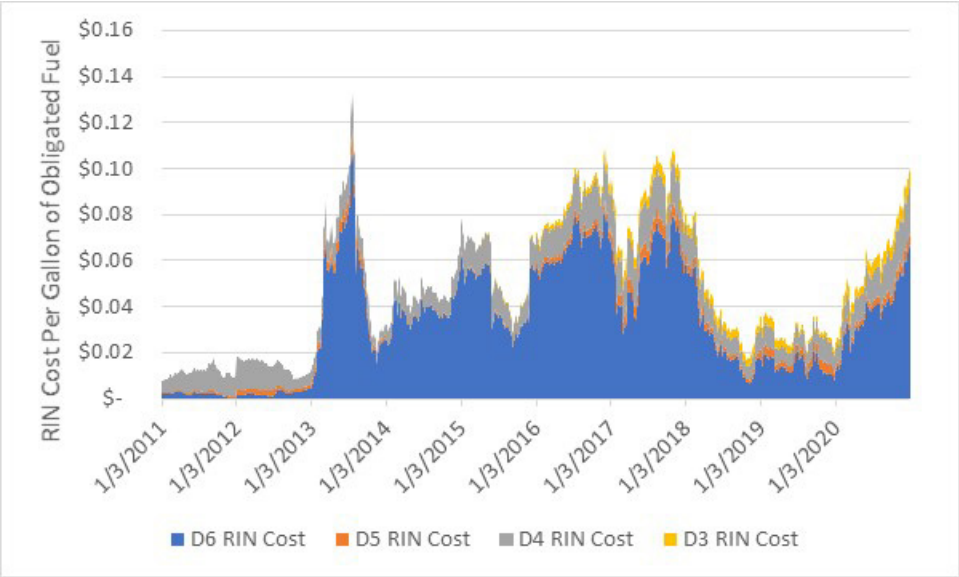
[207] Economic Analysis of Fuel Blending, prepared for the Environmental Protection Agency by Stillwater Associates LLC, February 9, 2022, p. 3.

[208] United States Federal Trade Commission (FTC), "Predatory or Below-Cost Pricing," available at https://www.ftc.gov/advice-guidance/competition-guidance/guide-antitrust-laws/single-firm-conduct/predatory-or-below-cost-pricing.

premium for obligated fuel versus a similar non-obligated fuel) are static. There has been significant variation in these prices from 2017–2021, from approximately $0.10 per gallon in late 2017 and late 2020, to a low of approximately $0.03–0.04 per gallon throughout 2019. RIN prices have generally held stable in the first quarter of 2021, though they continued to increase in 2021, with prices at the end of 2021 for most RIN categories 50–100% greater than RIN prices at the end of 2020 (see Figure IV.D.2.d.i-5).[209]

Figure IV.D.2.d.i-5: RIN Cost Per Gallon by RFS Category (2011–2020)



Obligated parties that choose to purchase the RINs they need for compliance on a ratable basis (i.e., purchase on a systematic, regular basis the number of RINs needed to satisfy their obligation for all the fuel sold each day) will recover the cost of the RINs they purchase in the sales price of the petroleum fuel they sell. Conversely, obligated parties that choose to delay RIN purchases, or to purchase excess RINs in advance of producing or importing petroleum fuel, may recover more or less than the price they paid for RINs in the sales price of the petroleum fuel they sell, depending on whether the RIN price on the purchase date is higher or lower than the RIN price on the date the petroleum fuel is sold. For example, based on the data presented in Figures IV.D.2.d.i-1 and 3, an obligated party that sold fuel in July 2020 received approximately $0.06 per gallon more than it would have in the absence of the RFS program. If that obligated party delayed purchasing RINs until the end of 2020, the RIN cost would have been approximately $0.10 per gallon. Conversely, if the obligated party had purchased excess RINs in January 2020, the RIN cost would have been approximately $0.03 per gallon. Thus, the decision to delay RIN purchases until December 2020 would have cost an obligated party an additional $0.04 per gallon of fuel produced in July 2020; whereas purchasing excess RINs in January 2020 would have resulted in an additional $0.03 per gallon profit for every gallon of fuel produced in July 2020. By purchasing RINs ratably, all obligated parties have the ability to match their RIN costs with the price they receive when they sell their fuel (i.e., to pass through their RIN costs).

[209] EPA, RIN Trades and Price Information, available at https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rin-trades-and-price-information.

Alternatively, refineries can try to time their purchases in the RIN market, which may result in greater or lesser RIN costs. EPA strongly disputes any notion that costs resulting from individual refinery's business decisions, including the choice to delay RIN procurement in hopes of receiving an SRE, or an attempt to time the transaction to profit from the fluctuation in the RIN market prices over time, represent DEH *caused by* the RFS program.

A number of small refineries have argued that, because the RFS program does not require RINs to be purchased ratably, EPA is obligated to provide hardship relief if purchasing RINs in any manner allowed under the RFS program would lead to a small refinery having a higher cost of compliance than other program participants. EPA does not agree that RFS program flexibilities, including those that allow refineries to choose when they acquire RINs, can be a basis for hardship relief. The purpose of the RFS program and the regulations EPA promulgated to implement it are to "ensure that gasoline sold or introduced into commerce in the United States, [] on an annual basis, contains the applicable volume of renewable fuel."[210] Currently, these regulations require refineries to ensure that renewable fuel volumes equivalent to approximately 11–12 percent of their annual gasoline and diesel fuel production are entered into commerce. In accomplishing that program requirement, the industry as a whole accomplishes that product mix each day and month of the year with some small variation due to seasonal sales patterns for some fuels. In the absence of the RIN credit program, refineries would have to directly ensure renewable fuel blending. In such a program design, a small refinery could, under the annual compliance provisions, choose to delay any renewable fuel blending until the last month of the year and then attempt to sell exclusively renewable fuel in the last month of the year at a volume to meet the obligation it accrued through the preceding 11 months. Such an approach would almost certainly lead to a much higher cost of compliance than would have occurred had the small refinery worked to demonstrate compliance on an ongoing basis each month through the year. As alleged by small refinery commenters, EPA would then be compelled to provide hardship relief due to the higher cost of RFS compliance for the small refineries that chose such a compliance mechanism. Such an approach, where the business decisions of the individual companies are made within the regulations but contrary to the purpose of the program, does not constitute DEH *caused* by the cost of compliance with the RFS program, and therefore cannot be a basis for hardship relief. Otherwise, all small refineries could simply choose such an impossible compliance approach, and then, having made this choice, be assured of relief from the RFS obligations. Similarly, individual business decisions made by an obligated party not to ratably accrue RINs as their obligation accrues, but instead to either purchase RINs in advance or delay RIN purchases until a later date, are business choices that companies may lawfully make. However, as discussed in detail in Section III, EPA may not consider these individual business choices in determining if a small refinery faces DEH due to compliance with the RFS program. EPA addresses these and other similar comments on the Proposed Denial in Appendix B.

ii. Assessment of Data on the RIN Discount

To verify that fuel blenders are passing through the RIN discount to wholesale purchasers through the price of blended fuel as described by Equations 3 and 4, EPA considered information from a variety of sources, including the information received from commenters. We evaluated

[210] CAA section 211(*o*)(2)(A)(i).

the issue by analyzing market pricing data for petroleum fuel, renewable fuel, RINs, and blended fuel (including data submitted by petitioners), statements from blenders in publicly-available earnings reports, and fuel pricing contracts submitted by petitioners. Each of these data sources support EPA's finding that revenue from RIN sales does not represent a windfall profit for fuel blenders. Rather, they demonstrate that blenders pass through the full value of the RIN to wholesale purchasers in discounts on the price of the blended fuel they sell and, therefore, do not retain any revenue from the sale of RINs. We address the information received from commenters on the Proposed Denial in Appendix B and in confidential, refinery-specific appendices to this action.

There are a limited number of markets where prices for each of these fuels are reported, but all of those we have evaluated confirm our conclusions that fuel blenders are passing through the RIN discount to wholesale purchasers through the price of blended fuel.[211] In 2015, EPA analyzed market data from Des Moines, Iowa and demonstrated that there was a very strong correlation between the difference in the posted price for E10 in Des Moines and the calculated E10 price based on the component fuels (gasoline blendstock and ethanol), and the RIN price per gallon of E10.[212] These data indicated that fuel blenders are selling blended fuel based on the net price of the renewable fuel (after accounting for the sale of any associated RINs). This means that the price of the blended fuel was lower than the cost to purchase the components of the fuel blend (gasoline blendstock and ethanol with a RIN) and that revenue from RIN sales offset these costs. The result of this pricing behavior is that 100% of the revenue from RIN sales was passed on to wholesale purchasers.

Prior to the issuance of the Proposed Denial, two petitioning small refineries submitted data to EPA on fuel prices in their markets that enabled EPA to analyze current data in additional markets using a methodology similar to the analysis we conducted for Des Moines in 2015.[213] Both parties claimed this data presented supported their claims of DEH. One petitioner used monthly gasoline and ethanol pricing data from a local terminal, along with RIN pricing data, to determine a monthly calculated E10 price from 2010 to the present using an equation nearly identical to Equation 2.[214] The petitioner then plotted these calculated E10 prices, which assume that 100% of the RIN value is passed through to wholesale purchasers through lower prices for blended fuel, against the posted prices for E10 at that same terminal. The petitioner found an extremely strong correlation ($R^2 = 0.9976$) between the calculated E10 price (assuming 100% RIN passthrough) and the posted E10 price, demonstrating for this terminal that the RIN value has been fully passed through to wholesale purchasers since 2010.[215]

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[211] This same point was raised in one small refinery's petition, along with data to illustrate it. The small refinery claimed its petition and all supporting information as CBI.
[212] *See* Burkholder memo.
[213] We do not present the data here because the petitioners have claimed it contains CBI.
[214] The only difference between Equation 2 and the equation used by the petitioner to determine the calculated E10 price was that the petitioner included an additional terminaling and throughput charge that applies regardless of the RFS program and is not relevant to this discussion.
[215] This petitioner acknowledged that the RIN was used to discount the price of blended fuel at their terminal. However, the petitioner further argued that the RIN cost could not be recovered in the cost of the gasoline and used to discount the price of the blended fuel. As discussed further in Section IV.D.2.c, both the economic principles and

Another petitioning small refinery's fuel pricing data allowed EPA to conduct a similar analysis for yet another market.[216] This petitioner provided daily pricing information for E10 from a local terminal, as well as daily pricing information for gasoline blendstock and ethanol from a nearby market along with the cost to transport these fuels to the petitioner's local market. Daily prices were provided from January 1, 2019, through June 21, 2021. EPA used the data to calculate an E10 price using Equation 2 and compared these calculated E10 prices (assuming the E10 price was based on the net price of the ethanol, passing through 100% of the RIN in the discounted price of E10) to the posted E10 prices at the local terminal. As with the data provided by the other petitioner, we again find an extremely strong correlation ($R^2 = 0.9991$) between these two prices, further confirming our previous findings that the RIN price is fully passed through to wholesale purchasers as a discount on the price of the renewable fuel when petroleum fuel and renewable fuel are blended and then sold.

Support for EPA's finding that the RIN discount is fully reflected in the price of blended fuels and is accordingly passed through to wholesale purchasers by fuel blenders can also be found in public statements by the blenders themselves. Several parties directly involved in fuel blending supported EPA's findings in comments[217] on EPA's Point of Obligation denial.[218] More recently, R. Andrew Clyde, President, CEO & Director of Murphy USA, a large fuel blender and retailer, was asked if the recent high RIN prices positively affected Murphy USA's margins in a Q1 2021 earnings report. He responded:

> The reality is RINs and RIN prices are immaterial to our business. Historically, and you can look back over the last 3 years annual results, we've made $0.02 to $0.03 per gallon on product supply and wholesale net of RINs. And so during the quarter on the average, we generated about the equivalent of $0.07 a gallon per RIN, but net of the negative spot to rack margins of $0.04, we netted a little bit over $0.03…If RINs are high, the refiner gate price is high and like it was in this quarter, our refinery gate spot to rack margin is negative…So RIN prices don't matter. The product supply margin plus the RINs is going to be about $0.02 to $0.03.[219]

Mr. Clyde describes a market dynamic wherein blenders experience negative blending margins (due to competitive market forces requiring that the RIN price be reflected in the market price of blended fuel) that are offset by revenue from selling RINs, with total margins (including fuel blending and RIN sales) relatively stable and independent of RIN prices.[220] These dynamics

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the market data demonstrate that this is incorrect. Refiners recover the cost of the RIN through the sales of their petroleum fuel and the RIN is used to discount the price of blended fuel.

[216] We do not present the data here because the petitioner has claimed it contains CBI.

[217] *See* Letter from RaceTrac to Administrator McCarthy, August 17, 2016, Docket Item No. EPA-HQ-OAR-2016-0544-0014; Letter from QuikTrip to Administrator McCarthy, August 17, 2016, Docket Item No. EPA-HQ-OAR-2016-0544-0013; Presentation from Murphy USA to EPA, August 16, 2016, Docket Item No. EPA-HQ-OAR-2016-0544-0028.

[218] 81 FR 83776 (November 22, 2016) and 82 FR 56779 (November 30, 2017).

[219] Murphy USA Inc. FQ1 2021 Earnings Call Transcripts (April 29, 2021).

[220] Petitioners' claims of "RIN theft" and windfall profits from RIN sales by Murphy USA and other blenders are further addressed in Section IV.D.2.a.

are exactly what one would expect to see if blenders are passing through 100% of the RIN price as a discount to wholesale purchasers in the price of blended fuel.[221]

Several petitioning small refineries also provided EPA with examples of contracts for fuel sales.[222] While there were some differences among these contracts, they generally showed that the sales price for blended E10 was discounted by the value of the RIN associated with the ethanol blended into the fuel blend. Many of the pricing formulas shown in these contracts looked very similar to Equation 4, with some referencing petroleum fuel and/or ethanol prices in nearby markets and including transportation costs. In some cases, the contracts stipulated that the purchase price would be the lower of the calculated price based on the prices of the petroleum fuel and the net price of ethanol (thus passing through 100% of the RIN price to wholesale purchasers) or the posted price of E10 at the local terminal, whichever was lower. These contracts provide yet more evidence that the price of the RIN is reflected in the sales price for blended fuel, and further that the passthrough of the RIN price to wholesale purchasers is not limited to any particular market in the United States.

3. EPA Responses to Small Refinery Arguments for Exemption

The petitioning small refineries raise many similar arguments in their petitions and in supplemental information they submitted to support receiving an exemption from their RFS obligations. Because these arguments are repeated by most, if not all, SRE petitioners, EPA is addressing them in this section at a level of generality needed to maintain the claims of CBI asserted by the small refineries in their respective petitions. The refineries generally argue eight overarching themes in their petitions and supplemental information. However, EPA recognizes that this list is not comprehensive. After reviewing the comments submitted in response to the Proposed Denial, EPA found that the small refineries repeated many of the same arguments that they had raised in the SRE petitions that were addressed in the Proposed Denial. To the extent that EPA addressed or responded to these assertions in the Proposed Denial, EPA has not responded to them again in Appendix B. EPA addresses the unique arguments raised by the small refineries in their comments on the Proposed Denial in Appendix B and in confidential, refinery-specific appendices to this action.

The general themes small refineries have articulated are: (a) They face unique challenges that prevent them from achieving RIN cost passthrough and that EPA must consider their specific circumstances; (b) EPA's Point of Obligation denial did not address their situations and does not apply to them; (c) The Point of Obligation denial is out of date and inapplicable; (d) The revenue from RIN sales allows large retailers to undercut small refineries; (e) Large integrated refiners set prices in fuels markets, undercutting small refineries on price because of their market position and because large integrated refiners have lower or no RIN costs; (f) EPA is incorrect about parity between the cost of obtaining a RIN through blending and the cost of buying a RIN on the market; (g) Single site refineries are disadvantaged relative to large integrated refiners because they only have access to a limited market; and (h) Small refineries that produce

[221] *See supra*, Section IV.D.2.b.
[222] We do not present the contract data here because the petitioners have claimed it contains CBI.

primarily diesel fuel are at a disadvantage since they cannot blend as much renewable fuel into their product as can refineries that produce gasoline.

EPA evaluates and responds to each of these general themes below.

a. Small refineries face unique challenges that prevent them from passing through their RIN costs. EPA must consider each small refinery's specific situation.

Small refineries assert that "EPA must do more than cite to the Burkholder Report's conclusion 'that the refining industry *as a whole* is not burdened by rising RIN prices because refineries may pass that cost to purchasers of the blended fuel.' *Ergon-W. Va., Inc. v. EPA*, 896 F.3d 600, 613 (4th Cir. 2018) (emphasis added)."[223] The small refineries further assert that EPA has, in the past, ignored information specific to individual refineries that demonstrates that they cannot pass through the prices they pay for RINs due to unique operational or local market circumstances.

The small refineries misstate the holding from *EWV-I* and completely ignore the subsequent decision in *EWV-II*. The court in *EWV-I* held that EPA had acted arbitrarily and capriciously when it "failed to squarely address Ergon's petition with regards to RIN costs"[224] and instead relied on the Burkholder memo "as the *sole basis* for its conclusion."[225] (emphasis added). The court found that EPA was not arbitrary and capricious in relying on the Burkholder memo as one of many factors considered in the decision, but rather, that it failed to adequately illustrate how the analysis in that study applied to the circumstances at a particular small refinery (Ergon-West Virginia). On remand, EPA reached the same conclusion as in its first decision and this action was also challenged by Ergon before the Fourth Circuit. The court, in *EWV-II*, reviewed EPA's post-remand denial, which again relied heavily on the Burkholder memo, and found that "EPA's post-remand discussion of Ergon's evidence connected the dots left unaddressed in its original decision[,]" because "EPA thoroughly discussed Ergon's purported evidence of hardship, explained why it rejected Ergon's arguments, and set out other factors that led it to reach an opposite conclusion."[226] Accordingly, in this final action, EPA has evaluated the question of RIN costs in depth for the petitions at issue, starting with an evaluation of the underlying structure of the RFS program and RIN system to ascertain whether and how it might be possible for compliance with the RFS program to cause DEH. EPA then conducted a careful analysis of how the cost and value of RINs would be expected to flow through to wholesale purchasers, and analyzed a substantial amount of data, including available local market-specific data, that show how the findings in the Burkholder memo regarding the refining industry as a whole are true for all obligated parties, including small refineries in general and individual small refineries whose SRE petitions are before the Agency in particular.[227] However, due to the confidential nature of much of the information included in SRE petitions, we are presenting overall findings here and are presenting our responses to any refinery-specific data in confidential, refinery-specific appendices to this action. We have reviewed the information in the

[223] Confidential submissions by several small refineries made this assertion.
[224] *EWV-I*, 896 F3d at 613.
[225] *EWV-II*, 980 F.3d at 417, *rev'd on other grounds*.
[226] *Id*.
[227] *See supra,* Section IV.D.2.

SRE petitions and the suppmental information provided by small refineries in their comments, and nothing presented in them leads us to conclude that the small refineries are affected by RFS compliance differently than other obligated parties or that they are not able to pass along RFS compliance costs to wholesale purchasers.

The small refineries also state in their SRE petitions and in comments submitted on the Proposed Denial that there are many diverse factors that affect each refinery's profitability and ability to recover the full cost of fuel production, including their RFS compliance costs. The small refineries cite to the 2011 DOE Study to support their assertion, quoting the following language:

The degree to which the costs burdening small refineries will be passed through to the market depends on many factors, including the market power and the relative cost level of a small refiner relative to other market participants…. The cost for small refiners to comply with the RFS2 requirements can be substantial…. Their limited product slates coupled with an inability to blend renewable fuels means that many of the small refiners must enter the market to buy RINs. The cost to meet their individual RVO makes this aspect the most significant cost of compliance.[228]

As explained in Section IV.D.2 and acknowledged by DOE, the 2011 DOE Study did not evaluate empirical evidence pertaining to RIN cost passthrough. Furthermore, DOE has concluded that, if EPA's assertion that the cost of compliance is the same whether refineries buy RINs or blend biofuels to acquire RINs is correct, and EPA's assertion that RFS compliance costs are passed through in the price of refined products is also correct, small refineries would not face a "high[er] cost of compliance relative to the industry average.[229]

The small refineries fail to acknowledge the fact that they may not be profitable or able to pass through the full cost of their fuel production *despite* their RIN costs being passed through. It is important to reiterate that independent market analyses, as well as EPA's own, support the premise that RIN costs are incorporated into the price of finished fuels.[230] This is to say that even *without* RFS compliance costs, these small refineries may not be profitable. This kind of economic hardship is not *caused* by the RFS program, but rather, by the refinery's business model, geographic location, business decisions, and/or other factors independent of the RFS program. The CAA only speaks in terms of DEH caused by compliance with the RFS program. Congress tied SREs to compliance with the RFS program by using the language "compliance with the requirements of paragraph (2) would impose a [DEH]"[231] and "would be subject to a [DEH] if required to comply with paragraph (2)."[232] The CAA does not authorize or require EPA to subsidize through compliance exemptions any refinery whose economic hardship is not caused by compliance with the RFS program no matter the seriousness of the economic conditions the

[228] 2011 DOE Study at 22–23.
[229] *See* DOE Consultation Memo.
[230] *See supra*, Section IV.D.
[231] CAA section 211(*o*)(9)(A)(ii)(I), paragraph (2) refers to the section where Congress provided the annual applicable renewable volume mandates.
[232] CAA section 211(*o*)(9)(A)(ii)(II).

refinery may face, particularly since the magnitude of the RIN cost per gallon in comparison to typical refinery margins could turn the least profitable refineries into the most profitable ones.[233]

Additionally, the DOE language the small refineries quote comes from the "[o]ther observations from the interview process,"[234] which DOE "compiled through interviews with several industry participants, including two refineries, three importers, a fuel marketer, and a corn ethanol marketer."[235] This section does not state DOE's own conclusions, but rather summarizes what DOE heard from the stakeholders it reached out to in 2011. This language cannot be treated as DOE's findings, but rather, DOE's statement of the input it solicited and considered. Moreover, even is this were a conclusion DOE made, it was based on an analysis that did not account for RIN cost passthrough.

EPA believes the conclusions in the Burkholder memo are applicable to all gasoline and diesel fuel markets nationwide, and, therefore, also applicable to all refineries, including small refineries.[236] Nevertheless, some petitioning small refineries have provided refinery-specific information in comments submitted under claims of confidentiality, attempting to explain why the conclusions in the Burkholder memo do not apply to them. EPA has analyzed the supplemental information and found no evidence supporting the assertions from the petitioning small refineries that their RFS compliance costs are disproportionately greater than for other refineries or that they are not able to pass along their RFS compliance costs to wholesale purchasers.[237] In fact, the data petitioners provided to EPA reflected the price behavior for both RINs and finished fuels that EPA would have expected based on economic principles.[238] EPA responds to these comments in Appendix B and in confidential, refinery-specific appendices to this action. Additionally, other stakeholders with interest and expertise in RIN market behavior and RFS compliance have provided support for and approved of EPA's analysis and conclusions regarding RIN cost passthrough.[239]

b. The small refineries' situations are distinguishable from the findings provided in the Point of Obligation denial, and the Point of Obligation denial did not address small refineries.

Petitioners claim that EPA's assessment of RIN cost passthrough in the Point of Obligation denial covered three categories of parties: integrated refiners, non-obligated fuel blenders, and merchant refiners. The petitioners note that small refineries as a group do not fit

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[233] *See supra*, Section IV.D.2.b. *See also infra*, Section IV.D.3.e.
[234] 2011 DOE Study at 22.
[235] *Id*. at 21.
[236] *See supra*, Section IV.D.2.
[237] *See supra*, Section IV.D.2.
[238] *See supra*, Section IV.D.2.
[239] *See supra*, Section IV.D.2. *See also* Letter from RaceTrac to Administrator McCarthy, August 17, 2016, Docket Item No. EPA-HQ-OAR-2016-0544-0014; Letter from QuikTrip to Administrator McCarthy, August 17, 2016, Docket Item No. EPA-HQ-OAR-2016-0544-0013; Presentation from Murphy USA to EPA, August 16, 2016, Docket Item No. EPA-HQ-OAR-2016-0544-0028. *See also* comments from API on 2020 RFS Annual Rule, Docket Item No. EPA-HQ-OAR-2019-0136-0721. *See also* comments from Chevron, API, BP, Shell, and Citgo on EPA's Proposed Denial, available in the docket for this action (EPA-HQ-OAR-2021-0566-0029 (Chevron), EPA-HQ-OAR-2021-0566-0031 (API), EPA-HQ-OAR-2021-0566-0033 (BP), EPA-HQ-OAR-2021-0566-0036 (Shell), EPA-HQ-OAR-2021-0566-0042 (Citgo)).

neatly within any of these categories. They further claim that EPA's conclusions about merchant refiners' ability to recover their RIN costs were based on representations from Valero, which they note is a large, international refiner with efficiency, geographic range, and pricing power. The petitioners state that while these types of merchant refiners may be able to recover the cost of purchased RINs, small refineries without these characteristics cannot.

EPA recognizes that few, if any, small refineries (or any refineries) fit neatly into a single category of integrated refiner, non-obligated blender, and merchant refiner.[240] Rather, we explain that refiners, whether large or small, may operate as an integrated refiner, non-obligated blender, and/or a merchant refiner in various fuels markets and in different aspects of their business operations. EPA demonstrates that because both the RIN cost and the RIN discount are ultimately passed through to wholesale purchasers for all three categories, the RFS program does not advantage or disadvantage any of these parties over the others, regardless of how much of their operations fall into one or more of these categories. Importantly, a small refinery's ability to recover its RIN costs in the price of the fuel it produces does not depend on factors such as geographic range or pricing power.[241] Instead, the data and analysis EPA presents demonstrate that the market prices for both refined products and blended fuel reflect the cost of acquiring the RINs necessary to satisfy the RFS obligation associated with the fuel. Merchant refiners do not need to exercise market power and demand a price that is higher than the market price to recover their RIN costs; all parties selling into these competitive markets are recovering the cost of acquiring RINs when they sell their fuel at the market price. Thus, although size and market power can be an advantage for reasons other than RFS compliance, they provide no advantage to non-small refineries in recovering their RFS compliance costs.

c. EPA's assessment in the 2017 Point of Obligation Denial is out of date and not applicable.

Many petitioners state that EPA could not rely on the conclusions of the assessment conducted in 2017 in the context of the Point of Obligation denial to evaluate their recent petitions. The petitioners state that the information considered in 2017 is now out of date and does not reflect the present realities of the fuels market.

We believe that the analyses conducted in 2017 continue to inform our understanding of the ways in which the RFS program affects small refineries and other fuels market participants. The fact that the data reviewed in 2017 were consistent with what would be expected based on the design of the RFS program with its RIN system and economic principles is strong evidence that it is highly unlikely that the RFS program will cause DEH, and is strong evidence that the conclusions in that action remain true today. Our finding in that decision that the fuels market operates as we would expect in a competitive market remains relevant. As long as the fuels and RIN markets remain competitive, we do not anticipate that the RFS program will cause DEH on small refineries.

Nevertheless, in this decision, we have considered more recent data since 2017—including the additional data the small refinery petitioners themselves submitted in their SRE

[240] *See supra*, Section IV.D.2.c.
[241] *See infra*, Section IV.D.3.e.

petitions and in comments on the Proposed Denial—and we find that the more recent data are consistent with the data EPA reviewed in 2017.[242] These data continue to support our finding that both the RIN cost and the RIN discount are passed through to wholesale purchasers and continue to show that the RIN market works in the same way for all market participants, including individual small refineries.

d. Revenue from RIN sales allows large retailers to undercut small refineries.

Petitioners claim that EPA had not considered clear evidence that revenue from RIN sales enabled large retailers such as Murphy USA to undercut the small refineries they compete with that are unable to sell RINs for a profit. The petitioners argue that large retailers (which are generally not obligated parties) can sell blended fuel at a lower cost than the cost of the petroleum fuel and renewable fuel they are composed of because of the revenue they receive by selling RINs. Small refineries must price their blended fuel at the same price as large retailers to be competitive, but they do not receive the benefit of revenue from RIN sales.

Contrary to the petitioners' claims, EPA has considered the ability for non-obligated blenders to sell RINs and to use the RIN sales revenue to discount the price of blended fuel while remaining profitable.[243] We present an illustrative example of how RIN prices affect integrated refiners (which is the role small refineries are taking in the fuels market when they are blending the petroleum fuel they produce with renewable fuel) and non-obligated blenders in Section IV.D.2.c. As shown in Tables IV.D.2.c-2 and 4, neither integrated refiners nor non-obligated blenders benefit from, or are harmed by, higher RIN prices.

The petitioners' description of blenders using revenue from RIN sales to enable them to offer lower prices for the blended fuel they sell is consistent with EPA's findings (i.e., the RIN discount).[244] We also recognize that competitive forces require small refineries selling blended fuel to sell at the market price (which reflects the passthrough of the RIN price as a discount to wholesale purchasers). In their claims about the advantages that the RFS program provides to non-obligated blenders, however, the petitioners have not considered the impact of RIN prices on the market price for fuels.

When small refineries produce and sell blended fuel from the petroleum fuel they produce, they are acting as integrated refiners for that volume of fuel. Generally speaking, integrated refiners are not able to sell the RINs associated with the renewable fuel they blend, as they need these RINs to meet their RFS obligations. But unlike non-obligated blenders, integrated refiners do not typically purchase petroleum fuel to produce blended fuel; instead, they are producing the petroleum fuel themselves. This means that for an integrated refiner, the cost of the petroleum fuel is not the market price for these products (which reflects the marginal cost of production of the fuels plus the cost of purchasing the RINs needed to satisfy the RFS obligation associated with the fuel), but rather simply the cost of production for the petroleum

[242] The data, and the conclusions we have drawn from the more recent data, are presented in Section IV.D.2.d. and our responses to the public comments are provided in Appendix B. Responses to refinery-specific information are provided in confidential, refinery-specific appendices to this action.
[243] *See supra*, Section IV.D.2.
[244] *See supra*, Section IV.D.2.

diesel fuel. The lower cost of the petroleum fuel relative to the market price for these products allows the integrated refiner to price its blended fuel competitively with non-obligated blenders and still maintain a positive margin for producing blended fuel even though they do not realize revenue from RIN sales.[245]

Both the economic principles and the data EPA reviewed support our finding that the RFS program does not advantage non-obligated blenders over integrated refiners. While RIN sales provide an additional source of revenue for non-obligated blenders, this is offset by the higher price (which reflects the RIN cost) for the petroleum fuel that the blenders pay to merchant refiners to produce blended fuel. Integrated refiners, which are producing petroleum fuel rather than purchasing them at the market price, have access to lower cost petroleum fuel but do not realize revenue from RIN sales. Thus, while the RFS program impacts these parties in different ways, neither enjoys an advantage or disadvantage over the other.

e. Large integrated refiners set the prices in fuels markets, undercutting small refineries on price because of their market position and because the large, integrated operations have no or lower RIN costs.

Petitioners claim that they compete in markets with large integrated refiners, and that they have no market pricing power relative to these parties. Petitioners also state that, because these large integrated refiners have no or lower RIN costs, they are able to undercut small refineries when they price their product. They further note several other advantages that large integrated refiners have relative to small refineries, such as a broader range of assets, economies of scale, and access to more fuels markets (including exports). We address each of these points in turn.

The market for gasoline and diesel fuel in the United States is extremely competitive.[246] EPA's finding that merchant refiners are able to pass through their RIN costs through higher market prices for the fuel they produce does not depend on merchant refiners having market pricing power in the markets where they sell fuel. Rather, we find that the market price for fuel reflects the RIN value, and therefore all parties in all markets that sell fuel recover their RIN costs when they sell their fuel (RIN cost passthrough).

In Section IV.D.2.c, EPA presented an example of the impact of higher RIN prices on merchant refiners, integrated refiners, and non-obligated blenders, and discussed the impact on each of these parties. In short, integrated refiners spend less money to purchase RINs than merchant refiners; unlike the non-obligated blenders they are competing with in the blended fuels market (i.e., large fuel retailers without refining or import businesses), they do not benefit from revenue from RIN sales. Merchant refiners do benefit from the higher market prices for gasoline and diesel fuel that are the result of higher RIN prices, but they must use this additional revenue to purchase RINs. Said another way, there is an opportunity cost when these integrated refiners blend renewable fuel with the petroleum fuel they produce instead of selling it unblended, as these parties sell blended fuel for a lower price than they could sell the petroleum

[245] A further description of the impact of the RFS program on merchant refiners, integrated refiners, and non-obligated blenders is provided in Section IV.D.2.c.
[246] *See supra*, Section IV.D.2.

fuel. This opportunity cost is equal to the savings these parties experience from acquiring RINs by blending renewable fuel rather than purchasing separated RINs.

The many factors mentioned by the petitioners, such as a broader range of assets (upstream, downstream, etc.), economy of scale, and access to more fuels markets, may in fact provide a competitive advantage to large integrated refiners. However, the fact that small refineries have continued to remain in the marketplace and compete with large integrated refiners is evidence of the fact that small refineries typically have other market advantages, such as access to local crude supplies and local markets lowering their distribution costs, specialty products, and niche markets with fewer competitors. None of these market advantages and disadvantages are the result of the RFS program. Each of these factors offered potential advantages (and potential liabilities) before the RFS program existed and continue to do so today. The petitioners have not presented any evidence, nor is EPA aware of any evidence, that would suggest that the RFS program has exacerbated any of the advantages large integrated refiners may have over small refineries.[247] In other words, the competitiveness of small refineries in the fuels market, be it favorable or unfavorable, does not change as a result of RFS compliance obligations.

On the other hand, granting SREs has provided small refineries a unique and significant competitive advantage. When small refineries are exempted from their RFS obligations, they continue to sell their petroleum fuel at the market price, which reflects the RIN cost via RIN cost passthrough. Thus, exempted small refineries recover the cost of the RINs (receive RIN revenue) through their product sales, but do not have any RIN costs when they are granted an exemption. The number of small refineries receiving exemptions, the total volume of gasoline and diesel fuel exempted, the total value of the exemptions, and the value of the exemptions on a per gallon basis are shown in Table IV.D.3.e-1. This table also shows the average net refining margins (an indicator of profitability) for the exempted small refineries, for comparison with the value of the exemptions. The value of the exemptions is typically significant relative to the average net refining margin. For all exemptions granted for the 2013 through 2018 compliance years, the average value of the exemptions (6.76 cents per gallon) was approximately 64% of the average net refining margin of the exempted refineries (10.61 cents per gallon).[248] Any exemptions granted in 2022 would likely be of even greater value since current RIN prices, and therefore the current RIN cost per gallon of fuel produced, are higher than RIN prices when the exemptions for 2013–2018 were granted.

[247] EPA acknowledges that the Tenth Circuit in *Sinclair* found that Congress may have understood large integrated refiners to have certain advantages, and EPA has cited that decision itself in support of its prior approach to SRE decisions. *Sinclair* at 989. However, as noted, EPA does not believe that the available evidence supports the conclusion that small refineries are structurally disadvantaged by the RFS program itself.

[248] The 34 remanded SRE petitions for 2016–2018 that were initially granted, but were denied upon remand and reconsideration in the April 2022 SRE Denial and in this action, are included in these calculations.

Table IV.D.3.e-1: Value of SREs (2013–2018)

Compliance Year	Number of Grants Issued	Volume of Gasoline and Diesel Fuel Exempted (billion gallons)	Total Value of the Exemptions ($ Million)[249]	Value of Exemptions (¢ per gallon)	Average Net Refining Margin for Exempted Refineries (¢ per gallon)[250]
2013	8	1.98	118	5.98	-0.65
2014	8	2.30	105	4.57	4.98
2015	7	3.07	171	5.57	12.05
2016	19	7.84	676	8.63	2.11
2017	35	17.05	1,459	8.56	11.76
2018	31	13.42	558	4.16	17.00
Total	108	45.66	3,088	6.76	10.61

f. EPA's conclusion that there is parity between the cost of obtaining a RIN through blending and the cost of buying a RIN on the market is incorrect. It costs much more to buy RINs, which many small refineries must do.

Several petitioners note that EPA's analyses are based on the assertion that the cost of obtaining a RIN through blending and the cost of purchasing a RIN is the same, and that this assertion is unfounded. To support this claim, the petitioners note that the cost to purchase RINs increased significantly in recent years, and that the cost to purchase RINs was much greater than the cost to blend renewable fuel. The petitioners further state that if there was no cost advantage to blending then there would be no reason for non-obligated parties to continue blending. Rather, these parties would stop blending if they could not recoup the loss by selling the RINs on the market.

We are aware that RIN prices increased significantly recently and we extended our analysis of the impact of RIN prices on the fuels market through the end of 2020 to determine whether our previous findings on RIN cost passthrough were supported by more recent data.[251] We concluded that all the data available to EPA, including data submitted by the petitioners and data received in comments on the Proposed Denial, continue to support EPA's findings on RIN cost passthrough. EPA responds to the information received in comments in Appendix B and in confidential, refinery-specific appendices to this action.

[249] Based on annual average RIN prices calculated by EPA from OPIS data for D3, D4, D5 and D6 RINs.
[250] EPA often grants exemptions in the year(s) following the year for which an exemption is requested. Because of this time lag, refineries sometimes financially account for the value of their exemption in the following year(s). Thus, the value of the exemptions for some refineries may be included in the net refining margin for the following year(s). For example, EPA granted some 2013 exemption in 2014 or later years, so the value of some 2013 exemptions may be included in financial statements for 2014 or later.
[251] *See supra*, Section IV.D.2.

EPA's finding that there is parity between the cost to obtain a RIN through blending and the price to purchase a RIN is not an unsubstantiated assertion. Rather, it is strongly supported by both economic principles and fuels market data. As stated previously, the market for blended fuel is highly competitive. If the cost of obtaining a RIN by blending renewable fuel was lower than the market price for a RIN, we would expect to see new blenders enter the market and/or existing blenders increasing their blending to capitalize on this profit opportunity. This activity would result in an increase in the supply of RINs for sale until the demand price for a RIN was equal to the cost of obtaining a RIN through blending. Competitive market situations where the sales price of a good is appreciably higher than the cost to produce a good are short-lived, as market participants will increase production to take advantage of this opportunity until the supply price and demand price are equal.

The market data EPA reviewed support this finding as well.[252] The cost to obtain a RIN by blending renewable fuel is not simply the fixed and operating costs for fuel blending (which are relatively minor), nor is it simply the price difference between renewable fuel and the petroleum fuel into which they are blended (e.g., the price difference between ethanol and gasoline or between biodiesel and diesel fuel). Instead, the cost to a blender to obtain a RIN is the price difference between the cost of the petroleum fuel (e.g., gasoline or diesel fuel) and the renewable fuel used to produce blended fuel and the sales price of the blended fuel (e.g., E10 or B5). The data presented in Section IV.D.2.d demonstrate that the difference between the cost of the petroleum fuel and the renewable fuel used to produce blended fuel and the sales price of the blended fuel is equal to the market price for the RINs associated with the blended fuel.[253]

The finding that there is parity between the cost of obtaining RINs by blending renewable fuel and purchasing RINs does not mean that RINs do not provide an incentive for the blending of renewable fuel. While blending renewable fuel does not result in windfall profits for blenders (since the revenue from RIN sales is passed through to wholesale purchasers in a discount on the price for blended fuel), RIN revenue lowers the effective cost of renewable fuel, allowing blenders to offer blended fuel containing renewable fuel at lower prices. The examples presented in Section IV.D.2.c illustrate this point. In the E10 blending example (Table IV.D.2.c-1), the price of the gasoline is $1.44 per gallon and the price of ethanol is $1.50 per gallon, which is higher than the price of the gasoline. However, the RIN discount allows E10 to sell for $1.37 per gallon, which is lower than the price of the gasoline (line 2-6 from Table IV.D.2.c-2). Similarly, in the B5 blending example (Table IV.D.2.c-3), the price for ULSD is $1.48 and the price for biodiesel is $3.66. Here again the RIN revenue, when combined with the federal tax credit, allows B5 to sell for a lower price ($1.46 from line 4-7 in Table IV.D.2.c-4) than the price of diesel fuel. Fuel buyers are extremely sensitive to prices. The incentive for blenders to continue to blend renewable fuel when there is parity between the cost of obtaining a RIN through blending and the cost to purchase a RIN is not that the revenue from the sale of the RIN represents a windfall profit, but rather that the RIN discount allows blended fuel to sell at a lower (competitive) price relative to unblended fuel after passing through the revenue of the RIN sales to the wholesale purchaser. A fuel blender that declined to offer the cheaper E10, instead selling only more expensive E0, would quickly find itself at a substantial disadvantage in the highly competitive gasoline market. The blenders are themselves likely indifferent to offering E10 or

[252] *See supra*, Section IV.D.2.d.
[253] *See supra*, Figures IV.D.2.c-2 and 4.

E0, only seeking to offer the mix of fuel products their customers demand based on the price and value of the fuel blends.

g. Single-site refineries only have access to a limited market and are therefore at a disadvantage relative to large integrated refiners.

Several petitioners claim that because they own a single refinery and have access to limited markets for their fuels, they are at a disadvantage compared to large integrated refiners. The petitioners claim that because of their size, they cannot set the market price in such a way as to recover their RIN costs, nor can they sell their fuel into other markets if their local market prices are unfavorable.

As previously discussed, a refiner's ability to recover its RIN costs does not depend on the refiner's ability to set the market price for the fuel it produces.[254] Rather, because all parties have the same cost to acquire RINs, whether they acquire RINs through blending renewable fuel or by purchasing RINs, the market price for all gasoline and diesel fuel reflects the cost of the RINs.

We are aware that the economics of refining crude oil to produce transportation fuel changes over time, and that some fuels markets vary in their profitability relative to other markets. At times it can be an advantage to be in limited markets, and at other times not. Refiners with better access to pipelines and other low-cost ways to transport the fuel they produce are better positioned to react to changes in market dynamics, whether these changes are positive, negative, short-term, or long-term in nature. These varying circumstances, and any hardship they might cause to small refineries, are independent of and not caused by compliance with the RFS program.

We received claims of disadvantage from small refineries in isolated markets where they were the main supplier of fuel, from small refineries in markets readily accessible to many other refineries, and from small refineries in every situation in-between. The identical claims from such a broad diversity of refinery situations demonstrates that a small refinery's market has nothing to do with potential impacts from the RFS program. As a result of the nationwide RIN trading program, all refineries have equal access to the RINs they need for compliance with the RFS program and at the same nationwide price.

h. Refineries that produce primarily diesel fuel are at a disadvantage since they generally cannot blend as much renewable fuel into their product as can refineries that produce gasoline.

The claim that small refineries producing a disproportionately high amount of diesel fuel, relative to the amount of gasoline produced, suffer DEH from the RFS program presumes that parties that acquire RINs by blending renewable fuel do so at a lower cost than parties that purchase RINs. These small refineries generally assert that their ability to acquire RINs by

[254] *See supra*, Sections IV.D.2 and IV.D.3.e.

blending biodiesel or renewable diesel is limited relative to their competitors that have the ability to blend greater quantities of ethanol into the gasoline they produce.

As previously discussed, all parties have the same cost to acquire RINs, whether they do so by blending renewable fuel or by purchasing RINs.[255] A party's cost of acquiring RINs, therefore, is unrelated to its ability to blend renewable fuel. Further, it is not necessarily the case that greater quantities of renewable fuel can be blended into gasoline relative to diesel fuel. With the exception of very small quantities of higher-level ethanol blends such as E15 and E85, blending of ethanol into gasoline is limited to 10% by volume. Conversely, many parties regularly sell diesel fuel blended with up to 20% biodiesel or renewable diesel.[256] Parties blending 20% biodiesel or renewable diesel into diesel fuel would acquire more RINs than parties blending 10% ethanol into gasoline, especially after accounting for the higher equivalence values of biodiesel and renewable diesel.

[255] *See supra*, Sections IV.D.2 and IV.D.3.f.
[256] *See*, e.g., diesel fuel offerings by Pilot Flying J—the largest diesel fuel retailer in the United States—available at https://pilotflyingj.com/fuel-prices.

V. Alternative Compliance Demonstration Approach and Proposed Alternative RIN Retirement Schedule

In a separate, concurrent action, EPA is supplementing the April 2022 Compliance Action that provided an alternative approach to demonstrating compliance for the 31 small refineries whose 2018 SRE petitions were originally granted and were denied after remand in the April 2022 SRE Denial to also include three similarly situated SRE petitions that were denied in this action: two for the 2016 compliance year and one for the 2017 compliance year. As explained in the June 2022 Compliance Action, there is a unique confluence of events driving EPA's conclusion that an alternative compliance demonstration approach is necessary in order to address RIN market constraints and ensure RFS program integrity. The June 2022 Compliance Action is separate and addresses only the compliance demonstration required subsequent to EPA's final decision to adjudicate the 34 aforementioned 2016–2018 SRE petitions in this action and the April 2022 SRE Denial.

In another separate, concurrent action, EPA is proposing to provide all small refineries with an alternative RIN retirement schedule for their 2020 RFS obligations. The Alternative RIN Retirement Schedule NPRM would provide small refineries with more time to comply with their 2020 RFS obligations and allow them to use a broader range of RIN vintages to meet their obligations. Neither the June 2022 Compliance Action nor the Alternative RIN Retirement Schedule NPRM address any findings of DEH, as those determinations are made only within the April 2022 SRE Denial and this final decision.

VI. Denial of Petitions and Judicial Review

Section 211(*o*)(9)(B) of the CAA and 40 CFR 80.1441(e)(2) give EPA the authority to grant an SRE petition only when a small refinery demonstrates it is experiencing DEH caused by compliance with the RFS program. Based on our detailed evaluation, careful consideration of all the available information, review of all the additional data and information submitted in comments on the Proposed Denial, consultation with DOE, and consideration of the DOE study and other economic factors, EPA finds that none of the 69 pending SRE petitions for the 2016–2021 compliance years have demonstrated DEH caused by the cost of compliance with the requirements of the RFS program.

The market-based design of the RFS program and the RIN-based compliance system have equalized the cost of compliance among all market participants, such that no refinery would face DEH from its RFS obligations.[257] We have evaluated an extensive amount of data and available information and have concluded that the cost of RINs is the same for all obligated parties, whether the RINs are acquired by blending renewable fuel or by buying them on the market.[258] Hence, small refineries do not face a disproportionate cost of compliance when compared to other refineries, or to each other. Our analysis further shows that the costs of RFS compliance (i.e., RINs) are passed through in the prices of refined products. Hence, in recovering their RIN costs, refineries do not face economic hardship due to compliance with the RFS program. Finding no disproportionate cost of compliance and no economic hardship due to the RFS program, we conclude that small refineries do not face DEH. As such, EPA finds that compliance with the RFS program does not impose DEH on small refineries and, accordingly, is denying 69 pending SRE petitions in this final action.

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the United States Court of Appeals for the District of Columbia Circuit: (i) when the agency action consists of "nationally applicable…final actions taken by the Administrator," or (ii) when such action is locally or regionally applicable, but "such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination." For locally or regionally applicable final actions, the CAA reserves to the EPA complete discretion whether to invoke the exception in (ii) described in the preceding sentence.

This final action is "nationally applicable" within the meaning of CAA section 307(b)(1). In the alternative, to the extent a court finds this final action to be locally or regionally applicable, the Administrator is exercising the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on a determination of "nationwide scope or effect" within the meaning of CAA section 307(b)(1).[259] This final action denies 69

[257] *See supra*, Section II.B.
[258] *See supra*, Section IV.D.2.
[259] In deciding whether to invoke the exception by making and publishing a finding that this final action is based on a determination of nationwide scope or effect, the Administrator has also taken into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of Agency resources.

petitions for exemptions from the RFS program for over 30 small refineries across the country and applies to small refineries located within 15 states in 7 of the 10 EPA regions and in 8 different Federal judicial circuits.[260] This final action is based on EPA's revised interpretation of the relevant CAA provisions and the RIN discount and RIN cost passthrough principles that are applicable to all small refineries no matter the location or market in which they operate. For these reasons, this final action is nationally applicable or, alternatively, the Administrator is exercising the complete discretion afforded to him by the CAA and hereby finds that this final action is based on a determination of nationwide scope or effect for purposes of CAA section 307(b)(1) and is hereby publishing that finding in the Federal Register.

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the District of Columbia Circuit within 60 days from the date notice of this final action is published in the *Federal Register*.

This action is not a rulemaking and is not subject to the various statutory and other provisions applicable to a rulemaking. This action is immediately effective upon issuance.

[260] In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the "nationwide scope or effect" exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402–03.

June 2022 Denial of Petitions for RFS Small Refinery Exemptions: Appendices

United States Environmental Protection Agency

June 2022 Denial of Petitions for RFS Small Refinery Exemptions: Appendices

United States Environmental Protection Agency

EPA United States Environmental Protection Agency

EPA-420-R-22-011A
June 2022

Appendix A – List of Small Refineries and Petitions Covered by the June 2022 SRE Denial

Petitioner	Refinery City	Refinery State	Petition Year						
			2016	2017	2018	2019	2020	2021	Total

This information has been claimed as confidential by the affected businesses.

Total 33			2	1	2	29	30	5	69

Appendix B – Comment Summary and Response

This appendix summarizes the comments received and responds to the unique arguments made therein that were not already addressed in the SRE Denial.[1] Similar to the SRE petitions and supporting documentation considered and addressed in the Proposed Denial, many of the comments submitted in response to the Proposed Denial raised the same or very similar arguments, allowing us to group and respond to the arguments once.[2]

In sum, EPA received numerous substantive comments. The parties represented in the commenters included refineries, biofuel producers, and their respective trade organizations. Many elected officials, including representatives at the local, state, and federal level, commented on the interests their constituents have in the SRE provision and RFS program. Many of the petitioning small refineries submitted their comments under claims of confidentiality and included refinery-specific data for DOE and EPA to evaluate. To the extent small refineries raised the general arguments in favor of EPA granting their exemptions, EPA has responded to those in the SRE Denial and this Appendix B.[3] EPA has responded to confidential data and information by providing confidential, refinery-specific appendices to the submitting refineries. In all instances, the findings of the SRE Denial apply to all 69 SRE petition denials, regardless of whether the refinery's comments are further addressed in an individual appendix.

[1] "June 2022 Denial of Petitions for RFS Small Refinery Exemptions," EPA-420-R-22-011, June 2022.
[2] Since some comments received were specific to the 2018 SRE petitions that were remanded to the Agency by the D.C. Circuit and are not relevant to this final action, and to the extent we already responded to those comments in the April 2022 SRE Denial, we are not necessarily addressing all comments in this response.
[3] Throughout this Appendix B, references to Sections I, II, III, IV, V, and VI refer to the corresponding sections in the SRE Denial, while references to Sections B.I, II, III, and IV refer to the corresponding sections in this Appendix B.

I. Procedural Comments and Legal Authority

1. EPA provided an insufficient opportunity for comment on the Proposed Denial.

Comment:

EPA stacked multiple comment periods for RFS-related actions raising numerous economic and legal issues and posing serious potential consequences for small refineries' compliance into the same short period. Small refineries did not have sufficient time to prepare adequate comments to the Proposed Denial due to several comment periods for RFS actions open at the same time.

Response:

EPA's action denying SRE petitions is not a rulemaking, but rather is an adjudication of the SRE petitions before the Agency and, as such, EPA is not required to provide public notice and an opportunity for public comment before taking this action. However, EPA chose to provide the opportunity for public comment to ensure that the Agency had all relevant information available to it, and that all stakeholders had an opportunity to provide information for EPA's consideration in making a final decision on the SRE petitions. Further, EPA disagrees that the public comment period was insufficient because other RFS actions were available for public comment at the same time. First, small refineries have been on notice regarding the holdings in the *RFA* opinion since January 20, 2020. Second, EPA notified the refineries on August 17, 2021, that EPA was strongly considering applying the holdings from the *RFA* opinion that remained after the Supreme Court's decision in *HollyFrontier* to pending SRE petitions before the Agency. Though the Proposed Denial was not issued until December 7, 2021, and not published in the *Federal Register* until December 14, 2021, small refineries have had access to the *RFA* opinion since January 20, 2020, and had actual notice and the opportunity to provide information as early as August 2021. The fact that other EPA actions in which the same small refineries may have an interest were also available for public comment is not relevant to the adequacy of the refineries' opportunity to comment on *this* action. Moreover, it would be impossible for EPA to ensure that only one action at a time is open for public comment to avoid stakeholders having to address more than one proposed action at a time. Further discussion of our reasoning for maintaining the comment period deadline is available in a January 25, 2022, response letter to a coalition of small refineries, available in the docket for this action.

Comment:

EPA's contention that small refineries were on notice regarding the substance or importance of the Proposed Denial from actions and events leading up to it is nonsensical.

Response:

EPA clearly informed affected refineries by email on August 17, 2021, that the Agency intended to evaluate SRE petitions following its evaluation of the *RFA* holdings.[4] Therefore, refineries

[4] A copy of this email is available in the docket for this action.

had actual notice of the factors and analysis that would likely be applied to the pending SRE petitions, and that EPA would consider relevant information they submitted. Specifically, EPA stated:

> You are receiving this email . . . because EPA has at least one pending small refinery exemption petition from your small refinery. EPA has received additional information from certain small refinery exemption petitioners relating to their ability to recoup their RFS compliance costs in response to the U.S. Court of Appeals for the Tenth Circuit's January 2020 holding in *Renewable Fuels Association v. EPA* that disproportionate economic hardship must be caused by the RFS. In the interest of equity, EPA wants to be sure that you are aware that EPA is evaluating what this holding means and that you, too have the opportunity to submit additional information to support your small refinery exemption petition(s). EPA will consider all the information you provide in support of your petition when making its decision.

There is no basis to claim that this notice was inadequate simply because it occurred in advance of the Proposed Denial; in fact, EPA's email provided additional, earlier notice, effectively extending the time period for providing information to the Agency. In this email, EPA explained that it was evaluating RIN cost passthrough in the context of the SRE provision due to the *RFA* holding on DEH causation. There was no need for EPA to take a definitive position on whether it intended to apply the *RFA* holdings—and in fact that was one of the issues on which EPA expressly requested input—so refineries would be able to comment on the question of whether the Agency should do so. Therefore, between August 2021 and February 2022, small refineries had roughly five months' notice and opportunity to comment on EPA's proposed reliance on these factors.

Comment:

The comment period was less than 60 days.

Response:

First, a 60-day comment period is not required for adjudications upon which EPA chooses to request comment, and in fact no opportunity for notice and comment is required at all. In addition, the Proposed Denial was published on EPA's website on December 7, 2021. The comment period was extended shortly thereafter to February 7, 2022. Thus, the total time from public availability to the close of the comment period was 62 days.

Comment:

The time constraints EPA claims prevent it from extending the comment period deadline are results of the Agency's own doing.

Response:

As explained above, EPA provided a reasonable opportunity for public comment and explained in its January 25, 2022, letter to a coalition of small refineries its reasons for not extending the comment period. There have been several reasons for EPA to act on the SRE petitions when it did so. EPA took the first action to deny SRE petitions pursuant to an order from the Court of Appeals for the D.C. Circuit to issue new decisions on 36 remanded 2018 SRE petitions by April 7, 2022, which it did. EPA is taking this second action to provide certainty to SRE petitioners and other RFS program participants by deciding 69 pending SRE petitions reasonably soon after the April action. It is also important that today's action be issued concurrently with the Agency's final action to issue the 2020–2022 RFS Annual Rule, since this action is relevant to that final rule.

2. EPA's Proposed Denial violated the due process rights of the petitioning small refineries.

Comment:

Small refineries have a property interest in their RFS exemptions that the government cannot take away without due process.

Response:

Small refineries have no property interest in continued exemptions under the RFS program. As an initial matter, the Supreme Court has held that "[t]o have a property interest in a benefit, a person clearly must have more than an abstract need or desire for it. He must have more than a unilateral expectation of it. He must, instead, have a legitimate claim of entitlement to it." *Board of Regents v. Roth*, 408 U.S. 564, 576 (1972). EPA has consistently maintained that small refineries have no entitlement to an exemption in a given year. There is a presumption of compliance under the RFS program from which a small refinery may be exempted only if it can make a demonstration of DEH caused by the cost of compliance with the RFS program. There is not, and has never been, a guarantee or promise that a small refinery exempted in one year will be exempted in the following year. To the contrary, EPA's practice has routinely been to evaluate SRE petitions based on the circumstances within the petition year. Meaning that, even in recent years, EPA has denied small refineries' SRE petitions in one year after having granted an exemption for the same refinery for a prior year, based on the different facts. The small refinery exemption is further distinguishable from other government benefits recognized by the Supreme Court as being protected by the Fourteenth Amendment's due process clause in its purpose. The Court explains that "[i]t is a purpose of the ancient institution of property to protect those claims upon which people rely in their daily lives, reliance that must not be arbitrarily undermined." *Roth*, 408 U.S. at 576. Exemption from otherwise mandatory environmental standards is not an "ancient institution of property," nor is it analogous to "claims upon which people rely in their daily lives." EPA does not recognize perpetual exemption as a valid compliance strategy upon which a business can rely in making strategic decisions. Moreover, and as explained elsewhere herein, EPA provided ample notice and process—more than was required under the CAA—and did not violate small refineries' due process rights.

Comment:

EPA violated small refineries' due process rights because the Agency failed to provide adequate notice of its intention to deny the pending SRE petitions. Commenters also claim that they reasonably expected that EPA would grant their SRE petitions since refineries had consistently received exemptions in the past; and that the public notice-and-comment process does not cure the lack of notice, as the refineries would have had more time to prepare their SRE petitions than they did to prepare their comments.

Response:

As noted above, EPA disagrees with commenters that there is a recognized property interest in receiving an exemption from the RFS program. In addition, EPA provided adequate notice of its action and, therefore, even if the refineries did have such a property interest, they were not deprived of due process. First, as explained above, EPA provided ample notice and opportunity for the refineries and other stakeholders to comment on its Proposed Denial. Second, and as discussed elsewhere in this Appendix, commenters also have no basis to claim they reasonably relied on EPA's past actions on other SRE petitions to assume their petitions would be granted, and EPA disagrees that any such expectation was reasonable. As noted above, EPA has always evaluated each SRE petition based on information relevant to that petition, and in some cases has provided relief in one year and denied it in the next.

Finally, the commenters claim that, since the Agency claims the statute is ambiguous, EPA was, therefore, not compelled to revise its interpretation. The basis for EPA's decision to follow the holdings of *RFA* is explained in Section III and depends on the Agency's evaluation of the statutory text as well as the purpose of the RFS program and of the SRE provision. The fact that the commenters disagree with EPA's interpretation does not mean that the Agency failed to provide adequate notice of its action. In fact, commenters had sufficient time and opportunity to explain in their comments their disagreement with EPA's conclusions, as described in responses in Section B.I.1.

Moreover, as noted above, small refineries lack a property interest in obtaining an exemption from the RFS program. And, even if they had such an interest, they would have to show that they "sustained prejudice as a result of the allegedly insufficient notice." *Long v. Board of Governors of the Federal Reserve System*, 117 F.3d 1145, 1158 (10th Cir. 1997). EPA provided small refineries adequate notice regarding the Agency's specific intent to deny their pending SRE petitions and solicited comment on the aspects the Agency considers to be the most important matters of both fact and law. In addition to this comment period, in August 2021, EPA explicitly requested additional information from small refineries regarding RIN cost passthrough and the holdings of the *RFA* opinion. On August 25, 2021, EPA filed a motion for voluntary remand without vacatur in the D.C. Circuit cases so that EPA could evaluate the impacts of the *RFA* and *HollyFrontier* decisions on its SRE policy and the decisions made on those SRE petitions.[5] In total, small refineries had over five months of notice of what factors EPA believed would be important in deciding the pending SRE petitions. Small refineries have used that time to provide comprehensive comments—in meetings and written comments—on the legal and policy issues raised by the Proposed Denial.

Furthermore, small refineries could have supplemented their SRE petitions at any time during their pendency at the Agency, and some did submit additional information multiple times over that period. EPA's use of the notice-and-comment process merely provided small refineries another opportunity to provide information supporting their SRE petitions and for other RFS stakeholders to also provide feedback on EPA's implementation of the SRE provision. EPA also disagrees with the commenters' attempt to equate the time to prepare an SRE petition with the

[5] *See e.g.*, EPA's Motion for Voluntary Remand Without Vacatur, Doc. No. 1911606, August 25, 2021, *Sinclair Wyo. Refining Co. v. EPA*, No. 19-1196 (consol. with 19-1197) (D.C. Cir.).

time needed for a sufficient opportunity to comment. The SRE petitions EPA is acting on had already been prepared and submitted to the Agency for review when EPA notified refineries in August 2021, and when EPA issued its Proposed Denial. EPA provided the comment period to ensure that the Agency had before it all relevant information, including any additional information petitioners wanted EPA to consider before taking its final action.

3. EPA's Proposed Denial is a veiled retroactive rulemaking with inadequate process that violates the Administrative Procedure Act.

Comment:

EPA's Proposed Denial is an action that is generally applicable to all small refineries, characteristic of a legislative rulemaking and not individual adjudications or an interpretive rule, and otherwise meets the definition of a rule in the Administrative Procedure Act ("APA").

The Proposed Denial proposes to retroactively apply two new interpretations of the SRE statute: (1) The eligibility provision, and (2) The "disparate economic hardship" provision. If finalized, the Proposed Denial's eligibility and DEH interpretations would cause either a *de facto* regulatory repeal or an amendment of 40 CFR 80.1441 and have devastating economic consequences on small refineries.

The statutory interpretations EPA proposed are rules, and the process EPA used in adopting these statutory interpretations (i.e., publishing a notice and request for comment in the Federal Register) resembles the rulemaking process. Accordingly, this rule cannot be applied retroactively absent a clear statement of Congress to the contrary, and there is no such authorization in the CAA. Even if the CAA did authorize retroactive rulemaking of this kind, the APA prohibits retroactive rulemaking (see *Treasure State Res. Indus. Ass'n v. EPA*, 805 F.3d 300, 305 n.1 (D.C. Cir. 2015), defining "rule" as a statement of "future effect").

Response:

It is well-settled that "the choice between rulemaking and adjudication lies in the first instance within the agency's discretion." *NLRB v. Bell Aerospace Co.*, 416 U.S. 267, 294 (1974); see also *SEC v. Chenery Corp*., 332 U.S. 194, 203 (1947). It is also well-settled that an agency "is not precluded from announcing new principles" in an adjudication, see *Cassell v. FCC*, 154 F.3d 478, 486 (citing to *NLRB*), and may also address legal issues for the first time. *Conference Group v. FCC*, 720 F.3d 957, 965 (2013). Here, EPA is conducting a single adjudication of 69 SRE petitions in reliance on EPA's revised interpretations of the statutory SRE provisions, as applied to the facts and circumstances of each SRE petition. The SRE Denial is an adjudication limited to the SRE petitions expressly identified in Section I and Appendix A, redacted under claims of confidentiality. We are only adjudicating the SRE petitions from small refineries articulated in this action, not every small refinery participating in the RFS program currently and in the future (as a rulemaking would necessarily do). If we receive additional SRE petitions in the future, we will grant or deny them in a subsequent adjudicative action. Furthermore, it is recognized that agency adjudications may necessarily include statements of policy, and that such statements do not transform the adjudications into rulemakings. *NLRB v. Bell Aerospace*, 416 U.S. at 294 (upholding the Board's discretion to forgo rulemaking because "the adjudicative procedures in this case may also produce the relevant information necessary to mature and fair consideration of the issues").

Additionally, EPA has not asserted or cited to any of its rulemaking authorities under CAA sections 206, 211, or 301 to support this action, and this action is clearly not a rulemaking under

CAA section 307(d) as it is not a promulgation or revision of a regulation under CAA section 211. EPA has relied solely on its authority to adjudicate SRE petitions under CAA section 211(o)(9)(B).

Even if EPA were taking action through a rulemaking, this would not be a retroactive rule. A retroactive rule "takes away or impairs vested rights acquired under existing law, or creates a new obligation, imposes a new duty, or attaches a new disability in respect to transactions or considerations already past." *I.N.S. v. St. Cyr*, 533 U.S. 289, 321 (2001). The SRE Denial does not take away or impair small refineries' vested rights, as they have no entitlement to exemptions from the RFS standards. Additionally, the SRE Denial imposes no new obligations, duties, or disabilities on small refineries. It merely denies their requests to be excused from compliance with their existing RFS obligations.

EPA's previous actions on two 2016 SRE petitions and one 2017 SRE petition were remanded to the Agency with orders to issue new decisions on the SRE petitions at issue. EPA's new decisions on these remanded SRE petitions are necessary to respond to the courts' directions to address those petitions and are not retroactive. Rather, they are new actions on past SRE petitions that were sent back to the Agency by reviewing courts.

The commenters claiming EPA's SRE decisions constitute a "regulatory repeal," or "amendment of the regulations" are incorrect. The SRE Denial does not make any changes to the RFS regulations--they remain intact and unchanged. In fact, the SRE Denial is consistent with the regulations at 40 CFR 80.1441. See 40 CFR 80.1441(e)(2). Those regulations do not speak to how EPA will interpret the statute or evaluate eligibility to petition or DEH, but simply explain the process for small refineries to apply for an exemption. Thus, this action is not a "regulatory repeal" or "amendment." Rather, it is an adjudicatory action to decide SRE petitions, based on EPA's interpretation of the relevant statutory provision.

4. If EPA's Proposed Denial is not an improper, retroactive rulemaking, then it is an unlawful retroactive adjudication causing "manifest injustice."[6]

Comment:

EPA's denial of the SRE petitions is a retroactive adjudication, and reconsidering those petitions is especially inappropriate and inequitable. Where an agency imposes a retroactive adjudication, courts consider "(1) whether the particular case is one of first impression, (2) whether the new rule represents an abrupt departure from well-established practice or merely attempts to fill a void in an unsettled area of law, (3) the extent to which the party against whom the new rule is applied relied on the former rule, (4) the degree of the burden which a retroactive order imposes on a party, and (5) the statutory interest in applying a new rule despite the reliance of a party on the old standard." *Retail, Wholesale & Department Store Union v. NLRB*, 466 F.2d 380, 390 (D.C. Cir. 1972) (describing factors that can result in a manifestly unjust retroactive adjudication). Even if EPA's new interpretation is permissible, and regardless of whether it is an adjudication or a rulemaking, retroactive application is impermissible.

Commenters also claim that retroactive application of the new legal rule is unlawful, if a party has conformed its conduct to a prior legal regime, as small refineries have done: at the time small refineries were owed decisions (90 days after submitting their SRE petitions), EPA's approach to SRE petition evaluation included reliance on the 2011 DOE Study, and small refineries had formulated their petitions accordingly. As such, the Proposed Denial violated small refineries' settled expectations regarding EPA's SRE petition evaluation process since disproving RIN cost passthrough was not an eligibility requirement at the time small refineries submitted their petitions.

EPA is attaching new legal consequences to actions small refineries completed before proposal of the changed interpretation, and small refineries reasonably relied on the prior decisions to grant their SRE petitions and EPA's retroactive revocation results in DEH to small refineries. Reconsidering the already granted petitions is especially inappropriate and inequitable.

Response:

As explained elsewhere, "the choice between rulemaking and adjudication lies in the first instance within the agency's discretion." (*NLRB*, 416 U.S. 267, 194 (1974)). Here, EPA is acting on SRE petitions through an adjudication, not a rulemaking, and courts do not disfavor retroactive adjudication but review their validity based on fairness and equity to the affected party. *Cassel v. FCC*, 154 F.3d 478, 486 (D.C. Cir. 1998). EPA does not believe that the decisions issued in the SRE Denial are retroactive; however, even if they are, the final action is not an impermissible retroactive adjudication as it only clarifies existing law, *Aliceville Hydro Associates v. F.E.R.C.*, 800 F.2d 1147, 1152 (D.C. Cir. 1986), and does not result in an unfair or inequitable outcome.

[6] *Retail, Wholesale & Department Store Union v. NLRB*, 466 F.2d 380, 390 (D.C. Cir. 1972) (describing the considerations that must be weighed when evaluating whether a retroactive adjudication results in manifest injustice).

As an initial matter, agency adjudications are generally accepted to be retroactive, though the retroactivity of adjudications is not limitless. *Bowen v. Georgetown University Hosp*, 488. U.S. 204, 221(1988), *see also AT&T v. F.C.C.*, 454 F.3d 329, 332 (D.C. Cir. 2006). The assertion that EPA's Proposed Denial and final action constitute a "substitution of new law for old law that was reasonably clear," *Aliceville*, 800 F.2d at 1152), fails to acknowledge the many changes in SRE petition adjudication that have taken place over the years. These represent different approaches EPA has taken to DEH evaluation, as the Agency's views and the case law have evolved. As explained in Section II.D, none of these approaches can be called "old law that was reasonably clear." *Id.* And even if they were, EPA's change in approach is more accurately characterized as a clarification of existing law (i.e., a clarification of what constitutes DEH within the context of the SRE provisions), or a correction of practice "rectify[ing] legal mistakes identified by a federal court." *Verizon Telephone Companies v. FCC*, 269 F.3d 1098, 1111 (D.C. Cir. 2001). Accordingly, the SRE Denial is not an impermissible retroactive adjudication.

For the SRE petitions pending again before the Agency on remand, EPA is responding to the courts' orders remanding EPA's prior actions and requiring the Agency to issue new decisions on the petitions at issue. Therefore, EPA has an obligation to act in response to the courts' decisions. EPA is applying the reasoning of the *RFA* opinion, which was issued on January 20, 2020. EPA is obligated to take into consideration changes in the law that occur while it is considering the petitions before it, and doing so is proper; the petitions are again before the agency. *Verizon Telephone Companies*, 269 F.3d at 1110-11. Indeed, "the Administrative Procedure Act generally contemplates that when an agency proceeds by adjudication, it will apply its ruling to the case at hand." *Clark-Cowlitz Joint Operating Agency v. F.E.R.C.*, 826 F.2d 1074, 1082 (D.C. Cir. 1987).

EPA further disagrees that its action is an impermissible retroactive adjudication based on the *Retail Wholesale* factors. Those factors "boil down … to a question of concerns grounded in notions of equity and fairness[,]" *Clark-Cowlitz* at 1082, n.6, and consideration of the factors demonstrates that EPA's action is not counter to such notions. Here, EPA is applying its new statutory interpretation via adjudication, which is permissible, and is necessarily applying that interpretation to the SRE petitions it has before it. EPA's change in position is not an "abrupt departure" from well-established practice. EPA has taken different approaches to SRE petitions over the years, as described in Section II.D, and in some cases has granted a refinery's petition in one year but denied it in the next. Also, EPA has twice extended the 2019 compliance deadline for small refineries, mitigating any adverse impacts or burdens EPA's change in interpretation might impose. Lastly, EPA is applying an interpretation that it believes is consistent with the intent of Congress in adopting the RFS program and in authorizing exemptions for small refineries.

EPA also disagrees that its action is disrupting small refineries' settled expectations and attaching new legal consequences to decisions the refineries made before the Proposed Denial. As noted above, to the extent small refineries relied on past actions, that reliance was not reasonable in light of the facts and circumstances.

Moreover, the legal consequences of EPA's actions are the same regardless of when the denial is issued (i.e., small refineries remain obligated under the RFS program). Nor are small refineries

prejudiced by having demonstrated compliance while their SRE petitions are still pending, which was a business decision they chose to make. Furthermore, EPA solicited, and small refineries submitted, comments in response to the Proposed Denial, providing small refineries an opportunity to modify and amend the SRE petitions they submitted prior to the Proposed Denial in order to address EPA's changed SRE policy.

EPA itself provided small refineries with sufficient notice regarding its possible change in interpretation. EPA proposed to revise its prior interpretation approach to evaluating SRE petitions on December 7, 2021. However, small refineries should have been aware of the Agency's consideration of a different interpretation even before the Proposed Denial. EPA explained in February 2021 that it intended to support the interpretation taken by the Tenth Circuit in *RFA* before the Supreme Court. After the *HollyFrontier* opinion was issued, EPA solicited information from small refineries directly relevant to the remaining holdings of *RFA*, and even highlighted those holdings in its request. Through that request, subsequent requests, and the Proposed Denial, EPA provided small refineries with the opportunity to supplement their pending SRE petitions to address the change in EPA's approach, and, in fact, small refineries did exactly that.

Even if EPA had not provided small refineries with notice and opportunity to supplement their SRE petitions according to the *RFA* holdings, the SRE Denial would not likely "trigger[] retroactivity concerns." *Pine Tree Medical Assocs. v. Secretary of Health and Human Servs.*, 127 F.3d 118, 121-22 (1st Cir. 1997). In *Pine Tree*, the First Circuit stated that, "[t]here is an obvious difference between rejecting an application because it fails to meet a new regulation governing the proper format or preparation of applications that was promulgated after that application was filed, and rejecting an application because the substantive standards for granting the application on the merits have changed in the period between filing and review." *Id*. The court explains that the petitioner "place[d] undue significance on the act of filing an application with an administrative agency," and that "the mere filing of an application is not the kind of completed transaction in which a party could fairly expect stability of the relevant laws as of the transaction date." *Id.*

Comment:

EPA's retroactive revocation results in DEH on small refineries.

Response:

As stated above, the legal and policy decisions EPA here adopts are not retroactive. EPA's previous actions on the remanded SRE petitions were challenged, and the courts remanded the actions back to the Agency to issue new decisions. These new decisions do not constitute a retroactive rulemaking or retroactive adjudications, and are instead made to replace the challenged actions. Further, small refineries do not experience DEH from compliance with the RFS program, as explained in the SRE Denial.

Comment:

The Proposed Denial abandons the practice of relying on the 2011 DOE Study and scoring matrix, which EPA has applied for over ten years. EPA justifies this change by wrongly relying on DOE's superseded 2009 study. Reliance on the 2009 DOE Study is particularly inappropriate because EPA in its 2020–2022 RFS Annual Rule Proposal indicated that the RIN market in illiquid, and reliance on the 2009 DOE Study cannot replace the consultation requirement in the statute.

Response:

EPA's choice to modify its approach to SRE petition evaluation by moving away from reliance on the DOE scoring matrix is an appropriate policy decision given the lack of relevant information provided in the scoring matrix under the *RFA* causation framework, as explained in Sections IV.C and D.

The language quoted by the commenter from the 2020–2022 RFS Annual Rule Proposal regarding the liquidity of the RIN market was mischaracterized by the commenter as describing the *current* state of the RIN market. Rather, the language described a *hypothetical* situation that could occur if EPA had proposed a different action. Additionally, EPA has satisfied the statutory requirement to consult with DOE as described in Sections IV.C and B.1.5.

5. EPA failed to follow the statutory process for deciding SRE petitions.

Comment:

EPA has failed to consult with the DOE and consider the 2011 DOE Study, as required by the CAA. Commenters also assert that DOE's findings in the 2011 DOE Study have largely proven correct over time.

Response:

As described in Section IV.C, EPA did consult with DOE through meetings, phone calls, and written communications. EPA also considered both the 2009 and 2011 DOE Studies and "other economic factors," and the Agency's consideration is explained in the SRE Denial. EPA is not bound by any statutory language to a specific form or format for its consultation with DOE, nor does the statute dictate how EPA should consider the studies or other economic factors. EPA's consultation and consideration of the 2011 DOE study are consistent with the statutory requirement. While not legally required, EPA has added a memorandum to the docket for this action describing the EPA-DOE consultation process. Regarding the assertion that the 2011 DOE Study has been proven correct over time, as explained in Section IV.C, while DOE was correct in anticipating the RIN prices could rise in the future, DOE's supposition that this would advantage fuel blenders has proven not to be true. Furthermore, the 2011 DOE Study did not anticipate the degree to which those compliance costs would be passed through to refineries in higher prices for the products they sell.

Comment:

Had EPA issued timely decisions, likely resulting in exemptions for many small refineries under EPA's prior approach, small refineries would have had the opportunity to purchase RINs at lower prices than today.

Response:

As explained in the SRE Denial, EPA is acting on the petitions consistent with the holdings of the *RFA* decision. While that decision was issued in January 2020, its threshold holding regarding small refineries' eligibility for an extension of their exemptions was reviewed by the Supreme Court and reversed in *HollyFrontier* in July 2021. Had the Court upheld that particular holding, EPA would not have needed to have consider the other holdings in *RFA*. Therefore, it was reasonable for EPA to wait until resolution of that case by the Court before acting on petitions, in case refineries were no longer eligible. Finally, small refineries are aware that receiving an exemption in one year does not guarantee an exemption in the following year, as each year's SRE petition is reviewed separately. Under the statute, compliance with the RFS program is the default, and small refineries should plan to comply with their annual obligations until such time as they petition for and receive and exemption. Moreover, EPA does not agree that the results of the business decisions small refineries make regarding the timing of their RIN purchases is a cause of DEH, as explained in Section IV.D.

Comment:

Where an interagency consultation is required, evidence of such consultation must go beyond a mere generalized statement that consultation occurred.

Response:

As noted above, the form of consultation is not specified in the statute. Since the Proposed Denial, EPA has updated Section IV.C to explain the consultation process the Agency used with DOE. While not legally required, EPA has added a memorandum to the docket for this action describing the EPA-DOE consultation process.

6. EPA's Proposed Denial is arbitrary and capricious.

Comment:

EPA is changing its interpretation to effectuate a particular policy outcome, not to correct a legal error.

Response:

EPA is changing its interpretation to align it with the Tenth Circuit's surviving *RFA* holdings, which clarified the meaning of DEH by indicating it must be caused by compliance with the RFS program and highlighted a failure of EPA in ignoring its finding on RIN cost passthrough when adjudicating SRE petitions, and which EPA believes is the best interpretation of the statutory SRE provisions. See Sections II.D and IV.D for more explanation regarding how EPA is changing its approach in response to the *RFA* opinion. Additionally, EPA is also basing this change in approach on the Agency's findings regarding the RIN market and RIN cost passthrough, consistent with the Tenth Circuit in *RFA*, as described in Section IV.D.2.d.

Comment:

EPA's Proposed Denial ignores information relevant to assessing whether RFS compliance would impose DEH on an individual small refinery, as opposed to making a single decision for numerous SRE petitions. A single decision for all SRE petitions cannot adequately consider the facts of individual SRE petitions as the CAA requires.

Response:

As an initial matter, this commenter did not specifically identify what information EPA is allegedly ignoring in its analysis of whether RFS compliance imposes DEH on an individual small refinery. Without knowing what specific information this commenter is referencing, EPA cannot respond to this assertion. Regardless, by publishing notice of and requesting comment on the Proposed Denial, EPA's process was designed to gather all information that small refineries and other stakeholders considered relevant to deciding SRE petitions. Accordingly, in support of the SRE Denial, EPA considered and addressed all the substantive information—including the individual petitions and supplemental information from small refineries—provided by interested parties to the Agency during the public comment period that those parties considered relevant to assessing whether RFS compliance imposes DEH on small refineries. After conducting this review, EPA finds that the petitioning small refineries have not demonstrated that they face disproportionate RFS compliance costs and, therefore, have not demonstrated DEH warranting exemption. If this commenter is also asserting there exists other allegedly relevant information that was not considered, but that information was not provided to the Agency, EPA obviously could not have considered that information in its analysis unless it was provided to the Agency.

EPA notes that, if a small refinery had provided data and evidence of other economic factors upon which EPA could determine, after consultation with DOE, that the particular small refinery had demonstrated that it faced DEH consistent with the criteria described in the SRE Denial and

contrary to the facts regarding other small refineries, EPA would have issued an exemption to that small refinery. However, no individual small refinery has made such a showing in the SRE petitions EPA reviewed in taking this action. As described in more detail in Sections IV.C and D, EPA has evaluated each individual SRE petition, as well as provided all SRE petitions and related supplemental materials to DOE as part of the agencies' consultation. Contrary to the commenters' assertion, the SRE Denial is based on EPA's consultation with DOE on the facts of individual petition elements, including: the costs of RFS compliance per the memorandum to the docket regarding DOE-EPA consultation; consideration of individual small refineries' data and comments as evidenced by EPA's detailed confidential, refinery-specific appendices; and EPA's response to comments herein and in Section IV.D. Nothing in the SRE Denial contradicts the fact that, if a refinery demonstrates that it experiences unique DEH in the future, EPA would issue an SRE to that small refinery.

Comment:

EPA's failure to consider the scoring matrix prepared by DOE contravenes the CAA and belies EPA's claim to have consulted with DOE. The scores provided by DOE when it applies the scoring matrix to an SRE petition demonstrate without question whether a small refinery merits an exemption. Moreover, EPA's unsupported assertion that RIN costs are always passed through to consumers by all refineries, regardless of market location and situation, ignores the findings in the 2011 DOE Study on which EPA has based its evaluation of SRE petitions for over a decade.

Response:

As an initial matter, the CAA does not require EPA to use the DOE scoring matrices in its evaluation of SRE petitions. As the commenter itself acknowledges, the CAA only requires that EPA, in consultation with DOE, consider the 2011 DOE Study and other economic factors.[7] As described more fully in Section IV.C, EPA expressly considered the 2011 DOE Study and, importantly, its finding that "[d]isproportionate economic hardship *must* encompass two broad components: a high cost of [RFS] compliance relative to the industry average, and an effect sufficient to cause *a significant impairment* of the refinery operations." (emphasis added). EPA has concluded, consistent with the findings of the 2011 DOE Study and the Tenth Circuit's *RFA* decision, that DEH can only occur when the disproportionate impact comes from a high cost of RFS compliance relative to other refineries. EPA chose not to use the 2011 DOE scoring matrices because those matrices were designed to differentiate between refineries that would bear a higher cost of RFS compliance due to an inability to blend biofuels when compared to refineries that could blend fuels. DOE designed the matrices in this way projecting that "*If* certain small refineries must purchase RINs that are far more expensive than those that may be generated through blending, this will lead to disproportionate economic hardship for those effected entities." (emphasis added). EPA has, with the benefit of time, experience implementing the RFS program, and based on the substantial data, contracts, and academic literature provided to the Agency in the SRE petitions and comments on the SRE Denial, concluded that RFS compliance costs are the same whether RINs are acquired through blending or by purchasing RINs.[8] With no difference in compliance costs whether a refinery buys RINs or blends

[7] CAA section 211(*o*)(9)(B)(ii).
[8] *See* Section IV.D.2.

renewable fuel to acquire RINs, the evaluation rubric that DOE created to identify small refineries with limited ability to blend biofuels (i.e., the DOE scoring matrix) has no applicability to the analysis that EPA is making in this decision.

Comment:

EPA's narrow interpretation of "other economic factors" to allow the Agency to rely exclusively on a flawed finding of RIN cost passthrough to deny all pending SRE petitions misapplies the Tenth Circuit's holdings.

Response:

As an initial matter, the commenter misreads EPA's explanation of the *RFA* opinion in the Proposed Denial, and misreads the *RFA* opinion itself, in an attempt to erroneously assert that EPA can still grant an exemption to a small refinery for hardship caused by something *other than* its compliance with the RFS program. EPA strongly disagrees with that assertion. The commenter also asserts EPA is narrowly and erroneously construing the use of "other economic factors" to *only* consider RIN cost passthrough so that EPA may deny the SRE petitions. EPA also strongly disagrees with that assertion. In Section IV.D, EPA explains how it is following the statutory provisions in CAA section 211(*o*)(9), as interpreted by the *RFA* opinion, which requires the hardship to be *caused by* compliance with the RFS program. In making that evaluation, and as further explained in Section IV.D, EPA considers whatever "other economic factors"—which includes its consideration of the economic principles described as the RIN discount and RIN cost passthrough—that inform whether a small refinery has demonstrated its hardship is *caused by* its RFS compliance.

Moreover, EPA's findings regarding RIN cost passthrough are not flawed but are based on EPA's analysis of the available information as described throughout the SRE Denial. Where commenters have presented studies refuting EPA's findings, we have responded to those comments in Section B.III and in confidential, refinery-specific appendices. This action harmonizes EPA's findings regarding RIN cost passthrough with the circumstances described in the SRE petitions and the holdings of the *RFA* opinion. In relying on EPA's findings regarding RIN cost passthrough, EPA is also relying on all the data supporting RIN cost passthrough, and the findings represent months of careful consideration of the information described throughout this decision and its supporting materials.

Comment:

EPA's interpretation also contravenes the statute because it fails to read "disproportionate" in context. Small refineries seeking an SRE must demonstrate "disproportionate economic hardship." But EPA proposes to sever "disproportionate" from that phrase, asserting that small refineries must demonstrate that their "*RFS compliance costs* are disproportionate compared to other refineries' RFS compliance costs." EPA also tries to smuggle in a non-statutory severity requirement, insisting that any disproportionality must be "of sufficient magnitude to warrant the exemption." That is not what the statute says. If RFS compliance—on its own or in conjunction

with "other economic factors"—causes a small refinery to suffer any greater hardship relative to large refineries, it has suffered DEH, and EPA must grant an exemption.

Response:

Again, as noted in the previous response, this commenter is attempting to read the statute and the *RFA* opinion to allow it to obtain an exemption for reasons *other than* hardship *caused by* its RFS compliance. EPA strongly disagrees with that assertion. As explained in Section III, EPA, DOE, and the Tenth Circuit all share the same understanding of the definition of "DEH" (i.e., that DEH must be caused by RFS compliance and that a small refinery's RFS compliance costs must be higher relative to other refineries). Furthermore, if a small refinery's RFS compliance costs are higher relative to other refineries, then that higher compliance cost must be significant enough to constitute "economic hardship," since slightly higher costs may not rise to that level. Because each obligated party's RFS obligation is determined as a percentage of that party's gasoline and diesel fuel production, the RFS obligations are, by definition, proportionate across all obligated parties. Furthermore, in Sections IV.D.2.a and IV.D.3.f, EPA explains how RFS compliance costs are the same for all obligated parties regardless of a party's chosen compliance approach (blending or purchasing RINs). This happens because the market prices for transportation fuel increase to reflect the cost of the RIN, and this increased fuel price allows obligated parties to recover their RIN costs through the market price of the fuels they produce. Because the market behaves this way for all parties subject to the RFS program, there is no disproportionate cost to any party, including small refineries.

Comment:

EPA is basing its Proposed Denial on improper political considerations and the Agency's desired outcome, not the facts of small refineries' petitions by considering the input of biofuels groups and others vehemently opposed to any form of relief for small refineries. These outside parties have no understanding of the CBI provided by small refineries in support of their SRE petitions.

Response:

EPA based the Proposed Denial and the SRE Denial on the extensive information and analysis presented in those documents and summarized herein and in the supporting materials provided by the petitioning small refineries before EPA issued the Proposed Denial and by small refineries and other interested parties during the public comment period. EPA chose to provide public notice and broadly request comment on its Proposed Denial from all interested parties to ensure full consideration of all relevant factors. EPA's decisions on SRE petitions have an impact on all parties participating in the RFS program. As such, EPA believed all parties could provide meaningful input on all aspects of the Proposed Denial, including EPA's understanding of its observations in the RIN market. Accordingly, EPA believes the input of all parties was appropriately considered in the SRE Denial. While EPA acknowledges that other parties are not able to review, consider, and comment on any materials small refineries claim as CBI, EPA itself carefully considered that information in the SRE Denial, and applied the statutory criteria after consideration of all relevant comments.

Comment:

EPA's Proposed Denial is arbitrary and capricious because it was developed using an unlawful and opaque process. First, EPA's decision to take public comment on a single decision to deny multiple SRE petitions submitted by numerous small refineries creates serious procedural concerns. Congress intended SRE petitions to be adjudicated *and decided* on a case-by-case basis, *see* 42 U.S.C. § 7545(*o*)(9)(B). In fact—with one exception that is the 2018 SRE decision—this is how EPA has always conducted the SRE decision-making process. To do otherwise conflicts with the U.S. Court of Appeals for the Fourth Circuit's decision in *Ergon-West Virginia, Inc.* (admonishing EPA that, when assessing the impact of RFS compliance costs on an individual small refinery, EPA must do more than cite to conclusions about "the refining industry *as a whole*." *Ergon-W. Va. V. EPA*, 896 F.3d 600, 613 (4th Cir. 2018) (emphasis added).

Second, under the judicial review provisions of the CAA, any refinery whose petition is denied is entitled to judicial review in the applicable regional circuit. 42 U.S.C. § 7607(b)(1) (petitions for review of certain enumerated petitions must be filed in the D.C. Circuit while other enumerated actions and "*any other final action* of the Administrator under this chapter…which is locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit" except for a subset of additional cases that must be filed in the D.C. Circuit because EPA's otherwise local action "is based on a determination of nationwide scope or effect" that the Administrator publishes). The process EPA is now using will force dozens of refineries to challenge the Proposed Denial as a group—without any meaningful opportunity to explain to the D.C. Circuit why EPA has wrongly denied relief to a given refinery based on information in its individual exemption petition. If finalized, the Proposed Denial will essentially insulate EPA from judicial review. When procedural errors such as these are "so serious and related to matters of such central relevance" to EPA's final action "that there is a substantial likelihood that the [decision] would have been significantly changed if such errors had not been made," 42 U.S.C. § 7607(d)(8), a court must reverse. *Id.* § 7607(d)(9)(D); *see also* 5 U.S.C. § 706(2)(D).

But EPA's procedural failings do not end there. In addition to forcing small refineries into a public, rulemaking process for what is intended to be a confidential adjudication, EPA has based many of its conclusions on data and information that it has declined to make public. Although the commenter appreciates that there may be CBI in many small refineries' submissions, *see, e.g.*, Proposed Denial at 53, EPA cannot use that as a convenient excuse to obscure the data upon which it relies. Doing so robs small refineries and other stakeholders of a meaningful opportunity to comment on and refute the Proposed Denial and will likewise also deny them meaningful judicial review. To name just one example, EPA states that it found no evidence to support the lack of passthrough or higher RIN acquisition costs for some small refineries and that this is "consistent across all the markets it observed." Proposed Denial at 27. Tellingly, EPA does not say which (or even how many) markets it observed or the type of evidence it sought but could not find, leaving the commenter with no ability assess this claim or explain why the commenter's market may be different.

Response:

First, in reaching this decision, EPA's process was not "unlawful and opaque." As has been stated above, "the choice between rulemaking and adjudication lies in the first instance within the agency's discretion." (*NLRB*, 416 U.S. 267, 294 (1974)), and here EPA chose to decide these SRE petitions through an adjudication addressing 69 pending SRE petitions. EPA also chose to employ a public notice-and-comment process to ensure it adjudicated the SRE petitions after considering all relevant information through a transparent process. In comparison, under the prior approach, EPA only provided the basis for its decisions to the small refineries themselves in confidential decision documents, a practice for which EPA has been criticized for its opacity. Through this public process, EPA has received information from all interested parties and considered the refinery-specific information submitted. After careful review of the information submitted in the SRE petitions, petition supplements, and comments on the Proposed Denial, EPA determined small refineries had not demonstrated DEH because EPA found the cost of RFS compliance is the same for all obligated parties, including small refineries, as described in Section IV.D.2.

Second, EPA disagrees with the commenter's assertion that the D.C. Circuit would provide an inadequate venue in which small refineries could seek judicial review of the SRE Denial. The venue for judicial review of EPA's actions under the CAA is determined by the statute.[9] Further, there is no reason to believe small refineries would not have a "meaningful opportunity to explain … why EPA has wrongly denied relief to a given refinery based on information in its individual exemption petition," in the D.C. Circuit as in any other circuit court. Indeed, the commenter fails to explain how the D.C. Circuit would not provide adequate review of this action.

Importantly, the lack of access to the information that EPA is evaluating in no way diminishes a small refinery's ability to "explain why the commenter's market may be different." The market EPA has described is one where the market price of a refinery's products reflects the cost of RFS compliance (i.e., RIN cost passthrough). Any small refinery wishing to refute that finding for its local market would do so by providing evidence to the Agency and, if challenging a decision, a court that the market in which it operates does not behave in this manner. As explained extensively in EPA's evaluation of economic studies provided by small refineries in Sections IV.D.2 and B.III, a number of small refineries have attempted to provide such explanations and EPA has evaluated them. All of this information is part of the administrative record for this action that the D.C. Circuit would consider in its review of the SRE Denial. The court has rules and procedures in place to safeguard the claims of CBI while it considers, as does EPA, all the information presented in making its decision. Thus, neither the venue of the litigation nor claims of CBI for certain information will in any way impede the parties in obtaining a fair and impartial consideration of its arguments during judicial review of the SRE Denial.

Lastly, the commenter here provides conflicting assertions, where it first admonishes EPA for an "unlawful and opaque" process, then states that EPA's decisions must be "confidential adjudication[s]." Thus, the comment both complains of the opacity of EPA's current action while simultaneously stating that EPA's decisions ought to be *less* transparent (the whole decision

[9] *See* CAA section 307(b)(1).

withheld as confidential). Moreover, EPA cannot disclose information that has been submitted to the Agency under a claim of confidentiality until such time as EPA's Office of General Counsel makes a final determination that the information is not entitled to confidential treatment.[10] Until such a determination is made, EPA must preserve the information submitted under claims of confidentiality. To the furthest extent possible, EPA has utilized publicly available information and aggregated or summarized the confidential information received so that it could be presented in the Proposed Denial and the SRE Denial.

Comment:

EPA cannot simultaneously claim that the Tenth Circuit's opinion in *RFA* compelled its change in interpretation and that the language of the CAA is ambiguous and in need of clarifying interpretation.

Response:

As explained in Section III, the CAA does not define "disproportionate economic hardship." Several courts have identified this phrase as an ambiguous term that EPA interprets in administering the SRE provisions.[11] Prior to the *RFA* decision, EPA had been interpreting and applying that phrase to allow a small refinery to demonstrate DEH for reasons other than its RFS compliance. The Tenth Circuit in *RFA*, however, rejected that interpretation and instead directed that "disproportionate economic hardship" must be caused by compliance with the RFS program.[12] Accordingly, EPA is adopting the Tenth Circuit's holdings and applying them in the SRE Denial because the Agency believes this is the correct interpretation of the statutory text given the purpose of the RFS program and of the exemption.

[10] *See* 40 CFR 2.204.
[11] *See e.g.*, *Hermes Consolidated, LLC v. EPA*, 787 F.3d 568, 574-75 (D.C. Cir. 2015); *Sinclair Wyoming Refining Co. v. EPA*, 887 F.3d 986, 996 (10th Cir. 2017) ("The statutory text at issue allows a range of linguistic possibilities in defining "disproportionate economic hardship.").
[12] *RFA*, 948 F.3d at 1254 ("Granting extensions of exemptions based at least in part on hardships not caused by RFS compliance was outside the scope of the EPA's statutory authority.").

7. EPA's statutory interpretation and approach to SRE evaluation is contrary to congressional intent.

Comment:

EPA's strict interpretation of DEH causation in the Proposed Denial disregards, and is contrary to, Congress's plainly expressed intent that the DOE survey factors can and do show when a small refinery is experiencing DEH, as demonstrated in appropriations reports over the years to both DOE and EPA instructing the agencies on how to implement the SRE provisions.

Response:

The commenter appears to suggest that Congress intended for DOE and EPA to grant relief whether or not DEH exists. Following the *RFA* decision, it is clear that in the absence of DEH, caused by the cost of RFS compliance, EPA has no authority to grant hardship relief. Yet, the commenter suggests such a conclusion is surplusage and, therefore, EPA must grant relief regardless of whether DEH does or does not exist. Were that the intent of Congress, Congress would not have put any condition on issuing SREs, would not have directed EPA and DOE to do the requisite evaluations, and would not have deemed the exemption "temporary," but rather would have simply exempted small refineries from the RFS program.

As described in Section II.D, Congressional appropriation committees for DOE and EPA have offered direction through report language that DOE should apply the scoring matrix in a particular way, and EPA should grant some form of relief based upon DOE's scoring and provide an explanation for why EPA chose not to do so. This language has not remained consistent year-to-year, in some cases recommending for relief only when both parts of the DOE scoring matrix recommend for relief and in other years when one or the other portion of the matrix does. Neither EPA nor DOE's current FY2022 appropriations bills or associated report language contain information directing the agencies regarding these decisions. Furthermore, to the degree it is appropriate for EPA to consider such earlier report language, the SRE Denial fully explains the basis for EPA's decision and why it is appropriate under the CAA.

Congress has never opined on EPA's findings regarding RIN cost passthrough, nor, as discussed in Sections II.D and IV.C, did DOE's 2011 Study make any determination on the veracity of RIN cost passthrough. EPA has, throughout the Proposed Denial and the SRE Denial, provided independent studies and its own data analysis supporting an overall finding of RIN cost passthrough. Nevertheless, in denying the SRE petitions, it is not necessary for EPA to conclusively demonstrate that RIN costs are always passed through in every market and under all circumstances. Rather, small refineries requesting relief must demonstrate that they experience DEH as a result of compliance with the RFS program. EPA invited petitioning small refineries to submit information demonstrating that they experienced DEH due to the RFS program. EPA has evaluated all refinery-specific information it has received to determine whether this information provided evidence of DEH. As detailed throughout the SRE Denial and our response to comments, we found that no small refinery demonstrated that it experienced DEH due to the RFS program.

Moreover, CAA section 211(*o*)(9)(B) does not include specific factors that Congress plainly expected EPA to consider. As Section IV.C explains, the statute is largely silent on the approach EPA applies to evaluating SRE petitions. And as some supporting comments have pointed out, Congress as a whole did not provide instruction to DOE to revisit the 2009 DOE Study. Rather, it was one committee in the Senate that rejected and called for a reevaluation of the 2009 DOE Study. One Senate committee does not represent the whole of Congress. Indeed, the text of the CAA was not amended to instruct DOE to perform an additional analysis and the House of Representatives' conference report acknowledged the non-binding nature of the Senate committee's statement: "[t]he conferees … expect the Department to undertake the [Senate committee's] requested economic review." H. R. Rep. No. 111-278, at 126 (2009). Thus, the instructions to DOE and EPA in the various congressional reports do not represent "congressional intent" regarding the SRE provisions and do not obligate EPA to act in any particular way, given such language does not modify the statutory provisions.

8. EPA's statutory interpretation renders the SRE provisions in the CAA surplusage.

Comment:

EPA reads the requirement that it consider "other economic factors" out of the SRE statute, focusing only on the RIN cost passthrough theory.

Response:

Under the statute, EPA must evaluate an SRE petition to determine whether a small refinery has demonstrated it experienced DEH caused by compliance with its RFS obligations. The statute directs EPA, in consultation with DOE, to consider the findings of the 2011 DOE study and "other economic factors" when making that evaluation. The statute does not require EPA to consider any particular number or types of economic factors, nor does it require EPA to consider other circumstances that might affect a small refinery's financial wellbeing once EPA has determined that a small refinery has not experienced DEH from compliance with its RFS obligations. As explained in Section IV.D, the RIN cost passthrough analysis and all the economic data that go into it are part of EPA's consideration of relevant "other economic factors" in its evaluation of the pending SRE petitions, not a single economic factor as the commenter asserts. Additionally, in the responses to the studies submitted by small refineries in Section B.III, and again in the response to the technical comments EPA received in Section B.IV, EPA further considers "other economic factors" in its evaluation. Taken altogether, EPA considers all the information small refineries and other interested parties have submitted in determining that small refineries do not experience DEH caused by RFS compliance given all refineries are able to recover their costs in the market. The commenter has not provided information regarding another economic factor that EPA has not considered that clearly demonstrates that a small refinery experiences DEH caused by its RFS compliance costs. Rather, the commenter would have EPA consider factors unrelated to RFS compliance, and, as explained in Sections III and IV, this is not what permissible under the statute.

Comment:

EPA's new interpretation would effectively end SRE relief under the RFS program, in direct contradiction with the Supreme Court's foundational assumption in *HollyFrontier* that CAA section 211(*o*)(9) does not include a sunset provision, and would render meaningless the Supreme Court's recent opinion in *HollyFrontier*. EPA's new interpretation is contrary to the Supreme Court's opinion in *HollyFrontier,* which instructed that the SRE provisions in the CAA must be read "fairly, not narrowly."

Response:

In *HollyFrontier*, the Supreme Court held that the "key phrase at issue before [it]—'A small refinery may at any time petition the Administrator for an extension of the exemption under paragraph (A) for the reason of disproportionate economic hardship'—simply does not contain the continuity requirement the court of appeals supposed. Instead, more naturally, it means exactly what it says: A small refinery may apply for a hardship extension 'at any time.'"

HollyFrontier at 2181. The SRE Denial does nothing to prevent small refineries from submitting petitions "at any time" in the future. Moreover, small refineries are aware of the analysis and statutory interpretation EPA will apply to their SRE petitions in the future. For these reasons, the SRE Denial does not render meaningless the Supreme Court's opinion in *HollyFrontier*. EPA is not "sunsetting" the exemption provision—refineries may submit exemption petitions in the future along with their demonstrations of DEH, which EPA will evaluate and act on.

First, the question at issue in *HollyFrontier* is not the same question before EPA in this action, and the decision here in no way impacts the holding in *HollyFrontier*. This action decides the SRE petitions before the Agency according to the information EPA has reviewed. As the Tenth Circuit said in *RFA*, simply because a small refinery may petition for an exemption does not require EPA to grant the exemption. While EPA is concluding that the information it has considered, including information submitted by petitioning refineries, does not demonstrate DEH caused by RFS compliance, it is important to state that the SRE Denial does not prejudge future SRE petitions or eliminate the possibility of new, different data becoming available in the future that could support a different conclusion. EPA does not in the SRE Denial judge SRE petitions that do not yet exist, in the context of future circumstances that do not yet exist; it only decides the SRE petitions that are currently before us.

9. EPA's statutory interpretation adds a strict "proximate cause" requirement to the CAA.

Comment:

The CAA does not require that DEH be caused by, and only by, compliance with the RFS program. EPA's new causation interpretation also contravenes the text of the statute and evinces a misunderstanding of the RFS program. EPA asserts that the CAA requires that DEH be caused by, and only by, RFS compliance, "meaning that a small refinery may not simply experience a year of poor economic performance or struggle with disadvantageous operational or market constraints to merit an SRE." But protecting struggling small refineries is precisely what Congress intended. As EPA has always agreed (until now), Congress "did not constrain the scope of EPA's [DEH] determination or use language requiring that RFS compliance be the sole cause of hardship." And as the D.C. Circuit has held, Congress required more than a bare consideration of compliance costs, "Congress required EPA to consult with DOE and to consider the findings of the 2011 Study *and other economic factors*." It is only *after* doing all three—consulting with DOE, considering the 2011 Study, and considering other economic factors—that the statute grants EPA "substantial discretion to decide how to evaluate hardship petitions." The Proposed Denial improperly eschews the 2011 DOE Study and fails to address the statutorily required "other economic factors" beyond the cost of compliance.

Response:

As explained in Section IV.D.1 and in responses to other comments herein, the language of the CAA requires that DEH be caused by compliance with the RFS program. It was the Tenth Circuit in *RFA* that clarified the extent to which EPA may consider DEH to be caused by factors *outside* the RFS program, and it determined that such considerations were improper.[13] Accordingly, this is the analysis EPA must apply within the Tenth Circuit and in which the Agency is now applying nationwide. Moreover, as explained in the SRE Denial and in responses to other comments herein, EPA followed the statutory directive as it evaluated these petitions and considered "other economic factors" when making its final decision.

[13] *RFA*, 948 F.3d at 1254 ("Granting extensions of exemptions based at least in part on hardships not caused by RFS compliance was outside the scope of the EPA's statutory authority.").

10. The *RFA* opinion lacks any legal force and is not an authority upon which EPA may rely.

Comment:

The Tenth Circuit vacated the *RFA* opinion in its entirety after the Supreme Court opined in *HollyFrontier*, therefore the Tenth Circuit's opinion lacks legal force and cannot be the basis of this action.

Response:

EPA disagrees with this assessment of the validity of the holdings within the *RFA* opinion. On August 19, 2021, EPA filed a motion for clarification regarding the legal effect of the court's July 29, 2021, mandate, stating:

> EPA wishes to clarify its understanding that the challenged agency orders are remanded back to EPA without vacatur for further proceedings in accordance with this Court's January 24, 2020, opinion, as modified by the Supreme Court. Specifically, EPA wishes to clarify that, pursuant to the mandate: (1) the alternative holdings in the Court's January 24, 2020, opinion not addressed by the Supreme Court remain in effect; and (2) the orders at issue are remanded to EPA without vacatur. . . . If the Court concludes that its prior orders and mandate do not require further clarification, EPA will proceed in accordance with its current understanding as reflected in this motion."

EPA's Motion for Clarification of the Court's July 29, 2021, Mandate at 2, *RFA*, 948 F.3d 1206 (10th Cir. August 19, 2021). On August 26, 2021, the court denied EPA's motion. Order, *id.* (10th Cir. August 26, 2021). Accordingly, EPA considers *RFA* to have legal force and is proceeding with this understanding, as explained to the court.

Comment:

Even if the Tenth Circuit did not vacate the *RFA* decision in full, the opinion is only binding within the Tenth Circuit.

Response:

While the Tenth Circuit's *RFA* holding is only binding precedent within that court's jurisdiction, EPA has determined that the *RFA* decision provides the best reading of the statutory provisions of CAA section 211(*o*)(9) and is accordingly taking this action for 69 pending SRE petitions. This is appropriate because EPA has "substantial discretion" for purposes of implementing these SRE provisions.[14] The alternative—to apply *RFA* only to small refineries within the Tenth Circuit—would create disparate treatment of those small refineries, which EPA finds would be

[14] *Hermes*, 787 F.3d at 575 ("EPA retains substantial discretion to decide how to evaluate hardship petitions.").

unworkable and unfair given the national scope of the RFS program and EPA's determination of what is the best interpretation of the Act.

11. The CAA requires individual hardship decisions and analysis, not the generalized approach EPA has taken with the Proposed Denial.

Comment:

EPA's Proposed Denial is unlawful because it applies an improper "one-size-fits-all" analysis and is not based on an evaluation of the refinery-specific facts raised in each SRE petition.

Response:

As explained in Sections III and IV.D.3 and in responses to other comments herein, EPA considered the refinery-specific facts in each SRE petition in taking its final action. EPA provided all of the SRE petitions and supplemental materials to DOE and consulted with DOE on those submissions. Furthermore, EPA evaluated the design and mechanisms of the RFS program to assess how small refineries might be impacted, evaluated the fuel and RIN market data at-large to assess whether actual field data supported the conclusions from that analysis, and then also evaluated all of the refinery-specific information individual companies provided to assess whether there was something unique to their circumstances that was not captured by the broader analysis. This included evaluation of the confidential information provided, as discussed in the confidential, refinery-specific appendices to this action.

Comment:

The CAA requires individual adjudications of each SRE petition. Individual adjudications preserve small refineries' access to the Federal Court of Appeal for the Circuit in which they are located. EPA's single decision for all SRE petitioners forces small refineries into the D.C. Circuit, insulating EPA's action from judicial review.

Response:

The SRE Denial is not the first instance in which EPA has issued a single decision document adjudicating multiple SRE petitions.[15] Furthermore, EPA has considered the arguments made by the individual small refineries, many of which were repeated across SRE petitions from other small refineries. In the SRE Denial, EPA also addresses refinery-specific data in a way that preserves small refineries' claims of confidentiality. Accordingly, though EPA is deciding multiple SRE petitions in the SRE Denial, it has considered and evaluated each petition individually. The comment regarding judicial review of EPA's SRE decisions is addressed in Section B.I.6.

Comment:

The failure to conduct a case-by-case analysis constitutes a procedural error that warrants invalidation of the action under CAA section 307(d)(8).

[15] 2018 Decision (August 9, 2019).

Response:

As explained in the Proposed Denial and again in the SRE Denial, this action is not a rulemaking subject to the various statutory and other provisions applicable to a rulemaking; as such, neither the procedural requirements of CAA section 307(d) (none of which require a case-by-case analysis even if applicable) nor the procedural standard of review in CAA section 307(d)(8) apply. Instead, it is an adjudication of 69 pending SRE petitions. As such, EPA has considered and responded to the arguments (many of them identical) made by the individual small refineries. EPA has also considered the facts each small refinery submitted purporting to refute or disprove EPA's analysis of the RIN program and market effects, including RIN cost passthrough and RIN discount. EPA has addressed the refinery-specific data in a general way to preserve small refineries' claims of confidentiality. EPA has also issued separate individual responses in confidential, refinery-specific appendices to certain small refineries that raised unique arguments to which the Agency could not respond without disclosing confidential information.

Comment:

The Fourth and Tenth Circuits both held that EPA must specifically consider and address each small refinery's argument that RIN costs are not passed through. Thus, EPA's Proposed Denial is directly contrary to Fourth Circuit case law and the *RFA* opinion.

Response:

EPA's final action does consider and address each small refinery's allegation that its RIN costs cannot be passed through. Small refineries began providing detailed comments to EPA to support their claims of DEH immediately following the Supreme Court's decision in *HollyFrontier* (in which case they were considered by EPA in developing the Proposed Denial) and many took the opportunity to submit the same or augmented arguments as comments on the Proposed Denial. EPA addresses and responds to these arguments in Sections IV.D.2 and 3, and throughout this Appendix in response to specific comments. Section B.III specifically focuses on specific studies and data submitted by many small refineries in response to the Proposed Denial.

12. The Proposed Denial does not comply with Executive Order 12898.

Comment:

EPA fails to "identify or address" the fact that small refinery closures (or even reductions in capacity) caused by the Proposed Denial could have an adverse environmental impact on environmental justice communities because small refineries have a smaller environmental footprint and less impact on their surrounding communities than large integrated refineries.

Response:

The commenters provided no analysis to support their assertion that small refineries have less impact on their surrounding communities than large integrated refineries. Regardless, any small refinery closures that occur subsequent to this action are not caused by compliance with the RFS program, as explained in Section IV.D. Furthermore, any adverse environmental impact on environmental justice communities from these hypothetical small refinery closures is purely speculative and outside the scope of this action.

13. The Proposed Denial is contrary to case law on the SRE provisions and RFS program.

Comment:

EPA's Proposed Denial conflicts with other Tenth Circuit case law in *Sinclair*, which instructed EPA to apply a holistic analysis to each small refinery petition, not single factor analysis based on whether DOE evaluated a small refinery to be financially viable going forward. Here, as then, EPA is relying on a single factor, the flawed assumption that small refineries can passthrough their RIN costs.

Response:

EPA disagrees. EPA's interpretation is consistent with the *Sinclair* precedent by applying a "holistic" analysis to the pending SRE petitions by considering RIN market observations that EPA had previously ignored. This analysis accounts for the RFS program's effects on fuel and RIN pricing for obligated parties and is therefore far from a "single factor" analysis. EPA has broadly considered all relevant factors of DEH, including the specific arguments raised by small refineries and the economic studies they provided in their comments to the Proposed Denial. As described in Section IV.D, EPA has considered and analyzed many factors in reaching the decision to deny the 69 SRE petitions; this process is the opposite of applying a "single-factor" assumption to make these decisions.

Comment:

In all prior instances of judicial review over SRE decisions, the courts have never overturned the framework of the 2011 DOE survey and scoring matrix. This created a reliance interest on the part of small refineries on this evaluation approach being maintained.

Response:

As explained in Section B.I.4, EPA disagrees that small refineries had any basis to rely on a particular past Agency action, given the uncertainty in the case law and EPA statements regarding RIN cost passthrough.

II. EPA's Interpretation on SRE Eligibility is Arbitrary, Capricious, and Otherwise Contrary to Law

Comment:

The requirement that a small refinery must have received the original statutory exemption early in the RFS program to petition for an extension of the exemption is contrary to the language of the CAA. Alternatively, such a requirement is not supported by anything in the CAA. In addition, EPA's proposed eligibility requirement is contrary to the *HollyFrontier* opinion.

Response:

EPA disagrees with the commenter's claim that the statute permits a refinery that is not a small refinery at the time of the original exemption to later become one, either through reducing its throughput or being newly constructed, and then to receive an "extension" of that original exemption. The commenter's interpretation is inconsistent with the text of the statute and is not supported by *HollyFrontier*. On its face, the interpretation that a refinery must have received the original statutory exemption under CAA 211(*o*)(9)(A) is consistent with the CAA, which describes the extension of that exemption in section 211(*o*)(9)(B)(i) as an "extension of the exemption under paragraph (A)." Contrary to the commenter's assertion, the *HollyFrontier* court did not expressly address this question, and in fact, focused on a small refinery's exemption having "lapsed," which means it would have existed at some time in the past.[16] Therefore, the Tenth Circuit and Supreme Court opinions are consistent with EPA's interpretation that, under the CAA, a small refinery that held the original blanket exemption is eligible to receive an extension of that exemption, regardless of whether or not a small refinery's exemption history following its receipt of the original exemption is continuous. For this reason, EPA announced in the Proposed Denial that the Agency was considering returning to its original view of eligibility, and that is the position taken in Sections IV.A.3 and 4.

Comment:

EPA's interpretation regarding eligibility violates small refineries' due process rights.

Response:

Every time EPA has adjudicated an SRE petition, it has done so by applying its then-current interpretation of a small refinery's eligibility for an exemption under CAA section 211(*o*)(9). In this case, EPA provided notice to small refineries of its intention to apply its prior interpretation of small refinery eligibility in the Proposed Denial (i.e., requiring refineries to have obtained the original blanket exemption) and provided over 60 days of notice and invited public comment.

Additionally, EPA communicated directly with the two refineries that it concluded were ineligible to petition on these grounds. Accordingly, these refineries had actual notice of EPA's intent to find them ineligible and had the opportunity to comment on that finding. The refineries

[16] *HollyFrontier*, 141 S.Ct. at 2178 (referring to a "resumption after some interrupting lapse").

submitted comments, which have been included and addressed here. EPA has responded to other comments on the subject of due process in Section B.I.2.

III. Studies Relied on by Small Refineries to Refute RIN Cost Passthrough

1. Dr. Fitzgerald, Texas Tech Study and LSU Study

Comment:

EPA's Proposed Denial relies on a single academic study (Knittel et al., 2017). EPA has ignored other studies (including Lade & Bushnell, 2019; Li and Stock, 2019; Burkhardt 2019; Pouliot et al., 2017) that provide strong evidence for imperfect passthrough.

Response:

EPA has not based its RIN passthrough conclusion on a single study, as the commenter alleges. Rather, EPA has based this conclusion on an abundance of evidence, including economic theory and empirical studies. The basis for our conclusion is discussed at length in the SRE Denial.

Regarding the studies mentioned by the commenter,[17] we do not believe that these studies provide evidence for imperfect RIN cost passthrough at terminals where obligated parties sell fuel. Two of the studies (Lade & Bushnell, 2019 and Li and Stock, 2019) focus on "RIN subsidy pass through" (what in the SRE Denial, EPA calls the RIN "discount") to E85 at *retail stations*. EPA does not hold that the RIN discount fully passes through in the prices offered to consumers at retail stations marketing E85 as EPA previously acknowledged.[18] To summarize briefly, EPA previously found that retail stations selling E85 are rarely in direct competition with other stations selling E85 and that retail stations likely seek to recover the cost of installing the E85 pumps by marking up the price of E85. Importantly for EPA's analysis here, obligated parties primarily realize the impacts of RIN cost passthrough and the RIN discount when they sell fuel at *wholesale terminals*. Unlike retail stations, most wholesale terminals have a significant number of position holders all selling fuel in competition with each other from the same terminals. In that highly competitive setting with posted product prices, the RIN discount is far more likely to pass through in the prices wholesale fuel sellers receive. Lade in particular notes that "our finding that pass-through is high in contested markets implies that RIN pass-through at wholesale terminals is also high in these markets." (emphasis added)

Because the RIN is separated when the fuel is blended and sold as E85 at the wholesale terminal, it is the wholesale RIN discount that determines the cost for blenders to acquire RINs. The fact that individual retail stations may markup the discounted E85 wholesale price at retail has no impact on the cost to obligated parties to acquire RINs as the RIN has been separated and its

[17] Gabriel E. Lade & James Bushnell, "Fuel Subsidy Pass-Through and Market Structure: Evidence from the Renewable Fuel Standard", 6 JAERE 563 (March 22, 2019), available at https://doi.org/10.7910/DVN/AX4LOY; Jing Li & James H. Stock, "Cost pass-through to higher ethanol blends at the pump: Evidence from Minnesota gas station data," 93 J. Env. Econ. & Mgmt 1 (2019) available at https://doi.org/10.1016/j.jeem.2018.08.003; Jesse Burkhardt, "The impact of the Renewable Fuel Standard on US Oil refineries," 130 Energy Policy 429 (2019) available at https://doi.org/10.1016/j.enpol.2019.03.058; Sebastien Pouliot, Aaron Smith, & James H. Stock, "RIN Pass-Through at Gasoline Terminals," February 22, 2017, available at https://scholar.harvard.edu/stock/publications/rin-pass-through-gasoline-terminals.

[18] "Denial of Petitions for Rulemaking to Change the RFS Point of Obligation," EPA-420-R-17-008 at 50-51, November 2017.

value (discount) realized prior to the sale of the fuel at the retail stations. Hence, these two studies do not contradict EPA's conclusion that parties that acquire RINs by blending renewable fuel must discount the renewable fuel by the value of the RIN.

EPA finds the 2019 Burkhardt paper cited in the comments to be largely consistent and supportive of the conclusions EPA has reached in this action. Notably, the study finds that the "RIN tax obligation were fully passed through to wholesale gasoline and diesel prices on average", "that rack level pass-through is generally complete with the largest exception being firms on the East Coast", and that "full pass-through of RIN costs to nationwide output prices on average, and *no statistical difference between pass-through rates for large and small refineries*. These two findings suggest that *exempt refineries that do not bear the burden of the RFS tax obligation, but enjoy increased output prices*, may incur substantial benefits from the policy."[19] (emphasis added).

The commenters presumably cite the 2019 Burkhardt paper because of its conclusion that RIN prices may not pass through in firms operating on the East Coast. The Burkhardt paper itself (citing Pouliot et al., 2017) suggests the reason for the result on the East Coast:

> First, Florida is not on the petroleum pipeline network and second, Atlanta requires a specific blend of low-sulfur gasoline. These unique properties could lead to more volatility in the price of blended gasoline, which would lead to lower pass-through rates. Consistent with the second explanation, I do not find statistically significantly lower pass-through rates in the ULSD and jet fuel markets in PADD 1.

These explanations from Burkhardt are important for several reasons. First, small refineries consistently argue that it is diesel fuel in particular where they are unable to pass through the cost of RVO compliance. Here Burkhardt finds that not only are those costs passed through in diesel fuel prices on average nationally, but also when evaluated across different geographic regions and company sizes (i.e., small refineries versus large refineries). Second, to the degree that the East Coast analysis is skewed due to the unusual market conditions in Florida and Atlanta, those are two markets primarily served by large refineries (the Colonial Pipeline in the case of Atlanta and fuel tankers serviced from the major Gulf Coast refineries in the case of Florida). Any inability to pass through the RVO compliance costs into those markets is unlikely to negatively impact small refineries. That said, we believe it is more likely that the unusual East Coast market conditions simply result in more scatter in the data, making it harder to differentiate the impact of the D6 RIN in particular in those markets during the time period analyzed in the Burkhardt paper.

The Burkhardt paper analyzed data in the years from 2012–2014 when the total renewable volume percentage standards ranged from 9.19% to 9.74%. When evaluating E10 prices in particular during this time period the degree of RIN cost and RIN discount pass through is particularly hard to measure because the two factors nearly fully offset each other in the price of

[19] Burkhardt, Jesse "The impact of the Renewable Fuel Standard on US oil refineries", Energy Policy Volume 130, July 2019, Pages 429-437

E10. As described in Section IV.D, EPA expects the price of E10 to be largely determined by the following equations:

E10 Price = Gasoline Blendstock Price * 90% + (Ethanol Price – D6 RIN Price) * 10%

Gasoline Blendstock Price = Gasoline Price with no RFS Obligation + RIN Costs

RIN Costs = RVO% * Weighted RIN Prices (D6, D4, D3)

Combining the two equations then we can see that the E10 Price would be expected to change with RIN prices in the following way.

Change in E10 Price = 0.9*9.74%*(Weighted RIN Price) – 0.1*D6 RIN Price

= 0.0873*(Weighted RIN Price) – 0.1*D6 RIN Price

Because the weighted RIN price reflects not only the D6 RIN but also the more expensive D4 and D3 RINs, the weighted RIN price is slightly higher than the D6 RIN price such that, in net, the increase in the gasoline blendstock price due to the 9.74% RVO (the RIN cost passthrough) is almost exactly offset by the 10% RIN discount from the D6 RIN. In net then, there is almost zero change in E10 prices when evaluated during this time period. With a near-zero change in E10 prices with changing RIN prices, it is exceptionally difficult to estimate the impact, especially in a market with more volatile pricing due to the Florida and Atlanta markets.

Finally, EPA has considered the Pouliot et al. 2017 study that found incomplete RIN passthrough in PADD 1 and PADD 5. In reviewing this study EPA identified several concerns with the methodology. First, the study does not appear to account for changes in blending margins over time. Instead, it appears to attribute any change in the posted price of blended fuels to changes in the rate of RIN passthrough. Second, and perhaps more importantly, the study does not use renewable fuel prices actually available at the terminals studied. Instead, the study uses ethanol prices at the nearest location where spot prices are posted. This is a problem, as the cost of transporting ethanol even relatively short distances by truck can be significant. To explore the issues raised in the Pouliot et al. 2017 study further, EPA attempted to use the methods in this paper, but to add estimated transportation costs for ethanol (and biodiesel) from the markets with posted prices to the terminals being studied. EPA contracted with Stillwater Associates to perform this analysis.[20] Stillwater ultimately concluded that such an analysis was not feasible for a variety of reasons, including the unavailability of and inconsistency with the source data, concerns over extreme price postings and the reliability of the posted prices, and timing differences between when prices for petroleum and renewable fuels are posted at a major hub and when these fuels are available at a local market.[21] EPA has therefore concluded that the Pouliot et al. 2017 study provides insufficient evidence to disprove our conclusions on RIN passthrough.

[20] Economic Analysis of Fuel Blending, prepared for the Environmental Protection Agency by Stillwater Associates LLC, February 9, 2022, pp. 6-7.
[21] *Id*.

Comment:

An important issue in these data is the treatment of weekend fuel sales. Knittel et al. (2017) excludes weekends, and RIN price quotes are not available for weekends and major holidays. Refining and fuel supply is a 24/7/365 industry, which is borne out in the data, with about 28 percent of all transactions logged on Saturday and Sunday.

This has serious implications for the assumption of ratable compliance asserted strongly by EPA. Dr. Fitzgerald performed three, layered sets of results using the 2019–2021 data. As a control, he initially excluded weekend fuel sales and analyzed weekday-only sales in the three fuel spreads across the entire data set, which is the same "methodology used by Knittel et al. (2017) for an earlier period and endorsed by EPA."

Dr. Fitzgerald then analyzed "each of [the] three fuel spreads using the data that include weekends. The results indicate that there is less evidence of pass-through when weekend transactions are included. Notably, the results . . . suggest that the degree of pass-through in the gasoline market is significantly different" from the results when weekends were excluded. This "draws into question the relevance of ratable compliance assumptions because trading arrangements for RINs are substantially less liquid on weekends, and waiting until the next weekday may expose obligated parties to price risk inherent to compliance. EPA expressly ignores such a pathway as being 'caused by RFS.'"

Response:

To estimate the rate of RIN cost passthrough in the prices of fuels sold over the weekend, Dr. Fitzgerald created surrogate RIN prices for Saturdays and Sundays using "a linear interpolation of missing RIN prices" explaining further that "the difference between Friday and Monday quotes is split between Saturday and Sunday for a regular weekend." EPA understands this to mean that if Monday's RIN price was three cents higher than Friday's then Saturday's RIN price would be estimated to be one cent higher and Sunday's two cents higher such that Monday's increase occurred evenly over this three-day period. Similarly, if Monday's price was three cents lower, then Saturday's price would be estimated at one cent lower and Sunday's price at two cents lower.

Not surprisingly, Dr. Fitzgerald's analysis showed no significant correlation between the estimated "increase" or "decrease" in RIN prices on Saturday or Sunday because no such RIN prices exist. Market participants on Saturday or Sunday do not know if RIN prices will rise or fall on Monday when compared to Friday and so cannot react to what hasn't yet occurred. The commenter and Dr. Fitzgerald both suggest that this is an issue given EPA's expectation that refineries will acquire RINs ratably through the year consistent with their production and sale of refined products. We do not see the lack of pricing information for RINs on Saturday or Sunday as fundamentally problematic for refineries wishing to acquire RINs ratably with their fuel production and sales. Such refineries can buy a volume of RINs at Friday's RIN price but at a volume that reflects Friday, Saturday, and Sunday's sales volumes as Friday's RIN price information is the information that the market has when it finds the appropriate fuel pricing on Saturday and Sunday. A similar strategy can be applied to holidays.

Comment:

EPA's first claim is that the RFS compliance costs are the same for all obligated parties, and thus no party bears RFS compliance costs that are disproportionate relative to others' costs. We conclude that this claim is implausible. One economic rationale behind a tradable permit program, such as RFS, is to achieve the lowest possible compliance cost market-wide. The economic logic for tradable permit programs is based on the assumption that the costs for each firm to comply with a regulation differ across firms. Economic theory suggests that this least-cost outcome will occur at the point at which the marginal compliance cost of each firm is equal to the tradable credit price (i.e., Renewable Identification Numbers, or RIN price in this context). However, equalizing marginal compliance costs across firms does not imply that the average compliance cost per unit of output is the same for all individual firms.

Response:

The primary reason that the LSU study cites in making the claim that compliance costs are not the same for all obligated parties is the difference in the cost of production of gasoline and diesel fuel between refineries, due to differences in geography, fuel quality regulations, crude oil costs, refinery configuration, etc. EPA recognizes that there are significant differences among refineries, and that these differences affect the cost of production of the petroleum fuels they produce. However, this does not refute EPA's claims that all obligated parties have the same cost of RFS compliance. RINs, which obligated parties need to demonstrate compliance, are generated by renewable fuel producers. RINs are generally separated from renewable fuel by blenders when renewable fuel is blended with petroleum fuel. Because fuel blenders (whether they are obligated parties or not) are the source of RINs, the important factor to consider when evaluating the likelihood that all obligated parties have the same compliance costs is whether the cost structure for fuel blenders is similar across the industry. Unlike refiners, fuel blender's cost structure varies very little across the country. The process and cost for blending fuels, whether at a terminal or refinery rack, is a fairly uniform process.

Further, the cost of obtaining a RIN is not simply the cost of blending renewable fuel with petroleum fuel, but also the discount the blender must offer on the blended fuel to remain competitive. Because RIN prices are uniform across the nation, and further because fuel blending is a competitive market, fuel blenders must discount their fuel blends by the entire value of the RIN to remain competitive.[22] Thus, the cost of acquiring RINs for blenders, whether or not they are obligated parties, is the same for all parties even though the cost of petroleum fuels and renewable fuels varies across the U.S. If the cost of acquiring RINs is the same for all parties it follows that the cost of acquiring RINs will be the same for all *obligated* parties. In this case the purpose of a tradable credit program is not necessarily to allow parties with lower blending costs to blend excess renewable fuels and provide credits to parties with higher blending costs, rather it is to allow parties already in the business of blending renewable fuels to continue in that business rather than forcing all refiners to become renewable fuel blenders to meet their RFS obligations.

[22] Independently of the RFS program, blenders also charge a blending fee to recover other costs (e.g., capital costs and operational expenses) and to provide a return on their investments.

Comment:

Finally, even if there is 100% pass-through of all RIN prices to final product prices, consumers will respond to the increased price by decreasing the quantity demanded for fuels. This reduction in demand will negatively impact the refining sector. Both the effect of equilibrium price and quantity of fuels sold should be considered when assessing the effects of the policy.

Throughout the Proposed Denial EPA focuses exclusively on the impact of RIN costs and other costs of compliance associated with the RFS Program (such as building biofuel blending infrastructure). This narrow view arbitrarily overlooks other serious consequences of the RFS Program. In particular, regardless of whether there is complete RIN cost passthrough, small refineries bear the burden of decreased demand for their products because of the RFS Program. Every gallon of biofuel mandated by the RFS on an annual basis is a gallon of gasoline or diesel that refineries are no longer able to produce. This decrease in product volume is not distributed equally across refineries. Rather, the highest cost producers see the greatest demand loss, and small refineries are very often the highest cost producers in their markets. Additionally, even if the demand reductions were spread evenly across refineries, small refineries generally have higher fixed costs per gallon and lost volumes can therefore be more impactful on their margins. EPA does not acknowledge either of these realities in the Proposed Denial.

Response:

As the commenters describe, microeconomic theory states that an increase in prices should lead to a reduction in demand. Further as one commenter more directly notes, the RFS program itself by displacing demand for petroleum-based fuels with renewable fuels further reduces the demand for the gasoline and diesel fuel that refineries produce. The commenters both argue then that this reduced demand for petroleum-based fuels is itself a form of hardship that EPA should consider in determining if DEH exists for any particular small refinery.

EPA agrees that microeconomic theory should be reflected in this market and that a reduction in demand should be expected both due to the marginally higher cost of renewable fuels and further due to the direct substitution of renewable fuels for petroleum fuels under the RFS program mandates. However, we do not believe these generalized market outcomes are the kinds of direct, individual-refinery impacts that Congress intended the SRE provisions to address, and they do not disproportionately impact small refineries. First, the very purpose of the RFS program is to displace petroleum fuel with renewable fuel through the RFS mandates set by Congress. EPA thinks it is unlikely that Congress would then intend to waive the very mandate it set simply because that mandate was having its intended effect. Instead, we believe the SRE provisions are intended to address the circumstances where the individual refinery cost of compliance is the source of the “disproportionate economic hardship,” since the statutory exemption provision refers to DEH “due to compliance” with the RFS program. That cost of compliance is the cost to acquire the RINs necessary to demonstrate that a refinery has met its RVOs. As detailed extensively in the SRE Denial, those costs are the same for all refineries and are passed through to consumers in the prices of gasoline and diesel fuel.

2. Small Refinery Coalition

Comment:

The data upon which EPA rely are from the 2013 through 2016 time period, before the blend wall was reached, RVOs exceeded 10.5%, and RIN prices rose to historic highs. Entirely missing from EPA's analysis are data from the 2017 through 2021 time period. It is arbitrary, capricious, and methodologically unsound for EPA to rely on pre-2017 data to purportedly determine that all RIN costs were fully passed through by all parties (including small refineries) during the years of 2019 and 2020.

Response:

There are several factual errors associated with this comment. First, the E10 blendwall was reached in 2013, which is when D6 RIN prices rose. Second, this comment fails to acknowledge the EPA analysis provided in Section IV.D.2.d, which provides a RIN market analysis using more recent data than was available in 2015. Finally, this comment presumes that the structure and operation of the RFS program is somehow different from one year to the next or as a function of the RIN prices. Since there have been no meaningful changes to the structure of the RFS program (or its RIN system) since 2010, there is no reason to believe that this would be the case and the commenter provided no such basis.

Comment:

None of EPA's studies analyze RIN cost pass-through for diesel fuel. Despite the fact that, as EPA well knows, small refineries produce disproportionately more diesel than their larger competitors.

Response:

The commenter is factually incorrect. As discussed in Section IV.D.2.d, as well as in past analyses supporting evaluating RIN cost passthrough,[23] EPA evaluated distillate markets as well. Furthermore, the form and structure of the RFS program, the RIN system, and compliance requirements are identical for gasoline and diesel fuel. There is no reason to believe that they would function differently, and the commenter has not provided any evidence to the contrary. In addition to EPA, a number of other studies also evaluated RIN cost passthrough in diesel fuel (e.g., Burkhardt 2019).

Comment:

EPA did not seem to consider that ethanol is often below the price of gasoline. One commenter's analysis showed that over the past four years, ethanol was discounted below gasoline nearly 60% of the time. There is no meaningful insight or change in RIN prices on those days. If EPA's assertion was correct, that the price of the RIN reduces the price of ethanol to meet the "market

[23] "Denial of Petitions for Rulemaking to Change the RFS Point of Obligation," EPA-420-R-17-008, November 2017.

demand" this would imply that if ethanol was below gasoline, Ethanol RINs would quickly move to 0. Clearly, this is not occurring in the markets. Additionally, a refiner blending ethanol priced below gasoline would have a RIN cost of zero, while a refiner who had to purchase RINs for compliance would have a non-zero compliance cost, equal to the D6 RIN.

Response:

As discussed in Section IV.D.2.d, including the examples provided, EPA has in fact considered the impact of ethanol's cost relative to gasoline in its evaluation. More importantly, the commenter fails to understand how the RFS program and RIN system function. The commenter is mistaken that when ethanol is cheaper than gasoline, D6 RIN prices should be near zero. This should have been, and in fact was the case prior to 2013, before the RFS standards reached the E10 blendwall. However, the cost of blending ethanol at concentrations above 10% is far greater than when blending at 10% due to octane value and RVP control costs. Thus, when the RFS standards require more conventional renewable fuel to be blended than can be met with E10, the D6 RIN price rises to the point necessary to incentivize the next least expensive source of renewable fuels use. While this in some cases has meant increasing the use of ethanol through higher-level blends such as E15 and E85, in reality it has typically meant that biodiesel and renewable diesel volumes have increased instead, which is why D6 RIN prices since 2013 have tended to track with D4 RIN prices. The elevated D6 RIN prices then lower the effective cost of blending ethanol even as E10, and as explained in Section IV.D.2.d, this value is reflected in the market pricing of E10.

Comment:

For as long as DOE has been applying the scoring matrix, and EPA has been evaluating petitions for small refinery hardship relief, DOE has made clear that there was insufficient information to score metric 2.d, which measures whether a small refinery's RVO is a net cost or a net revenue. While this metric was not scored in the 2011 Study because of an alleged "lack of consistency" among the responders to the DOE small refiner survey, DOE expressly noted that "depending upon the business model of the small refiner, complying with their RVO can either be a net cost if they purchase all of their RINs or can generate revenue should they be able to actively trade RINs in the open marketplace."

Now, EPA claims DOE never "assess[ed] in [the 2011 DOE Study] whether their assumptions that refiners bear different costs for RINs and that they may not be able to pass these costs onto consumers in the marketplace actually occurred." That is not true. DOE understood that parties would experience RFS costs differently—that is why DOE included metric 2.d ("RINs net revenue or cost") in the scoring matrix. It particularly understood that RIN prices would become untethered from the price of blending after the E10 blend wall was reached—a concept that has grounded our understanding of the RFS for nearly 10 years but is not mentioned once in the Proposed Denial. As stated above, DOE predicted that as the RFS mandate increases, RIN-short parties "will need to purchase RINs and could suffer significant economic hardship."

Response:

As explained in Section IV.C, the 2011 DOE Study did *not* consider that blending refineries would have to discount blended fuel by the price of the RIN; therefore, the projections envisioned by the 2011 DOE Study *have not occurred* in practice. Rather, as the 2009 DOE Study anticipated, the competitive market forces have resulted in the same cost of compliance whether that cost comes through the purchasing of RINs on the open market or through the discounting of the price for blended fuel sold by blenders. Moreover, neither the 2009 DOE Study nor the 2011 DOE Study anticipated the even more significant finding that, without regard to how refineries experience their RFS compliance costs, the RIN cost passthrough phenomenon applies—refineries pass those higher costs through to their customers in higher prices for the refined products they sell.

As part of EPA's evaluation of SRE petitions, EPA requested that petitioning small refineries provide data on some RFS compliance costs. EPA acknowledges that all of the petitioning refineries provided estimates of their RIN acquisition costs based upon a standardized spreadsheet that EPA created in 2013 and shared with petitioners. This spreadsheet is intended to provide summary information on the petitioner's annual total differential cost of purchased biofuel (relative to gasoline and diesel), and annual cost of purchased RINs needed for compliance. DOE has continually declined to evaluate this information as part of its scoring of metric 2.d RINs Net Revenue or Cost, explaining in 2011 that a "lack of consistency" among the petitioners made it impossible to score. More recently, DOE has decided not to score this metric explaining that there is no information available to compare a refinery's RIN cost/revenue with an industry average obtained from study of refineries' data (rather than a study of national price data) to determine DEH.

More importantly here, EPA now recognizes that the RIN acquisition costs in this spreadsheet lack two very important elements that have not been reported or accounted for in the submittals. First, the cost to acquire RINs for blending is calculated based on the price differential between the petroleum fuel into which it will be blended and the cost of the renewable fuel. This simplified approach assumes that the renewable fuel is a direct substitute for the petroleum fuel and therefore the cost difference should directly reflect the value of the RIN. However, for ethanol as an example, the lower energy content of ethanol means that ethanol needs to be discounted about 30% below the price of gasoline for a consumer to choose to buy it for use in a flex-fuel vehicle (i.e., as E85). Hence, ethanol needs to be discounted below the cost of gasoline. By not accounting for this additional discount (i.e., by not using the blended fuel price as an input to the calculation), the spreadsheet underestimates the acquisition cost to blenders to acquire RINs. In fact, in many cases it suggests that blenders are getting D6 RINs at a negative cost since ethanol is cheaper than gasoline in many instances, when in fact the actual RIN acquisition cost to refineries is most definitely significant. Second, the estimate of RIN acquisitions does not account for the increased revenue that refineries receive in their product prices as a result of RIN cost pass-through. In fact, we would argue that accounting for that for each petitioner would indicate no net cost to small refineries due to compliance with the RFS program.

Given the spreadsheet was not designed to capture any information regarding RIN cost passthrough in the price of the unblended transportation fuel nor to capture the RIN discount, the spreadsheet is not useful in quantitatively comparing RFS compliance costs, which is why DOE does not use it in scoring metric 2.d and EPA has chosen not to evaluate those estimates in the SRE Denial.

IV. Non-CBI Comments on EPA's Technical Analysis

1. EPA's analysis of DEH relies on incomplete or selective information.

Comment:

EPA's Proposed Denial fails to acknowledge and address literature showing variation in RIN cost passthrough based on location and fuels. Although there is general acceptance that there is, over time, at least some passthrough of RIN costs in most refined product markets in the U.S., there is significant dispute in the literature over the extent of passthrough and the level of variation between locations, over time, and across fuel types. EPA's Proposed Denial entirely ignores this information.

Even if one accepts the recent EPA analysis as showing passthrough for the examined ULSD fuel pairs in New York Harbor and the Gulf Coast, those are just two fuel pairs and two markets. The Knittel, Meiselman, and Stock studies reviewed passthrough in several regions, including New York Harbor, Gulf Coast, Chicago, and Los Angeles. The results varied significantly, and some markets did not produce usable results on passthrough levels. While fuel markets are often thought of as broad, the dynamics of refined product markets that affect passthrough can vary significantly across North America. For example, only certain markets currently absorb significant amounts of higher-ethanol blend gasolines or biodiesels, making entire markets short RINs and therefore net buyers exposed to potential compliance burdens. And as the Burkholder Report noted, smaller markets may also involve less competition in supply and demand for certain products, and fully competitive markets are often cited as a prerequisite for full passthrough.

Response:

EPA has considered a number of other studies, most importantly, all of the studies provided by the small refineries with their SRE petitions, supplemental submissions, and comments on the Proposed Denial. While as the commenter notes, some studies fail to find full RIN cost passthrough in all markets or for all time periods, as described in Section B.III.1, we find that on balance these studies provide more evidence in support of the conclusion that RIN costs are passed through than evidence to suggest they do not. As detailed in Section B.III.1, in many cases where they do not directly show RIN cost pass through, we believe there are other factors that may obscure such observations in the data.

Comment:

EPA notes that many petitioners have claimed that they believe their regional markets have different passthrough than the major markets dominated by the large integrated refiners. Proposed Denial at 27. Recognizing this as a significant challenge to their claim of full RIN passthrough, EPA tried to address variable passthrough, suggesting that passthrough in major markets leads to passthrough across all markets as prices equilibrate. The Agency stated: "Through thousands of decisions made by all the market participants each day, the prices

between the markets equilibrate to the same level, offset by the transportation costs between the markets." *Id.* at 30. But EPA offers no proof of this equilibrium.

Response:

As an initial matter, EPA has extended its explanation for the interrelation between linked fuel markets in Section IV.D.2, noting importantly that many small refineries acting in local markets directly index the prices for the products they sell to the major coastal markets and posted prices from those markets. The terms of the contracts ensure that the local market price indexes (rises and falls) with those major markets. Further, because these local markets face significant competition, those market prices are the same for all of the market participants. Perhaps most fundamentally, the reason that EPA believes the markets equilibrate is because there are so many market actors whose very purpose is to perform arbitrage between these markets (i.e., to exploit minor price differences and in doing so close those differences). As but one example, fuel jobbers (operators of fuel tanker trucks) compare the prices at multiple fuel terminals and refinery truck racks within a region to determine which wholesaler offers the best price for the load of fuel they will deliver to a particular retail station after considering first their own transportation costs between the terminals and the retail station. Small variations in price are enough reason for the jobber to choose a terminal slightly further away, increasing demand at that terminal and dropping demand at the others. Multiple market actors all serving similar function provide feedback to the wholesalers at the terminals who, through these actors, must compete not only with other operators at the same terminal, but also with operators at other terminals in the region. If as the commenter suggests, there are markets that do not pass through their costs, those markets will quickly see increased demand while the other markets see a drop in demand. In other words, competition in the market will act to close that price anomaly and bring the whole system into equilibrium.

Further, if there are any fuel markets within the U.S. where such competitive dynamics do not occur (i.e., where the local market is monopolistic or oligopolistic), then the sellers in that market do have pricing power and can certainly be expected to pass on all of their costs and more to wholesale consumers. We do not believe the commenter is suggesting that they operate in such a market.

Comment:

On February 14, 2022, the Proceedings of the National Academy of Sciences published a study titled *Environmental Outcomes of the US Renewable Fuel Standard*. This study shows that the RFS has substantially increased production of corn, and that the increased production and use of corn for ethanol have significant environmental effects. Among other things, the use of ethanol for blending with transportation fuel results in more GHGs than the use of transportation fuel alone.

This conclusion has stark implications for EPA's management of the RFS. One of the goals of the RFS is the reduction of GHG emissions. And its most recent proposed rule for the 2021 and 2022 RVOs states that the "proposed rule has the potential to reduce GHG emissions." EPA

cannot adequately meet its obligations or make such statements without considering this new study.

It would be arbitrary and capricious for EPA to finalize the Proposed Denial without duly considering this new study. EPA's Proposed Denial is a blanket action that would deny all pending petitions for small refinery exemptions. The net effect of such a denial would mean that more ethanol—as the most-frequently-used renewable fuel—would be blended into transportation fuel. As the study shows, increased use and production of ethanol would likely result in increased harm to the environment through the higher number of GHG emissions. Thus, EPA must demonstrate that it has considered this issue before it takes actions that would increase the amount of ethanol use.

Response:

The comment period on EPA's proposed denial ended on February 7, 2022, one week before this study was completed and several weeks before the comment was submitted to EPA on March 22, 2022. While the comment may be relevant to the RFS program generally, it is not directly applicable to EPA's evaluation of small refinery exemptions under the relevant CAA provision in determining whether the small refinery experiences DEH caused by RFS compliance DEH and is therefore not addressed in this response to comments.

2. EPA concedes that there are circumstances under which obligated parties cannot passthrough their RIN costs.

Comment:

EPA's conclusion that exemption from the RFS standards results in "windfall" profits for small refineries is incorrect. EPA's implementation of the program has ensured that, even when small refineries receive hardship relief, they still suffer economic losses through the RFS program. 1) When EPA issues SREs well past the statutory deadline, small refineries are left scrambling in the RIN market, buying RINs from and/or selling RINs to unobligated parties that have no reason to participate in the marketplace other than to profit off of obligated parties. 2) When small refineries are forced to wait months or, in this case, years past the statutory deadline to know whether they received hardship relief, EPA's delay affects their ability to make decisions that could advantage their business.

Response:

As described in Section IV.D.2 and in responses to other comments herein, small refineries were paid for the cost of RFS compliance through the pricing of the gasoline and diesel in the marketplace, as those market prices reflected the cost of RINs. Accordingly, any revenue from RIN sales after an exemption is granted is gratuitous to small refineries' compliance costs. Nevertheless, EPA is aware of the extenuating circumstances that have resulted in this long delayed final action, and EPA has already taken reasonable steps to ease the impact of this delay on small refineries by twice extending the RFS compliance dates for small refineries in 2019, and all obligated parties for later years. Ultimately, all obligated parties, including small refineries, have compliance obligations under the RFS program. Those compliance obligations exist for small refineries until such time as an exemption is granted. We have previously told small refineries that they should not plan for an exemption but should instead plan to comply with their obligations, and many have done so.

Comment:

EPA's theory of RIN cost passthrough directly contradicts its longstanding approach to administering the RFS program and expectation regarding compliance. EPA is now punishing small refineries for behavior that is not only legal, but that EPA previously approved. Prior to the Proposed Denial, EPA never required obligated parties to purchase RINs at any particular time. In fact, EPA considered but abandoned the notion of requiring quarterly RIN retirement deadlines. Further, EPA has made clear in the past that obligated parties are not required to obtain RINs at the same time that they produce or import fuel but may, if they choose, simply purchase the required number of RINs by the end of the compliance period, once their annual production is known. The uncertainty surrounding EPA's implementation of the RFS Program for several years now has made it difficult for cash-strapped obligated parties, like small refineries, to justify spending millions on RINs before they even know their RVO or whether they will receive an SRE. Without question, EPA's delays in implementing the RFS Program have caused compliance planning uncertainty. To reach its conclusions in the Proposed Denial, EPA is taking a fundamentally inconsistent position as to how compliance planning should work.

In prior statements, EPA claims the RIN market program is designed to provide obligated parties sufficient time to plan for compliance. Implicit is the recognition that parties do not buy RINs ratably (and should not have to). For example, in EPA's proposed extension of the 2019–2021 compliance deadlines, the Agency acknowledges "the importance to obligated parties of planning their compliance for a given calendar year by understanding their obligations for the years before and after." 86 Fed. Reg. 67,419, 67,422 (Nov. 26, 2021).

Response:

As described in Section IV.D.2.d.i, all obligated parties have the opportunity to match their costs by buying RINs on a ratable basis and are responsible for making decisions when to buy RINs and how many RINs to buy at any given time. However, purchasing RINs ratably is not a requirement, but a compliance flexibility that allows obligated parties to comply with their RFS obligations without forcing them to blend renewable fuels with their petroleum based transportation fuels. Indeed, in the absence of the RIN credit program, refineries would have to directly ensure renewable fuel blending. In such a program design, a small refinery could, under the annual compliance provisions, choose to delay any renewable fuel blending until the last month of the year and then attempt to sell exclusively renewable fuel in the last month of the year at a volume to meet the obligation it accrued through the preceding 11 months. Such an approach would almost certainly lead to a much higher cost of compliance than would have occurred had the small refinery worked to demonstrate compliance on an ongoing basis each month through the year. As alleged by small refinery commenters, EPA would then be compelled to provide hardship relief due to the higher cost of RFS compliance for the small refineries that chose such a compliance mechanism. Such an approach, where the business decisions of the individual companies are made within the regulations but contrary to the purpose of the program, does not constitute DEH *caused* by the cost of compliance with the RFS program, and therefore cannot be a basis for hardship relief. Otherwise, all small refineries could simply choose such an impossible compliance approach, and then, having made this choice, be assured of relief from the RFS obligations. Similarly, individual business decisions made by an obligated party not to ratably accrue RINs as their obligation accrues, but instead to either purchase RINs in advance or delay RIN purchases until a later date, are business choices that companies may lawfully make.

Comment:

EPA's theory that all RINs are passed through rests on an assumption divorced from the reality of the transportation fuels market. To present a simplified picture of how small refineries can achieve compliance and recover their costs, the Proposed Denial contains zero discussion of how RIN trading actually works. Instead, EPA claims that "individual business decisions made by an obligated party not to ratably accrue RINs as the obligation accrues, but instead to either purchase RINs in advance or delay RIN purchases until a later date, are speculation in the RIN market, a business activity not required to comply with the RFS program." To characterize small refinery behavior as "speculation" is disingenuous. EPA's statement reflects a naïve understanding of business behavior. Speculation is defined as "investment in stocks, property, or other ventures in the hope of gain but with the risk of loss." Small refineries are not entering the RIN market in an attempt to make profit. They are RIN-short obligated parties *required* to show

compliance with the RFS Program and, because they are dependent on the RIN market to do so, they have no choice but to purchase RINs in the marketplace. If small refineries could avoid the RIN market altogether, they certainly would. Put simply, small refineries are making decisions about regulatory compliance, not speculating.

Response:

As discussed in Section IV.D.2.d.i and above in this Section B.IV.2, by purchasing RINs ratably, all obligated parties have the ability to match their RIN costs with the price they receive when they sell their fuel (i.e., to pass through their RIN costs). Alternatively, refineries can try to time their purchases in the RIN market, which may result in greater or lesser RIN costs. Either way, an obligated party's choices about when to procure RINs represent individual business decisions rather than RFS compliance requirements. Thus, the costs associated with timing purchases in the RIN market cannot be considered to represent DEH caused by compliance with the RFS program.

Comment:

In contrast to small refineries, other parties do speculate in the RIN market, because EPA allows them to do so. The CAA directed EPA to create a credit trading program in which the credits, or RINs, could be generated by parties that "over complied" and sold only to parties that needed them for compliance. Instead, EPA created a program in which any person may participate, generating credits for blending at any level they choose and selling RINs to anyone for any purpose. As a result, the RIN market has been captured and is controlled by large integrated refineries that generate excess RINs, large retailers (who control their own blending but are not obligated parties), and traders, all of whom are seeking to make a profit in the market.

Response:

As an initial matter, the commenter has failed to provide evidence that allowing any person to participate in the RIN market has caused harm to small refineries. EPA created the RIN market to ensure competition and liquidity. Furthermore, this assertion was made previously in the context of a previous EPA rulemaking, and EPA has since imposed additional reporting and record keeping requirements to determine whether any obligated party was holding RINs sufficient to manipulate the RIN market.[24] To date, we have not had any party report that they have exceeded the RIN holding thresholds under the RFS regulations. EPA addresses commenters' assertion that large retailers and traders disproportionately profit from the RIN market in Sections IV.D.2.c and d.

[24] 84 FR 26980 (June 10, 2019).

3. Small refineries are unable to recover the costs of RFS compliance in the prices of the fuels they sell.

Comment:

EPA's analysis does not account for the additional cost small refineries bear to buy Q-RINs; RINs that have been verified by an independent third-party auditor operating under an EPA approved quality assurance plan or QAP. EPA ignores the higher cost of Q-RINs, which small refineries would likely be forced to purchase, and rampant fraud in the RIN market.

Response:

This assertion is misleading for several reasons. First, Q-RINs[25] merely represent a cost to renewable fuel producers that is passed through in the cost of RINs in the market, which is then passed through to consumers as described in Section IV.D.2.d. Furthermore, all obligated parties have the option to purchase Q-RINs, and the risks of fraud in the RIN market are shared by all participants in the RFS program. There is no reason to believe that small refineries would have any greater need to purchase Q-RINs than any other obligated party, and certainly would not be "forced" to.

Second, the commenter overstates the higher cost of Q-RINs. The majority of Q-RINs are coded as D3 RINs for cellulosic biofuel, of which roughly 98-99% are Q-RINs. Cellulosic biofuel RINs are typically the most expensive D-code RIN. When one pools together the costs of all RINs across the different D-codes, the cost of the Q-RINs will appear on average more expensive. However, the cost comparison is separated by D-code, for example within the D6 code, the cost difference between a RIN and a Q-RIN is generally a few cents and the Q-RIN is not always more expensive. EPA used publicly available data[26] to perform this cost comparison and summarized the data in the following table.

[25] Q-RINs are RINs that have been verified by an independent third-party auditor operating under an EPA approved quality assurance plan or QAP. They are used to demonstrate the authenticity of RINs generated by renewable fuel producers.

[26] EPA has analyzed data available on EPA's website at https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rin-trades-and-price-information.

Row Labels	2017	2018	2019	2020	2021	Grand Total
D3	**2.45**	**1.88**	**1.43**	**1.99**	**2.65**	**2.03**
Q-RIN	2.47	1.90	1.40	2.01	2.72	2.04
Unverified	2.39	1.79	1.52	1.92	2.50	2.01
D4	**0.72**	**0.53**	**0.60**	**0.93**	**1.37**	**0.77**
Q-RIN	0.73	0.52	0.60	0.89	1.39	0.76
Unverified	0.71	0.54	0.60	0.97	1.35	0.77
D5	**0.82**	**0.46**	**0.47**	**0.86**	**1.47**	**0.82**
Q-RIN	0.87	0.47	0.51	0.77	1.40	0.82
Unverified	0.79	0.46	0.45	0.92	1.53	0.82
D6	**0.51**	**0.26**	**0.42**	**0.80**	**1.23**	**0.55**
Q-RIN	0.58	0.24	0.46	0.79	1.19	0.51
Unverified	0.47	0.27	0.40	0.81	1.23	0.56

EPA found that average prices from 2017 through 2021 for Q-RINs compared to unverified RINs ranged from 3 ¢/RIN more for D3 RINs to 5 ¢/RIN less for D6 RINs, while prices for Q-RINs and unverified RINs were nearly equal for D4 and D5 RINs. Some refineries provided an analysis that incorrectly compared the average price for all RIN D-codes combined, rather than comparing individual RIN D-codes, and which consequently showed larger price differentials between Q-RINs and unverified RINs.

EPA also notes that small refinery commenters do not say what their additional cost would be, or even if they are certain that they would purchase Q-RINs at all. Small refinery commenters also say there is "rampant fraud in the RIN market," but the data they provided shows 470 million fraudulent RINs identified by EPA over a 10-year period, or 47 million RINs per year on average. During these 10 years, approximately 16.5 billion RINs were retired each year on average, which means invalid RINs were 0.3% of the total RINs retired. That hardly constitutes "rampant fraud" as small refineries are claiming.

Comment:

Additionally, the EPA posits that "demand price for the renewable fuel, which is the price the market is willing to pay for the renewable fuel as a transportation fuel." This is a misconception and doesn't recognize that E10 is now the standard fuel in the industry. CBOB like ethanol is an intermediate product in the liquid transportation fuel value chain. Ethanol prices trade in several markets, including in a very transparent manner on the Chicago Board of Trade. These prices react to prices of corn, ethanol production, inventories, demand, US, Chinese and South American crop acreage, yield and production forecasts, weather and many other factors, certainly independent of RIN prices.

Response:

The commenter appears to be misinterpreting EPA's statement by confusing "renewable fuel" with "E10." E10 is not the renewable fuel, but rather the fuel blend that results from blending ethanol with gasoline blendstock (e.g., CBOB). EPA does not otherwise disagree with the commenter's description of the CBOB and ethanol markets.

4. EPA's Proposed Denial is based on fundamentally inaccurate assumptions.

Comment:

EPA's theory does not explain the decision made by private companies or identify the mechanism by which the RIN discount can eliminate all differences in the cost of generating RINs.

Firms try to maximize profits in part by seeking to minimize their production costs, including the cost of complying with regulatory requirements. Under the RFS Program, firms have pursued a variety of different strategies for minimizing their compliance costs. Some have invested hundreds of millions of dollars to produce biofuel in the belief that they can make money by increasing revenue or reducing their RFS compliance costs (or both). Others have invested in pipelines or terminals or other blending infrastructure; some have invested capital to change their fuel slates, thus enabling them to produce more non-obligated fuel; others have chosen to increase the amount of fuel they export.

Remarkably, EPA now says that none of these decisions have actually made any difference in terms of reducing the compliance cost of any refiner relative to the compliance cost of any of its competitors: "Regardless of the mechanism by which small refineries and other obligated parties comply with their RFS obligations, the RFS compliance costs are the same for all obligated parties and thus no party bears RFS compliance costs that are disproportionate relative to others' costs." Proposed Denial at 1.

Senior executives and Boards of Directors at dozens of refining companies would probably be surprised to hear this. They believe that their RFS-related decisions, which have resulted in billions of dollars of expenditures, have given them some economic benefit. EPA insists otherwise. No matter what these companies do, their RFS compliance costs on a per gallon basis are all the same.

In the real world, RFS compliance decisions can be understood by the fundamentals of supply and demand. Refineries have two basic options for meeting their annual RVO obligations. They can take actions to generate RINs, or they can purchase RINs generated by others. Many refineries generate as many RINs as they feasibly can and then purchase the additional RINs they need to meet their annual RFS obligation. Decisions about which actions to take are based on the price (and expected future price) of RINs. Firms that, because of their circumstances and ingenuity, can generate RINs at a cost below the market price of RINs will choose to generate RINs; refineries that do not have this opportunity will purchase them.

RINs are bought and sold in a nationwide competitive market. As with most products, there is an upward sloping supply curve for RINs. If a refiner would blend biofuels even if the RFS did not exist, that refiner's cost for the production of RINs is zero. It is generating RINs by doing something it would have done anyway.

By design, the RFS Program has been increasing the demand for RINs. Higher demand drives RIN prices higher, which induces more RIN producers into the market—producers whose RIN

production costs are higher than zero but still below the market price for RINs. According to economic theory, the market price for RINs will reflect the marginal cost of producing the last RINs that will sell on the market. Thus, both the price and the total number of RINs sold would reflect the point at which the upward sloping supply curve intersects the demand curve.

Putting aside for now the RIN discount theory, it would appear that refineries that can generate RINs at little or no cost but can sell them at the higher market price, can make significant profits by selling RINs. This is sometimes referred to as "producer surplus" because the market price is higher than the cost at which they would have been happy to sell their RINs. Because of producer surplus, some refiners enjoy substantial profits because the money they get from generating and selling RINs is much more than the cost of producing them. Other refineries, including some small refineries, must pay enormous amounts to purchase the RINs they need but cannot produce at a cost below the RIN price. Even so, EPA argues that no refinery is harmed by the RFS Program because every refinery can pass through 100 percent of its RFS compliance cost to its customers.

This ignores the fact that for refineries that must pay the market price for a large portion of the total RINs they need for compliance they are at a significant economic disadvantage compared to their competitors who are able to generate all the RINs they need at little or no cost. Even if they are able to passthrough all their costs, they still face DEH under the RFS Program because the Program confers substantial economic benefits on their competitors.

Under EPA's theory of RIN discount, however, this cannot occur because any profit that any refinery makes by selling RINs is precisely offset by the amount of the discount that the refinery must offer in order to sell its fuel. EPA does not provide (or cite to any source that provides) any data to support this theory. Nor does EPA explain the mechanism by which it works.

To be sure, there is evidence of some RIN discount that reduces the economic advantages that some refineries would otherwise have compared to others. But nowhere does EPA explain how this discount can so precisely offset the benefits that some RIN generators have over others because of their lower costs of production. The market can only discern the marginal cost of the highest cost RIN producer, as reflected in the RIN price. Thus, the market cannot simply "take away" the economic advantage enjoyed by relatively lower cost RIN producers, whose production costs are below the RIN price and cannot be discerned by the market.

EPA concedes that, when it comes to things other than RFS costs, some refineries have economic advantages over others, for a variety of reasons. The Agency should acknowledge that there are factors that provide some refineries with advantages over others when it comes to RFS compliance costs, and that some small refineries experience DEH because of the RFS Program.

Response:

The commenter is correct that a number of companies have made investments and are realizing returns on those investments to produce renewable fuels, to distribute renewable fuels and to blend renewable fuels. The distinction EPA makes in accounting for the cost of RFS compliance is that EPA considers the cost for parties to acquire RINs, not the cost of parties to produce

renewable fuels. This distinction can be made clear with an extreme example. If a refinery created a new line of business to produce ethanol from air at zero production costs, the company could produce ethanol at no cost. Further in the example, the rest of the ethanol industry has a production cost of $2 per gallon of ethanol, and hence, the market price for that ethanol would be $2. Lastly for this example, let us assume that RIN prices are $1. The commenter's assessment of this example would be that this refinery by virtue of its ethanol business has no RFS compliance costs because it produces renewable fuel at no cost. In EPA's assessment, because the market price for ethanol is $2, the return on the ethanol that the company gets for its investment (the same investments the commenter is referring to) is that $2. Whether the company sells the ethanol into the ethanol market profiting $2 or blends it into E10 and sells it as a blended product, the company is still profiting the $2. Either way, EPA considers that to be the return on the ethanol plant investment. In determining this particular refinery's cost to acquire RINs, EPA would still note that the refinery has to discount the E10 it sells by the value of the RIN, or to sell its ethanol without the RIN for $1 (i.e., if selling without the RIN, the ethanol has to be sold for $1 rather than $2), or sell its ethanol with the RIN for $2 and then return to the RIN market to buy the RIN back for $1. In all three cases, the refinery's cost to acquire the RIN it uses for compliance with the RFS program is the $1 value of the RIN, whether that $1 value is expressed in the market price or the RIN discount. In the end, it is the cost for the refinery to acquire the RIN that determines its RFS cost of compliance.

The same is true for other investments made by parties to blend or distribute conventional or renewable fuels. Those investments have the potential to earn a return on the investment.[27] That all occurs outside of the cost for parties to acquire RINs for RFS compliance. The RIN may be providing the demand for ethanol and through it the motivation for the company to invest money to create a cheaper means to produce ethanol, but in the end the actual RFS compliance costs become the cost for the company to acquire the RIN itself. Those costs, as described here and elsewhere, come down to the market price for RINs and the identical market discount for renewable fuels based on that market price for the RIN.

EPA discusses the data to support RIN discount in Section IV.D.2.d.ii and explains the mechanisms by which it works in Section IV.D.2.b. Section IV.D.3.f discusses that the cost to obtain a RIN by blending renewable fuel is not simply the fixed and operating costs for fuel blending (which are relatively minor), nor is it simply the price difference between renewable fuel and the petroleum fuel into which it is blended (e.g., the price difference between ethanol and gasoline or between biodiesel and diesel fuel). Instead, the cost to a blender to obtain a RIN is the price difference between the volume-weighted cost of the petroleum fuel (e.g., gasoline or diesel fuel) and the renewable fuel used to produce blended fuel, and the sales price of the blended fuel (e.g., E10 or B5). The data presented in Section IV.D.2.c demonstrates that the difference between the cost of the petroleum fuel and the renewable fuel used to produce blended

[27] We note that, despite the RFS program requirements, ethanol production has not always been profitable. In many years the return on investment in ethanol production have been very low. *See* Irwin, S. "Ethanol Production Profits in 2021: What a Ride!." *farmdoc daily* (12):18, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, February 10, 2022.

fuel and the sales price of the blended fuel is equal to the market price for the RINs associated with the blended fuel.[28]

The finding that there is parity between the cost of obtaining RINs either by blending renewable fuel or purchasing RINs does not mean that RINs do not provide an incentive for the blending of renewable fuel. While blending renewable fuel does not result in windfall profits for blenders (since the revenue from RIN sales is passed through to consumers in a discount on the price for blended fuel), RIN revenue lowers the effective cost of renewable fuel, allowing blenders to offer blended fuel containing renewable fuel at lower prices. The examples presented in Section IV.D.2.c illustrate this point. The incentive for blenders to continue to blend renewable fuel when there is parity between the cost of obtaining a RIN through blending and the cost to purchase a RIN is not that the revenue from the sale of the RIN represents a windfall profit, but rather that the RIN discount allows blended fuel to sell at a lower price relative to unblended fuel after passing through the revenue of the RIN sales to the consumer.

EPA recognizes that private companies make investments expecting to realize a financial return. However, just because some obligated parties have chosen to make investments in renewable fuel production or in pipelines, terminals, or other blending infrastructure, it does not follow that they have done so in order to reduce their RFS compliance costs. Renewable fuel production can be, and in the past often has been, a profitable business before considering any impacts of the RFS program. Similarly, transporting, distributing, and blending both petroleum and renewable fuels has the potential to return profit to parties that invest in these operations. Many obligated parties invested in renewable fuel production and fuel distribution well before the RFS program existed, and many have chosen to divest of these operations after the RFS program was established. Neither of these actions would make sense if the sole purpose of participating in these markets was to reduce the cost of RFS compliance.

Comment:

EPA's evaluation of available market data does not support a claim of universal and complete RIN cost passthrough of RFS compliance costs.

Regarding ULSD and heating oil in New York Harbor, EPA claims that there is "strong correlation between these data sets" and that "[t]he market price premium for ULSD over that for heating oil consistently matches the RIN cost (i.e., the cost of purchasing the RINs needed to meet the RFS obligations." Proposed Denial at 45. However, EPA's analysis only involved plotting the price spread between these two fuels from 2017–2020 against RIN prices on a time series graph and a scatter plot, then looking for visual signs of correlation. *See* Proposed Denial at 44–46 and Figures IV.D.2.d.i-1 and IV.D.2.d.i-2. While these figures suggest that the spread is correlated with the RIN cost (suggesting some RIN cost passthrough), it is impossible to draw a definitive conclusion about its extent from a visual inspection alone. Running a simple regression with the same data relied on by EPA, which included EIA fuel prices and OPIS RIN prices, shows that the pass-through coefficient is less than one, and far less than one when expanding the time period back to 2013. Also, it should be noted that observing a relationship on average

[28] See SRE Denial Figures IV.D.2.c-2 and 4.

can still leave room for variability in the relationship, and these variations can lead to different levels of passthrough for different refiners that are outside of their control.

Response:

As an initial matter, EPA does not assert, nor does it need to establish, "universal and complete RIN cost passthrough of RFS compliance costs." We recognize that based on these data alone, definitive conclusions about the degree of RIN cost passthrough in all locations should not be made. However, the observed correlation between the price spread between these fuels and the RIN cost strongly suggests RIN cost passthrough, at least in New York Harbor. The way that fuels are generally priced in the U.S., with local pricing based on the price at a major fuel hub plus (or minus) transportation costs to or from that hub, strongly suggests that if RIN costs are passed through in major fuels markets, such as New York Harbor, these costs are passed through in other markets as well. While the passthrough coefficient is slightly less than one, it is very close to one (0.94) and likely impacted by observations when the RIN cost was very low. We did not include data prior to 2017 in our regression analysis because prior to 2017 higher-sulfur heating oil was sold in many states in the Northeast, and we expect the reported prices reflect this higher-sulfur heating oil, which is substantially different than ULSD.

Comment:

EPA conducted a similar review for ULSD and jet fuel in the Gulf Coast market. *See* Proposed Denial at 45, 47 and Figures IV.D.2.d.i-3 and IV.D.2.d.i-4. Here, EPA notes that "the correlation between the price difference of ULSD and jet fuel and the RIN cost is not as strong as the correlation between the price difference of ULSD and heating oil and the RIN cost." Proposed Denial at 45. EPA admits that this data is less conclusive and only claims there is a "general relationship" between the spread and RIN costs. *Id.* at 45. Leaving aside many issues with using a set of graphs to determine statistical relationship, a claim of full RIN passthrough would require a finding of a specific relationship, not a general relationship. A general relationship only suggests that there is some level of passthrough. The specific relationship would be that the price spread moves 1-to-1 with the RIN cost, represented by a coefficient of 1 in a statistical study. Using the data cited by EPA, a simple regression suggests a coefficient of approximately 0.75. EPA argues that weaker correlation is expected because of differences in product quality between ULSD and jet fuel and their differing markets with "distinct supply/demand issues." EPA admits there is more "noise" in this data, which means there are irregular, possibly random, variations in the relationship. This noise, which is obvious in EPA's charts, makes it even more inappropriate to do a simple visual review and claim adequate correlation.

Response:

As with the correlation of the spread between ULSD and heating oil prices, we are not suggesting that this correlation in isolation demonstrably proves that RIN costs are completely passed through. Instead, this is one piece of evidence that suggests RIN costs are passed through. Jet fuel and ULSD are not perfect substitutes, and they have different markets whose demands can shift semi-independently. Thus, even in a situation with perfect RIN cost passthrough, we would not expect a one-to-one relationship between the spread between these fuels and the RIN

cost. Nevertheless, because these fuels have similar properties and relatively similar processing costs, we would expect there to be a relationship between the price spread between these fuels and the RIN costs. The observed data demonstrate that this relationship exists and is consistent with EPA's findings on RIN cost passthrough.

Comment:

EPA also attempted to support its theory of complete and universal RIN cost passthrough by considering the relationship between RINs and refining margins. Proposed Denial at 30. "EPA examined the refining margins for three groups of refineries—small refineries, large refineries, and all refineries—based on available public data (e.g., financial data from publicly traded companies) and confidential data, including data provided by petitioners. We compared these refining margins (operating profit per gallon of fuel produced) to the average RIN cost per gallon (the per gallon cost to acquire the RINs necessary to meet a refinery's RVO)." *Id.* Again, this analysis is not convincing. There is simply too much noise in publicly available refining margins for EPA to draw these conclusions. For example, each refinery has different product slates and sells into different markets. EPA would need data from *many* refineries over *many* time periods to draw any conclusions. EPA appears to rely on annual data, which is not nearly a large enough sample to do any statistical analysis. EPA states that it sees no correlation between refining margins and RIN prices, which would be consistent with full passthrough. However, a visual inspection of the chart provided by EPA suggests that RIN costs may move in the opposite direction of margins in most years. *See* Proposed Denial at 31 & Figure IV.D.2.b-1. Whatever EPA's sources, this analysis does not allow the Agency (or anyone else) to reach any reliable conclusions.

Response:

EPA does not believe that the data presented on average refining margins alone are sufficient to draw conclusions on RIN passthrough or the impact of the RFS program on small refineries. However, we do believe that these data would identify any consistent and significant impact on small refineries vs. larger refineries. EPA has received comments stating that parties that blend renewable fuels acquire RINs for free. This would suggest that in years when RIN prices are high these parties would see an advantage of >$0.10 per gallon over parties that do not blend renewable fuels. A competitive advantage of this magnitude should be apparent in a high-level analysis such as the relationship between RINs and refining margins presented in the SRE Denial. The fact that a discrepancy between these parties cannot be seen in the data is not determinative on its own; it is one more piece of evidence EPA considered in reaching our decision on the 69 pending SRE decisions, along with the rest of the information presented in the SRE Denial and the responses to comments herein.

Comment:

EPA suggests that its passthrough analysis *must* be correct because, if not, EPA would expect to see parties change their business models:

> While some parties dispute EPA's findings on RIN cost passthrough and the RIN discount, those same parties have not made business decisions over the last decade that would be logical if RIN cost passthrough and RIN discount were not occurring. For example, if RIN cost passthrough did not exist, we would expect to see refiners avoiding RFS obligations by shifting production to non-obligated fuel (e.g., heating oil, jet fuel) and/or export fuel. We would also expect to see actions to expand or modify their business models to include additional blending of renewable fuel to reap the alleged rewards that they claim independent blenders and marketers enjoy. Proposed Denial at 26.

This is nonsense. Each of those unobligated fuels involves a separate market with unique supply and demand dynamics and the availability of shifting production to other fuels is refinery-specific. Some small refineries have explained in their SRE petitions that they are not capable of avoiding their RFS obligations by shifting production to non-obligated fuels because there is little to no market for such fuels in their area. Additionally, small refineries have similarly explained that they cannot change their business model to reduce their RFS obligations by increasing their exports due to the inability to ship fuels from their refineries to the coasts. Additionally, even if there was a known benefit to blenders from incomplete passthrough, that incentive may still be insufficient for a small refiner to build blending capacity in order to obtain the benefit.

Response:

EPA's assertion that market actors would change their behavior in response to market opportunities (if they existed) was not meant to suggest that every refinery in the country would export all of their volume if RIN costs weren't passed through. Rather, if RIN costs are temporarily not passed through, those market actors that can export will do so until the market responds by raising the market price to recover the RIN. As EPA has detailed throughout the SRE Denial and our response to comments herein, economic theory and the data available to EPA show that market actors behave in a competitive manner and in doing so pass through the cost of compliance and must reflect the RIN discount in the price of blended fuel they sell. It is EPA's assessment that it is far more likely that wholesale refined product prices (CBOB and diesel fuel prices) would rise to cover the cost of RFS compliance if parties that can export started exporting all of their volume, than the counterfactual that the commenter seems to suggest, which is that domestic prices would stay static (not accounting for the cost of RFS compliance) as gasoline and diesel fuel supplies in the U.S. dropped due to increased exports. With nearly inelastic demand for transportation fuels, we can be very confident that domestic wholesale prices must rise to cover the cost of the RIN (i.e., RFS compliance) if that is what is necessary to keep all of the refineries in the Gulf, West, and East Coasts of the U.S. from exporting all of their fuel.

Comment:

EPA ignores the competitive advantage of refineries that are able to produce renewable fuel by assuming that the only paths to compliance are by purchasing renewable fuel for blending with refinery products or by buying RIN credits. There is, in fact, a third option that involves the

production of renewable fuels. This third option can dramatically lower the cost of RINs as can be seen in the recent profit margins of renewable diesel (RD) producers such as Valero's Diamond Green Diesel (DGD) which reported a per barrel EBITDA margin of $2.34 in 2020 and $2.97 in 1H 2021.

DGD has required roughly $914 million in cumulative capex and utilizes Valero refining sites in Louisiana and Texas. Marathon and Phillips, similarly, are repurposing existing, obsolete refining equipment to produce RD. Chevron, meanwhile, has taken extensive advantage of co-processing at its large diesel hydrotreating units. Lastly, PBF is also planning to use obsolete refining equipment at its Chalmette, LA refinery to produce RD.

Some small refineries are unable to take advantage of any similar opportunities due to a lack of scale. They have conducted feasibility studies to examine the production of renewable fuel and determined it is not economically viable. They are not able to build a facility of this sort of scale, even if they wanted to invest in renewable diesel, due to a lack of available capital to build a viable RD production facility and the lack of a site to build it.

Response:

In the context of SREs, EPA only considers the petroleum refining portion of the parent company's business. Companies that own refineries may also own other businesses, including businesses that produce renewable fuels, but EPA does not consider the effect of these businesses when evaluating the cost of compliance with the RFS program. While it is true that a renewable fuel producer that can produce renewable fuel at a cost below the market price for the fuel will profit from that ability, EPA considers here that when the renewable producer sells the fuel at market prices (either as a 100% renewable fuel to other parties for blending or in blended fuels it sells itself), the profit it earns for that sale is the return on that renewable fuel business. The cost for RFS compliance is on top of the market price for the renewable fuel because the very function of the RIN is to discount the renewable fuel below that market price to incentivize its sale. When a refinery discounts the renewable fuel that it sells based on the "RIN discount" and retains the RIN it is acquiring that RIN at the price of the discount it must offer. Hence even if the refinery also produced the renewable fuel, the cost of discounting that fuel to sell it in compliance with the RFS program is still borne by the refinery.

Production of transportation fuel, whether it is renewable or non-renewable, is a cyclical business. Companies that own refineries and produce renewable fuels may sometimes produce renewable fuel and/or non-renewable fuel at a cost less than the market price at which it may be sold, and sometimes produce renewable fuel and/or non-renewable fuel at a cost greater than the price at which it may be sold.

Comment:

RIN costs are not fully passed through based on a comparison of the price difference between gasoline and diesel sold in two different locations (Los Angeles, CA and Tijuana, Mexico) with RVO cost from July 2018 through late 2021. If RIN prices are included in the price of

transportation fuel, this price difference should display a high degree of correlation with RVO cost. However, the price differential does not appear correlated with RVO cost.

Response:

The commenter does not say whether the price difference is based on wholesale or retail prices. If it is based on retail prices, the comparison makes little sense, since retail gasoline is typically E10 from which the RIN has already been separated and Mexican gasoline is a non-obligated fuel sold in a market in a foreign country. There is no reason to expect the price difference between two different products (one of which, Mexican gasoline, has no RFS obligation, and the other of which has almost no net RFS compliance costs as the increase in the CBOB price is offset by the RIN discount on the ethanol portion of the fuel) sold in two different countries to bear any relationship to RFS compliance costs.[29] If the price difference is based on wholesale prices, the commenter appears to be assuming that the only reason for their calculated price differentials is RFS compliance costs, which is incorrect. In reality there are many different factors that affect prices of various products in different markets, including crude oil prices, current supply and demand of the fuel, projected future supply and demand for the fuel, inventories of the fuel, and production costs of the fuel. The commenter's pairs do not offer a direct "apples-to-apples" comparison. They are not the same fuel; one with an RFS obligation and one without.

[29] While E10 sold in the United States can be used to estimate RIN cost passthrough it is very difficult to do so as the increase in the CBOB price is offset by the RIN discount on the ethanol portion of the fuel. Depending on the annual RFS percentage standards and the RIN prices at the time, the E10 price may be slightly lower or slightly higher than it would be without the RFS program (e.g., if it were an export volume in Mexico). To a first order approximation, the difference is zero.

5. Small refineries cannot buy their RINs ratably and should not be punished for employing a completely legal compliance strategy.

Comment:

Contrary to EPA's assertion, many petitioning refineries claim they cannot buy RINs ratably. First, as small volume refineries, they do not purchase RINs in large enough volumes to efficiently make purchases on a ratable basis. In contrast to integrated refiners and large unobligated retailers, small refineries must manage RIN transactions in small blocks, due partly to the significant price risks from the highly commoditized RIN market and EPA policy that influence such risk. Further, small refineries do not have the resources to establish a RIN trading desk to constantly monitor and purchase RINs and, even if they did, the daily RIN demand would likely fall well below the typical RIN transaction quantities on the market, meaning they would either have to delay or accelerate RIN purchases by several days, exposing them to market risk.

Response:

A number of small refineries provided similar comments suggesting that they could not acquire RINs ratably due to a lack of capital, an inability to afford the RINs, or specific limitations in their ability to buy RINs in the proper lot sizes without facing a much steeper cost to acquire the RINs.

Regarding the cost of capital and, more simply in some comments, the ability to afford RINs, EPA notes that the very concept of ratable RIN purchases means that the acquisition of the RIN is approximately concurrent with the sale of the fuel. This is different from other costs of production, such as crude oil, which companies must first purchase and then process before selling, resulting in a significant carrying cost for the company from the time of the crude oil purchase until the time of the refined product sale. Here, for RINs, those time sequences can be directly aligned and there is no need for the company to borrow to purchase the RINs. Rather, the proceeds from the sale of the fuel can be directly used towards the purchase of the RINs in ratable proportion to the company's obligation. For this reason, EPA rejects small refinery arguments regarding the cost of capital and more generally the arguments generally regarding the ability to afford RINs.

Regarding RIN lot size, EPA contends that small refineries can enter into contracts with various RIN brokers to purchase RINs on a ratable basis. The contract terms can look very similar (and quite reasonably might be made to have parallel elements) to the gasoline sales contracts that the companies enter into with their customers. Specifically, the contract would specify the intent to purchase a specific volume of RINs per month (e.g., 1.5 million RINs per month) at a price that is calculated based on the average posted market price for the month. The RIN broker will likely charge a service fee for such a contract, but we have no reason to believe this fee will be substantially different from the fee offered to other market participants buying in lots of more than 1 million RINs nor that such a fee would be more than the cost of a small refinery hiring staff to execute a series of trades with parties directly to acquire RINs in this manner. Hence, we do not think a small refinery paying such a fee would face a disproportionately higher cost for

RIN acquisition than companies that acquire RINs in other ways. Even parties that acquire RINs through blending have such administrative costs to track and transfer the RINs that the receive by buying renewable fuel and then separating the RINs when they blend the renewable fuel. Whether those accounting and administrative functions are done by staff employed by the company or under contract with service providers, they nevertheless are a cost the blenders face in order to accumulate the RINs they will use for RFS compliance. We think it unlikely that these costs are significantly different among the various parties as the actual labor that is being done and the value that is being added by that labor (i.e., the tracking of the RINs) is very similar among the various ways that parties may acquire RINs.

Comment:

Some small refineries claim that they have reasonably relied on their previous exemptions when choosing not to purchase RINs ratably. Citing reliance on the DOE scoring matrix and prior year exemptions, many petitioning small refineries state that they reasonably believed that they would receive an SRE from EPA for each of the pending petition years and, therefore, did not make the significant capital or other investments necessary to comply.

Response:

As an initial matter, EPA does not believe reliance on prior year exemptions is a sound compliance strategy or justification for not planning for compliance while current SRE petitions are pending. The requirements of the RFS program are mandatory unless and until EPA grants an exemption. Small refineries' reliance on prior exemptions is even more unreasonable in light of the numerous legal challenges to EPA's prior approach to SREs, and EPA's long-standing findings on RINs costs being passed on in the price of the transportation fuel they sell, as explained elsewhere in the SRE Denial and herein.

Appendices C–U – Confidential, Refinery-Specific Comment Summaries and Responses

[Information Redacted – Claimed as CBI]

Appendix V – Updated Illustrative Costs, Revenue, and Profit Tables

Table V-1: BOB, Ethanol, E10, and RIN Prices on May 2, 2022

Product	Price	Data Source
BOB Cost of Production	$3.22	Assumed to be equal to the BOB Market Price without RIN Cost
BOB Market Price without RIN Cost	$3.22	Calculated (BOB Market Price with RIN Cost less RIN Cost)
BOB Market Price with RIN Cost	$3.41	EIA
Ethanol Market Price	$2.79	OPIS
E10 Market Price with the RFS Program	$3.20	Calculated using BOB Market Price with RIN Cost, Ethanol Market Price, and D6 RIN Price
E10 Market Price without the RFS Program	$3.18	Calculated using BOB Market Price without RIN Cost and Ethanol Market Price
D6 RIN Price	$1.50	OPIS
RIN Cost per Gallon of BOB	$0.19	Calculated from 2022 RVO and OPIS RIN Prices
D6 RIN Cost per Gallon of E10	$0.12	Calculated from 2022 RVO and OPIS RIN Prices
D3, D4, and D5 RIN cost per gallon of E10	$0.06	Calculated from 2022 RVO and OPIS RIN Prices

Table V-2: Illustrative Costs, Revenue, and Profit for E10 Production

Line		Merchant Refiner		Integrated Refiner		Non-Obligated Blender	
		With RFS	No RFS	With RFS	No RFS	With RFS	No RFS
2-1	0.9*BOB Cost of Production	$(2.90)	$(2.90)	$(2.90)	$(2.90)	-	-
2-2	0.9*RIN Cost	$(0.17)	-	$(0.17)	-	-	-
2-3	0.9*BOB Market Price	$3.07	$2.90	-	-	$(3.07)	$(2.90)
2-4	0.1*Ethanol Market Price (with RIN)	-	-	$(0.28)	$(0.28)	$(0.28)	$(0.28)
2-5	0.1*Net Ethanol Market Price (no RIN)	-	-	$(0.13)	$(0.28)	$(0.13)	$(0.28)
2-6	E10 Market Price (per Gallon)	-	-	$3.20	$3.18	$3.20	$3.18
2-7	D6 RIN Purchases	$(0.12)	-	-	-	-	-
2-8	D3, D4, and D5 RIN Purchases	$(0.06)	-	$(0.06)	-	-	-
2-9	D6 RIN Sales	-	-	$0.03	-	$0.15	-
2-10	Profit/Loss per Gallon E10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Table V-3: Diesel Fuel, Biodiesel, B5 and RIN Prices on May 2, 2022

Product	Price	Data Source
ULSD Cost of Production	$4.33	Assumed to be equal to the ULSD Market Price without RIN Cost
ULSD Market Price without RIN Cost	$4.33	Calculated (ULSD Market Price with RIN Cost less RIN Cost)
ULSD Market Price with RIN Cost	$4.52	EIA
Biodiesel Market Price	$7.84	OPIS
Biodiesel Tax Credit	$1.00	N/A
B5 Market Price with the RFS Program	$4.50	Calculated using ULSD Market Price with RIN Cost, Biodiesel Market Price, and D4 RIN Price, and Tax Credit Price
B5 Market Price without the RFS Program	$4.45	Calculated using ULSD Market Price without RIN Cost, Biodiesel Market Price, and Tax Credit Price
D4 RIN Price	$1.78	OPIS
RIN Cost per Gallon of ULSD	$0.19	Calculated from 2022 RVO and OPIS RIN Prices
D4 RIN Cost per Gallon of B5	$0.04	Calculated from 2022 RVO and OPIS RIN Prices
D3, D5, and D6 RIN cost per gallon of B5	$0.14	Calculated from 2022 RVO and OPIS RIN Prices

Table V-4: Illustrative Costs, Revenue, and Profit for B5 Production

Line		Merchant Refiner		Integrated Refiner		Non-Obligated Blender	
		With RFS	No RFS	With RFS	No RFS	With RFS	No RFS
4-1	0.95*ULSD Cost of Production	$(4.11)	$(4.11)	$(4.11)	$(4.11)	-	-
4-2	0.95*RIN Cost	$(0.19)	-	$(0.18)	-	-	-
4-3	0.95*ULSD Market Price	$4.29	$4.11	-	-	$(4.29)	$(4.11)
4-4	0.05*Biodiesel Market Price (with RIN)	-	-	$(0.39)	$(0.39)	$(0.39)	$(0.39)
4-5	0.05*Tax Credit	-	-	$0.05	$0.05	$0.05	$0.05
4-6	0.05*Net Biodiesel Price			$(0.21)	$(0.34)	$(0.21)	$(0.34)
4-7	B5 Market Price (per Gallon)	-	-	$4.50	$4.45	$4.50	$4.45
4-8	D4 RIN Purchases	$(0.04)	-	-	-	-	-
4-9	D3, D5, and D6 RIN Purchases	$(0.14)	-	$(0.14)	-	-	-
4-10	D4 RIN Sales	-	-	$0.09	-	$0.13	-
4-11	Profit/Loss per Gallon E10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

EXHIBIT B

***Hunt Refining Company v. United States Environmental Protection Agency*, Appeal No. _____**

UNITED STATES COURT OF APPEALS
FOR THE ELEVENTH CIRCUIT

CERTIFICATE OF INTERESTED PERSONS AND CORPORATE DISCLOSURE STATEMENT (CIP)

Pursuant to Federal Rule of Appellate Procedure 26.1 and 11th Circuit Rule 26-1.1, Petitioner Hunt Refining Company provides the following certificate of interested persons and corporate disclosure statement:

The undersigned counsel of record certifies that the following listed persons and entities as described in 11th Circuit Rule 26-1.2(c) have an interest in the outcome of this case. These representations are made in order that the judges of this Court may evaluate possible disqualification or recusal.

1. **Hardin, Jonathan G.,** Perkins Coie, LLP, counsel for Petitioner.

2. **Hunt Consolidated, Inc.**, parent company of Hunt Refining Company (not publicly traded, and no publicly held company has a 10 percent or greater ownership interest in it).

3. **Hunt Refining Company**, Petitioner, incorporated under the laws of Delaware and an indirect wholly owned subsidiary of Hunt Consolidated, Inc.

4. **Jacobi, Patrick R.**, Attorney, United States Department of Justice, counsel for Respondent United States Environmental Protection Agency;

5. **Miller, Gregory F.**, Perkins Coie, LLP, counsel for Petitioner.

6. **United States Environmental Protection Agency**, Respondent.

7. **Worsham, Karl P.**, Perkins Coie, LLP, counsel for Petitioner.

Petitioner will file a revised certificate of interested persons and corporate disclosure statement should it become aware of a change in interests that would affect the disclosures required by Federal Rule of Appellate Procedure 26.1 and 11th Circuit Rule 26.1-4.

Dated: August 3, 2022

Respectfully submitted,

s/ Jonathan G. Hardin

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Attorneys for Hunt Refining Company

CERTIFICATE OF SERVICE

Pursuant to Federal Rules of Appellate Procedure 3(d), 15(c) and 25, 11th Circuit Rule 25-3, and 40 C.F.R. § 23.12(a), I hereby certify that on August 3, 2022, I will cause copies of the foregoing Petition for Review to be served by certified mail, return receipt requested upon the following:

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Washington, D.C. 20460

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Dated: August 3, 2022

s/ Jonathan G. Hardin
Jonathan G. Hardin
PERKINS COIE LLP