

#### APPENDIX A

# UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 16-1052

Consolidated with 16-1055, 17-1255, 17-1259, 18-1021, 18-1024, 18-1025, 18-1029

ALON REFINING KROTZ SPRINGS, INC.,

Petitioner,

v.

Environmental Protection Agency, Respondent, Monroe Energy, LLC,  $et\ al.$ , Intervenors.

On Petitions for Review of Agency Action of the United States Environmental Protection Agency

> Argued October 5, 2018 Decided August 30, 2019

Samara L. Kline argued the cause for petitioners. With her on the briefs were Evan A. Young, Megan H. Berge, Lisa M. Jaeger, Brittany M. Pemberton, Clara Poffenberger, Richard S. Moskowitz, Robert J. Meyers, Thomas A. Lorenzen, Elizabeth B. Dawson, Warren R. Neufeld, LeAnn M. Johnson, and Jonathan G. Hardin. Albert M. Ferlo Jr. and Krista Hughes entered appearances.

Meghan E. Greenfield, Trial Attorney, U.S. Department of Justice, argued the cause for respondent. With her on the brief was Jeffrey H. Wood, Acting Assistant Attorney General. Daniel R. Dertke, Attorney, entered an appearance.

Robert A. Long Jr. argued the cause for intervenors American Petroleum Institute and Growth Energy. With him on the brief were Kevin King, Seth P. Waxman, David M. Lehn, Saurabh Sanghvi, and Claire Chung. Stacy R. Linden entered an appearance.

Shannen W. Coffin and Linda C. Bailey were on the brief for amici curiae NACS, et al. in support of respondent EPA.

#### No. 17-1044

Consolidated with 17-1045, 17-1047, 17-1049, 17-1051, 17-1052

COFFEYVILLE RESOURCES REFINING & MARKETING, LLC AND WYNNEWOOD REFINING COMPANY, LLC,

Petitioners,

v.

Environmental Protection Agency, Respondent, Alon Refining Krotz Springs, Inc.,  $et\ al.$ , Intervenors.

On Petitions for Review of Action of the United States Environmental Protection Agency

*Brian Killian* argued the cause for petitioner The National Biodiesel Board. With him on the briefs was *Douglas A. Hastings*.

Samara L. Kline and Thomas Allen Lorenzen, argued the causes for Obligated Party Petitioners. With them on the briefs were Evan A. Young, Lisa M. Jaeger, Brittany M. Pemberton, Clara Poffenberger, Richard S. Moskowtiz, Robert J. Meyers, Elizabeth B. Dawson, David W. DeBruin, Thomas J. Perrelli, Matthew E. Price, LeAnn M. Johnson, and Jonathan G. Hardin. David Y. Chung, Eric D. Miller, and Albert M. Ferlo Jr. entered appearances.

Patrick R. Jacobi and Samara M Spence, Attorneys, U.S. Department of Justice, argued the causes for respondent. With them on the brief was Jeffrey H. Wood, Acting Assistant Attorney General.

Thomas Allen Lorenzen argued the cause for intervenors American Fuel & Petrochemical Manufacturers and American Petroleum Institute in support of respondent regarding Biomass-Based Diesel Issues. With him on the brief were Robert J. Meyers, Elizabeth B. Dawson, Richard S. Moskowitz, Robert A. Long, Jr., and Kevin King. Stacy R. Linden entered an appearance.

Robert A. Long, Jr., Kevin King, Bryan M. Killian, Douglas A. Hastings, Seth P. Waxman, David M. Lehn, Saurabh Sanghvi, and Claire H. Chung were on the brief for intervenors Growth Energy, et al. in support of respondent. Eric D. Miller entered an appearance.

Before: PILLARD and KATSAS, Circuit Judges, and WILLIAMS, Senior Circuit Judge.

Opinion for the Court filed PER CURIAM.

Opinion concurring in part and concurring in the judgment filed by *Senior Circuit Judge* WILLIAMS.

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#### I. Introduction

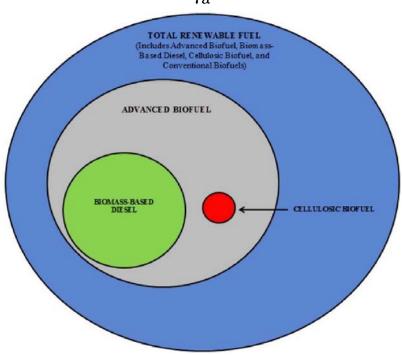
The Clean Air Act requires EPA to publish "renewable fuel standards," ultimately expressed as "applicable percentages," each year to ensure that the total supply of transportation fuel sold or imported into the United States contains specified proportions of each of four categories of renewable fuels. Congress intended the Renewable Fuel Standards (RFS) program to "move the United States toward greater energy independence and security" and "increase the production of clean renewable fuels." See Energy Independence and Security Act of 2007 (EISA), Pub. L. No. 110-140, preamble, 121 Stat. 1492 (2007) (codified at 42 U.S.C. § 7545(o)).

In these related cases, Alon Refining Krotz Springs, together with other petroleum refineries and their trade associations—the "Alon Petitioners"—seek review of EPA's decision not to revise its 2010 point of obligation regulation requiring refineries and importers, but not blenders, to bear the direct compliance obligation of ensuring that transportation fuels sold or introduced into the U.S. market include the requisite percentages of renewables. Coffeyville Resources Refining & Marketing and another group of refineries and trade associations—the "Coffeyville Petitioners" challenge EPA's refusal to reassess the appropriateness of the point of obligation in the context of its 2017 annual volumetric rule, which set the 2017 applicable percentages for all four categories of renewable fuel and the 2018 applicable volume for one subset of such fuel, biomass-based diesel. See 81 Fed. Reg. 89,746 (Dec. 12, 2016) (2017 Rule). The Coffeyville Petitioners also contend that EPA arbitrarily set the 2017 percentage standards too high. The National Biodiesel Board (NBB)—a biomass-based diesel industry trade association—separately contends that EPA set the 2018 applicable volume for biomass-based diesel too low. Various trade associations representing refineries and producers of renewable fuels have intervened in support of EPA. For the reasons that follow, we deny each of the petitions for review, many of which recycle arguments raised and rejected in prior challenges.

### II. Background

### A. Legal Background

Congress established the RFS program in 2005 as part of the Energy Policy Act, Pub. L. No. 109-58, 119 Stat. 594 (2005) (as amended at 42 U.S.C. § 7545(o)). The statute mandates the gradual introduction of four nested categories of renewable fuels into the United States' supply of gasoline, diesel, and other transportation fuels. See 42 U.S.C.  $\S$  7545(o)(2)(B). These categories include: (1) total renewable fuel; (2) advanced biofuel; (3) cellulosic biofuel; and (4) biomass-based diesel. Id. § 7545(o)(2)(A)(i), (B). The umbrella category, total renewable fuel, covers the three other categories plus any conventional renewable fuels, such as corn-based ethanol. See id. § 7545(o)(1)(F), (J), (2)(A)(i). The advanced biofuel subset includes any renewable fuel (except ethanol from cornstarch) that has at least 50% lower lifecycle greenhouse gas emissions than fossil fuels. Id. § 7545(o)(1)(B). The statute further specifies two nonexclusive subsets of advanced biofuels: cellulosic biofuel (a renewable fuel derived from cellulose materials such as corn stalks and husks) and biomass-based diesel (a diesel fuel substitute made from feedstocks such as animal fats). *Id.* § 7545(o)(1)(B), (D), (E); EPA Coffeyville Br. 4-5. The following figure depicts the nested nature of the four fuel categories.



Source: Coffeyville Br. 11.

Four tables in the statute set forth gradually increasing annual "applicable volume" requirements for each category of renewable fuel. See 42 U.S.C. 7545(o)(2)(B)(i). The statute setsapplicable volumes for biomass-based diesel through 2012, id. § 7545(o)(2)(B)(i)(IV), and applicable volumes for the other three categories through 2022,  $\S 7545(o)(2)(B)(i)(I)$ —(III). Under those tables, as the total quantities of renewable fuel rise over time, the ratio of advanced biofuels relative to conventional renewable fuel gradually increases. *Id.* For compliance years (which match calendar years) after those specified in the tables, the statute requires EPA, in coordination with the Secretaries of Energy and Agriculture, to set the annual applicable volumes based on a review of the implementation of the program plus an analysis of six listed factors. Id. § 7545(o)(2)(B)(ii). For years not specified in the table, EPA must publish the applicable volumes fourteen months before the year in which they will apply—volumes that, shortly before the start of the compliance year, EPA translates into percentage standards. Id.

Various "waiver" provisions require or permit EPA to lower the annual applicable volumes. Two are relevant for the purposes of this case. First, under the "cellulosic waiver provision," EPA must make its own projection of the volume of cellulosic biofuel that will be produced in the following year. Id. § 7545(o)(7)(D)(i). If that projection is less than the statutory figure, the agency must use its own projection as the applicable volume of cellulosic biofuel. *Id.*; see Am. Petroleum Inst. v. EPA, 706 F.3d 474, 477-80 (D.C. Cir. 2013) (API). The same cellulosic waiver provision authorizes (but does not require) EPA to also reduce the advanced biofuel and total renewable biofuel volume requirements "by the same or a lesser volume" as the cellulosic biofuel reduction, 42 U.S.C. § 7545(o)(7)(D)(i), and EPA has "broad discretion" regarding whether and how to do that, *Monroe Energy*, LLC v. EPA, 750 F.3d 909, 915 (D.C. Cir. 2014). Separately, under the "general waiver provision," EPA may reduce any of the statutory applicable volumes if it determines "that implementation . . . would severely harm the economy or environment," or "that there is an inadequate domestic supply." 42 U.S.C.  $\S7545(o)(7)(A)$ ; see Ams. for Clean Energy v. EPA, 864 F.3d 691, 707-13 (D.C. Cir. 2017) (ACE).

After EPA determines the waiver-adjusted applicable volumes, it must translate those volumes into "renewable volume obligation[s]" for each category of renewable fuel for the upcoming compliance year.

42 U.S.C. § 7545(o)(3)(B)(i). The volume obligation for each category of renewable fuel is expressed as an "applicable percentage," also known as a "percentage standard," calculated by dividing the adjusted applicable volume for that category of fuel by the total anticipated volume of non-renewable transportation fuel that will be introduced into commerce (which EPA derives based on an estimate provided by the Energy Information Administration) in the coming compliance year. *Id.* § 7545(o)(3)(A), (B)(ii)(II); 40 C.F.R. § 80.1405(c). The statute calls on EPA to publish the percentage standards not later than November 30—a month before the start of the compliance year. 42 U.S.C. § 7545(o)(3)(B)(i).

EPA must place the renewable volume obligations on "refineries, blenders, and importers, as appropriate." 42 U.S.C. § 7545(o)(3)(B)(ii)(I); see also id. § 7545(o)(2)(A) (requiring EPA to promulgate implementing regulations, including "compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate," designed to ensure that transportation fuel sold or introduced into the United States "contains at least" the required annual applicable volumes). The entities that EPA designates to meet the volume obligations are known as "obligated parties." Monroe Energy, 750 F.3d at 912. Each obligated party must ensure that the volume of nonrenewable fuel it sells or introduces into U.S. commerce is matched by selling or introducing a corresponding volume of each category of renewable fuel at the level EPA's percentage standard requires for that category. See ACE, 864 F.3d at 699. The percentage standards are set in the anticipation that, if each obligated party meets them and EPA's projection regarding the country's total transportation fuel supply bears out, the amount of each category of renewable fuel introduced into the economy in the upcoming compliance year will equal the applicable volumes for that year. *Id.* Obligated parties bear no direct responsibility for any shortfalls in the applicable volumes so long as they comply with the percentage standards.

EPA assigns a set of "renewable identification" numbers" (RINs) to each batch of renewable fuel that is produced or imported for use in the United States. 40 C.F.R. § 80.1426; see 42 U.S.C. § 7545(o)(5); Monroe Energy, 750 F.3d at 913. The number of RINs assigned to each batch corresponds to the amount of ethanolequivalent energy per gallon in that batch. See 40 C.F.R. § 80.1415; Monroe Energy, 750 F.3d at 913. RINs remain attached to the renewable fuel until that fuel is purchased by an obligated party or blended into fossil fuels to be used for transportation fuel. See ACE, 864 F.3d at 699 (citing 40 C.F.R. § 80.1429(b)(1)—(2)). At that point the RINs become "separated," meaning they are, in effect, a form of compliance credit. Id. Obligated parties demonstrate their compliance with their renewable fuel obligations by "retiring" RINs in annual compliance demonstrations to EPA. 40 C.F.R. §§ 80.1427(a), 80.1451(a)(1).

Because the four categories of renewable fuel are nested, obligated parties can comply with their obligations for a type of fuel by retiring any combination of RINs corresponding to that category of fuels or any subset thereof. See 40 C.F.R. § 80.1427(a)(3)(i). For instance, retiring a cellulosic biofuel or biomass-based diesel RIN counts not only toward the volume obligation for that fuel, but also toward both the advanced biofuel and total renewable fuel obligations. Thus, "if one million gallons of cellulosic biofuel are blended into the fuel supply, the statute allows those one million gallons to be credited toward the advanced

biofuel and total renewable fuel obligations in addition to the cellulosic biofuel obligation." *ACE*, 864 F.3d at 698.

Obligated parties who have more RINs than they need may sell or trade their excess, 40 C.F.R. § 80.1428(b), or they may "bank" those RINs for use to meet up to 20 percent of their obligations for the following compliance year, *Monroe Energy*, 750 F.3d at 913; see 40 C.F.R. § 80.1427(a)(1), (5); Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 75 Fed. Reg. 14,670, 14,734-35 (Mar. 26, 2010). Obligated parties without enough RINs to meet their compliance obligations may purchase RINs, use banked RINs from the prior year, or carry a deficit forward to the following year to be satisfied together with the following year's obligations. *See ACE*, 864 F.3d at 699-700; see also 42 U.S.C. § 7545(o)(5)(D); 40 C.F.R. § 80.1427(b).

## **B. Procedural Background**

The procedural history of these cases follows two paths: first, the proceedings relevant to the challenge that EPA arbitrarily declined to initiate a rulemaking to modify the 2010 regulation designating refineries and importers, but not blenders, as obligated parties; and second, the proceedings challenging the 2017 Rule.

# 1. 2007, 2010, and 2017 Point of Obligation Proceedings

In its 2007 regulations implementing the RFS program, EPA designated refiners and importers, but not blenders, as the "appropriate" parties to meet the renewable fuel obligation. 72 Fed. Reg. 23,900, 23,923-24 (May 1, 2007). At the time, those designations were not challenged in court. EPA reaffirmed its designations in a 2010 regulation now commonly known as the

"point of obligation rule." 75 Fed. Reg. at 14,721-22 (codified at 40 C.F.R. § 80.1406(a)(1)). During the 2010 rulemaking, several refiners—including petitioner Valero Energy Corporation—argued that failing to obligate blenders, who combine renewable fuel with fossil fuels, would make the RFS program unworkable. EPA concluded that the program was functioning adequately and that the burdens and disruption from changing the point of obligation would outweigh any benefits. See Summary and Analysis of Comments 3.9.2, Alon J.A. 287-90. Although other aspects of the 2010 regulations were challenged in court, see, e.g., Nat'l Chicken Council v. EPA, 687 F.3d 393 (D.C. Cir. 2012); Nat'l Petrochemical & Refiners Ass'n v. EPA, 630 F.3d 145 (D.C. Cir. 2010), the point of obligation rule was not.

On December 14, 2015, EPA promulgated the volume requirements for 2014, 2015, and 2016. Renewable Fuel Standard Program, 80 Fed. Reg. 77,420 (Dec. 14, 2015). In so doing, EPA exercised its general waiver authority to lower the total renewable fuel volumes based on a finding of inadequate domestic supply due to market factors "affecting the ability to distribute, blend, dispense, and consume . . . renewable fuels" at the levels required by statute. Id. at 77,435/2. Among those factors was "the slower than expected development of the cellulosic biofuel industry." *Id.* at 77,422. The agency thought an additional "real world constraint[]" was the "E10 blendwall"—the difficulty for most American vehicle engines to run on blends containing more than 10% ethanol. *Id.* at 77,423. EPA explained that those factors made the statutory requirements "impossible to achieve." Id. at 77,422/2. This Court later vacated the general waiver on the ground that EPA had misinterpreted the statutory term "inadequate domestic supply" to include demand-side constraints such as the E10 blendwall. *See ACE*, 864 F.3d at 704-13.

On February 12, 2016, sixty days after EPA promulgated the volume requirements for 2014-16, the Alon Petitioners petitioned this Court for review of the 2010 point of obligation rule. These petitions contend that the rule was arbitrary and capricious insofar as it failed to impose the obligation on downstream blenders the parties petitioners think are best able to comply with it. The petitions assert jurisdiction under the after-arising provision in 42 U.S.C. § 7607(b)(1), which permits otherwise-untimely challenges to a rule if the challenges are "based solely on grounds arising after" the sixty-day deadline for seeking judicial review. The petitioners assert that EPA's exercise of its general waiver authority in the 2014–16 volume regulations, and its acknowledgment of the RFS program's shortcomings as of that time, provided such an afterarising ground.

The Alon Petitioners simultaneously petitioned EPA to revise the point of obligation rule. Some of their requests were styled as petitions for a rulemaking. Others were styled as petitions for mandatory reconsideration under 42 U.S.C. § 7607(d)(7)(B), which requires EPA to reconsider a rule if centrally important objections were impracticable to raise during the comment period or "arose after" that period "but within the time specified for judicial review." The petitions cited the waiver in the 2014-16 volume regulations and EPA's acknowledgment of program difficulties as grounds supporting mandatory reconsideration. This Court held in abeyance the petitions for review of the point of obligation rule pending resolution of the petitions to revise it.

On November 10, 2016, EPA published a proposed denial of the petitions to revise the point of obligation rule. On November 22, 2017, after reviewing more than 18,000 comments on the proposal, EPA denied the petitions. It concluded that the statutory requirements for mandatory reconsideration were not met, so it treated all the filings as petitions for a rulemaking. Denial of Petitions for Rulemaking to Change the RFS Point of Obligation, EPA-HQ-OAR-2016-0544-0525, at 7 (Nov. 22, 2017) (EPA Denial), Alon J.A. 61. EPA then denied the petitions on the ground that "changing the point of obligation would . . . likely result in a decrease in the production, distribution, and use of [renewable] fuels" and would "do nothing to incentivize the research, development, and commercialization of cellulosic biofuel technologies critical for the growth of the RFS program in future years." EPA Denial at 8-9, Alon J.A. 62-63.

Within sixty days (in December 2017 and January 2018), the Alon Petitioners sought judicial review of that denial, which it cast as a final agency action under section 7607(b)(1). The two sets of petitions—the February 2016 petitions for review of the 2010 point of obligation rule and the 2017-18 petitions for review of EPA's refusal to reconsider the rule—were consolidated and are now before us.

#### 2. 2017 Annual Volumetric Proceedings

EPA issued its 2017 annual volumetric rule on December 12, 2016. The 2017 Rule establishes: (1) the applicable volume for biomass-based diesel for 2018, 81 Fed. Reg. at 89,751/2; (2) the waiver-adjusted applicable volumes for cellulosic biofuel, advanced biofuel, and total renewable fuel for 2017, *id.* at 89,747 tbl. I-1; and (3) percentage standards for all four fuel types for 2017, *id.* at 89,751, tbl. I.B.6-1.

EPA exercised its mandatory cellulosic waiver authority to decrease the 2017 applicable volume for cellulosic biofuel by more than 94 percent, dropping 5.189 billion gallons from the statutory target of 5.5 billion gallons, to 311 million gallons. *Id.* at 89,750/2; 42 U.S.C. § 7545(*o*)(2)(B)(i)(III). EPA then had discretion under that same waiver authority to cut as much as 5.189 billion gallons off the statutory volumes for advanced biofuel and total renewable fuel. See 42 U.S.C. § 7545(o)(7)(D)(i); 81 Fed. Reg. at 89,762 & tbl. IV.A-1. EPA partially exercised that authority, reducing the 9-billion-gallon statutory target for advanced biofuel by 4.72 billion gallons, resulting in an adjusted applicable volume of 4.28 billion gallons—a greater than 50% decrease. 81 Fed. Reg. at 89,750–51; 42 U.S.C.  $\S$  7545(o)(2)(B)(i)(II). EPA reduced the total renewable fuel volume requirements by the same amount, lowering the statutory target of 24 billion gallons to 19.28 billion gallons.81 Fed. Reg. at 89,751/1; 42 U.S.C.  $\S$  7545(o)(2)(B)(i)(I). EPA considered but decided against also using its general waiver authority to further lower the applicable volume of total renewable fuel. 81 Fed. Reg. at 89,751/1.

Using the waiver-adjusted applicable volumes, EPA set the 2017 percentage standards for each of the four renewable fuel categories. *See id.* at 89,751, 89,799-801. Finally, EPA set the biomass-based diesel applicable volume for 2018 at 2.1 billion gallons. *Id.* at 89,751/2. EPA received comments urging it to reassess the point of obligation in the 2017 Rule, but declined to address them on the grounds that the comments were "beyond the scope" of the 2017 rulemaking. Response to Comments at 542, Coffeyville J.A. 761.

After EPA published the 2017 Rule, various parties petitioned for judicial review. The Coffeyville Petitioners

contend that EPA erred by refusing to reconsider which types of parties would bear the direct compliance obligation under the 2017 Rule. They also argue that EPA arbitrarily calculated the 2017 production of cellulosic biofuel and arbitrarily exercised its discretionary cellulosic waiver authority, resulting in percentage standards that are too high. NBB argues that EPA set the 2018 applicable volume for biomass-based diesel too low by considering factors it should not have and omitting or incorrectly assessing others. Two trade associations representing refineries have intervened in defense of EPA's biomass-based diesel decision, and a coalition of trade associations representing renewable fuel producers and refineries have intervened to oppose the Coffeyville Petitioners' claims. None of the petitioners' challenges succeeds.

#### III. Standard of Review

"This court applies the familiar, deferential standard announced in Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc., to sustain any reasonable agency interpretation of ambiguity in the Clean Air Act." Nat'l Ass'n for Surface Finishing v. EPA, 795 F.3d 1, 7 (D.C. Cir. 2015). "We employ the deferential State Farm standard of review when reviewing arguments based on allegedly arbitrary or unreasoned agency action." ACE, 864 F.3d at 726 (citing Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983)). Under that rubric, EPA's actions are "presumptively valid provided [they] meet[] a minimum rationality standard." Nat. Res. Def. Council, Inc. v. EPA, 194 F.3d 130, 136 (D.C. Cir. 1999). We uphold EPA's actions so long as they are "reasonable and reasonably explained." *Jackson v.* Mabus, 808 F.3d 933, 936 (D.C. Cir. 2015).

### IV. 2010 Point of Obligation Rule

We start with the Alon Petitioners and their challenges to the 2010 point of obligation rule.

### A. Jurisdiction

We begin, as we must, with our jurisdiction. In general terms, the question presented involves our review of rules promulgated under the Clean Air Act, or EPA's failure to amend them, after the initial window for seeking judicial review has passed. Various statutory provisions frame this inquiry.

Section 7607(b)(1) of Title 42 provides for judicial review of regulations promulgated by the Administrator of EPA under the Clean Air Act. The first sentence of section 7607(b)(1) vests this Court with exclusive jurisdiction to review "nationally applicable regulations promulgated, or final action taken, by the Administrator" under the Act. The fourth sentence of section 7607(b)(1) specifies the time for seeking judicial review. It imposes a sixty-day time limit, but provides an exception for petitions based on grounds arising after the limit: "Any petition for review under this subsection shall be filed within sixty days from the date notice of such promulgation, approval, or action appears in the Federal Register, except that if such petition is based solely on grounds arising after such sixtieth day, then any petition for review under this subsection shall be filed within sixty days after such grounds arise."

Section 7607(d) of Title 42 sets forth provisions for various rulemakings under the Clean Air Act, including for the "promulgation or revision of any regulation" involving the RFS program. *Id.* § 7607 (d)(1)(E). Section 7607 (d)(7)(B) addresses various issues regarding exhaustion, agency reconsideration, and judicial

review. The first sentence of that provision imposes a conventional exhaustion requirement, limiting judicial review to objections "raised with reasonable specificity during the period for public comment." The second sentence requires EPA to reconsider regulations in certain narrow circumstances: "If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was promulgated." The third sentence of section 7607(d)(7)(B) makes any "refusal" to provide such mandatory reconsideration judicially reviewable.

At various times in this litigation, the petitioners have asserted three different jurisdictional theories. First, EPA's refusal to revise the point of obligation rule in 2017 was a final action reviewable under the first sentence of section 7607(b)(1), regardless of the after-arising provision. Second, EPA's statements and actions in its 2014-16 volume regulation constitute after-arising grounds permitting a challenge to the point of obligation rule as promulgated in 2010. Third, these same EPA statements and actions triggered a right to mandatory reconsideration under section 7607(d)(7)(B), which in turn makes the denial of reconsideration judicially reviewable. As explained below, we conclude that the first contention is correct. the second has been abandoned, and the third lacks merit.

# 1. Final Agency Action Under Section 7607(b)(1)

In 2016, various refiners petitioned EPA for a rulemaking to modify the point of obligation rule. The petitions urged that the need for a modification became evident in 2015, when EPA waived certain statutory volume requirements and concluded that changing economic conditions had made the requirements "impossible to achieve." 2014-16 Rule, 80 Fed. Reg. at 77,422/2. In November 2017, EPA denied the rulemaking petitions on the ground that any current problems with the RFS program were manageable and that changing the point of obligation at this juncture would be disruptive. EPA Denial at 8-9, Alon J.A. 62-63. The refiners sought review of the denial in December 2017 and January 2018. As petitioners in this Court, they contend that the November 2017 denial constituted final agency action reviewable under section 7607(b)(1). We agree.

As noted above, the first sentence of section 7607(b)(1) gives this Court exclusive jurisdiction to review any nationally applicable "final action" taken by EPA under the Clean Air Act. The parties agree that the denial of the rulemaking petitions was nationally applicable, final, and taken under the Clean Air Act. It was also agency "action" within the meaning of the statute. That word "bears the same meaning in [section 7607(b)(1)] that it does under the Administrative Procedure Act," Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 478 (2001), which defines "agency" to include EPA, 5 U.S.C. § 551(1), and "agency action" to include "the whole or a part of an agency rule, order, license, sanction, relief, or the equivalent or denial thereof, or failure to act," id. § 551(13) (emphases

added). So, EPA's denial of the petitions for rulemaking was a reviewable "action."

The petitions for review were timely. As a general matter, section 7607(b)(1) requires a petition for review to be filed within sixty days of when "notice of such promulgation, approval, or action appears in the Federal Register." Here, the "action" at issue—denial of the petitions for rulemaking—was published in the Federal Register on November 22, 2017, and the petitions for review of that action were filed within sixty days of that date. Moreover, this conclusion does not depend on the after-arising provision. To the contrary, because the petitions for review were filed within sixty days of the "action" under review, the exception for "grounds arising after such sixtieth day" was not triggered.

Our caselaw confirms this framing of the jurisdictional issue. In Massachusetts v. EPA, 415 F.3d 50 (D.C. Cir. 2005), this Court held that EPA's denial of a petition to regulate greenhouse gas emissions as air pollutants was itself "final action" reviewable under section 7607(b)(1). See id. at 53-54 (opinion of Randolph, J.); id. at 61 (Sentelle, J., concurring in the judgment). The Supreme Court reversed our judgment on the merits, but agreed that we had jurisdiction. Massachusetts v. EPA, 549 U.S. 497 (2007). In particular, the Court noted that section 7607(b)(1) "expressly permits review" of EPA's "rejection of [a] rulemaking petition." Id. at 520, 528; see also id. at 517 (section 7607(b)(1) affords "the right to challenge" [this] agency action unlawfully withheld"). Likewise, in Natural Resources Defense Council v. EPA, 824 F.2d 1146 (D.C. Cir. 1987) (en banc) (*NRDC*), we held that a 1985 decision to withdraw proposed amendments to certain 1976 regulations—which we described as a "decision not to amend" the regulations—was "reviewable agency action" under section 7607(b)(1). *Id.* at 1150 (quotation marks omitted). We concluded that the petition for review at issue, which on its face challenged the 1985 withdrawal decision, was not, in substance, an untimely "back-door' challenge to the 1976 regulations." *Id.* On that point, we reasoned that the petitioners claimed legal errors in the 1985 withdrawal and sought vacatur only of that order. Likewise, in this case, the petitions for review filed in 2017 and 2018 raise no back-door challenge to the 2010 regulation: the petitions contend that EPA in 2017 arbitrarily refused to take account of changing economic conditions, and they seek vacatur only of the 2017 order denying a new rulemaking going forward.

Background principles of administrative law reinforce our conclusion that the denial of a petition to modify a rule based on changed circumstances is itself a reviewable order. Ordinarily, the denial of a petition to amend or rescind a regulation is judicially reviewable. See, e.g., NLRB Union v. FLRA, 834 F.2d 191, 195-96 (D.C. Cir. 1987). When the petition to amend attacks defects in the regulation as originally promulgated, and when the time limit for seeking review of the regulation has passed, questions can arise about whether the time limit is being improperly circumvented. In these circumstances, we have held that the petitioner cannot raise procedural challenges to the regulation, but can raise substantive arguments that the regulation is unauthorized by or conflicts with a statute. See id. at 196-97. But the circumvention concern does not even arise when the petitioner raises arguments about changed circumstances or new information. Those kinds of arguments—that recent developments compel the amendment of an older regulation—are always cognizable through review of the denial of a petition to amend, though they trigger an "extremely limited" review on the merits. *Id.* at 196. Our decision today harmonizes the judicial-review provisions of the Clean Air Act with this general background principle.

EPA recognizes the general rule that, under the NLRB Union line of cases, the denial of a petition to amend a rule is a reviewable order, which supports both challenges based on recent developments and substantive challenges to the original regulation. Nonetheless, EPA urges a different rule where the applicable judicial-review provision contains a time limit for seeking review and an exception for grounds arising after the time limit, as in the Clean Air Act. In those circumstances, according to EPA, a challenge to the denial of a petition to amend is untimely—and the denial is thus entirely unreviewable—unless the afterarising provision is satisfied. EPA rests this conclusion on National Mining Ass'n v. Department of Interior, 70 F.3d 1345 (D.C. Cir. 1995), and American Road & Transportation Builders Ass'n v. EPA, 588 F.3d 1109 (D.C. Cir. 2009) (ARTBA), but neither decision supports its position.

National Mining involved judicial review under the Surface Mining Control and Reclamation Act (SMCRA), which requires petitions for review to be filed "within sixty days" of the agency action at issue "or after such date if the petition is based solely on grounds arising after the sixtieth day." See 70 F.3d at 1350. In 1986, parties petitioned the Department of Interior to rescind a 1979 SMCRA regulation on two grounds. First, the petitioners argued that the rule was inconsistent with the statute—an argument attacking the regulation itself and "available" when the regulation was originally promulgated. See id. After the agency

declined to rescind the rule, the challengers sought judicial review. We held that the after-arising provision made this first challenge untimely, by explicitly requiring challenges to a regulation either to be filed "within the statutory period" or to "meet the afterarising test." *Id.* at 1350-51. At the same time, however, we held that the petitioners' second challenge—to the agency's 1986 decision refusing to "repeal" the regulation based on changed circumstances—was timely and reviewable. Id. at 1352. To be sure, we described the latter challenge as resting on "grounds that arose after the sixtieth day." Id. But we failed to explain what jurisdictional theory that observation supported: a challenge to the 1979 regulation rendered timely by the after-arising exception; or a challenge, in substance as well as form, to the 1986 refusal to repeal, akin to the challenge that we held reviewable in NRDC. Instead, we simply concluded that, under the "limited scope of our review," the agency did not "act[] unreasonably in denving the petition for rulemaking." Id. at 1352-53. Thus, while National Mining blessed jurisdiction to review agency refusals to amend regulations based on changed factual circumstances, it did not ultimately address what we clarify today—the precise statutory basis for that jurisdiction.

ARTBA applied the reasoning of National Mining to the Clean Air Act, which also contains a time limit for judicial review and an exception for after-arising grounds. ARTBA involved a 2002 petition to amend 1997 regulations on the ground that they allowed states "to adopt precisely the kinds of regulations that the statute forbids." 588 F.3d at 1110. As in National Mining, the challenge was thus a substantive attack on a regulation as originally promulgated. We held that, under National Mining, EPA's "denial of a revision-seeking petition does not allow review of

alleged substantive defects in the original rule even under the deferential standards applicable to review of such denials, outside the statutory limitations period running from the rule['s] original promulgation." Id. at 1113 (emphasis added). In other words, National Mining "require[d] us to treat ARTBA's petition to EPA as a challenge to the regulations it sought revised." Id. at 1110. As a result, dismissal was necessary unless the petition satisfied the exception for after-arising grounds, which it did not. See id.

Neither decision controls here, where the 2017 and 2018 petitions for review challenge not the point of obligation regulation as originally promulgated in 2010, but the failure to amend the regulation in light of changed circumstances flagged by EPA in 2015. EPA rejected that argument in 2017, and the petitioners sought review of the rejection within sixty days. In substance as well as form, the challenge was to the 2017 refusal to amend, not to the underlying 2010 regulation. Under these circumstances, there was no risk of circumventing the original time limit. Therefore, there was also no reason to treat the 2010 promulgation and the 2017 refusal to amend as one-and-the-same agency action, despite binding APA definitions treating them as separate.

Precedent aside, EPA's proposed approach—making the after-arising provision the exclusive vehicle for challenging refusals to amend regulations based on new information or changed circumstances—creates various difficulties. For one thing, there is a conceptual mismatch between that provision and these kinds of challenges. Though the after-arising exception and the opportunity to seek rule revision based on postrulemaking events may seem similar, the first allows an intervening event to secure judicial review on the

basis of defects extant at the time of the rulemaking, whereas the second allows review on the question whether intervening events have fatally undermined the original justification for the rule. The arrow of time runs forward, not backward, so it is at best awkward—and at worst incoherent—to speak of a *later* development rendering unlawful an *earlier* promulgation. Economic developments in 2015 may have made it arbitrary for EPA to adhere to the point of obligation rule in 2017, but they cannot have retroactively made arbitrary its promulgation in 2010.

Even worse, the Clean Air Act's after-arising provision, if used to judge the timeliness of challenges based on new information, would be difficult to apply, capriciously narrow, or both. To satisfy that provision, a petition for review must be both (i) based "solely" on after-arising grounds and (ii) filed "within sixty days after such grounds arise." 42 U.S.C. § 7607(b)(1). Yet the case for changing an environmental regulation will almost never manifest itself at one discrete moment. Instead, it will accumulate progressively over time, as scientific knowledge advances or economic conditions change. And so, under EPA's approach, the relevant filing deadlines would become practically unknowable. When did some environmental risk become serious and obvious enough to compel a rulemaking to strengthen an existing regulation? That will usually be a hard question, and it would be little short of miraculous if the answer turned out to be on a date certain within sixty days of the filing of a petition for review, as required to satisfy the after-arising provision.

In contrast, the approach we have sketched out produces simple questions and discernible deadlines: ask when EPA denied the rulemaking petition, then add sixty days. If possible, we should avoid trying to fix arbitrarily precise accrual dates for events that develop incrementally over time. See Nat'l R.R. Passenger Corp. v. Morgan, 536 U.S. 101, 115-21 (2002). And we should avoid jurisdictional tests that are complex as opposed to straightforward. See, e.g., Hertz Corp. v. Friend, 559 U.S. 77, 94 (2010). Treating the denial of a petition to amend a rule based on changed circumstances as reviewable agency action honors both principles, while attempting to shoehorn such denials into the after-arising provision does the opposite.

We acknowledge that, in *Oljato Chapter of Navajo* Tribe v. Train, 515 F.2d 654 (D.C. Cir. 1975), we assumed that the after-arising provision would govern review of orders denying petitions to modify EPA rules based on changed circumstances. But our only holdings were that such petitions must first be presented to EPA, id. at 666, and then are reviewable directly in the courts of appeals, id. at 657-65. Moreover, our assumption was understandable in context; the petitioners had missed the statutory deadline to file a petition for review (then thirty days), see id. at 657, so they pressed alternative jurisdictional theories (involving either district-court review or the after-arising provision) that would avoid that deadline. Furthermore, we expressly reserved the precise bounds of what constituted a petition based solely on after-arising grounds. See id. at 666-68. Finally, we stressed that review should generally be available "when new information casts doubt upon the validity of a [regulatory] standard." Id. at 665. At the time, the after-arising provision contained no separate deadline requiring a petition for review to be filed within sixty days of the after-arising ground. See id. at 657 n.3. So the difference between "direct review" of a regulation through the after-arising provision and review of a "refusal to revise" the regulation appeared largely semantic. *See id.* at 666. But, two years after *Oljato* was decided, Congress amended section 7607(b)(1) to include the separate filing deadline, *see* Pub. L. No. 95-95 § 305(c)(3), 91 Stat. 685, 776 (1977), which, as explained above, made the after-arising provision a singularly poor vehicle for securing the review that *Oljato* assumed would be readily available.

After Oljato, we held in Group Against Smog & Pollution v. EPA, 665 F.2d 1284 (D.C. Cir. 1981), that the failure to challenge a 1974 regulation within the original sixty-day deadline did not bar "judicial review of the agency's subsequent refusal to revise the standard on the basis of new information." *Id.* at 1291. Quoting liberally from *Oljato*, we suggested that such review would proceed through the after-arising provision. Id. at 1289. But we permitted review even though the after-arising provision, as amended, could not have applied. The case involved comments filed with EPA in April 1977, which we treated as a petition for a rulemaking. *Id.* at 1290 & n.47. On April 13, 1978, EPA declined to amend the rule as requested. *Id.* at 1288. The ensuing petition for review was filed on June 12, 1978—more than a year after the technological changes discussed in the comments, but precisely sixty days after the refusal to amend. See id. Because the petition for review was not filed within sixty days of the asserted after-arising grounds, the after-arising provision plainly did not apply. So, review must have rested on the theory that the refusal to amend was itself a reviewable action triggering its own sixty-day filing window.

The approach we follow here—treating denials of rulemakings based on new facts as independently reviewable decisions—does not reduce the after-arising

provision to surplusage. Our cases have recognized other circumstances triggering the after-arising provision, including judicial decisions that significantly "changed the legal landscape" faced by petitioners, Honeywell Int'l, Inc. v. EPA, 705 F.3d 470, 473 (D.C. Cir. 2013), and "the occurrence of an event that ripens a claim," Coalition for Responsible Regulation v. EPA, 684 F.3d 102, 129 (D.C. Cir. 2012) (per curiam). In cases like these—where, for example, an intervening statute, regulation, or judicial decision extends old regulations to new parties—the after-arising ground is easily dated, the relevant filing deadlines are clear, and so the provision functions predictably. Moreover, where the after-arising provision does apply, it permits the petitioner to contend not only that changed circumstances warrant amending an existing regulation but also that the regulation was unlawful as originally promulgated. See, e.g., Honeywell, 705 F.3d at 473.

For these reasons, we conclude that we have jurisdiction to consider the petitioners' argument that EPA arbitrarily refused to amend the point of obligation rule based on the changed circumstances cited by the petitioners.

# 2. After-Arising Grounds Under Section 7607(b)(1)

The February 2016 petitions for review, filed before EPA resolved any of the rulemaking petitions, rested on the alternative jurisdictional theory that EPA's publication of the 2014-16 volume requirements constituted an after-arising ground within the meaning of section 7607(b)(1). Our conclusion above does not moot this question, because if this alternative theory were valid, then the petitioners could directly attack the point of obligation rule as originally promulgated.

Nonetheless, the petitioners have abandoned this theory of jurisdiction. In their merits briefs, they never actually attack the 2010 rule as originally promulgated; instead, they challenge only the 2017 denial of their rulemaking petitions. Moreover, in requesting relief, they do not ask us to set aside the 2010 rule, but only to "vacate the [2017] Denial[] and remand to EPA" for a rulemaking to change the point of obligation rule going forward. Alon Br. 58. And at oral argument, they disclaimed any challenge to the 2010 rule itself and confirmed that their only challenge was to EPA's 2017 refusal to revise the point of obligation rule. See Rec. of Oral Argument at 2:18:50-2:19:15.

# 3. Mandatory Reconsideration Under Section 7607(d)(7)(B)

Finally, the petitioners assert jurisdiction under section 7607(d)(7)(B), on the ground that EPA erroneously denied petitions for mandatory reconsideration of the point of obligation rule. To review, section 7607(d)(7)(B) provides in relevant part that only objections "raised . . . during the period for public comment" may be "raised during judicial review." But if the objector "can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule," then EPA must "convene a proceeding for reconsideration" of the rule," and any refusal to do so is judicially reviewable. Here, the petitioners assert that the ground for their objections—EPA's statements and actions in its 2014-16 volume regulation—arose "after the period for public comment" on the 2010 point of obligation rule, and that the objections are "of central relevance to the outcome of the rule."

The petitioners misapprehend the statutory text and structure. Section 7607(d)(7)(B) does not extend the jurisdictional deadline to seek judicial review imposed in section 7607(b)(1); instead, it specifies a non-jurisdictional exhaustion requirement. See EPA v. EME Homer City Generation, L.P., 572 U.S. 489, 512 (2014). Its first sentence generally requires parties to raise objections "during the period for public comment" in order to later present them in court. Its second sentence allows a narrow exception when a centrally important objection cannot feasibly be raised during the comment period—either because "the grounds for such objection arose after the period for public comment," or because commenting was otherwise "impracticable." If an objection fits within this exception, the consequences are weighty: EPA must grant reconsideration and conduct a new, full-dress, noticeand-comment rulemaking. And if EPA denies reconsideration, the objector may seek judicial review.

This "limited exception" to the normal exhaustion deadline, *Util. Air Regulatory Grp. v. EPA*, 744 F.3d 741, 746 (D.C. Cir. 2014), does not come with a free pass from the subsequent deadline to seek judicial review. To the contrary, the second sentence of section 7607(d)(7)(B) covers only objections that arise after the close of the comment period, yet within the time specified for judicial review. As noted above, that time for judicial review—sixty days from the promulgation of the final rule—is specified in section 7607(b)(1). Section 7607(d)(7)(B) does not enlarge that filing period, but merely fills a narrow gap within it: allowing orderly exhaustion of important objections that "first became known to the petitioner after the comment

period ended, but before the period for petitioning for review expired." Am. Petroleum Inst. v. Costle, 665 F.2d 1176, 1192 (D.C. Cir. 1981). We recognize that, as a textual matter, the statutory phrase "but within the time specified for review" qualifies the requirement that the grounds must have arisen "after the period for public comment," but not the alternative requirement that "it was impracticable" to raise the objection "during the period for public comment." However, the petitioners do not invoke the impracticability prong of section 7607(d)(7)(B). Moreover, we have construed that prong to cover instances when the final rule was not a logical outgrowth of the proposed rule, Clean Air Council v. Pruitt, 862 F.3d 1, 10 (D.C. Cir. 2017) (per curiam), which likewise involve problems during the period for public comment on or petitioning for review of the regulation itself—not problems that arise when circumstances change years or decades later.

The petitioners argued in briefing that the "time specified for judicial review" referenced in section 7607(d)(7)(B) encompasses not only the initial sixtyday window after a rule's promulgation, but also the secondary sixty-day limit from after-arising grounds in the fourth sentence of section 7607(b)(1). But as noted above, the petitioners abandoned at oral argument any reliance on the latter after-arising provision. Moreover, their theory would transform what we have described as a "limited" gap-filling provision, *Util. Air* Regulatory Grp., 744 F.3d at 746, into a perpetually looming threat of mandatory notice-and-comment reconsideration. Tellingly, the petitioners can cite no case employing section 7607(d)(7)(B)'s mandatory reconsideration procedure for objections that arose after the close of the initial window for judicial review. Their interpretation would "make a mockery of Congress' [s] careful effort to force potential litigants

to bring challenges to a rule issued under this statute at the outset." *Am. Rd. & Transp. Builders Ass'n v. EPA*, 705 F.3d 453, 458 (D.C. Cir. 2013) (quotation marks omitted).

Because the petitioners' objections to the point of obligation rule did not arise within the initial window for judicial review of the 2010 point of obligation rule, but only some five years later, EPA properly denied mandatory reconsideration.

## B. Merits of Challenges to EPA's Refusal to Revise the 2010 Point of Obligation Rule

The Alon Petitioners offer an array of arguments to challenge the denial. None, however, is persuasive.

We are reviewing EPA's denial of a petition for rulemaking to amend the agency's point of obligation rule. See supra Part IV.A.1. Accordingly, our review is "extremely limited' and 'highly deferential." New York v. EPA, 921 F.3d 257, 261 (D.C. Cir. 2019) (quoting Massachusetts, 549 U.S. at 527-28). "To set aside the agency's judgment, [we] must conclude that EPA had not 'adequately explained the facts and policy concerns relied on' or that those facts did not 'have some basis in the record.' Id. (quoting WildEarth Guardians v. EPA, 751 F.3d 649, 653 (D.C. Cir. 2014)). We have no basis for such a conclusion. In denying the petition for rulemaking, EPA considered the "information currently before" it and determined "that the point of obligation is appropriately placed," wrestling with the petitioners' claims to the contrary. EPA Denial at 8, Alon J.A. 62. As is evident from our discussion below, EPA did so with enough thoroughness and reasonableness to satisfy our limited, deferential review.

We start with EPA's reasoning, which petitioners say is arbitrary and capricious. *See* 42 U.S.C. § 7607(d)(9)(A).

At the root of petitioners' claim is a single premise: that the current point of obligation misaligns incentives by requiring those who refine fossil fuel, but not those who blend it, to meet the RFS program's annual standards. In petitioners' view, this misalignment forces refiners to purchase RINs to satisfy their RFS obligations, jacking up their costs, while giving windfall profits to blenders, who produce (but don't consume) RINs. From this cycle of "RINsanity," petitioners say, flow harms galore. Alon Reply Br. 25. Higher RIN prices not only threaten the financial viability of refiners (putting our economy and energy security in jeopardy), see, e.g., Alon Br. 46, but they incentivize RIN hoarding, which feeds market volatility, and gives some market participants an unfair leg up, see, e.g., id. at 40.

The problem with this argument, however, is that EPA reasonably explained why, in its view, there is no misalignment in the RFS program. According to EPA, refiners "recover the cost of the RINs they purchase" by passing that cost along in the form of "higher prices for the petroleum based fuels they produce." EPA Denial at 25, Alon J.A. 79. It grounded that conclusion in studies and data in the record. EPA and the authors of the pertinent studies took advantage of the fact that there are pairs of petroleum products in which one variant is subject to the RIN obligation (such variants being awkwardly called "obligated fuels"), whereas its not-quite-identical twin is not. For example, gasoline and diesel sold for use in the United States are "obligated," whereas the same fuels sold for export are not. EPA Denial at 23, Alon J.A. 77. The same goes for domestic diesel fuel, which is "obligated," and jet fuel, which is not. Christopher R. Knittel et al., The Pass-Through of RIN Prices to Wholesale and Retail Fuels Under the Renewable Fuel Standard 4 (July 2015) (Knittel), Alon J.A. 534. Comparing these pairs, the agency found that as RIN prices increased, a gap "open[ed] up between" the price for obligated and unobligated fuels, a gap rather precisely matching the contemporaneous increase in RIN price—a strong indication that refiners were "recoup[ing] the costs associated with RIN prices." EPA Denial at 23, Alon J.A. 77.

Further confirming the price relationship, Professor Knittel and his colleagues found that 73% of a change in RIN price was passed through in the form of higher petroleum prices in the same day, 98% within two business days. Knittel 26, Alon J.A. 536.

Reviewing the findings, EPA (accurately) reported that the papers by Knittel and his colleagues, and by Argus Consulting Services, "concluded that the RIN cost was generally included in the sale prices of obligated fuels." EPA Denial at 25, Alon J.A. 79; see Knittel 26, Alon J.A. 536; Argus Consulting Services, Do Obligated Parties Include RINs Costs in Product Prices? 15 (Feb. 2017), Alon J.A. 564 ("There are very specific correlating price data for diesel that indicate that refiners . . . pass along the RINs cost . . . .").

A similar analysis, EPA concluded, reveals that just as (obligated) refiners do not pay excess costs, neither do blenders (who are not obligated under the program) nor integrated refiners (who perform their own inhouse blending) reap windfall profits. True, both earn RINs, without purchasing them on the open market, by blending renewable fuel into petroleum blendstock. And true, as well, both can sell those RINs, enjoying

whatever revenues market conditions and their own efficiencies permit. But as EPA quite accurately explained, this is only half the equation. In a competitive market there's no such thing as a free lunch, and blenders and integrated refiners pay their tab just as others 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 detached and kept for themselves. EPA Denial at 29, Alon J.A. 83. In other words, they "sell the finished transportation fuel at a loss," but "maintain[] profitability through RIN sales." *Id.* at 27-28, 29, Alon J.A. 81-82, 83.

To be sure, in response to EPA's proposed denial, commenters criticized the studies relied on by the agency. They contended, for example, that Professor Knittel and his colleagues erred by removing certain spreads from the analysis, by including others, and by pooling the results of various comparisons. See EPA Denial at 25, Alon J.A. 79. But petitioners have not raised these arguments here, and for that reason we do not consider them. While petitioners do complain that EPA relied on a "preliminary" analysis, see Alon Br. 54; Alon Reply Br. 23, that objection—whatever its persuasive force—says nothing about the other studies in the record (for example, by Professor Knittel et al.).

Petitioners try, instead, to trace various refiner problems to EPA's refusal to obligate blenders. They suggest that the alleged misplacement of the point of obligation causes bankruptcies, see, e.g., Alon Br. 3, 47, and inflicts economic hardship on small refineries, see, e.g., id. at 49, especially in the form of inflicting wildly disproportionate RIN acquisition costs on them, see, e.g., Alon Reply Br. 26. But some of these events occurred after EPA issued its denial, see, e.g., Alon Br.

49 ("following the Denial"); Alon Reply Br. 26 ("just after the Denial"), and are therefore not properly before us, see Environmental Defense Fund, Inc. v. Costle, 657 F.2d 275, 284 (D.C. Cir. 1981). More importantly, the claims presuppose that refiners cannot recover their RIN costs and that blenders reap windfall profits—suppositions that, as discussed above, EPA reasonably rejected.

Petitioners respond by plucking snippets from the denial, stringing them together with contrasting (bolded) conjunctions, and asserting that EPA's "discussion of RIN prices" is "irreconcilably inconsistent." Alon Br. 53. But we find no inconsistency on EPA's part.

Take one of petitioners' examples:

... RIN prices had no "significant impact on retail gasoline (El 0) prices," JA75;

**although** "RINs . . . provide a price signal to consumers to help achieve . . . greater renewable fuel production and use," JA75.

Alon Br. 53 (second and third alterations in original) (quoting EPA Denial at 21, Alon J.A. 75). At first blush, the two comments, located on the very same page, seem inconsistent. How could RIN prices have no "significant impact" on retail prices, while, at the same time, provide "a price signal to consumers"?

They can do so for the simple reason that the remarks refer to different things, a detail omitted from petitioners' brief. This becomes apparent when the passage from which petitioners plucked their quotes (bolded and underscored below) is viewed in full:

External, non-EPA assessments similarly concluded that increased **RIN prices had** 

not had a significant impact on retail gasoline (E10) prices. When RIN prices rise, the market price of the petroleum blendstocks produced by refineries also rise to cover the increased RIN costs, in much the same way as they would rise in response to higher crude oil prices. The effective price of renewable fuels (the price of the renewable fuel with attached RIN minus the RIN price), however, decreases as RIN prices increase. When renewable fuels are blended into petroleum fuels these two price impacts generally offset one another for fuel blends such as E 10 with a renewable content approximately equal to the required renewable fuel percentage standard. Higher RIN prices also generally result in higher prices for fuels with lower renewable content (such as E0 or petroleum diesel) and lower prices for fuels with higher renewable content (such as E85 or B20). The cost of the RIN therefore serves as a crosssubsidy, reducing the price of renewable fuels and increasing the price of petroleum based fuels in transportation fuel blends, thus incentivizing increased blending of renewable fuels into the transportation fuel pool. In this way the RINs also help provide a price signal to consumers to help achieve the Congressional goals of greater renewable fuel production and use. Fuels with higher renewable content are relatively cheaper to consumers than they would be absent high RIN prices, while fuels with lower renewable content are relatively more expensive when RIN prices are high.

EPA Denial at 20-21, Alon J.A. 74-75.

As we can see, the first statement (no significant price impact) is referring to the price of E10—a blend of 90% gasoline, 10% ethanol. As EPA explained, RINs work as a "cross-subsidy," effectively taxing the use of petroleum-based fuels (e.g., gasoline) and subsidizing the use of renewables (e.g., ethanol) in making a blended transportation fuel like E10. EPA Denial at 21, Alon J.A. 75.

Before we dig in further, let's take a step back. We must first recognize that EPA assumes that we are talking of a market where the RFS program, in effect, mandates minimum levels of renewables in marketed fuels, a mandate that necessarily impacts fuel prices. EPA is *not* making a claim that the mandatory inclusion of renewables in transportation fuel renders a gallon of gasoline lawfully purchased at the pump cheaper than it would have been absent the RFS program.

To see what this means, start on the subsidy side: Suppose a blender can realize \$2.25 on a gallon of ethanol with an attached RIN. If the blender can detach and sell that RIN for \$0.05, then the net ethanol value is only \$2.20—a \$0.05 savings that in a competitive market should pass through to consumers. Now take the tax side: Because refiners must purchase RINs to satisfy the RFS obligations that arise from selling gasoline to blenders, a blender's value for a gallon of gasoline may rise, due to the RFS program, from, say, \$2.75 to \$2.76. See Dallas Burkholder, Office of Transportation & Air Quality, EPA, A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects 17, EPA-HQ-OAR-2016-0544-0009 (May 14, 2015), Alon J.A. 337. As a result of both price impacts, EPA described, blended fuels with a higher percentage of renewable content (e.g., 85% ethanol) will be cheaper than they would have been (absent the program), whereas fuels with a lower percentage of renewable content (e.g., pure gasoline) will be more costly than they would have been (absent the program). EPA Denial at 21, Alon J.A. 75. For E10, the "two price impacts generally offset one another," so (back to the first statement) any change in RIN price generally has no "significant impact on" the E10 price. *Id*.

But that's just E10. There *is* an effect (of differing magnitude) on, say, E85 or E0. And that is where the second statement ("provide a price signal") comes in: the signal arises from a comparison of *relative prices* across the *spectrum* of transportation fuels. Again, as EPA explains, "[f]uels with higher renewable content are relatively cheaper to consumers than they would be absent high RIN prices, while fuels with lower renewable content are relatively more expensive when RIN prices are high." *Id*. The two statements are consistent.

Continuing the search for inconsistency, petitioners direct our attention to "EPA's past pronouncements." Alon Br. 50. In them, they see an irrational "aboutface"—with EPA saying, at first, that "low RIN prices [were] a sign that the [RFS program] was working," but claiming, now, "that high RIN prices are . . . desirable." Id. at 51-52. Again, that's not quite right. All EPA originally said was that when it first adopted the point of obligation, it did so based, in part, on its "expectation at that time that there would be an excess of RINs at low cost." Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 74 Fed. Reg. 24,904, 24,963/2 (May 26, 2009) (proposed rule); see also Alon Br. 50 (citing EPA Denial at 13, Alon J.A. 67 (citing, in turn, 74 Fed. Reg. at

24,963)). EPA did not suggest that low RIN prices were a sign of market health—nor that high prices were a cause for alarm.

In any case, EPA addressed petitioners' concern over high RIN prices head on; the agency explicitly determined, on the current record, that "higher RIN prices" are not "indicative of a dysfunctional RIN market." EPA Denial at 19, Alon J.A. 73. Rather, EPA explained, these prices accurately reflect the increasing cost associated with "getting ever-greater volumes of renewable fuel into the transportation fuel pool the explicit goal [of] the RFS program." Id. Put more bluntly, the increases in RIN prices are a completely understandable effect of the program's ever-increasing pressure to expand renewable volumes. Pushing out along the supply curve takes the raw market price of the RIN-eligible fuel steadily into higher realms except to the extent that production innovations or economies may tend to lower costs. So far as appears, it has nothing to do with EPA's allocation of the obligation.

What about EPA's concern, petitioners ask, that including blenders in the point of obligation would expand the number of obligated parties and, as a result, ratchet up the program's complexity? Isn't that hard to square with EPA's claim, made years earlier, that "essentially all downstream blenders . . . are [already] regulated parties"? Alon Br. 42 (quoting 75 Fed. Reg. at 14,722/2). Again, not at all. Although the participation of all (or nearly all) blenders in the RIN market subjects them to RFS registration, recordkeeping, and reporting requirements, "the majority of these downstream [regulated] parties are . . . currently not obligated parties." EPA Denial at 69, Alon J.A. 123 (emphasis added). As EPA explained,

there "is a significant distinction between being a 'regulated party' and being an 'obligated party" *Id.* "Obligated parties must meet all of [the requirements faced by regulated parties] and also calculate an annual renewable volume obligation, acquire the appropriate number of RINs in the market, practic[e] due diligence to ensure [the RINs'] validity, file annual compliance reports demonstrating compliance, and maintain records to that effect." *Id.* at 69 n.205, Alon J.A. 123 (emphasis added); *see*, *e.g.*, 40 C.F.R. §§ 80.1427(a), 80.1450(a), 80.1451(a), 80.1454(a). It was not unreasonable for EPA to conclude that imposing these burdens on additional entities would add to the program's complexity (and therefore be undesirable absent an adequate offsetting benefit).

Nor was it unreasonable to find that going down this route—overhauling a foundational element of the program would create "uncertainty in the fuels marketplace." EPA Denial at 2, Alon J.A. 56. As EPA said, "all parties regulated in the RFS program have made significant investments and decisions about their participation in the program and their position in the market on the basis of the existing regulations, including the definition of obligated parties." EPA Denial at 79, Alon J.A. 133. In these circumstances, it isn't hard to imagine how changing course could throw players off their game. Of course, as petitioners note, uncertainty may have "plagued the RFS Program for years." Alon Br. 37. But true or not, EPA needn't pile on; the cure for uncertainty isn't spawning more uncertainty.

Taking a step back, petitioners launch a closing broadside against the entire process. They assert that EPA "disregarded this Court's remand" in *ACE*, 864 F.3d at 737, and arbitrarily credited some comments

over others. Alon Br. 31-32, 55-56. But the *ACE* remand required, at most, that the agency "address the point of obligation issue." 864 F.3d at 737. And, as detailed throughout this opinion, the agency has done so reasonably, analyzing the data and explaining its decision. Nothing more was required.

\* \* \*

We have considered the Alon Petitioners' other arguments and have found them to be either without merit or, in the case of the argument relying on 42 U.S.C. § 7545(o)(5)(A), see Alon Br. 34, insufficiently developed, see, e.g., Masias v. EPA, 906 F.3d 1069, 1077 (D.C. Cir. 2018). For the foregoing reasons, the petitions for review are denied.

#### V. 2017 Annual Volumetric Rule

We turn now to the Coffeyville Petitioners' challenges.

# A. Point of Obligation

We first consider the Coffeyville Petitioners' challenge to EPA's decision in the 2017 Rule not to reassess which categories of industry players are "obligated parties" under the renewable fuel program. As the Coffeyville Petitioners read it, the statutory provision requiring EPA to set annual renewable fuel percentage standards also imposes on EPA a nondiscretionary duty to reconsider—every year—which types of entities are obligated to demonstrate to EPA compliance with the percentage standards. See 42 U.S.C. § 7545(o)(3)(B). They claim EPA shirked that duty when it treated the issue as beyond the scope of its 2017 annual rulemaking. EPA counters that it identified the obligated parties in 2007 pursuant to Congress's mandate to set "compliance provisions" for the new renewable fuel

program, id. § 7545(o)(2), reaffirmed that decision in 2010, and that nothing in the mandate to calculate the annual percentage standards requires it to reconsider the point of obligation each year. EPA also asserts that it appropriately addressed the Coffeyville Petitioners' complaints that it obligated the wrong parties in a separate proceeding from its annual volumetric rulemaking.

### 1. Jurisdiction

EPA and a coalition of Respondent-Intervenors representing the renewable fuel and refinery industries assert that we lack jurisdiction because the Coffeyville Petitioners effectively challenge the compliance rule that has been on the books for a decade or so, see 40 C.F.R. § 80.1406(a)(1), and did not petition within 60 days of its publication or within 60 days of any valid "grounds arising" thereafter. See 42 U.S.C. § 7607(b)(1); Med. Waste Inst. v. EPA, 645 F.3d 420. 427 (D.C. Cir. 2011). But petitioners are not challenging EPA's decision to adopt the rule in 2007 or retain it in 2010. Rather, they contend that the provision calling on EPA to set annual volumes of biofuels "applicable to refineries, blenders, and importers, as appropriate," requires EPA to reassess each year whether the point of obligation set when the agency established the program is still "appropriate," or if EPA should re-assign it and restructure the RIN market and other compliance infrastructure going forward. See 42 U.S.C. § 7545(o)(3)(B)(ii)(I). That challenge was timely filed within 60 days of the promulgation of the annual fuel standards. See supra Part IV.A.1.

### 2. Merits

This dispute turns on the roles of two provisions of the statute directing the EPA to establish and run a Renewable Fuel Program, 42 U.S.C. § 7545(*o*)—paragraphs (2) and (3).

Paragraph (2) directs EPA to "promulgate regulations" setting up a program to "ensure that transportation fuel sold or introduced into commerce in the United States . . . contains at least the applicable volume[s] of renewable fuel," as specified in subparagraph (2)(B).  $Id. \ 57545(o)(2)(A)(i)$ . Among the parameters Congress required EPA to include were "compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate," to ensure that the requirements of paragraph (2), including the applicable volume requirements specified in subparagraph (2)(B), are met.  $Id. \ 57545(o)(2)(A)(iii)(I)$ , (B). There is no question that EPA has authority to set those parameters, including the point of obligation, and to adjust them if a change is needed.

Paragraph (3), in turn, requires EPA to determine and publish annual renewable fuel obligations designed to "ensure[] that" the applicable volumes specified in paragraph (2) are met. *Id.* § 7545(*o*)(3)(B)(i). Those renewable fuel obligations must:

- (I) be applicable to refineries, blenders, and importers, as appropriate;
- (II) be expressed in terms of a volume percentage of transportation fuel sold or introduced into commerce in the United States; and

(III) . . . consist of a single applicable percentage that applies to all categories of persons specified in subclause (I).

# Id. § 7545(o)(3)(B)(ii)(I)–(III).

The parties' dispute centers on the meaning of "as appropriate" in subclause (3)(B)(ii)(I). The Coffeyville Petitioners contend that the phrase unambiguously requires EPA annually to reconsider which parties it is "appropriate" to obligate to meet the renewable fuel obligations. EPA responds that the statute is, at most, ambiguous as to whether Congress expected EPA annually to revisit the obligated-parties designation, or whether the agency may generally rely on the "appropriate[ness]" finding it made pursuant to its paragraph (2) authority. We begin by asking "whether Congress has directly spoken to the precise question at issue," and conclude that it has not. *Chevron*, 467 U.S. at 842.

EPA reads "as appropriate" in paragraph (3) to mean that the agency has "discretion" to decide whether, when, and how to reassess which of three types of industry actors—refineries, blenders, and importers—should continue to bear the point of obligation, as originally designated in the compliance provisions. *See* EPA Denial, Coffeyville J.A. 779-80. At oral argument, the agency conceded that its exercise of this discretion is reviewable, so that the exclusion of the point of obligation issue from an annual rulemaking could, under other circumstances, constitute an abuse of discretion. Rec. of Oral Arg. 1:22:22-1:24:00; 1:37:45-1:40:11.

The Coffeyville Petitioners object that the phase "applicable . . . as appropriate" means applicable as contemporaneously determined to be appropriate in

the annual volumetric rulemakings. Coffeyville Br. 30-33; see also Conc. Op. 4-5, 7. But paragraph (3) does not specify when or in what context EPA must make its appropriateness determination, nor does the phrase "as appropriate" itself specify a particular temporal dimension—as between, for example, parties appropriately designated in the past (as EPA interprets it) and parties now appropriately selected (as Coffeyville insists). The term "appropriate" "naturally and traditionally includes consideration of all the relevant factors," Michigan v. EPA, 135 S. Ct. 2699, 2707 (2015) (quoting White Stallion Energy Center, LLC v. EPA, 748 F.3d 1222, 1266 (D.C. Cir. 2014) (Kavanaugh, J., concurring in part and dissenting in part)), but it does not dictate *when* that consideration must be made. In other words, the requirement that the point of obligation be "appropriate" is at most grounds for assessing whether the agency adequately explained its policy choices regarding the appropriateness determination, not for imposing our own gloss on that broad term as a matter of law. See Kisor v. Wilkie, 139 S. Ct. 2400, 2448-49 (2019) (Kavanaugh, J., concurring in the judgment) ("[S]ome cases involve regulations that employ broad and open-ended terms like 'reasonable,' 'appropriate,' 'feasible,' or 'practicable.' Those kinds of terms afford agencies broad policy discretion, and courts allow an agency to reasonably exercise its discretion to choose among the options allowed by the text of the rule. But that is more State Farm than Auer" or Chevron (emphasis added)). Here, as explained below, EPA reasonably exercised its discretion, and explained its decision, to address the point of obligation issue in a separate proceeding from its annual volumetric rulemaking.

The fact that paragraphs (2) and (3) both include the phrase "as appropriate" does not make the Coffeyville

Petitioners' the only permissible interpretation. Even if, as our colleague contends, Conc. Op. 7, the two phrases bear the exact same meaning, but see Coffeyville Br. 30-31 (arguing that paragraphs (2) and (3) are "worded differently" and have "different contexts"), paragraph (3) simply does not dictate when or in what context EPA must make the appropriateness determination. It is the surrounding context, not the phrases themselves, that suggests when EPA might make that choice.

Unable to point to any express textual requirement that EPA annually reconsider the point of obligation, the Coffeyville Petitioners contend that, had Congress intended to allow EPA in annual volumetric rulemakings to rest on its paragraph (2) appropriateness determination, subclause (3)(B)(ii)(I) could have more simply cross-referenced paragraph (2). But replacing subclause (3)(B)(ii)(I) with a simpler cross-reference would not have achieved guite the same effect. While refineries, blenders, importers, and distributors may all be subject to compliance provisions under paragraph (2), paragraph (3)'s applicability provision points to a more limited universe of potential obligated parties—to refineries, blenders, and importers, but not distributors. That supports EPA's understanding of subclause (3)(B)(ii)(I) as a cross-reference that also clarifies a limit on EPA's options in setting the point of obligation. See 72 Fed. Reg. at 23,923/2 (preamble for compliance rule referencing paragraph (3)'s applicability provision).

We are unpersuaded by the suggestion that such limitation was so clear even without subclause (3)(B)(ii)(I) that EPA's reading of that applicability provision renders it superfluous. The suggestion is that, because distributors do not "introduce" fuel into

commerce, they could not be obligated parties in any event, with or without the applicability provision. Our colleague posits that blenders—but not distributors can in fact "introduce" transportation fuel into commerce by blending gasoline and diesel fuel with other fuels that have not already been introduced by someone else. Conc. Op. 11. But that argument rests on a complicated series of inferences from spare statutory text, as well as post-enactment regulations that do not necessarily show what the statute must have meant. For example, our colleague reasonably infers that the national "volume[] of transportation fuel," 42 U.S.C.  $\S$  7545(o)(3)(A), must be counted at the first moment each gallon of fuel enters commerce, in order to avoid double-counting. But, the statute nowhere states the point directly. Still less clearly does the statute state our colleague's corollary necessary to the surplusage argument—that the point of obligation must also be *placed*, if at all, at the first moment a gallon of fuel enters commerce. That corollary is less obvious, because the statutory link between the point of obligation and entry into commerce is not ironclad: All parties agree that not every gallon of transportation fuel must be subject to the point of obligation upon entry into commerce. The statute plainly allows EPA to obligate an "appropriate" subset of the three categories of parties. And obligating blenders would involve double counting unless the transportation fuel they use to create blends were not already counted upon its importation or sale to them. Under the circumstances, it is reasonable to read subclause (3)(B)(ii)(I) as clarifying what is at best a non-obvious inference that distributors cannot be subjected to the point of obligation.

So subclause (3)(B)(ii)(I) as EPA reads it is not a superfluity, but makes clear that EPA may have

permissibly placed the point of obligation on refineries, blenders, and importers, but not distributors. For the same reason, subclause (3)(B)(ii)(III), which requires that the annual standards apply "to all categories of persons specified in subclause (I)," *id.* § 7545(o)(3)(B)(ii)(III), does not contain what our colleague views as an unnecessary double cross-reference to paragraph (2), because it, too, is operative in not just cross-referencing, but also clarifying a limit on the three permissible targets of its "single applicable percentage."

The thrust of the Coffeyville Petitioners' retort that if Congress had wanted to confer discretion or provide a limiting cross-reference to paragraph (2), it would have said so more plainly—applies with greater force against their own reading. Had Congress intended EPA to consider on an annual basis whether to redo the point of obligation designation—a designation that no-one disputes is a necessary cornerstone of the paragraph (2) compliance provisions—it knew how to impose such a requirement. The Clean Air Act's provisions on ambient air quality, for instance, require EPA to "complete a thorough review" of the air quality standards "at five-year intervals" and "promulgate such new standards as may be appropriate." Id. § 7409(d)(1). The Act's provisions controlling hazardous air pollutants emitted from major and area sources require EPA to "review, and revise as necessary" the applicable emission standards "no less often than every 8 years." Id. § 7412(d)(6). Paragraph (3) of the RFS program, in contrast, does not tell EPA to "complete a thorough review," or "review, and revise as necessary" its point of obligation decision—or anything even close.

To be sure, EPA's reading is not ineluctable. We do not doubt that Congress could have more directly provided that the renewable fuel obligations do not apply to distributors. See Conc. Op. 8. But, for the reasons discussed, we are unconvinced that paragraph (3) plainly requires EPA to consider adjusting the point of obligation each year. See Valero Energy Corp. v. EPA, No. 7:17-cv-00004-O, 2017 WL 8780888, at \*4 (N.D. Tex. Nov. 28, 2017) (holding that "there is no clear statutory mandate . . . obligating [EPA] to evaluate or adjust . . . what entities are 'appropriate[ly]' forced to comply with" the annual renewable fuel obligations (alterations in original) (quoting 42 U.S.C. § 7545(o)(3)(B)(ii)(I))). Accordingly, we conclude that the meaning of "as appropriate" in paragraph (3) is ambiguous and turn now to whether EPA's construction is "based on a permissible construction of the statute." Chevron, 467 U.S. at 843.

The difficulty of squaring the Coffeyville Petitioners' reading of "as appropriate" with the structure and purpose of the statute convinces us of the reasonableness of EPA's interpretation. As a structural matter, the RFS program contains not only "annual" volumetric determinations, Conc. Op. 1, but also a slew of compliance provisions that are not annually redetermined. As a practical matter, the point of obligation is the foundational "compliance provision" of the entire renewable fuels program; EPA could not "ensure" that applicable volumes of renewable fuels are introduced into the nation's transportation fuel supply without designating the parties responsible for carrying the renewable fuel standards into operation. Id.  $\S$  7545(o)(2)(A)(i). To that end, in writing the compliance provisions, EPA placed the renewable fuel obligation on the entities at the head of the United States supply chain for nonrenewable fuels—domestic refiners, and importers of fuel refined elsewhere. See 72 Fed. Reg. at 23,923-24. After additional consideration, EPA in 2010 adhered to that decision. See 75 Fed. Reg. at 14,721-22 (codified at 40 C.F.R. § 80.1406(a)(1)); see also Monroe Energy, 750 F.3d at 912. No one challenged EPA's decision in 2007 or 2010, and EPA declined to revisit the issue in response to comments in the 2017 annual rulemaking urging it to shift the 2017 point of obligation to blenders. See Response to Comments at 542, Coffeyville J.A. 761.

The focus of the annual rulemakings, in contrast, is to translate the applicable volumes—as specified in paragraph (2), or set according to the process there described—into percentage requirements for each renewable fuel. 42 U.S.C. § 7545(o)(3)(B)(ii). It would be strange indeed if Congress required EPA, as it went about its annual quantitative standard-setting duties, also to rethink a choice so basic to the RFS program's architecture. This implausibility is illuminated by the fact that Congress required EPA to facilitate statutory compliance through a credit trading program, which of necessity requires some year-to-year stability. See id. § 7545(o)(5). EPA responded by setting up the RIN system, with flexibility anchored to a fixed baseline the point of obligation. The compliance system is flexible in that RINs may be retired in compliance demonstrations not only in the compliance year during which they were generated, but also throughout the ensuing compliance year, 40 C.F.R. § 80.1427(a)(6), and obligated parties may carry over excess RINs or RIN deficits from year to year, id.  $\S 80.1427(a)(1)$ , (5)– (6); see Monroe Energy, 750 F.3d at 913.

Annual changes to the point of obligation could cause "disparities in RIN-holdings," leaving formerly obligated parties with "significantly more RINs, including carryover RINs, than they desire or can use" and newly obligated parties with "lower balances than they would desire to protect themselves against shortfalls in RIN availability or RIN price volatility." EPA Denial at 78, Coffeyville J.A. 850. "[A] change to the point of obligation could also cause volatility in the [RIN] market," inhibiting the "ability [of] parties that possess excess carryover RINs to recover the cost of the RINs they hold by selling them to other parties." *Id.* It is not plausible that Congress meant EPA to consider uprooting the baseline of the RFS program every year. The real stretch is that Congress would have imposed such an onerous and potentially disruptive duty merely by use of the phrase "as appropriate."

The Coffeyville Petitioners' reading is not made any more plausible by highlighting the likelihood that, on annual consideration of the point of obligation, EPA would only need to consider recent information, and likely would stay its course. Even if the point of obligation in fact rarely changed, the mere "reconsider[ation]" of the framework would "likely cause delays to the investments necessary to expand the supply of renewable fuels in the United States." See EPA Denial at 2, Coffeyville J.A. 774. EPA reasoned that "fuel[] industry participants [would] withhold significant investment decisions until the EPA's final decision and the fallout from the decision are known." *Id.* at 81-82, Coffeyville J.A. 853-54. Insisting that the issue be on the regulatory agenda every year would sow "significant market uncertainty and potential turmoil" into the RFS program without offsetting benefit. *Id.* 

Furthermore, any requirement that an agency repeatedly go through a regulatory process on an issue that promises to draw a regular parade of criticism from interest groups with ample resources is itself burdensome. See AT&T Corp. v. FCC, 220 F.3d 607, 630-31 (D.C. Cir. 2000). This issue is no exception. As discussed above, EPA in 2016 and 2017 considered and decided against reopening its point of obligation rule. In so doing, it received upwards of 18,000 comments and published an exhaustive, 85-page decision. See EPA Denial at 1-85, Coffeyville J.A. 771-857. "Given the time pressure associated with its annual standards rulemaking," EPA believes it would not be feasible or worthwhile to undertake such reconsideration annually. *Id.* at 7 n.10, Coffeyville J.A. 779. Indeed, as EPA acknowledged at oral argument, the agency "has been late on [its annual rules] before," even "when [it hasn't] taken up the point of obligation." Rec. of Oral Arg. 1:25:44-52. "[A]dd[ing] on the" duty to reassess the point of obligation annually, EPA tells us, "would be a significant burden." *Id.* at 1:25:55-1:26:05. Our colleague doubts that EPA's year-to-year burden would be appreciable, but we see no ground to question EPA's judgment to the contrary. It seems unlikely that Congress wrote the applicability provision in order to heap that annual duty onto EPA's plate. It seems even less likely given the absence of reason to think that yearly second-guessing of program fundamentals makes sense, or that, when and if the need for a program restructuring arises, EPA would fail to act. Indeed, the statute elsewhere explicitly requires EPA to conduct "periodic reviews of . . . the feasibility of achieving compliance with the [applicable volume] requirements." 42 U.S.C. § 7545(o)(11). That provision has not been briefed, but would appear to require EPA to reconsider the point of obligation if it concluded that its placement was obstructing compliance.

Finally, EPA's approach coheres with basic principles of administrative law. In general, the choice between various procedural channels lies within the "informed discretion of the administrative agency." SEC v. Chenery Corp., 332 U.S. 194, 203 (1947). That discretion properly includes judgments about the scope of rulemakings and when to relegate ancillary issues to separate proceedings: "Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop." Massachusetts, 549 U.S. at 524; see, e.g., Grp. Against Smog & Pollution, 665 F.2d at 1292 (". . . EPA cannot soundly be charged with arbitrariness merely because it chose a separate rulemaking proceeding as the process for proposing a revised standard in lieu of an undertaking to do so in the narrower context of the opacity standard proceedings as petitioners requested."). Once the agency has resolved an issue in a separate proceeding, it may defend against related criticism by "simply refer[ing]" to the other proceeding, so long as the "reasoning remains applicable and adequately refutes the challenge." Bechtel v. FCC, 10 F.3d 875, 878 (D.C. Cir. 1993). EPA reasonably reads "as appropriate," in paragraph (3)(B), to leave undisturbed these background norms of broad but reviewable procedural discretion.

Our holding today does not give EPA the limitless and unreviewable discretion feared by our colleague. As we have said, EPA's determination as to whether it is "appropriate" to reconsider the point of obligation in the context of an annual volumetric rulemaking is reviewable for abuse of discretion. EPA did not abuse its discretion in refusing to do so here. Indeed, it considered whether to change the point of obligation rule in a separate, contemporaneous proceeding that yielded a final order that we also have reviewed and found to be adequately justified. See supra Part IV.B. We do not address whether it would be an abuse of discretion for EPA to refuse to reconsider the point of

obligation—in an annual volumetric rulemaking or otherwise—in extreme circumstances akin to those posited by our colleague's hypothetical about the continuing study of an abolished tort. *See* Conc. Op. 5.

In sum, we hold that EPA permissibly rejected the claim that paragraph (3) requires the agency annually to reassess the point of obligation in the renewable fuel program. Because EPA has no duty to reconsider the appropriateness of its point of obligation regulation as part of its yearly determination of volumetric requirements, it was not arbitrary for EPA to treat comments complaining that it obligated the wrong parties as appropriately assessed in a separate proceeding, and beyond the scope of proceedings for the 2017 volumetric rulemaking. For these reasons, we deny the Coffeyville Petitioners' petition.

### **B.** Cellulosic Biofuel Projection

The Coffeyville Petitioners lob a variety of challenges at EPA's cellulosic biofuel projection for 2017. Many of these petitioners, however, raised many of the same arguments before. See ACE, 864 F.3d at 727-29 (addressing challenges to EPA's 2014-16 projection). We rejected those arguments once—and do so again.

First, the Coffeyville Petitioners contend that "EPA's [m]ethodology" for projecting cellulosic biofuel production is invalid because it "[c]hronically [o]verestimates [a]ctual [p]roduction." Coffeyville Br. 40. But that argument—that EPA has "repeatedly... overshot the mark," *id.* at 41—doesn't apply to the methodology EPA actually used here, as we found in *ACE*, 864 F.3d at 727-28. As we explained when petitioners deployed this same argument in challenging the 2014-16 projection, "the majority of EPA's prior overestimations"

utilized a *different methodology*—one that we rejected in *API*, 706 F.3d at 478-81, and that the EPA accordingly abandoned. *ACE*, 864 F.3d at 727. The new methodology—the one EPA used here—has been applied only twice before. At the time EPA made its final evaluation for 2017, that methodology had (as detailed in the table below) *undershot* for 2015 and *overshot* for 2016. *See* Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016, EPA-HQ-OAR-2016-0004-3687, at 1-4 (Dec. 12, 2016), Coffeyville J.A. 515-18. This is hardly a pattern of chronic overestimation.

RFS Compliance Year		EPA Estimate (millions of RINs)	Actual Production (millions of RINs)	EPA Error **	Record Citation
2015	Q1	[No Data in the Record]			
	Q2				
	Q3				
	Q4	35.00	53.36	- 34.4%	J.A. 515
2016	Q1	230.00	198.39*	+ 15.9%	J.A.
	Q2				
	Q3				
	Q4				

<sup>\*</sup> At the time of EPA's assessment, the agency had actual RIN production data for only the first nine months of 2016 (123.99 million gallons). To calculate actual production for the year, EPA extrapolated the likely RIN generation for the last three months of the year based on the historical relation (a multiple of 1.8) between the average quarterly generation in the first

three quarters and that of the last quarter, yielding a figure of 74.39 million RINs for the last quarter. *See* Coffeyville J.A. 51617.

\*\* The EPA error has been calculated as the difference between the EPA estimate and actual production, divided by the actual production.

Second, the Coffeyville Petitioners claim that EPA failed to generate a projection "based on" the cellulosic biofuel estimate provided by the Energy Information Administration (EIA), as required by statute. 42 U.S.C. § 7545(o)(7)(D)(i). That is so, they say, because 96% of EPA's projected volume was biogas, a type of cellulosic biofuel that EIA did not include in its estimate. See Coffeyville Br. 43-44. The problem for petitioners, however, is that this closely parallels an argument we rejected in *ACE*: "[W]e do not agree that EPA failed to generate projections 'based on' the [EIA's] estimates," even though those "estimates did not contain figures for [biogas] production—production that accounts for the vast majority of cellulosic biofuel" ("around 90 percent"). ACE, 864 F.3d at 724, 729. Here, as there, EPA showed sufficient "respect" for EIA's estimates. *Id.* at 729. When limited to fuels actually analyzed by EIA, EPA's estimates were "very similar" to EIA's, id.; see 2017 Rule, 81 Fed. Reg. at 89,758/1, a fact that the Coffeyville Petitioners do not contest.

Congress demanded no more. Nothing in the statute required EPA to, as the Coffeyville Petitioners insist, "work[] with the EIA to develop information" about biogas. Coffeyville Br. 44. "[T]he Administrator of the Energy Information Administration shall provide . . . an estimate," 42 U.S.C. § 7545(o)(3)(A), and EPA shall "respect" it, API, 706 F.3d at 478. That's it. In showing such respect, EPA, of course, must "understand how EIA derived" its estimate. Coffeyville Reply Br. 24.

But, contrary to the Coffeyville Petitioners' contention, EPA did just that. The agency identified the types of cellulosic biofuels that EIA considered and then, to test the integrity of its projection, conducted an apples-to-apples comparison, "limiting the scope of [its] projection to the companies assessed by EIA." See 2017 Rule, 81 Fed. Reg. at 89,757-58. Nothing more was required.

Third, the Coffevville Petitioners object that EPA relied on "information from the [biogas] industry"—an industry "with a direct financial interest in the outcome of the rule." Coffeyville Br. 45. The Petitioners characterize this as "reliance on undisclosed information." Id. But EPA did disclose the information from the biogas industry—and that the information came from that industry; it just did so in the aggregate. See October 2016 Assessment of Cellulosic Biofuel Production from Biogas (2017), EPA-HQ-OAR-2016-0004-3711, at 2-6 (Dec. 12, 2016), Coffeyville J.A. 536-40. All the agency withheld was company-specific information, claiming that it had to withhold such data as confidential business information, see id. at 7, Coffeyville J.A. 541; see also 40 C.F.R. § 2.211(b), a claim that petitioners never even attempt to rebut, see Masias v. EPA, 906 F.3d 1069, 1077 (D.C. Cir. 2018) ("It is not enough merely to mention a possible argument in the most skeletal way, leaving the court to do counsel's work . . . . " (quoting Schneider v. Kissinger, 412 F.3d 190, 200 n.1 (D.C. Cir. 2005))).

As for the implication of bias, we have previously upheld EPA's reliance on "biofuel producers' own forecasts." *ACE*, 864 F.3d at 728; see also API, 706 F.3d at 478 (recognizing that producers are an "almost inevitable source of information"). Here, as in *ACE*, EPA did not "blindly adopt[] the facilities' own

forecasts"; it "performed its own investigation." 864 F.3d at 728; see October 2016 Assessment of Cellulosic Biofuel Production from Biogas, supra, at 4, Coffeyville J.A. 538 ("To verify the reasonableness of these projections, EPA compared the projected volume from each registered facility to the registered capacity of that facility."). Petitioners point to no unreasonable step by EPA in its efforts to address "the uncertainty and unreliability identified by the [Coffeyville] Petitioners." ACE, 864 F.3d at 728.

Fourth, the Coffeyville Petitioners protest EPA's reliance on "facilities' actual production in prior years" as a floor for projecting future cellulosic biofuel production. Coffeyville Br. 46. This was error, they say, because some companies might cease production. Perhaps so. But, as we said in *ACE*, although unforeseen issues "could prevent a producer from meeting" its prior year's production, it was "reasonable" for EPA to expect, as a general matter, "that a company's output would grow year-over-year as the company gained experience." 864 F.3d at 728. This seems especially true in an industry with the government's wind surging at its back. And even were EPA's assumption not true for each company, any one facility's shortfall, EPA explained, could be "off-set" by new facilities coming online or existing facilities exceeding the high end of their projected production range. See Renewable Fuel Standard Program—Standards for 2017 and Biomass-Based Diesel Volume for 2018: Response to Comments, EPA-HQ-OAR-2016-0004-3753, at 444 (Dec. 12, 2016), Coffeyville J.A. 707. This explanation fulfills EPA's "duty to articulate a 'reasonable and reasonably explained' approach to setting the low end of the production ranges." ACE, 864 F.3d at 729 (quoting Comtys. for a Better Env't v. EPA, 748 F.3d 333, 335 (D.C. Cir. 2014)).

Fifth, the Coffeyville Petitioners complain that EPA should have based its cellulosic biofuel projections on "actual" prior production. Coffeyville Br. 47. But this backward looking approach would have, in EPA's view, "ignore[d] the potential for facilities . . . to increase their fuel production rates" and would have been "inappropriately conservative" in light of the "year-over-year increases" that EPA had observed "in recent years." 2017 Rule, 81 Fed. Reg. at 89,761/1. We cannot say that in rejecting such an approach EPA violated "its duty to take a 'neutral aim at accuracy." ACE, 864 F.3d at 727 (quoting API, 706 F.3d at 476).

For these reasons, we reject the Coffeyville Petitioners' challenges to EPA's cellulosic biofuel projection for 2017. See ACE, 864 F.3d at 729.

### C. Cellulosic Waiver

The Coffeyville Petitioners also challenge EPA's decision to use less than all of its discretionary cellulosic waiver authority to lower the 2017 requirements for advanced biofuel and total renewable fuel. Having reduced the 2017 cellulosic biofuel requirement by 5.189 billion gallons, EPA had authority to reduce the advanced biofuel and total renewable fuel requirements "by the same or a lesser volume." 42 U.S.C. § 7545(o)(7)(D)(i). To decide by how much to reduce these statutory requirements, EPA first determines what reduction in the advanced biofuel requirement will yield a "reasonably attainable" volume, and it then mechanically applies an equivalent reduction to the total renewable fuel volume. 2017 Rule, 81 Fed. Reg. at 89,752-53. Petitioners do not directly challenge this methodology. Instead, they argue that EPA applied it arbitrarily in deciding to waive only 4.719 billion gallons of the advanced biofuel volume for 2017, rather than the maximum available waiver of 5.189

billion gallons. We again reject some of their arguments as foreclosed by precedent and others on their own terms.

*First*, the Coffeyville Petitioners argue that EPA sought to justify its 2017 advanced biofuel volume in part by making an impermissible comparison to the statutory volume set by Congress for 2022. In response to a comment expressing concerns about utilization of non-cellulosic advanced biofuels (which could be food-based) and possible adverse effects on food availability, EPA noted that its "reasonably attainable" non-cellulosic advanced biofuel volume for 2017 (approximately 4 billion gallons) was "somewhat higher than the level envisioned in the statute for 2017" (3.5 billion), "but well below the level of such fuels Congress expected would be used by 2022" (5 billion). Response to Comments at 214, Coffeyville J.A. 689. According to petitioners, "by comparing 2017 volumes with 2022 statutory targets, EPA departed from Congress's intent." Coffeyville Br. 50.

However, nothing in the statute forbids EPA from taking account of future statutory volumes in this way. Although Congress specified presumptively applicable volumes for certain years, it also provided waiver authority to depart from those volumes. Indeed, the discretionary waiver provision necessarily empowers EPA to depart upward from the statutory level of noncellulosic advanced biofuel for a given year: *reducing* the advanced biofuel volume by *less* than the reduction in cellulosic biofuel, as section 7545(o)(7)(D)(i) permits, is mathematically equivalent to *increasing* the volume of non-cellulosic advanced biofuels, to "partially backfill for missing cellulosic biofuel." 2017 Rule, 81 Fed. Reg. at 89,763/1. As we have noted, the cellulosic waiver provision "grants EPA 'broad discretion' to

consider a variety of factors" in exercising this authority to depart from the presumptive statutory volumes. *ACE*, 864 F.3d at 733 (quoting *Monroe Energy*, 750 F.3d at 915). In this case, while deflecting a comment about food availability, EPA observed that its noncellulosic advanced biofuel volume for 2017—while higher than the statutory volume envisioned for that year—was lower than the presumptive statutory volume for the near future. And it then reasonably concluded that this "somewhat higher interim volume reflect[ed] [its] assessment that it is appropriate to allow noncellulosic advanced biofuels to partially backfill for missing cellulosic volumes in light of the associated [greenhouse gas] and energy security benefits." Response to Comments at 214, Coffeyville J.A. 689.

Second, the Coffeyville Petitioners argue that EPA failed to explain its estimate of reasonably attainable 2017 imports of sugarcane ethanol, a type of noncellulosic advanced biofuel. Sugarcane ethanol imports have varied greatly from year to year, reaching a high of 681 million gallons in 2006 but falling to 64 million gallons in 2014 and 89 million gallons in 2015. See 2017 Rule, 81 Fed. Reg. at 89,764. At the time of the 2017 Rule, EPA expected only 76 million gallons to be imported in 2016, but it nonetheless adhered to its proposed estimate of 200 million gallons for 2017 an estimate originally based on EPA's judgment that circumstances in 2017 were "not . . . significantly different" from circumstances in 2016, for which EPA had also projected 200 million gallons. *Id.* at 89,763/3. EPA acknowledged the "recent low import levels," but also cited "the difficulty in precisely identifying the reasons" for the historical "high variability," given "uncertainty" as to market factors including "ongoing growth in gasoline demand in Brazil, and competing world demand for sugar." Id. at 89,764-65. The agency accordingly reaffirmed that 200 million gallons "reflects a reasonable intermediate point between the lower levels imported recently and the considerably higher levels that have been achieved in earlier years." *Id.* at 89,765/2.

There is some force to petitioners' objection to EPA's adherence to an estimate well over double the actual imports in the three preceding years. However, our review is "particularly deferential in matters implicating predictive judgments." Music Choice v. Copyright Royalty Bd., 774 F.3d 1000, 1015 (D.C. Cir. 2014) (quoting Rural Cellular Ass'n v. FCC, 588 F.3d 1095, 1105 (D.C. Cir. 2009)). We accordingly upheld EPA's identical 2016 sugarcane ethanol estimate as "reasonable and reasonably explained" in ACE, 864 F.3d at 736 (quotation marks omitted). In that case, we held that EPA reasonably "concluded that 'a somewhat lower level of imports will occur than the historic average' of 300 million," based on a similar analysis of market factors. Id. (quoting 2014-16 Rule, 80 Fed. Reg. at 77,478/2). Here, we cannot say that one more year of low imports made it arbitrary for EPA to adhere to that same projection for 2017.

Third, the Coffeyville Petitioners object to EPA's analysis of supply and demand for regular gasoline (E0) and gasoline with added ethanol (E15 and E85). However, this analysis played no role in EPA's exercise of its discretionary cellulosic waiver authority under section 7545(o)(7)(D)(i). As noted above, EPA's exercise of that authority rested entirely on its determination of reasonably attainable advanced biofuel volumes. See 2017 Rule, 81 Fed. Reg. at 89,773-74. The disputed analysis of E0, E15, and E85 supported EPA's separate decision not to invoke its "general waiver" authority, under section 7545(o)(7)(A)(ii), based on "inadequate"

domestic supply." See generally ACE, 864 F.3d at 705-13. But in their opening brief, petitioners failed to challenge EPA's decision not to invoke that separate waiver provision for 2017. Although their reply brief gestures at this point, "an argument first made in a reply brief is forfeited." Bartko v. SEC, 845 F.3d 1217, 1225 n.7 (D.C. Cir. 2017).

*Finally*, the Coffeyville Petitioners take issue with EPA's response to various comments. We have considered these arguments and find them to be without merit.

For these reasons, we reject the Coffeyville Petitioners' challenges to EPA's exercise of its discretionary cellulosic waiver authority to reduce advanced biofuel and total renewable fuel volumes for 2017.

#### VI. 2018 Volume for Biomass-Based Diesel

Since 2012, EPA, acting in coordination with the Secretaries of Energy and Agriculture, has calculated the annual applicable volume (also known as the "volume requirement") for biomass-based diesel based on a holistic, backward- and forward-looking consideration of relevant factors. In particular, it has set the volume requirement "based on a review of the implementation of the program during calendar years specified in the tables, and an analysis of" six statutorily enumerated factors: (1) "the impact of the production and use of renewable fuels on the environment"; (2) "the impact of renewable fuels on the energy security of the United States"; (3) "the expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and biomass-based diesel)"; (4) "the impact of renewable fuels on the infrastructure of the United States"; (5) "the impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods"; and (6) "the impact of the use of renewable fuels on other factors, including job creation, the price and supply of agricultural commodities, rural economic development, and food prices." 42 U.S.C. § 7545 (o)(2)(B)(ii)(I)—(VI).

EPA set the 2018 applicable volume for biomass-based diesel at 2.1 billion gallons, up from 2.0 billion gallons in 2017, and 1.1 billion gallons above a statutory minimum that Congress set to plateau at 1 billion gallons as of 2012. 2017 Rule, 81 Fed. Reg. at 89,798/1; see 42 U.S.C. § 7545(o)(2)(B)(i)(IV), (v). NBB had asked EPA to set the biomass-based diesel volume at 2.5 billion gallons, and now challenges the volume EPA set as arbitrary and capricious and contrary to the Clean Air Act.

# A. NBB's Standing

Before considering the merits of NBB's claims, we must satisfy ourselves that NBB has standing to assert them. Respondent-Intervenors, the American Fuel & Petrochemical Manufacturers and the American Petroleum Institute, contend that NBB lacks standing because, they say, it has not shown that the 2017 Rule inflicted a cognizable injury on any of its members.

NBB has associational standing here for the same reasons we held it did in *National Biodiesel Board v. EPA*, 843 F.3d 1010, 1015 (D.C. Cir. 2016) (NBB v. EPA), where EPA's actions "incentivize[d] . . . compet[ition] with [NBB's members'] domestic production." Here, too, NBB's members "compete with" the other industry players EPA's rule is designed to affect. *Id.* at 1016. Recall that biomass-based diesel is a nested subset of advanced and total renewable fuels, such that NBB's members get (1) a market for compelled buyers of the specified volume of biomass-based

diesel, for which they are the exclusive suppliers, plus (2) a market for compelled buyers of advanced and other renewable fuels alongside a broad array of competing suppliers. See supra at 6-8, 11. The 2017 Rule preamble explains that biomass-based diesel "compet[es] for research and development dollars with other types of advanced biofuels," and that, "[b]y establishing [the biomass-based diesel] volume requirement[] at [a] level[] lower than . . . the expected production of [biomass-based diesel]," EPA was "creating the potential for some competition between [biomassbased diesell and other advanced biofuels to satisfy the advanced biofuel" applicable volume and providing "incentives for the continued development of" those competitors' fuels. 81 Fed. Reg. at 89,797; see also EPA Coffeyville Br. 24 ("Above 2.1 billion gallons, biomassbased diesel will have to compete with other types of advanced biofuel."). Such competition will likely "temper to some extent [biomass-based diesel] prices." Final Statutory Factors Assessment for the 2018 Biomass Based Diesel (BBD) Applicable Volume, EPA-HQ-OAR-2016-0004-3708, at 10 (Dec. 12, 2016) (Supplemental Assessment), Coffeyville J.A. 533. That is a cognizable injury to NBB's members. See NBB v. EPA, 843 F.3d at 1015-16; see also Delta Constr. Co. v. EPA, 783 F.3d 1291, 1299 (D.C. Cir. 2015) (per curiam).

Though NBB failed to identify any of its members—ordinarily a prerequisite for organizations alleging associational standing, see Summers v. Earth Island Inst., 555 U.S. 488, 497-98 (2009)—that omission is not fatal here because NBB's members comprise "the entire biomass-based diesel category of the Renewable Fuel Standard[s]" and represent no other interests. Coffeyville J.A. 134. Consistent with "the real purpose of the [standing] inquiry—that is, for the court to be

satisfied that the requisite injury really has occurred or will occur in the future to members of the organization[]," *Pub. Citizen v. FTC*, 869 F.2d 1541, 1552 (D.C. Cir. 1989), there is no need to identify injured members when "all the members of the organization are affected by the challenged activity," *Summers*, 555 *U.S.* at 499 (citing *NAACP v. Ala. ex rel. Patterson*, 357 U.S. 449, 459 (1958)). Because EPA's rule subjects the biomass-based diesel industry to increased competition, with anticipated pricing effects, NBB "meet[s] the constitutional prerequisites of injury, causation, and redressability." *NBB v. EPA*, 843 F.3d at 1015.

### B. Merits of NBB's Challenges

NBB advances two challenges to the applicable volume EPA set for biomass-based diesel: First, that EPA erred in considering the interaction of biomass-based diesel with the yet-to-be established 2018 advanced biofuel applicable volume, and second, that EPA's consideration of the six statutory factors was arbitrary and capricious and contrary to law. We reject both claims.

First, EPA reasonably chose a 2018 biomass-based diesel applicable volume that would "maintain[] support for growth in [biomass-based diesel] volumes" while also encouraging the "development of other advanced biofuels." 2017 Rule, 81 Fed. Reg. at 89,798/1. Congress directed EPA to consider the lessons learned from its retrospective "review" of the program, apply them in its prospective "analysis of" the six statutory factors, and set a biomass-based diesel volume that will apply fourteen months in the future. See 42 U.S.C. § 7545(o)(2)(B)(ii).

EPA's approach is consistent with the structure and purposes of the statute. Congress set a minimum applicable volume for biomass-based diesel of one billion gallons for each year from 2012 forward, id.  $\S$  7545(o)(2)(B)(i)(IV), (v), while specifying statutory minimum volumes for the advanced biofuel category containing biomass-based diesel that grow year by year to 21 billion gallons by 2022, id. § 7545(o)(2)(B)(i)(II), (iii). EPA reasonably concluded that, by nesting biomass-based diesel together with cellulosic (and other unspecified) biofuels within the advanced biofuel category, and specifically charting a higher, steeper, and longer initial growth curve for advanced biofuel, Congress anticipated that production of other types of advanced biofuels could step up to help meet the advanced biofuel volume requirement. See 2017 Rule, 81 Fed. Reg. at 89,797/1. EPA also reasonably concluded that increasing fuel diversity serves one of Congress's primary goals in establishing the Renewable Fuel Standards program: improving the nation's "energy independence and security." See Pub. L. No. 110-140, preamble; see also 2017 Rule, 81 Fed. Reg. at 89,798/3. EPA also reasonably anticipated that enhanced competition in the advanced biofuels market would help "temper to some extent [biomass-based] diesel] prices," Supplemental Assessment 10, Coffeyville J.A. 533, thereby ameliorating Congress's concern that, with a too-high target volume, the "price of biomassbased diesel fuel" would "increase significantly," 42 U.S.C. § 7545(o)(7)(E)(ii). And fuel diversity may produce environmental benefits insofar as certain advanced biofuels, such as ethanol from food waste, will "likely have significantly lower impacts on wetlands, ecosystems, and wildlife habitats" than would greater reliance on biomass-based diesel. Supplemental Assessment 6, Coffeyville J.A. 529.

NBB's arguments to the contrary turn on reading the statutory directive that EPA "review . . . the implementation of the program during calendar years specified in the tables," *id.* § 7545(*o*)(2)(B)(ii), to confine EPA's consideration to biomass-based diesel's statutory volumes and actual performance, and to prevent EPA from considering other fuel categories or future years. In particular, NBB takes issue with EPA's consideration of the not-yet-finalized 2018 advanced biofuel applicable volume, which NBB contends led EPA to set the biomass-based diesel volume too low.

NBB's objections are not supported by the text or purpose of the statute. Assuming NBB is right that EPA's "review of the implementation of the program" consists of a retrospective assessment, the agency must also conduct "an analysis of" six statutory factors. *Id.* § 7545(o)(2)(B)(ii). And those factors plainly require a prospective assessment—an assessment that would likely miss "important aspects of the problem," State Farm, 463 U.S. at 43, if it ignored the interaction, now and in the future, of the requirements for all the categories of renewable fuels. See, e.g., 42 U.S.C. § 7545(o)(2)(B)(ii)(I) (requiring an "analysis of" the "impact of the production and use of renewable fuels on," among other things, "the environment"). Though EPA set the biomass-based diesel requirement lower than NBB wished, Congress did not intend to incentivize growth of biomass-based diesel "at all costs." ACE, 864 F.3d at 714 (quoting Am. Express Co. v. Italian Colors Rest., 570 U.S. 228, 234 (2013)).

NBB objects that setting the 2018 biomass-based diesel applicable volume below expected production might lead to a depressed advanced biofuel volume for 2018. But the agency specifically anticipated "that the 2018 advanced biofuel requirement will be larger than the 2017 advanced biofuel volume requirement." 2017

Rule, 81 Fed. Reg. at 89,798/1. EPA has never set the biomass-based diesel applicable volume at the "maximum potential production" level, *id.* at 89,799/3, yet the "growing supply of" biomass-based diesel has consistently "allowed EPA to establish higher advanced biofuel" applicable volumes, *id.* at 89,797/3. EPA opted for "allowing room within the advanced biofuel volume requirement for the participation of non-[biomass-based diesel] advanced fuels" as a reasonable way "to encourage the development and production of a variety of advanced biofuels over the long term without reducing the incentive for [biomass-based diesel] beyond the [biomass-based diesel applicable volume] in 2018." *Id.* at 89,797-98.

Second, in setting the 2018 biomass-based diesel applicable volume, EPA reasonably compared the advantages and disadvantages of biomass-based diesel to those of other fuels. NBB contends that the statute confines EPA to assessing advantages of biomass-based diesel over petroleum, not considering other renewable fuels, and that the agency failed to "meaningfully" consider the six factors. NBB Br. 9-10. Both arguments miss the mark.

NBB suggests that, because the statute "was intended to 'increase the production of clean renewable fuels' as a substitute for petroleum fuel," id. at 21 (quoting Pub. L. No. 110-140, preamble), the only relevant comparison is to petroleum, not to other categories of renewable fuel. But NBB identifies nothing in section 7545(o)(2)(B)(ii) or any other section that requires EPA to assess the performance of a particular renewable solely by reference to petroleum fuel. Its analysis would require us to read the term "renewable fuels" used throughout section 7545(o)(2)(B)(ii) to refer to the single renewable fuel

being analyzed, even though the statutory definition of "renewable fuel" includes all types of renewables. See 42 U.S.C. § 7545(o)(1)(J). And if EPA could compare the benefits of each specific fuel only to petroleum, it might be unable to set rational applicable volumes for each specified category of renewable fuel after 2022, when the statute no longer sets any specific volumes. See id. § 7545(o)(2)(B)(iii)—(v). EPA could easily conclude, for example, that each renewable fuel had a lower "impact . . . on the environment" than petroleum fuel, see id. § 7545(o)(2)(B)(ii)(I), but, no matter their differing merits in serving the statute's goals, the agency would be barred from making relative judgments among renewable fuel categories.

NBB also argues that EPA failed to give meaningful consideration to the six statutory factors, and instead "pre-determined the outcome," NBB Br. 20, but the record shows otherwise. EPA considered in detail how setting the biomass-based diesel applicable volume at a level higher or lower than 2.1 billion gallons would affect the six statutory factors. See 2017 Rule, 81 Fed. Reg. at 89,798-99. EPA further elaborated its analysis of the factors in an 11-page supplemental memorandum evaluating effects of its proposed biomass-based diesel volume on renewable fuel production rates, the environment, and the economy. See Supplemental Assessment 1-11, Coffevville J.A. 524-34, EPA concluded that, over the long term, "[a] variety of different types of advanced biofuels, rather than a single type such as [biomass-based diesel], would positively impact energy security . . . and increase the likelihood of the development of lower cost advanced biofuels that meet the same [greenhouse gas] reduction threshold as [biomass-based diesel]." Supplemental Assessment 3, Coffeyville J.A. 526. EPA thus concluded that the statutory factors supported its biomass-based diesel applicable volume. See 2017 Rule, 81 Fed. Reg. at 89,798/3.

At bottom, NBB's objections rest on a policy disagreement: NBB urges that, instead of setting a level that would support continued investment in the biomass-based diesel industry while also encouraging producers of other types of advanced biofuel to compete to satisfy the 2018 advanced biofuel applicable volume at lower cost, EPA should have reserved to biomass-based diesel alone a volume nearer to that industry's maximum production potential. But NBB's proposed "simple solution"—that EPA should have "set[] a meaningful [biomass-based diesel] volume" while planning to "increas[e] the 2018 advancedbiofuel volume to provide room for the production of other advanced biofuels when it set that volume a year later," NBB Br. 23—describes what EPA actually did. A mere disagreement with the particular calibration of a line drawn in the exercise of an agency's reasonable judgment is no basis to invalidate a rule. Therefore, we deny NBB's petition.

## VII. Conclusion

For these reasons, the petitions for review are denied.

So ordered.

WILLIAMS, *Senior Circuit Judge*, concurring in part and concurring in the judgment:

The Clean Air Act's Renewable Fuel Program operates on an annual cycle. It provides annual credits, authorizes annual waivers, and calls for annual reviews, see, e.g., 42 U.S.C. § 7545(o)(5), (7), (10)—all to implement Congress's annual goals, see *id.* § 7545(o)(2)(B).

Each year, as part of this annual affair, the Environmental Protection Agency embarks on an elaborate rulemaking.  $Id. \S 7545(o)(3)(B)$ . In doing so, it receives an annual estimate of the total volume of fuel to be sold to inform it in setting the annual "renewable fuel obligation,"  $id. \S 7545(o)(B)(i)$ , which "shall . . . be applicable to refineries, blenders, and importers, as appropriate,"  $id. \S 7545(o)(3)(B)(ii)(I)$ . So EPA is to specify appropriateness among those three categories. But "appropriate" as of when?

Coffeyville Petitioners say appropriate as of the annual rulemaking.

But EPA says appropriate as of the last time EPA happened to consider the issue, no matter how many years earlier that was. The initial determination sticks for "all years," EPA says, "unless and until" EPA chooses, in its "discretion," to "undertake [an] annual reevaluation[]." Denial of Petitions for Rulemaking to Change the RFS Point of Obligation, EPA-HQ-OAR-2016-0544-0525, at 7 (Mar. 13, 2018) ("EPA Denial"), J.A. 779; see also EPA Br. 66 (claiming "discretion" to decide "whether, how, and when" it will "reconsider its initial designation"). Even when affected parties point to a series of market "disparities" that they say have developed and render the earlier determination "not appropriate," and point to § 7545(o)(3)(B)(ii)(I) as entitling them to a fresh determination, see, e.g.,

Valero Energy Corporation Comments, EPA-HQ-OAR-2016-0004-1746, at 1, 14 (July 11, 2016), J.A. 138, 151, EPA claims that that section does nothing of the sort, see EPA Denial at 8, J.A. 780 (asserting full "discretion" to decide "when" and "under what circumstances" it will consider the issue). In Part V.A of the court's opinion, my colleagues accept EPA's theory. I, however, disagree. So while I otherwise join the court's opinion in full, I cannot joint Part V.A—though I do, in the end, concur in the judgment.

\* \* \*

At the risk of oversimplifying, we can boil this annual process down to three steps.

First, the annual goal. Congress sets annual (steadily increasing) goals for the volume of renewable transportation fuel to be sold or introduced into commerce in the United States, with special targets for some subsets of renewable fuel. 42 U.S.C. § 7545(o)(2)(B)(i).

Next, the annual estimate. The Energy Information Administration projects the total volume of transportation fuel that will be sold into commerce in a given year (as well as volumes of biomass-based diesel and cellulosic biofuel). 42 U.S.C. § 7545(o)(3)(A); see, e.g., Letter from Adam Sieminski, Administrator, U.S. Energy Information Administration, to Gina McCarthy, Administrator, U.S. Environmental Protection Agency, EPA-HQ-OAR-2016-0004-3646 (Oct. 19, 2016), J.A. 494.

Finally, the annual obligation. This is set by EPA during the agency's annual rulemaking. And it is expressed in terms of a single percentage of transportation fuel sold into commerce (the "renewable fuel obligation") by any obligated party (regardless

of category). 42 U.S.C. § 7545(o)(3)(B)(ii); see, e.g., Renewable Fuel Standard Program: Standards for 2017 and Biomass-Based Diesel Volume for 2018, 81 Fed. Reg. 89,746, 89,751/3 (Dec. 12, 2016) ("2017 Rule"). The basic idea is this: If EPA knows (i) the annual goal for the volume of renewable fuel introduced into commerce (see step one above), and (ii) the annual estimate for the *total* volume of fuel to be introduced into commerce (see step two above), then EPA—after filling in any gaps in the goals left by Congress, see 42 U.S.C. § 7545(o)(2)(B)(ii), and making any necessary adjustments to the estimates provided by the Energy Information Administration, see id. § 7545(o)(3)(A)—can set the minimum percentage of renewable fuel that must be introduced into commerce by "obligated parties." If everything works out well, Congress's annual goal should, more or less, be met.

But who are these "obligated parties"? Under the Act, EPA must tell us. The first among the three "Required elements" of the annual determination is that it "be applicable to refineries, blenders, and importers, as appropriate." 42 U.S.C. § 7545(o)(3)(B)(ii)(I) (emphasis added).

Even though EPA "determine[s] and publish[es]" the annual obligation anew "[e]ach [] calendar year[]," 42 U.S.C. § 7545(o)(3)(B)(i), since 2010 it hasn't considered what parties are "appropriate" to obligate. Regulation of Rules and Fuel Additives, 75 Fed. Reg. 14,670, 14,722 (Mar. 26, 2010); see also Regulation of Fuels and Fuel Additives, 72 Fed. Reg. 23,900, 23,923/2 (May 1, 2007). Rather, year in and year out, the agency has simply "indicated," "in passing," that the renewable fuel obligation "would apply to '. . . producers and importers," "consistent with [its] preexisting" determination. EPA Br. 69-70 (quoting

2017 Rule, 81 Fed. Reg. at 89,746/2). That's it. In my view, however, the language of the statute requires more. EPA's contrary reading seems to me to go unreasonably "beyond the meaning that the statute can bear." U.S. Postal Serv. v. Postal Regulatory Comm'n, 886 F.3d 1253, 1255 (D.C. Cir. 2018) (quoting MCI Telecomm. Corp. v. AT&T Co., 512 U.S. 218, 229 (1994)).

\* \* \*

The key provision says, "[n]ot later than November 30 of each [] calendar year[]," EPA "shall determine and publish in the Federal Register . . . the renewable fuel obligation." 42 U.S.C. § 7545(o)(3)(B)(i). The first of the "Required elements" of that annual obligation is that it shall "be applicable to refineries, blenders, and importers, as appropriate." *Id.* § 7545(o)(3)(B)(ii)(I).

This much tells us a few things. First, Congress required EPA to set the renewable fuel obligation annually. That feature of the requirement pretty clearly indicates a congressional expectation of possible year-to-year variation in all the mandatory elements not merely in the percentage chosen (which is addressed in subclauses (II) and (III)). Second, one explicitly required element of this annual determination is a selection among "refineries, blenders and importers," a selection that must be "appropriate." Taken together, the Act seems inevitably to require EPA to apply (at least) some thought to the issue of what market sectors should be obligated—thought that the agency must apply each time it sets the annual obligation. After all, the term "appropriate" "naturally and traditionally includes *consideration* of all the relevant factors," not just a recitation that some time ago the agency considered the factors that it then thought relevant. *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015) (emphasis added) (quoting *White Stallion Energy Center, LLC v. EPA*, 748 F.3d 1222, 1266 (D.C. Cir. 2014) (Kavanaugh, J., concurring in part and dissenting in part)). The agency, in other words, must "exercise its discretion to choose among the options" that Congress has given it, *Maj. op.* 45 (quoting *Kisor v. Wilkie*, 139 S. Ct. 2400, 2449 (2019) (Kavanaugh, J., concurring in the judgment)), not "explain[]" why, in the agency's opinion, it's "appropriate" *not* to choose among the options that Congress has given it, *id.*; see Response to Comments, EPA-HQ-OAR-2016-0004-3753, at 542 (Dec. 12, 2016), J.A. 761 (declaring the point-of-obligation "issue" "beyond the scope of this rulemaking").

Suppose a law school charter—adopted at the school's founding in 1920—calls on the dean to annually set a "tort credits obligation," consisting of a minimum number of credit hours students must devote to certain tort subjects; the dean is to make the obligation "applicable to negligence, defamation, battery, and alienation of affections, as appropriate." The first dean, in 1921, sets the obligation at three credit hours per subject—and applies it to all the subjects. For the 2020-21 academic year, the tenth dean likewise duly requires students to devote at least three credits hours to those same subjects including alienation of affections. Students understandably protest, since that tort is now a bygone relic. See *Fitch* v. Valentine, 2005-CA-01800-SCT (¶¶ 79-81) (Miss. 2007) (Dickinson, J., concurring), 959 So. 2d 1012, 1036 (noting 31 states have "completely abolished" it). But the dean adamantly refuses even to consider their entreaties, "explain[ing]" (Maj. op. 45) they're "beyond the scope" (J.A. 761) of topics relevant to the annual credit determination, which, after all, is perfectly "consistent with [a] preexisting" 1921 determination that that application was "appropriate" (EPA Br. 70). EPA's reasoning (on the procedural point—whether or not the phrase "applicable . . . as appropriate" requires it to consider the issue) is, in essence, as startling as the dean's. Never mind whether, as a substantive matter, studying the tort—or exempting blenders—is actually "appropriate." Cf. *Maj. op.* 52. EPA tells us it need not even *address* the point—ever again.

EPA's response does more to hurt than to help its cause. The agency points us to similarities between the provision we've been discussing, § 7545(o)(3)(B)(ii)(I), and § 7545(o)(2)(A)(iii)(I), which I'll call the "compliance provision." The two echo each other, see Oral Arg. Tr. 70:19–25, both using the "applicable . . . as appropriate" formulation.

Annual determination, 42 U.S.C. § 7545(o)(3)(B)(i), (ii)(I):

[E]ach . . . calendar year[] . . . , the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register . . . the renewable fuel obligation . . . The renewable fuel obligation . . . shall . . . be applicable to refineries, blenders, and importers, as appropriate.

Compliance provision, 42 U.S.C. § 7545(o)(2)(A)(i), (iii)(I):

Not later than [August 8, 2006], the Administrator shall promulgate regulations . . . . [T]he regulations . . . shall contain compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate . . . .

As EPA reads the two, the agency may define the point of obligation *once*—while announcing the compliance provisions at the outset of the program. See EPA Br. 66. Congress's command to make the annual renewable fuel obligation "applicable . . as appropriate" is simply, in the agency's view, a cross-reference back to the "applicable . . . as appropriate" determination made by EPA at the outset in its adoption of compliance regulations. See, e.g., *id.* at 69-70; Oral Arg. Tr. 70:19-71:15, 72:13-24, 73:16-74:13.

The agency's reading, however, seems utterly implausible. When Congress uses "identical words" in "different parts of the same statute," we normally infer that those words carry "the same meaning." *Henson v*. Santander Consumer USA Inc., 137 S. Ct. 1718, 1723 (2017) (quoting *IBP*, *Inc. v. Alvarez*, 546 U.S. 21, 34 (2005)). So if "applicable . . . as appropriate," in the context of setting the compliance regulations, means (as everyone agrees it means) that EPA is to contemporaneously assess the appropriateness of its decision, then the same phrase, in the context of setting the annual renewable fuel obligation, must mean the same thing: EPA is to make a contemporaneous assessment of appropriateness—rather than, as the agency implausibly claims, treat a decision made long ago as dispositive for the present.

The majority responds—somewhat bafflingly—that nothing in the phrase "applicable . . . as appropriate" indicates "when or in what context EPA must make the appropriateness determination." Maj. op. 46 (emphasis added). But that can't be right. Imagine a daycare advertises that it will dress kids for recess, "as appropriate." Would any reasonable speaker of English really harbor any doubt as to whether there existed a "particular temporal" connection between the

selection made and the selection's appropriateness? *Id.* at 45. Surely parents would be surprised to learn that the school's clothing selection for a snowy, December day was not "appropriate" in light of the then-pounding blizzard, but, rather, was "appropriate" in light of the sunshine from six months earlier, when the daycare first opened.

In fact, had Congress wanted EPA to readopt a prior determination, without any contemporaneous analysis as to appropriateness, "it could easily have chosen clearer language" to do just that. NLRB v. SW General, Inc., 137 S. Ct. 929, 939 (2017). Related provisions of the same statute provide examples of such straightforward wording. An obvious possibility would be to replace "applicable to refineries, blenders, and importers, as appropriate," with "applicable to Obligated Parties (as defined by the Administrator under 42 U.S.C. § 7545(0)(2)," thus using the pattern adopted in  $\S7545(h)(1), (k)(3)(B)(i)$ . Another obvious way of expressing what EPA says Congress meant would have been to modify "refineries, blenders, and importers" with the phrase, "in conformity with the compliance provisions established by the Administrator," thus paralleling the approach of § 7545(b)(2). Both formulations, relying on a past participle, easily invite the construction that EPA prefers—allowing the administrator to rely on a decision made at some unspecified time in the past. "The fact that [Congress] did not adopt [any of these] readily available and apparent alternative[s] strongly supports rejecting [EPA's] reading." Knight v. Commissioner, 552 U.S. 181, 188 (2008).

Further, rather than using such easy alternatives, Congress chose language that, as read by EPA, makes a mess of virtually all of § 7545(o)(3)(B)(ii). Again, subclause (I) requires the "renewable fuel obligation"

to "be applicable to refineries, blenders, and importers, as appropriate." 42 U.S.C. § 7545(o)(3)(B)(ii)(I). If Congress had envisioned EPA "identif[ying] the 'appropriate' obligated parties" in its exercise of the compliance provision (§ 7545(o)(2)(A)(iii)(I)), rather than of this clause, as EPA says it did, see EPA Br. 7, then subclause (I) would be doing no work at all—contrary to the "principle of statutory construction that we must 'give effect, if possible, to every clause and word of a statute," Williams v. Taylor, 529 U.S. 362, 404 (2000) (quoting United States v. Menasche, 348 U.S. 528, 538-39 (1955)).

EPA and the majority respond that subclause (I) is needed to "clarify[]" that distributors—who can be subjected to the compliance provisions—"cannot be" subjected to the renewable fuel obligation. Oral Arg. Tr. 75:9-12 (emphasis added); see also Maj. op. 47. Compare 42 U.S.C. § 7545(o)(2)(A)(iii)(I) (providing that the compliance provisions shall be "applicable to refineries, blenders, distributors, and importers, as (emphasis appropriate" added)), with 7545(o)(3)(B)(ii)(I) (providing that the renewable fuel obligation shall be "applicable to refineries, blenders, and importers, as appropriate"). But the need for clarity could be attributed to "most superfluous language." SW General, 137 S. Ct. at 941. And if clarity were actually Congress's goal, if all Congress wanted to do in subclause (I) was exclude "distributors" from the universe of potential obligated parties, Maj. op. 47, it chose an exceedingly odd way of getting there: inserting into an annual exercise the task of indicating what entities are "appropriate" targets for the renewable fuel obligation. Wouldn't it have been more straightforward to just reference EPA's determination, and then directly state—for the *purpose of clarity*—that the renewable fuel obligation may not apply to "distributors"?

In any case, it's hard to see what distributor-based obscurity EPA sees a need for subclause (I) to correct. Because the renewable fuel obligation concerns only fuel that is "sold or introduced *into* commerce in the United States," 42 U.S.C. § 7545(o)(2)(A)(i), (o)(3)(B)(ii)(II) (emphasis added), the obligation applies, for any gallon of fuel, only once—i.e., when the fuel enters the American economy upstream, not when distributors transport the same fuel downstream.

Once the sale or introduction "into" commerce is complete—once a given unit of fuel is already flowing through American commerce—that same unit of fuel cannot be sold or introduced "into" American commerce again; it's already there. While one, for example, might say that a fuel line, which carries fuel from a car's tank to its engine, carries fuel "in" the car. no one would say that it carries fuel "into" the car. So too, while one might say that a distributor, which transports fuel from the economy's refineries to its retailers, see 40 C.F.R. § 80.2(1); EPA Denial at 9, J.A. 781, transports fuel "in" the economy, no one would say that it transports (or sells or introduces) fuel "into" the economy; again, the fuel is already in the relevant process. Congress itself recognizes the distinction, referring to fuel that is "sold or introduced *into* commerce," 42 U.S.C. § 7545(o)(2)(A)(i), (o)(3)(B)(ii)(II) (emphasis added), and fuel that is "sold or distributed in . . . commerce," id. § 7545(u)(4) (emphasis added). Because distributors do only the latter—they move fuel "in," not "into," commerce—there is nothing for subclause (I) to clarify. These downstream intermediaries can never fall within the universe of potentially obligated parties.

My colleagues don't claim to disagree; at most, they declare it "non-obvious" that "distributors cannot be subjected to the point of obligation." Maj. op. 47. But what's "non-obvious" about it, even if we put the plain meaning of "into commerce in the United States" aside? That phrase appears throughout the statute and can't possibly include downstream, distributor transactions. Take the statutory provision concerning the Energy Information Administration, which says that the agency must provide EPA with an estimate of the "volume[] of transportation fuel . . . projected to be sold or introduced into commerce in the United States." 42 U.S.C. § 7545(o)(3)(A). Does Congress really expect that estimate—and the regulatory burdens "based on" that estimate, id. § 7545(o)(3)(B)(i), (o)(7)(D)(i)—to radically fluctuate based on the frequency of transactions among the distributors that happen to line the distribution network? So if every distributor starts selling to another distributor, or several of them, the calculated volume of fuel "sold or introduced into commerce in the United States" would balloon overnight? I doubt it.

EPA, it seems, shares my skepticism. The agency itself describes the renewable fuel obligation, not in terms of downstream intermediaries, like distributors, but in terms of the initial, upstream players—those "responsible for *introducing [fuel] into* the domestic gasoline pool." 72 Fed. Reg. at 23,904/1 (emphasis added). Indeed, when defining the renewable fuel obligation, EPA speaks not of sales that happen to occur, distributor-to-distributor, along the supply chain, but only of initial injections into U.S. commerce as a consequence of the upstream "produc[tion]" or "import[ation]" of transportation fuel. 40 C.F.R. § 80.1407(a), (b).

What about blenders, asks the majority? Aren't they potentially obligated parties, even though they, like distributors, handle fuels that have already been "introduce[d]" into U.S. commerce by other upstream entities, like refineries? Maj. op. 46-47. Yes, of course, they are. But that's because blenders—unlike distributors—are the ones who *initially* sell or introduce various types of finished transportation fuel "into commerce in the United States." E15, for instance, a blend of 85% gasoline, 15% ethanol, generally enters "into" American commerce at the hands of a blender the entity that actually blends the various components. Just ask EPA, which references the "ethanol blenders that introduce E15 into commerce." 76 Fed. Reg. 44,406, 44,410/3 (July 25, 2011). A distributor, in contrast—and by definition, whether that's a "postenactment regulat[ory]" definition, Maj. op. 47, or a pre-enactment dictionary definition—never introduces anything "into" commerce. It only distributes (i.e., "transports" or "deliver[s]") finished transportation fuel, such as E15, from one point to another. See 40 C.F.R. § 80.2(1); Webster's Third New International Dictionary 660 (1961) (defining "distribute"). So subclause (I), as EPA reads it, is, in fact, a superfluity, because the agency could not place the point of obligation on distributors whether that clause existed or not.

The muddle generated by EPA's reading doesn't end there. Consider the effect on subclause (III). That provision provides that the "renewable fuel obligation . . . shall . . . consist of a single applicable percentage that applies to all categories of persons specified in subclause (I)." 42 U.S.C. § 7545(o)(3)(B)(ii)(III). But if EPA is right, and the point of obligation is determined, not under subclause (I), but under the compliance provision, why does Congress take such a circuitous

route to get there—a reference in subclause (III) to subclause (I), which, in turn, in EPA's reasoning (but without linguistic underpinning), refers back to the compliance provision? Couldn't Congress in subclause (III) have just alluded to decisions made by EPA under the compliance provision directly? Cf., e.g., 42 U.S.C. § 7545(o)(4)(A). EPA doesn't say.

Instead, the agency puts essentially all its eggs in the compliance provision basket. EPA argues, first and foremost, that its power to promulgate compliance provisions is broad and includes the power to set the point of obligation. And "nothing," it says, requires it to "reconsider" that determination. See, e.g., EPA Br. 67-68. My colleagues offer a similar thought, claiming that Congress knew how to call for a "redo" if that is what it really wanted. Maj. op. 48. Both arguments, however, miss the point. When Congress mandates an annual "determin[ation]" in 42 § 7545(o)(3)(B)(ii), there is nothing to be redone or reviewed. The determination must happen anew each year, and the specific instruction to apply that determination "to refineries, blenders, and importers, as appropriate," controls, id. § 7545(o)(3)(B)(ii)(I); any general authorization to promulgate compliance provisions (including, I'll assume, license to not "reconsider" them) must yield to that specific instruction. See SW General, 137 S. Ct. at 941 ("[I]t is a commonplace of statutory construction that the specific governs the general." (alteration in original) (quoting *RadLAX Gateway Hotel*, *LLC v. Amalgamated Bank*, 566 U.S. 639, 645 (2012)).

"[B]asic principles of administrative law," unfortunately for the majority, only further erode EPA's position. *Maj. op.* 52. We "generally 'presume[] that Congress expects it statutes to be read in conformity with the [] [Supreme] Court's precedents." *Porter v.* 

Nussle, 534 U.S. 516, 528 (2002) (second alteration in original) (quoting United States v. Wells, 519 U.S. 482, 495 (1997)). And those precedents make clear that an agency, when exercising its congressionally delegated authority, must "consider [every] important aspect of the problem." Motor Vehicle Mfrs. Ass'n of US. v. State Farm Mutual Ins. Co., 463 U.S. 29, 43 (1983). Failure to do so "would be arbitrary and capricious." Id. With that background in mind, it "would be strange indeed" if Congress really expected EPA, year in and year out, to set the renewable fuel standards for the entire economy, yet allowed the agency—sub silentio—to do so without considering ever again whether a "foundational" element of the regulatory program was "appropriate." Maj. op. 49.

Retreating from the statutory language, EPA claims that reading the Act to require it to appropriately identify the point of obligation each year would be inconsistent with Congress's "purpose." Specifically, the agency says, it would "reduce the regulatory certainty required for private parties to plan for growth." EPA Br. 72. But EPA's fears are vastly overblown. Its concern about upsetting investmentbacked expectations is a reason to *not change* the point of obligation; it is not a reason to *not consider* doing so. The same goes for my colleagues' concerns about the credit trading program, see Maj. op. 50, even if that program really does require (as my colleagues seem to assume it does) rock solid stability in the point of obligation—a dubious proposition, given that credits are held individual-entity-by-individual-entity, so that shrinkage or swelling of the number of covered entities has no impact on the needed computations. EPA's duty is to "articulate a satisfactory explanation for its action," State Farm, 463 U.S. at 43—an explanation that must consider the industry's (including the credit

traders') reliance on a prior determination, see, e.g., FCC v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009) (explaining that it "would be arbitrary and capricious to ignore" the fact that a "prior policy has engendered serious reliance interests"); Nat'l Cable & Telecomms. Ass'n v. FCC, 567 F.3d 659, 670 (D.C. Cir. 2009) (similar). In fact, given the substantial reliance interests at stake, along with the agency's prior findings, it seems likely that (in the absence of significantly changed circumstances or a compelling new analysis) EPA would be able to make rather short work of the annual analysis. In most years, the prior analyses and the reliance interests would probably dictate the conclusion.

In any event, especially when the alleged downside of petitioners' claim is so chimerical, our "role is not to 'correct' the [statutory] text so that it better serves [Congress's] purposes." Va. Dep't of Medical Assistance Servs. v. U.S. Dep't of Health & Human Servs., 678 F.3d 918, 926 (D.C. Cir. 2012) (some internal quotation marks omitted) (quoting Engine Manufacturers Ass'n v. EPA, 88 F.3d 1075, 1089 (D.C. Cir. 1996)). That is a job for Congress.

For these reasons, I respectfully disagree with the panel's conclusion, which grants EPA essentially unfettered discretion as to when—or even *if*—it will consider the appropriateness of the point of obligation.

Indeed, the panel, it seems to me, arrived at its conclusion only by extending to EPA the type of "reflexive" deference that the Supreme Court has recently criticized. *Kisor*, 139 S. Ct. at 2415 (quoting *Pereira v. Sessions*, 138 S. Ct. 2105, 2120 (2018) (Kennedy, J., concurring)). The Court has made clear that before we may declare a statute genuinely ambiguous—and, thus, before we, an Article III court,

may surrender to an executive agency's (often self-serving) declaration of what the law means—we must exhaust all the "traditional tools" of statutory construction. *Kisor*, 139 S. Ct. at 2415 (quoting *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 843 n.9 (1984)). Then and only then—"when that legal toolkit is empty"—may we "wave the ambiguity flag." *Id.* 

The majority, however, in apparent haste to bow to EPA's admittedly self-serving declaration of what the law means, see Maj. op. 51 (describing the "burden[s]" that EPA would rather avoid), doesn't actually use any of the tools of statutory construction in an attempt to discern Congress's meaning. For example, besides acknowledging that EPA's reading of the phrase "applicable . . . as appropriate" "is not ineluctable," Maj. op. 48, the majority has almost nothing to say about that phrase's ordinary meaning. Although the majority declares it "ambiguous," id. at 49, my colleagues do not offer a single example of the phrase being used in the way EPA desires—where the duty to make a selection, "as appropriate," (somehow) permits the decisionmaker wholly to ignore the contemporaneous context of his selection. But see supra pp. 5, 7 (offering examples where EPA's interpretation makes no sense). The majority's treatment of the presumption of consistent usage isn't much better. It says that there are multiple "permissible" ways to ascribe the same meaning to the same words, but doesn't offer any, see Maj. op. 46—all the while overlooking an obvious interpretation that satisfies the presumption (i.e., EPA must consider the factors that are relevant at the time of its decision), see *supra* pp. 6-7. Finally, the majority writes off the canon against surplusage without actually finding that the language at issue isn't superfluous. The majority avers that a finding of superfluity "rests on a complicated series of inferences," *Maj. op.* 47, but that's not unusual, or reason to shy away from wading through the muddle. Complex regulatory schemes "can sometimes make the eyes glaze over. But hard interpretive conundrums, even relating to complex rules, can often be solved." *Kisor*, 139 S. Ct. at 2415. To solve such conundrums, however, we must embrace the canons of interpretation as the useful tools that they are for discerning Congress's meaning, not as pests to be dodged and swatted away in our rush to deference. Here, when those tools are properly applied, we can discern Congress's meaning—which "is the law and must be given effect." *Chevron*, 467 U.S. at 843 n.9.

Nonetheless, I concur in the judgment. As we explain today with regard to claims brought by the Alon Petitioners, EPA adequately explained, at around the time it set the annual obligation for 2017, why it was not "appropriate" (in light of the facts as they then existed) to change the point of obligation. See *Maj. op.*, Part IV.B. Although that explanation arose in the context of a petition for rulemaking—and was thus subject to a more deferential form of arbitrary and capricious review—I would hold here (for the same reasons that we give in Part IV.B of the majority opinion) that EPA's reasoning was sufficient even under the deference level that demands more of the agency.

The difference in our standard of review between an appeal from the agency's annual determination under § 7545(o)(3)(B)(i), (ii)(I), on the one hand, and an agency's conventional duty to entertain a petition for a rulemaking to revise an existing regulation, on the other, is in practice fairly slight. Under both understandings, the agency is bound to give suitable weight

to reliance interests, and indeed to the general advantage of regulators' not rocking too many boats. A party challenging the status quo faces some sort of burden in either context—to point to new facts, or to new discoveries of facts, or to previously unnoticed flaws in the agency's analysis, etc. There is, to be sure, a subtle difference in the deference level, but deference levels themselves build in a good deal of subjectivity. I nonetheless write separately because I see Congress as having imposed a specific, if modest, duty, on the agency, and having thereby provided an explicit avenue for review. That explicitness seems to me designed to, and likely to, concentrate the mind of the administrator—a congressional choice that we should honor.

#### 91a

## APPENDIX B

# UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 17-1258

Consolidated with 18-1027, 18-1040, 18-1041

American Fuel & Petrochemical Manufacturers,

Petitioner,

v.

Environmental Protection Agency, Respondent, Small Retailers Coalition,  $et\ al.$ , Intervenors.

On Petitions for Review of an Action of the United States Environmental Protection Agency

> Argued February 20, 2019 Decided September 6, 2019

Thomas A. Lorenzen and Samara L. Kline argued the causes for Obligated Petitioners. Suzanne Murray argued the cause for petitioner-intervenor Small Retailers Coalition. With them on the briefs were Julie R. Domike, Michael J. Scanlon, Richard S. Moskowitz, Robert J. Meyers, Elizabeth B. Dawson, Megan H.

Berge, Lisa M. Jaeger, Brittany M. Pemberton, and Clara Poffenberger. Evan A. Young entered an appearance.

Bryan M. Killian argued the cause for petitioner National Biodiesel Board. With him on the briefs was Douglas A. Hastings.

Devorah Ancel argued the cause for Environmental Petitioners. With her on the briefs was Eric Huber.

Benjamin R. Carlisle, Attorney, and Michael R. Eitel, Senior Trial Attorney, U.S. Department of Justice, argued the causes for respondent. With them on the brief were Jeffrey H. Wood, Acting Assistant Attorney General, Jonathan D. Brightbill, Deputy Assistant Attorney General, and David P. W. Orlin, Attorney, U.S. Environmental Protection Agency.

Thomas Allen Lorenzen argued the cause for intervenors in support of respondent responding to National Biodiesel Board. With him on the brief were Robert A. Long Jr., Kevin King, Stacy Linden, Richard S. Moskowitz, Robert J. Meyers, and Elizabeth B. Dawson. David Y. Chung and John P. Wagner entered appearances.

Seth P. Waxman, David M. Lehn, Saurabh Sanghvi, Claire H. Chung, Robert A. Long, Jr., Kevin King, Matthew W. Morrison, Bryan M. Stockton, Bryan M. Killian, and Douglas A. Hastings were on the brief for intervenors Growth Energy, et al. in support of respondent.

Matthew W. Morrison, Bryan M. Stockman, Seth P. Waxman, David M. Lehn, Saurabh Sanghvi, Claire H. Chung, Bryan M. Killian, and Douglas A. Hastings were on the brief for intervenors Renewable Fuels Association, et al. in support of respondent.

Before: HENDERSON, TATEL, and GRIFFITH, Circuit Judges.

Opinion for the Court filed PER CURIAM.

PER CURIAM: The Clean Air Act's Renewable Fuel Program mandates that certain amounts of renewable fuel must be introduced into the U.S. fuel supply each year. In late 2017, the EPA promulgated its final 2018 Rule, which, as in previous years, established overall targets for the fuel market and imposed individual compliance obligations on fuel refineries and importers. These consolidated cases concern various challenges to the 2018 Rule. Several petitioners maintain it is too strict, others allege it is too lax, and still others argue that the EPA failed to follow proper procedures in its promulgation. We conclude that all these challenges lack merit, except for one: that the EPA violated its obligations under the Endangered Species Act by failing to determine whether the 2018 Rule may affect endangered species or critical habitat. We therefore grant the petition for review filed by the Gulf Restoration Network and Sierra Club and remand the 2018 Rule without vacatur for the EPA to comply with the Endangered Species Act. We deny all other petitions for review.

## I. Background

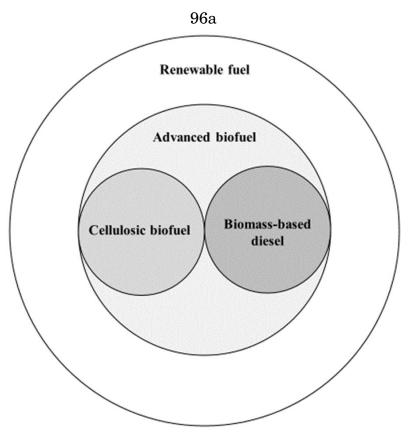
## A. The Renewable Fuel Program

Enacted in 2005 and amended in 2007, the Renewable Fuel Program (the "Program" or "RFS Program"), alternatively called the Renewable Fuel Standard, was designed "[t]o move the United States toward greater energy independence and security" and "to increase the production of clean renewable fuels." Energy Independence and Security Act of 2007, Pub. L. No. 110-140, pmbl., 121 Stat. 1492, 1492; see also

id. §§ 201–210 (amending the Program); Energy Policy Act of 2005, Pub. L. No. 109-58, § 1501, 119 Stat. 594, 1067-76 (enacting the Program). To accomplish these goals, the Program regulates suppliers through "applicable volume[s]"—mandatory and annually increasing quantities of renewable fuels that must be "introduced into commerce in the United States" each year—and tasks the EPA Administrator with "ensur[ing]" that those annual targets are met. 42 U.S.C. § 7545(o)(2)(A)(i). As we explained in Americans for Clean Energy v. EPA, "[b]y requiring upstream market participants . . . to introduce increasing volumes of renewable fuel into the transportation fuel supply, Congress intended the Renewable Fuel Program to be a 'market forcing policy' that would create 'demand pressure to increase consumption' of renewable fuel." 864 F.3d 691, 705 (D.C. Cir. 2017) (first quoting Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017, 80 Fed. Reg. 77,420, 77,423 (Dec. 14, 2015); then quoting *Monroe* Energy, LLC v. EPA, 750 F.3d 909, 917 (D.C. Cir. 2014)).

The Program specifies annual fuel-volume requirements for four overlapping categories of fuel. The first and broadest category, "renewable fuel," includes any "fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in" either "a transportation fuel," 42 U.S.C. § 7545(o)(1)(J) or "home heating oil or jet fuel," *id.* § 7545(o)(1)(A); *see also* Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 75 Fed. Reg. 14,670, 14,687 (Mar. 26, 2010) (including "home heating oil" and "jet fuel" within the definition of "renewable fuel"). Next are "advanced biofuel[s]," a subset of the renewable-fuel category defined as any "renewable fuel, other than ethanol derived from corn starch, that has lifecycle greenhouse

gas emissions . . . at least 50 percent less than" "the average lifecycle greenhouse gas emissions . . . for gasoline or diesel" as of 2005. 42 U.S.C. § 7545(o)(1)(B)(i), (C). Lastly, of the fuels falling under the advancedbiofuel umbrella, the Program singles out two in particular: "cellulosic biofuel," a fuel derived from the fibrous parts of plants, see id. § 7545(o)(1)(E), and "biomass-based diesel," a renewable substitute for conventional diesel, see id. §§ 7545(o)(1)(D), 13220(f). Because the definitions of these four fuel categories are "nested," so, too, are their applicable volumes. Ams. for Clean Energy, 864 F.3d at 731. As depicted below, the Program will double- or even triple-count the more specialized fuels, such that one gallon of advanced biofuel simultaneously counts as one gallon of renewable fuel, and one gallon of either cellulosic biofuel or biomass-based diesel also counts as one gallon of both advanced biofuel and renewable fuel.



The Program lists calendar years and corresponding applicable volumes for each type of fuel. These tables run through 2022 for renewable fuel, advanced biofuel, and cellulosic biofuel; for 2018, the statute mandates applicable volumes of 26, 11, and 7 billion gallons, respectively. See 42 U.S.C. § 7545(o)(2)(B)(i)(I)—(III). In contrast, the Program provides applicable volumes for biomass-based diesel through only 2012. See id. § 7545(o)(2)(B)(i)(IV). For all later years, the statute sets a floor of 1 billion gallons, see id. § 7545(o)(B)(i)(IV), (v), and directs the Administrator to establish, "no later than 14 months" before the relevant year, an applicable volume "based on a review of the implementation of the program during" previous years and

"an analysis of" six other broad factors such as the fuel's effect on "the environment," "energy security," and "cost to consumers," *id.* § 7545(o)(B)(ii).

Although the statutory tables initially appear to admit no exception, their applicable volumes in fact provide only starting points. Under certain circumstances, the Program grants the Administrator authority to exercise so-called waivers to reduce applicable volumes below statutory levels. Three waivers are relevant to this case.

The first waiver is mandatory. The Program requires that if in any year "the projected volume of cellulosic biofuel production is less than the minimum applicable volume" set by statute, then "the Administrator shall reduce the applicable volume of cellulosic biofuel . . . to the projected volume available during that calendar year." *Id.* § 7545(o)(7)(D)(i). Put simply, regardless of the applicable volume Congress established in the Program, the EPA may require by regulation no more cellulosic biofuel than the market is projected to provide in any given year.

The second waiver flows from the first. For any year in which the EPA reduces the applicable volume of cellulosic biofuel based on a projected shortfall, "the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels . . . by the same or a lesser volume." *Id.* Unlike its mandatory cousin, this "cellulosic waiver" is discretionary: if cellulosic biofuel is projected to underperform statutory levels, the Administrator may reduce renewable fuel and advanced biofuel volumes by the entire cellulosic deficit, by some percentage of the shortfall, or by nothing at all. *See id.*; *see also* Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards, 78 Fed. Reg. 49,794, 49,810 (Aug. 15, 2013) (interpreting

the cellulosic waiver provision "as authorizing [the] EPA to reduce both total renewable fuel and advanced biofuel, by the same amounts, if [the] EPA reduces the volume of cellulosic biofuel"). Because cellulosic biofuel is nested within advanced biofuel, if the Administrator exercises anything less than a full cellulosic waiver, other advanced biofuels will need to make up for the difference.

The last waiver, the so-called general waiver, is also discretionary. It permits the Administrator to "reduc[e] the national quantity of renewable fuel required" by the Program "based on a determination" that any of three circumstances exist: first, "that implementation of the requirement would severely harm the economy ... of a State, a region, or the United States," 42 U.S.C. § 7545(o)(7)(A)(i); second, "that implementation of the requirement would severely harm the ... environment of a State, a region, or the United States," *id.*; or third, "that there is an inadequate domestic supply," *id.* § 7545(o)(7)(A)(ii). The Administrator may exercise the general waiver in response to a petition by a state or regulated party or "on his own motion." *Id.* § 7545(o)(7)(A).

After exercising any waivers and finalizing an applicable volume for each type of fuel, the EPA must by November 30 of each year calculate and promulgate "renewable fuel obligation[s] that" will "ensure[] that the [Program's] requirements . . . are met" in the upcoming year. *Id.* § 7545(o)(3)(B)(i). In broad strokes, this task requires the EPA to identify the entities responsible for collectively achieving applicable volumes, quantify each entity's individual obligation, and ensure those entities' successful compliance.

To begin with, there is the threshold question of who, exactly, must satisfy renewable fuel obligationsthat is, who are the "obligated parties"? Although the statute states that "[t]he renewable fuel obligation determined for a calendar year . . . shall . . . be applicable to refineries, blenders, and importers, as appropriate," id. § 7545(o)(3)(B)(ii)(I), the EPA has since the Program's inception declined to include blenders—defined as "part[ies] that simply blend[] renewable fuel into gasoline or diesel fuel," 40 C.F.R. § 80.1406(a)(1)—within the definition of "obligated party," see Regulation of Fuels and Fuel Additives: Renewable Fuel Standard Program, 72 Fed. Reg. 23,900, 23,924 (May 1, 2007) (designating obligated parties); Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 75 Fed. Reg. at 14,721-22 (same). Instead, the EPA defines an obligated party as "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." 40 C.F.R. § 80.1406(a)(1). The Program does, however, permit "small refiner[ies]" to receive exemptions from renewable fuel obligations if they demonstrate that compliance would inflict "disproportionate economic hardship." 42 U.S.C. § 7545(o)(9)(B).

Next, each year the EPA must transform its aggregate, fuel-sector-wide applicable volumes into individual compliance obligations that sum to the requisite whole. To do this, the Program instructs the EPA to translate the applicable volumes into "percentage[s] of transportation fuel sold or introduced into commerce in the United States." *Id.* § 7545(o)(3)(B)(ii)(II). By dividing the applicable volumes for each fuel type by an estimate of the total gasoline and diesel volume that will be used in the coming year (subject to some adjustments), the EPA generates "percentage standards"

which then "inform each obligated party of how much renewable fuel it must introduce into U.S. commerce based on the volumes of fossil-based gasoline or diesel it imports or produces." *Ams. for Clean Energy*, 864 F.3d at 699; *see also* 40 C.F.R. § 80.1405(c) (setting out the percentage-standard formula). In other words, the EPA estimates what percentage of the overall fuel supply each renewable-fuel type should constitute and then requires each obligated party to replicate those percentages on an individual basis.

Although the nuances of the percentage standard are mostly beyond the scope of this case, one feature requires mention. When calculating percentage standards for any given year, the EPA accounts for any small refineries that have received exemptions by requiring non-exempt obligated parties to produce proportionally more. See Regulation of Fuels and Fuel Additives: 2011 Renewable Fuel Standards, 75 Fed. Reg. 76,790, 76,805 (Dec. 9, 2010) (explaining that small-refinery exemptions "result in a proportionally higher percentage standard for remaining obligated parties"). The problem is that while the EPA must promulgate annual percentage standards by November 30 each year, refineries may petition for an exemption "at any time," 42 U.S.C. § 7545(o)(9)(B)(i), and the EPA has no mechanism to adjust renewable fuel obligations to account for exemptions granted after each year's percentage standards are finalized. As a result, because the EPA cannot ensure that non-exempt obligated parties compensate for the renewable-fuel shortfall created by belated exemptions, those gallons of renewable fuel simply go unproduced.

Finally, after the obligated parties have been identified and their percentage standards have been set, there remains the matter of compliance. The Program does not require each obligated party to produce precisely the right mix of fuel itself. See id. § 7545(o)(5) (directing the EPA to establish a "[c]redit program"). Instead, for every gallon of renewable fuel entering the U.S. market, producers and importers may generate a set of "Renewable Identification Numbers" (RINs). See 40 C.F.R. §§ 80.1426, 80.1429(b) (describing how RINs are "generated" and then "separated" from their fuel); Ams. for Clean Energy, 864 F.3d at 699 (same). Each year, obligated parties must generate or purchase enough RINs to meet their renewable fuel obligations, which the obligated parties then satisfy by "retir[ing]" RINs at an annual compliance demonstration. 40 C.F.R. § 80.1427. To prevent fuel that ultimately leaves the U.S. market from satisfying obligated parties' renewable fuel obligations, the EPA also requires exporters to retire any RINs (or an equivalent number of RINs) that were generated by exported fuel. See 40 C.F.R. § 80.1430 (listing requirements for renewable-fuel exporters). An obligated party lacking enough RINs may, under certain circumstances, carry forward a deficit, while an obligated party possessing excess RINs may save those RINs for the following year. See 42 U.S.C. § 7545(o)(5)(B), (D) (addressing the transfer of RINs and the ability to carry forward a RIN deficit); 40 C.F.R. § 80.1427(b) (addressing "[d]eficit carryovers"); id. § 80.1428(c) (addressing "RIN expiration").

#### B. The 2018 Rule

To fulfill its annual rulemaking obligation under 42 U.S.C. section 7545(o)(3)(B)(i), the EPA proposed a rule in July 2017 to set renewable fuel applicable volumes and percentage standards for 2018 and a biomass-based diesel applicable volume for 2019. Renewable Fuel Standard Program: Standards for

2018 and Biomass-Based Diesel Volume for 2019 ("Proposed Rule"), 82 Fed. Reg. 34,206 (proposed July 21, 2017). The Proposed Rule explained that "[r]ealworld challenges, such as the slower-than-expected development of the cellulosic biofuel industry, ... have made the volume targets established by Congress for 2018 beyond reach for all fuel categories other than [biomass-based diesel]." Id. at 34,207. The EPA thus proposed reducing the cellulosic biofuel applicable volume to match the projected volume of cellulosic biofuel available in 2018 and exercising its discretionary cellulosic waiver authority to reduce the applicable volumes for advanced biofuel and total renewable fuel a corresponding amount. Id. at 34,208-10. It determined that the market for biomass-based diesel, however, outproduced the minimum requirements of the Program and therefore proposed maintaining for 2019 its applicable volume for biomass-based diesel set for 2018. *Id.* at 34,210-11.

The Proposed Rule further solicited comment on three other issues. First, although the EPA initially concluded that it should not exercise its general waiver authority to reduce applicable volumes further, it solicited comment on whether it should exercise that authority due to either severe economic harm or inadequate domestic supply. *Id.* at 34,213. Second, it solicited comment on how it should account for small refinery exemptions when translating the 2018 applicable volumes into percentage standards. Id. at 34,241-42. And third, it solicited comment on the current RIN trading market. *Id.* at 34,211. It clarified, however, that it was "not soliciting comment on any aspect of the current RFS regulatory program other than those specifically related to RIN trading . . . and the proposed annual standards for 2018 and biomassbased diesel applicable volume for 2019." *Id*.

During the comment period, the EPA published supplemental information regarding its proposal and requested further comment on aspects of the Proposed Rule. See Renewable Fuel Standard Program: Standards for 2018 and Biomass-Based Diesel Volume for 2019; Availability of Supplemental Information and Request for Further Comment ("Supplemental Information"), 82 Fed. Reg. 46,174 (Oct. 4, 2017). In particular, in response to this court's intervening decision in Americans for Clean Energy, 864 F.3d 691, the EPA solicited comment on the meaning of the phrases "inadequate domestic supply" and "severe economic harm" in the general waiver provision, 42 U.S.C. section 7545(o)(7)(A). See Supplemental Information, 82 Fed. Reg. at 46,177-79.

Over 235,000 comments later, the EPA promulgated its final 2018 Rule in December 2017. See Renewable Fuel Standard Program: Standards for 2018 and Biomass-Based Diesel Volume for 2019 ("2018 Rule"), 82 Fed. Reg. 58,486, 58,487 (Dec. 12, 2017). The 2018 Rule tracked the Proposed Rule with only slight modifications. The EPA reduced the applicable volume for cellulosic biofuel to match the agency's updated projection of the amount of cellulosic biofuel that would be produced in 2018. *Id.* at 58,487. It also exercised its full cellulosic waiver authority to reduce the applicable volumes for advanced biofuel and renewable fuel by an equal amount. Id. And as anticipated in the Proposed Rule, the EPA declined to exercise its general waiver authority to reduce applicable volumes further due to inadequate domestic supply or severe economic harm. Id. The EPA adopted the following final applicable volumes and percentage standards:

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2018 RULE: APPLICABLE VOLUMES &
PERCENTAGE STANDARDS

	Applicable Volume (billions of gallons)	Percentage Standard
Cellulosic Biofuel	0.288	0.159%
Biomass-Based Diesel	2.1 (2019)	1.74%
Advanced Biofuel	4.29	2.37%
Total Renewable Fuel	19.29	10.67%

Id. at 58,487, 58,491. The EPA further explained that it calculated the percentage standards without prospectively adjusting for potential small refinery exemptions and that it did not intend to adjust retroactively the fuel percentage standards to account for exemptions it subsequently granted. Id. at 58,523. The EPA also declined to address as "beyond the scope of this rulemaking" comments asking it to reconsider its RIN policy for renewable fuel exports and its definition of obligated parties. Assessment and Standards Div., Office of Transp. and Air Quality, EPA, EPA-420-R-17-007, Renewable Fuel Standard Program – Standards for 2018 and Biomass-Based Diesel Volume for 2019: Response to Comments 223 (December 2017) ("Response to Comments"), Joint Appendix (J.A.) 1446.

## C. Procedural History

After the EPA promulgated its final rule, four groups of interested parties petitioned for review in this court. American Fuel & Petrochemical Manufacturers, a national trade association of U.S. refineries and petrochemical manufacturers, and Valero Energy Corporation, a Texas-based energy company that refines transportation fuels, produces biofuels, and sells them in

the United States (together, the "Obligated Parties"), both filed petitions for review challenging the 2018 Rule as setting applicable volumes and percentage standards too high. On the other hand, the National Biodiesel Board, a biodiesel industry trade association, petitioned for review of the 2018 Rule on the ground that the Rule set applicable volumes and percentage standards too low. Independently, the Sierra Club and Gulf Restoration Network, two nonprofit environmental groups (together, the "Environmental Petitioners"), filed a joint petition for review of the 2018 Rule, claiming that the EPA violated the Endangered Species Act, 16 U.S.C. §§ 1531-1544, by failing to consult with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service regarding whether the 2018 Rule would adversely affect threatened or endangered species. Several other parties intervened, including the Small Retailers Coalition, a national trade association of small gasoline and diesel retailers, which intervened on behalf of the Obligated Parties and now argues that the EPA violated the Regulatory Flexibility Act, 5 U.S.C. §§ 601-612, by failing to assess the 2018 Rule's potential effects on small fuel retailers.

While the petitions before us were pending, another panel of this court resolved several petitions challenging the EPA's final rule setting applicable volumes and percentage standards for 2017 and the applicable volume for biomass-based diesel for 2018. See Alon Ref. Krotz Springs, Inc. v. EPA, No. 16-1052, slip op. at 6-7 (D.C. Cir. Aug. 30, 2019) (deciding related case Coffeyville Res. Ref & Mktg., LLC v. EPA, No. 17-1044 (D.C. Cir. filed Feb. 9, 2017)).

## II. Jurisdiction and Standards of Review

We have jurisdiction of a timely petition for review of the EPA's regulations implementing the Program. 42 U.S.C. § 7607(b)(1). We may reverse the EPA's actions under the Program if we find them to be "arbitrary, capricious, [or] an abuse of discretion." Id. § 7607(d)(9)(A). We will sustain the EPA's actions, however, so long as the agency "consider[ed] all of the relevant factors and demonstrate[d] a reasonable connection between the facts on the record and the resulting policy choice." Sierra Club v. Costle, 657 F.2d 298, 323 (D.C. Cir. 1981). In conducting our review, we "give an 'extreme degree of deference' to the EPA's evaluation of 'scientific data within its technical expertise,' especially where, as here, we review the 'EPA's administration of the complicated provisions of the Clean Air Act." Miss. Comm'n on Envtl. Quality v. *EPA*, 790 F.3d 138, 150 (D.C. Cir. 2015) (per curiam) (citation omitted) (first and second quoting City of Waukesha v. EPA, 320 F.3d 228, 247 (D.C. Cir. 2003) (per curiam); then quoting Catawba Cty. v. EPA, 571 F.3d 20, 41 (D.C. Cir. 2009) (per curiam)).

We also may reverse an EPA action under the Program if we determine that it is "otherwise not in accordance with law" or "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." 42 U. S.C. § 7607(d)(9)(A), (C). The court reviews the EPA's interpretation of the Clean Air Act under the familiar two-step framework formulated in *Chevron*, *U.S.A.*, *Inc.* v. *Natural Resources Defense Council*, *Inc.*, 467 U.S. 837 (1984). Under *Chevron*, the court defers to the EPA's interpretation if the statutory text is ambiguous and the EPA's interpretation is reasonable. *See id.* at 842-45.

We proceed to apply these standards of review to each of the claims raised in these consolidated cases. In Part III we address arguments regarding the 2018 Rule's applicable volumes, including claims that the EPA erred both in exercising its full cellulosic waiver authority and in declining to exercise its general waiver authority. Next, in Part IV we discuss challenges to the ways in which the EPA translates applicable volumes into compliance obligations, specifically its treatment of RINs generated by renewable fuel exports, its definition of "obligated parties," and its method for accounting for small refinery exemptions when calculating percentage standards. In Part V we deal with the claim that the EPA violated the Regulatory Flexibility Act in promulgating the 2018 Rule. And finally, in Part VI we consider whether the EPA violated the Endangered Species Act by failing to engage in interagency consultation before issuing the 2018 Rule.

## III. Applicable Volumes

We begin with the 2018 Rule's applicable volumes. To arrive at those requirements, the EPA proceeded through a series of interlocking steps. It began by projecting 288 million gallons of cellulosic biofuel production in 2018—6.71 billion gallons short of the Program's 7-billion-gallon statutory target—and exercised its mandatory waiver accordingly. See 2018 Rule, 82 Fed. Reg. at 58,492, 58,495-504. Next, after estimating "reasonably attainable" volumes of other advanced biofuels and considering "the costs and benefits associated with" achieving those volumes, the EPA decided to exercise its full cellulosic waiver authority to reduce advanced biofuel and renewable fuel applicable volumes to 4.29 and 19.29 billion gallons, respectively. Id. at 58,513. And finally, the EPA considered but rejected using its general waiver authority, concluding that neither "severe economic harm" nor "inadequate domestic supply" warranted further reductions in applicable volumes. *Id.* at 58,516-18.

Petitioners find fault in each of these steps. First, the Obligated Parties argue that the EPA miscalculated its projection of cellulosic biofuel production. Second, the National Biodiesel Board contends that the EPA impermissibly considered financial costs when deciding to set applicable volumes of advanced biofuels below reasonably attainable levels. And third, the Obligated Parties argue that, for various reasons, the EPA unreasonably interpreted and refused to exercise its general waiver authority. None of these challenges has merit.

## A. Liquid Cellulosic Biofuel Projection

In the 2018 Rule, the EPA projected that 288 million gallons of cellulosic biofuel would be produced in 2018: the sum of 274 million gallons of liquefied and compressed natural gas and 14 million additional gallons of liquid cellulosic biofuel. *See* 2018 Rule, 82 Fed. Reg. at 58,503 tbl.III.D.3-1. Only this latter liquid estimate is at issue in this case.

To arrive at its liquid cellulosic projection, the EPA "use[d] the same general approach as . . . in previous years." *Id.* at 58,498. It began by sorting potential producers according to whether they had previously "achieved consistent commercial scale production" of liquid cellulosic biofuel. *Id.* Then it defined two ranges "of likely production volumes for 2018," one "for each group of companies." *Id.* It set the low end of each range at last year's "actual RIN generation" (for consistent producers) or zero (for new producers) and estimated the high end of each range (for both groups) by considering "a variety of factors," including each

facility's "expected start-up date," "ramp-up period," and "capacity." *Id.* at 58,499. And finally, the EPA selected what it calls a "percentile value"—in simplified terms, a number somewhere between the endpoints of each range—to extract "from the established range[s] a single projected production volume for each group of companies." *Id.* at 58,498-99. The lower the percentile value, the lower the resulting projection.

The Obligated Parties complain that by relying on this percentile method, which has produced overestimations in the past, the 2018 Rule "failed to correct chronic errors" in the EPA's liquid cellulosic biofuel projections. Obligated Parties Br. 41. But the record reveals just the opposite. Recognizing that its "estimates for liquid cellulosic biofuel exceeded actual production of liquid cellulosic biofuel" in previous years, the EPA adjusted its percentile values downward in the 2018 Rule to "the percentile values that would have resulted in accurate production projections" in 2016 and 2017. 2018 Rule, 82 Fed. Reg. at 58,499-500. The result was the 10th percentile for new producers and the 12th percentile for consistent producers, down from the 25th and 50th percentiles, respectively, that the EPA had used in 2016 and 2017. See id. at 58,500-01. The 2018 Rule, then, hardly presents "a situation in which [the] EPA has arbitrarily refused to reconsider a projection methodology that has proven unsuccessful in the past." Ams. for Clean Energy, 864 F.3d at 728.

Given that the Obligated Parties offer no other grounds to doubt the EPA's liquid cellulosic biofuel projection methodology, we conclude that the EPA's estimate, as required, "took a 'neutral aim at accuracy' and was otherwise reasonable and reasonably explained."

*Id.* at 729 (quoting *Am. Petroleum Inst. v. EPA*, 706 F.3d 474, 476 (D.C. Cir. 2013)).

#### B. Cellulosic Waiver

Having projected that only 288 million gallons of cellulosic biofuel would be produced in 2018, the EPA did as the Program requires and "reduce[d] the applicable volume of cellulosic biofuel" from 7 billion gallons "to [that] projected volume." 42 U.S.C. § 7545(o)(7)(D)(i); see also 2018 Rule, 82 Fed. Reg. at 58,492 (explaining that the EPA was "setting the cellulosic biofuel volume requirement at a level lower than the statutory applicable volume"). The EPA then confronted the question of whether to exercise its discretionary cellulosic waiver. Put another way, given the absence of 6.71 billion gallons of cellulosic biofuel that Congress had predicted would help satisfy the Program's overall 11-billion-gallon advanced biofuel requirement, the EPA needed to decide whether to "reduce the applicable volume" of the latter fuel type "by the same or a lesser volume" as it had reduced the former. 42 U.S.C. § 7545(o)(7)(D)(i). The EPA analyzed this question in two stages.

It began by considering what volumes of advanced biofuels would be "reasonably attainable in 2018," excluding volumes whose attainment would result in the "diversion of advanced feedstocks from other uses or diversion of advanced biofuels from foreign sources." 2018 Rule, 82 Fed. Reg. at 58,505. Based on an extensive analysis of various advanced biofuels (primarily imported sugarcane ethanol and advanced biodiesel and renewable diesel), the EPA projected that in addition to 288 million gallons of cellulosic biofuel, about 4.11 billion gallons of non-cellulosic advanced biofuels were reasonably attainable. See id. at 58,513. Although less than the statute's 11-billion-

gallon target, the EPA's combined 4.4-billion projection, in a sense, exceeded statutory expectations: while the Program implicitly requires 4 billion gallons of non-cellulosic advanced biofuel (11 billion minus 7 billion), the EPA estimated that up to 4.11 billion gallons could, in fact, be made available (110 million gallons above the 4-billion-gallon floor).

Next, the EPA had to decide whether to require those 110 million gallons of non-cellulosic advanced biofuels "to partially backfill for"—i.e., compensate for—"missing cellulosic volumes." *Id.* at 58,505. Acknowledging that it had mandated such backfilling in previous years, the EPA nonetheless explained that, "as a result of a stronger policy focus on the economic impacts of the RFS program," it had adopted in the 2018 Rule a "new approach to balancing relevant considerations" that "plac[ed] a greater emphasis on cost considerations." Id. at 58,504, 58,513. The EPA "present[ed] illustrative cost projections for . . . the two advanced biofuels . . . most likely to provide the marginal increase in volumes," "sugarcane ethanol and soybean biodiesel," and estimated per-gallon marginal cost increases ranging from \$0.61 to \$1.56 for the former (compared to gasoline) and \$0.95 to \$1.30 for the latter (compared to diesel). *Id.* at 58,513. "In light of these comparative costs," the EPA concluded, "it is reasonable to forgo the marginal benefit that might be achieved by establishing the advanced biofuel standard to require an additional 110 million gallons." Id. In the end, then, the EPA decided to exercise its full cellulosic waiver authority to reduce the advanced biofuel applicable volume—and, by extension, the renewable fuel applicable volume—by 6.71 billion gallons. See id. (explaining that the EPA interprets "the cellulosic waiver provision . . . to provide equal reductions in advanced biofuel and total renewable fuel").

The National Biodiesel Board argues that by taking cost considerations into account, the EPA erred in exercising its full cellulosic waiver. We disagree.

The Board first argues that the EPA "waive[d] the advanced-biofuel volume *solely* to save obligated parties money," NBB Br. 23, and that in so doing, the 2018 Rule "strayed too far" from the Program's "market forcing" purpose, id. at 21 (quoting Ams. for Clean *Energy*, 864 F.3d at 710). Neither proposition is correct. To begin with, the EPA hardly "[s]et[] the advanced-biofuel volume based entirely on costs." *Id.* To the contrary, in calculating the reasonably attainable volume of advanced biofuels, the EPA analyzed many factors, all of which justified a 6.6-billion-gallon reduction—and only then did it rely on cost considerations to support an additional 110-million-gallon decrease. And the EPA's decision to consider costs fell well within its discretion. As this court observed in *Americans* for Clean Energy, because "the text of the cellulosic waiver provision does not direct [the] EPA to 'consider particular factors," the "EPA enjoys broad discretion" "to consider 'a range of factors' in determining whether to exercise its cellulosic waiver authority." 864 F.3d at 734 (quoting Monroe Energy, 750 F.3d at 915-16). The Board offers no persuasive reason to conclude that those factors must exclude costs.

The Board next contends that the EPA failed to justify its decision to abandon its former practice of requiring non-cellulosic advanced biofuels to backfill for cellulosic deficits up to reasonably attainable levels. Under normal circumstances, the 2018 Rule's explanation would have been perfectly sufficient: the EPA both "display[ed] awareness that it [was]

changing position" and offered "good reasons for the new policy." FCC v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009). The Board, however, argues that this is not the typical case. Because the EPA's prior practice of requiring all reasonably attainable levels to be produced "engendered serious reliance interests," says the Board, the 2018 Rule was required to "provide 'a more detailed justification' than usual. NBB Br. 24 (quoting Fox Television Stations, 556 U.S. at 515)). According to the Board, the EPA failed to satisfy this heightened requirement.

Again, we disagree. First, it is far from obvious that renewable fuel producers possess the sort of reliance interests that merit special consideration. Neither the statute nor the EPA ever suggested that the Program's statutory applicable volumes would be enforced without modification. To the contrary, as the EPA argues, annual volumes are "always dependent on a variety of considerations," including the "EPA's projection of the volume of cellulosic biofuel," its "calculation of reasonably attainable volumes," and its decision regarding whether to "exercise [] its other waiver authorities." EPA Br. 28. And second, even where "serious reliance interests" do exist, what is required is not better reasons but rather more tailored reasons. "[I]t is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy." Fox Television Stations, 556 U.S. at 515-16. The EPA did just that in its 2018 Rule, which explains that the EPA declined to require backfilling because, in its view, any "marginal benefit" generated by the additional 110 million gallons of advanced biofuel would be outweighed by their steep substitution costs. 2018 Rule,

82 Fed. Reg. at 58,513. No further explanation was required.

Finally, the Board suggests that the non-delegation doctrine prohibits any interpretation of the EPA's cellulosic waiver authority broad enough to permit the EPA to consider costs. This argument we easily reject. To satisfy the constitutional requirement that "[a]ll legislative Powers . . . shall be vested in . . . Congress," U.S. Const. art. I, § 1, all that is required "when Congress confers decisionmaking authority upon agencies" is that it "lay down by legislative act an intelligible principle to which the person or body authorized to [act] is directed to conform," Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 472 (2001) (alteration in original) (quoting J. W. Hampton, Jr., & Co. v. United States, 276 U.S. 394, 409 (1928)). "Or in a related formulation, the Court has stated that a delegation is permissible if Congress has made clear to the delegee 'the general policy' he must pursue and the 'boundaries of [his] authority." Gundy v. United States, 139 S. Ct. 2116, 2129 (2019) (alteration in original) (quoting Am. Power & Light Co. v. SEC, 329 U.S. 90, 105 (1946)). Congress provided more than enough direction in the Program's cellulosic waiver provision, which constrains both when and to what extent the EPA may reduce statutory applicable volumes: only after projecting a cellulosic biofuel deficit and only by an amount less than or equal to that projected shortfall. See 42 U.S.C. § 7545(o)(7)(D)(i) (stating that "[f]or any calendar year in which the Administrator makes . . . a reduction" in the applicable volume for cellulosic biofuel based on a projected shortfall, "the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B) by the same or a lesser volume").

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#### C. General Waiver

After reducing applicable volumes of cellulosic biofuel, advanced biofuel, and renewable fuel by the amount of the cellulosic shortfall, the EPA then considered whether "severe[] harm [to] the economy or environment" or "an inadequate domestic supply" existed such that further reductions were justified. 42 U.S.C. § 7545(o)(7)(A). Answering those inquiries in the negative, the EPA declined to exercise its general waiver. The Obligated Parties now raise various challenges to that decision, and we consider each in turn.

# 1. Sequencing the Cellulosic and General Waivers

Before addressing the particulars of the EPA's general waiver determination, the Obligated Parties make an antecedent argument: that the EPA began its analysis at the wrong baseline. They ground their contention in the Program's general waiver provision, which states that the EPA "may waive the requirements of paragraph (2)"—that is, the statutory applicable volumes—"by reducing the national quantity of renewable fuel required under paragraph (2)." 42 U.S.C. § 7545(o)(7)(A). According to the Obligated Parties, this language requires the "EPA to consider whether domestic supply would be inadequate to meet statutorilyspecified volumes . . . and whether meeting those volume requirements would trigger severe economic harm." Obligated Parties Br. 22. In other words, the Obligated Parties argue that instead of considering whether to "further reduc[e]" applicable volumes *after* exercising its cellulosic waiver, 2018 Rule, 82 Fed. Reg. at 58,516, the EPA should have conducted its general waiver analysis as if the cellulosic waiver had never happened.

The Obligated Parties ask too much. As an initial matter, the statute is at least ambiguous when it comes to sequencing the cellulosic and general waivers. Both provisions grant the EPA authority to "waive" or "reduce" the applicable volumes established by "paragraph (2)," but neither provision indicates what the EPA should do if, as here, it has already decided to reduce those volumes. 42 U.S.C. § 7545(o)(7)(A) (the EPA may use the general waiver to "waive the requirements of paragraph (2) . . . by reducing the national quantity of renewable fuel required under paragraph (2)"); *id.* § 7545(o)(7)(D) (the EPA may use the cellulosic waiver to "reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B)").

Consequently, because "Congress has not directly addressed the precise question at issue," we need determine only "whether the agency's answer is based on a permissible construction of the statute." *Chevron*, 467 U.S. at 843. And indeed it is. Not only is it reasonable to interpret one waiver authority as reducing paragraph (2)'s volumes for purposes of the other waiver authority, but, as the EPA points out, "[t]here is no logical reason why [the agency] should base its waiver decision" on hypothetical volumes "that will not actually be implemented . . . because they have been reduced." EPA Br. 37. We have no basis, therefore, for overriding the EPA's reasonable interpretation of the Program's text with a requirement—cumbersome at best and absurd at worst—that the EPA conduct counterfactual analyses of scenarios it has already rejected.

#### 2. Severe Economic Harm

We turn, then, to the EPA's examination of whether the 2018 Rule's applicable volumes as reduced by the cellulosic waiver "would severely harm the economy . . . of a State, a region, or the United States." 42 U.S.C.  $\S$  7545(o)(7)(A)(i). The EPA concluded no, and the Obligated Parties now raise two objections: one interpretive, the other analytical.

The Obligated Parties first take issue with the EPA's interpretation of the requisite causal link between applicable volumes, on the one hand, and severe harm to the economy, on the other. The EPA interprets the general waiver provision "as requiring a demonstration that implementation of the RFS Program itself would cause severe economic harm (as opposed to allowing a waiver if severe economic harm were demonstrated for any reason, or if the RFS merely contributed to severe harm)." Memorandum from David Korotney, Office of Transp. and Air Quality, EPA, to Docket EPA-HQ-OAR-2017-0091, Assessment of Waivers for Severe Economic Harm or BBD Prices for 2018, at 15 (Nov. 30, 2017) ("Assessment of Waivers"), J.A. 1051. The Obligated Parties argue that by "requir[ing] proof that a single market factor—RFS volume requirements—is the sole cause of the harm," the EPA has ensured that its test will almost never be met. Obligated Parties Br. 25.

The EPA has set a high bar, to be sure, but we disagree with the Obligated Parties' assertion that the bar is so high as to be unreasonable. At bottom, this dispute comes down to an interpretation of the phrase "would severely harm the economy." 42 U.S.C. § 7545(o)(7)(A)(i). The degree of causation required by that text is an open question, and although "agencies must operate within the bounds of reasonable interpretation" of even ambiguous statutory phrases, *Util. Air Regulatory Grp. v. EPA*, 573 U.S. 302, 321 (2014) (internal quotation marks omitted), courts, by the

same token, "may not substitute [their] own construction of a statutory provision for a reasonable interpretation made by the administrator of an agency," Chevron, 467 U.S. at 844. The EPA argues that in the Program, Congress intentionally "set a high threshold" for an economic-harm determination by "requiring . . . direct causation and a high degree of confidence." EPA Br. 41. And indeed, this court has previously observed that "Congress intended the . . . Program to be . . . market forcing." Ams. for Clean Energy, 864 F.3d at 705 (internal quotation marks omitted). Accordingly, we cannot now fault the EPA for declining to reduce applicable volumes below statutory levels absent some clearly and causally demonstrable harm. That EPA's interpretation is stringent hardly makes it unreasonable.

As to the Obligated Parties' analytical objection, they question whether the EPA provided adequate reasons for its determination that "further reductions" of applicable volumes "on the basis of severe economic harm" were not "warranted." 2018 Rule, 82 Fed. Reg. at 58,518. To reach this conclusion, the EPA first acknowledged various comments regarding the 2018 Rule's financial "impacts on specific companies" but explained that "statements generally claiming financial difficulties, potential for closure, and the high cost of RIN purchases alone" failed to support a determination "that severe economic harm to a State, a region, or the United States [was] occurring." Assessment of Waivers 5, J.A. 1041. Then, observing "that the 2018 volumes generated through the maximum reduction permitted under the cellulosic waiver authority are nearly the same as the volume requirements for 2017," the EPA explained that it would, in effect, use 2017 as a test case by considering both "[w]hether severe economic harm ha[d] occurred . . . in 2017, and . . . whether the economic conditions in 2018 might be expected to be substantially different than those in 2017." 2018 Rule, 82 Fed. Reg. at 58,518. Based on its assessment of "market overcompliance, retail fuel prices, fuel supply, crop prices, and refinery closures" in recent years along with "crop-based feedstock futures prices" and "projected gasoline demand" for 2018, the EPA concluded that the 2017 requirements had not "caus[ed] severe economic harm to a State, a region, or the United States" and that "market conditions in 2018" were unlikely "to cause compliance with the applicable standards to have a higher potential for severe economic harm than in 2017." Assessment of Waivers 14-15, J.A. 1050-51.

With this analysis, the EPA sufficiently "examine[d] the relevant data and articulate[d] a satisfactory explanation for its action." Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). Although the EPA declined to conduct a state-by-state or region-by-region analysis, "an agency need not—indeed cannot—base its every action upon empirical data; depending upon the nature of the problem, an agency may be 'entitled to conduct . . . a general analysis based on informed conjecture." Chamber of Commerce v. SEC, 412 F.3d 133, 142 (D.C. Cir. 2005) (alteration in original) (quoting *Melcher v*. FCC, 134 F.3d 1143, 1158 (D.C. Cir. 1998)). Here, based on "the limited time available" to conduct its analysis, "the lack of clear evidence of severe economic harm provided in comments," and its ability to "grant waivers . . . during the compliance year should sufficient evidence become available," the EPA reasonably elected to begin with "a high-level investigation of a number of broad economic indicators" to see if they "provide[d] evidence of possible severe economic harm that would justify further EPA investigation."

Assessment of Waivers 7, J.A. 1043. The EPA then reasonably concluded that they did not. *See id*.

The Obligated Parties nonetheless argue that the EPA erred by "ignor[ing] actual data regarding state and regional economic jeopardy." Obligated Parties Br. 29 (emphasis omitted). For this claim, they cite two facts: first, that "the largest refiner on the East Coast" declared bankruptcy after the 2018 Rule went into effect, portending, in the Obligated Parties' view, additional "refinery shutdowns," Obligated Parties Reply Br. 12, 15; and second, that RIN costs are "escalating" and, in the Obligated Parties' estimation, not easily passed on to consumers, Obligated Parties Br. 29.

But the EPA did, in fact, address this purported evidence of economic harm. As to threatened refinery closures, the EPA noted that the commenting refineries lacked "any concrete evidence that their financial difficulties are caused primarily or even significantly by the RFS program." Assessment of Waivers 5, J.A. 1041. And as to compliance costs, the EPA explained that the refineries had failed to show "why they cannot recoup the cost of RINs through higher prices of their products." 2018 Rule, 82 Fed. Reg. at 58,517. Although the Obligated Parties may disagree with the EPA's analysis, they have fallen far short of showing that the EPA either "entirely failed to consider an important aspect of the problem" or "offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." Motor Vehicle Mfrs. Ass'n, 463 U.S. at 43. Mindful that we may not "substitute [our] judgment for that of the agency," id., we conclude that the EPA did not act arbitrarily and capriciously in declining to exercise the economic-harm prong of its general waiver authority.

## 3. Inadequate Domestic Supply

The Obligated Parties also take issue with the EPA's failure to exercise the general waiver "based on a determination . . . that there is an inadequate domestic supply." 42 U.S.C. § 7545(o)(7)(A)(ii). The dispute turns on the meaning of the phrase "domestic supply": the Obligated Parties argue that it includes only fuel produced domestically, while the EPA, at least until the 2018 Rule, had interpreted the term to include any fuel available domestically, including imports. See Supplemental Information, 82 Fed. Reg. at 46,177 (noting that the EPA had previously considered "biofuel imports as part of the domestic supply"). But recently the EPA's enthusiasm for its imports-inclusive interpretation has turned tepid. In its October 2017 Supplemental Information, the EPA sought comments on whether to adopt a production-only interpretation under which the agency would continue to "consider the availability of imports . . . in determining whether to exercise its discretion to use the waiver authority," but only after "ma[king] the threshold finding that there was an inadequate domestic supply" of fuel produced in the United States and, even then, only "as one factor among others." *Id.* at 46,178.

After dipping its toe into the water, however, the EPA waded no further. Instead, the final 2018 Rule analyzed each category of fuel under both a production-only and an imports-inclusive interpretation of "domestic supply." Concluding that "a waiver is not warranted" "[u]nder either approach," the EPA adopted neither definition—in effect, deciding not to decide. 2018 Rule, 82 Fed. Reg. at 58,516. Its analysis proceeded as follows.

The EPA began by discussing the supply of "non-advanced" renewable fuel—primarily corn ethanol—that could fill the 15-billion-gallon gap between the Program's requirement of 11 billion gallons of advanced biofuel (4.29 after the cellulosic waiver) and 26 billion gallons of total renewable fuel (19.29 after the cellulosic waiver). 2018 Rule, 82 Fed. Reg. at 58,516-17. Explaining that "the total domestic production capacity of corn ethanol in the [United States] is about 16 billion gallons" and that "total production . . . in 2016 exceeded 15 billion gallons," the EPA concluded the market could supply sufficient "conventional renewable fuel" with or without imports. *Id.* at 58,517.

Turning next to cellulosic biofuel, the EPA explained that 286 million gallons of its 288-million-gallon projection was "expected to come from domestic sources" and that pre-2018 "carryover cellulosic biofuel RINs" were available to facilitate "additional compliance flexibility." *Id.* "Given the importance that Congress placed on the growth of cellulosic biofuel volumes" and the 2018 Rule's "projection that compliance with a 288 million gallon requirement is feasible," the EPA decided it "would not exercise its discretion to lower the 288 million gallon projected cellulosic biofuel volume by 2 million gallons even if [it] were to interpret the term 'domestic supply' to exclude imported volumes." *Id.* 

That left only non-cellulosic advanced biofuel. Having already determined that 4.11 billion gallons (4.4 billion minus 288 million) was "reasonably attainable," the EPA dismissed any concern that there would be an "inadequate domestic supply" of advanced biofuel under an imports-inclusive interpretation. See id. at 58,516. But, as the EPA acknowledged, a production-only interpretation presented a closer

question. The EPA observed that "a significant portion of the advanced biofuel available in previous years has been from imported biofuels," and it noted comments "suggest[ing] that, without imported volumes, the domestic industry could not ramp up production quickly enough to compensate for the exclusion of imports from our analysis." Id. at 58,517. The 2018 Rule, however, also highlighted comments to the contrary. "Some commenters pointed to total domestic production capacity and feedstock availability," the EPA explained, "to argue that domestic producers are capable of compensating for volumes that would not be provided through imports." Id. Faced with this "uncertainty," the EPA concluded that based on "the distinct possibility that the domestic industry could compensate for exclusion of imports" and "the availability of imported volumes and carryover RINs," it "would not choose to exercise its authority to grant a waiver on the basis of inadequate domestic supply for 2018 even if it interpreted the term 'domestic supply' to exclude imports." *Id*.

This belt-and-suspenders approach, though perhaps not maximally efficient, relieved the EPA of any obligation to choose conclusively one interpretation of "domestic supply" over the other. To be sure, "an agency rule would be arbitrary and capricious if the agency . . . entirely failed to consider an important aspect of the problem." *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43. But by explaining that it would decline to exercise its general waiver under either a production-only or imports-inclusive interpretation, the EPA made that choice itself unimportant. And because the EPA sufficiently "acknowledge[d] factual uncertainties and identif[ied] the considerations it found persuasive" with respect to each of its alternative analyses, we find no fault in the substance of the 2018 Rule's "predictive

judgments" about the adequacy of domestic supply. *Rural Cellular Ass'n v. FCC*, 588 F.3d 1095, 1105 (D.C. Cir. 2009).

Nor are we persuaded by the Obligated Parties' contention that the imports-inclusive option would have "impermissibly twisted the [Program's] statutory language." Obligated Parties Br. 32. Implied by the Obligated Parties' interpretive argument is a bold assertion: that the EPA could have acted arbitrarily and capriciously by merely contemplating, without adopting, an erroneous interpretation of the statutory text. But even assuming that premise, we conclude that the EPA permissibly considered what would have been a reasonable interpretation of an ambiguous statutory phrase. Indeed, this court has previously offered "import capacity" as an example of the sorts of "supply-side factors" that the "inadequate domestic supply' provision authorizes [the] EPA to consider" when "examining whether the supply of renewable fuel is adequate." Ams. for Clean Energy, 864 F.3d at 710. We can hardly blame the EPA for permitting itself to consider whether this court spoke accurately. See Supplemental Notice, at 46,178 & n.19 (explaining the EPA's view that "the court's statements," while "dicta," "may indicate the scope of permissible, but not required, interpretations").

In conclusion, even though the EPA declined to interpret "inadequate domestic supply," its refusal to exercise the domestic-supply prong of its general waiver authority was nonetheless "the product of reasoned decisionmaking." *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 52. We reject the Obligated Parties' contrary arguments.

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## 4. Ethanol Projection

Before moving away from the EPA's general waiver analysis, we must address one final point: the Obligated Parties' argument that the EPA failed to produce a well-reasoned estimate of attainable ethanol production, thus making "its final volume determinations . . . arbitrary and capricious." Obligated Parties Br. 41; see also Oral Arg. Tr. 8-9 (conceding that any errors in the EPA's ethanol projection could affect only the general waiver, as the EPA exercised in full its cellulosic waiver).

The Obligated Parties misapprehend the EPA's ultimate task. The Program imposes no free-floating obligation on the EPA to estimate "the reasonably attainable supply of ethanol." Obligated Parties Br. 37. Nor does it permit, much less require, the EPA to craft applicable volumes of any fuel from scratch. Instead, the *statute* establishes applicable volumes in 2018, 26 billion gallons of renewable fuel, no more than 15 gallons of it "non-advanced," see 42 U.S.C. § 7545(o)(2)(B)(i)—and permits the EPA to "waive [those] requirements" only if the Administrator determines that the statutory mandates "would severely harm the economy or environment" or "that there is an inadequate domestic supply," id. § 7545(o)(7)(A). As we have explained before, "[n]othing in the text of . . . the [Program] plainly requires [the] EPA to support its decision" against exercising the general waiver "with specific numerical projections." Am. Petroleum Inst., 706 F.3d at 481. "Certainly [the] EPA must provide a reasoned explanation for its actions, but rationality does not always imply a high degree of quantitative specificity." Id.

The 2018 Rule's explanation is more than satisfactory. Citing the Renewable Fuels Association's

"2017 Ethanol Industry Outlook," the EPA explained that the U.S. market had the capacity to produce "about 16 billion gallons" of corn ethanol and had in fact produced some 15.25 billion gallons in 2016. 2018 Rule, 82 Fed. Reg. at 58,517 & n.135. The EPA further supplied a lengthy memorandum analyzing "various conditions and constraints in the marketplace . . . for the two most prominent biofuels, ethanol and biodiesel." Memorandum from David Korotney, Office of Transp. and Air Quality, EPA, to Docket EPA-HQ-OAR-2017-0091, Market Impacts of Biofuels 1 (Nov. 27, 2017), J.A. 1180. "[B] ased both on levels achieved in the past and" predictions regarding "how the market might respond to the applicable standards," the EPA offered "a range of possible outcomes with varying levels of [ethanol blends], imported sugarcane ethanol, advanced biodiesel and renewable diesel, and conventional biodiesel and renewable diesel," all of which would satisfy the (post-cellulosic waiver) "total renewable fuel and advanced biofuel volume requirements of 19.29 and 4.29 billion gallons, respectively." *Id.* at 11, J.A. 1190. This analysis provided more than enough support for the EPA's determination that neither inadequate supply nor economic harm warranted use of the general waiver.

### D. 2019 Biomass-Based Diesel Applicable Volume

In addition to establishing renewable fuel obligations for cellulosic biofuel, advanced biofuel, and renewable fuel for calendar year 2018, the 2018 Rule also finalized the biomass-based diesel applicable volume for 2019—a year for which the Program lists no statutory applicable volume. See 2018 Rule, 82 Fed. Reg. at 58,518-22. Following the same "approach [it used] in setting the final [biomass-based diesel] volume

requirement for 2018," the EPA decided to maintain the biomass-based diesel requirement at 2.1 billion gallons, the same as in 2018. *Id.* at 58,522. Central to the EPA's analysis was its assessment that because "RIN generation data has consistently demonstrated that the advanced biofuel volume requirement . . . [is] capable of incentivizing the supply of [biomassbased diesel] above and beyond the [biomass-based diesel] volume requirement," "the 2019 advanced volume requirement"—not the biomass-based diesel requirement—would drive "the level of [biomass-based diesel] production and imports that occur in 2019." *Id*. at 58,521-22. In other words, the EPA determined that while its biomass-based diesel requirement might set a floor on production, it would hardly impose a ceiling. The EPA therefore concluded that a 2.1-billion-gallon requirement would "strike[] the appropriate balance between" "maintaining support for the [biomass-based diesel] industry" and "providing a market environment where the development of other advanced biofuels is incentivized." *Id*.

The National Biodiesel Board argues that by considering "the future, then-not-set 2019 advanced-biofuel volume," the EPA impermissibly "bas[ed] the 2019 [biomass-based diesel] volume on a factor" absent from the statute's enumerated list. NBB Br. 28; see also 42 U.S.C. § 7545(o)(2)(B)(ii), (v) (requiring that applicable volumes should be established "based on a review of the implementation of the program during" previous years and on "an analysis of" six other factors). We need not, however, linger long on this argument, as it has been resolved by this court's decision in Alon Refining. See slip op. at 65. Therefore, we deny the Board's petition.

## IV. Other Facets of the Program

The Obligated Parties and the National Biodiesel Board also challenge three of the EPA's regulations implementing the Program. The Obligated Parties contend that the EPA, as part of the 2018 rulemaking process, should have reconsidered both its RIN policy for renewable fuel exports and its definition of "obligated party." The National Biodiesel Board, in turn, argues that the EPA should have accounted for retroactively granted small refinery exemptions in calculating percentage standards. As explained below, the Obligated Parties' challenges are untimely and the National Biodiesel Board's challenge was not preserved.

# A. The EPA's RIN Policy for Renewable Fuel Exports

Under the EPA's current regulations, obligated parties cannot use RINs generated from renewable fuel that is later exported from the United States to satisfy their renewable fuel obligations under the Program. See 40 C.F.R. § 80.1430. Instead, exporters must use those RINs to offset their own Exporter Renewable Volume Obligation. *Id.* During the 2018 rulemaking process, several parties submitted comments asking the EPA to remove the Exporter Renewable Volume Obligation. Rather than address the substance of these comments, the EPA stated: "These comments are all beyond the scope of this rulemaking as EPA did not propose any changes to the overall structure of the RFS program or otherwise seek comment on these issues." Response to Comments 223, J.A. 1446. The Obligated Parties now argue that the EPA acted arbitrarily and capriciously in refusing to engage with comments regarding renewable fuel exports for two reasons: first, because those comments were within the scope of the EPA's Proposed Rule and Supplemental Information and second, because the EPA's obligation to make a reasoned decision required it to reevaluate its RIN policy for renewable fuel exports as part of the 2018 rulemaking.

The EPA correctly dismissed comments regarding its RIN policy for renewable fuel exports as outside the scope of the 2018 Rule. In the Proposed Rule, the EPA delineated those issues for which it was—and was not—soliciting comment: "EPA is not soliciting comment on any aspect of the current RFS regulatory program other than those specifically related to RIN trading . . . and the proposed annual standards for 2018 and biomass-based diesel applicable volume for 2019." Proposed Rule, 82 Fed. Reg. at 34,211. The Obligated Parties do not dispute that the EPA's RIN policy for renewable fuel exports falls outside these enumerated subjects for comment. Instead, the Obligated Parties point to five other statements in the Proposed Rule and Supplemental Information that they argue brought the EPA's RIN policy for renewable fuel exports within the scope of the rulemaking: (1) the EPA's acknowledgment that "[r]eal-world challenges" have rendered unattainable congressional goals for the production of most categories of renewable fuel, id. at 34,207; (2) the EPA's observation that the variable volume of annual renewable fuel imports and exports "affect[s] the price of renewable fuel," Supplemental Information, 82 Fed. Reg. at 46,176; (3) the EPA's concern that increasing reliance on renewable fuel imports may jeopardize energy independence and security, Proposed Rule, 82 Fed. Reg. at 34,212; (4) the EPA's affirmance of the importance of maintaining the liquidity of the RIN market by maintaining an "adequate RIN bank," id. at 34,213; and (5) the EPA's requests for comments "on all aspects of this proposal" and "any aspect of this

rulemaking," *id.* at 34,242. It is not clear that these statements, on their face, open the EPA's RIN policy for renewable fuel exports for comment. Whatever the potential meaning of these statements in isolation, the Proposed Rule's express limitation of the subjects on which the EPA was soliciting comment unambiguously communicates its decision not to solicit comment on its RIN policy for renewable fuel exports. Accordingly, we find no error in the EPA's treatment of comments requesting that it reconsider its RIN policy for renewable fuel exports as outside the scope of the 2018 rulemaking.

Because comments regarding the EPA's RIN policy for exported renewable fuel were outside the scope of the 2018 rulemaking, we lack jurisdiction to consider the Obligated Parties' instant challenge to the policy. Generally, "[a] petition for review of action of [the EPA] in promulgating . . . any control or prohibition under [the Program] . . . shall be filed within sixty days from the date notice of such promulgation, approval, or action appears in the Federal Register." 42 U.S.C.  $\S$  7607(b)(1). Section 7607(b)(1)'s sixty-day filing deadline is jurisdictional. See Sierra Club v. EPA, 895 F.3d 1, 16 (D.C. Cir. 2018). Here, the EPA promulgated its current version of its regulation governing renewable fuel exports in 2014. See RFS Renewable Identification Number (RIN) Quality Assurance Program, 79 Fed. Reg. 42,078, 42,115 (July 18, 2014). The Obligated Parties filed their first petition in this case more than three years later—well outside the statutory sixty-day filing period. Although a party may file an otherwise untimely petition challenging a regulation if the promulgating agency subsequently expressly or constructively "reopens" the issue, Nat. Res. Def. Council v. EPA, 571 F.3d 1245, 1265 (D.C. Cir. 2009) (per curiam), our conclusion that comments regarding the EPA's RIN policy for renewable fuel exports were outside the scope of the 2018 rulemaking forecloses the claim that the EPA reopened the issue. We therefore lack jurisdiction to consider the Obligated Parties' challenge to the EPA's current rule preventing refineries and importers of renewable fuel from using RINs from renewable fuel later exported to discharge their renewable fuel obligations.

In an apparent attempt avoid the sixty-day filing period, the Obligated Parties argue that the EPA acted arbitrarily and capriciously by failing even to reconsider its RIN policy for renewable fuel exports. According to the Obligated Parties, altering that policy is a significant alternative that the EPA should have considered when settling on the 2018 Rule's applicable volumes and percentage standards. Although an agency must consider comments "relevant to the agency's decision and which, if adopted, would require a change in an agency's proposed rule," it "does not have to 'make progress on every front before it can make progress on any front." Nat'l Mining Ass'n v. MSHA, 116 F.3d 520, 549 (D.C. Cir. 1997) (per curiam) (first quoting Home Box Office, Inc. v. FCC, 567 F.2d 9, 35 n.58 (D.C. Cir. 1977) (per curiam); then quoting *Pers*. Watercraft Indus. Ass'n v. Dep't of Commerce, 48 F.3d 540, 544 (D.C. Cir. 1995)). Here, the Obligated Parties have not explained how a change in the EPA's RIN policy for renewable fuel exports would have required the agency also to change its proposed applicable volumes and percentage standards. Therefore, the EPA could, without acting arbitrarily and capriciously, take the discrete action of establishing annual applicable volumes and percentage standards under the Program while declining to reconsider its RIN policy for renewable fuel exports.

# B. The EPA's Definition of "Obligated Party"

The Clean Air Act gives the EPA some leeway in determining which parties in the transportation fuel industry must comply with the Program's percentage standards. The Act provides that renewable fuel obligations "shall . . . be applicable to refineries, blenders, and importers, as appropriate." 42 U.S.C. § 7545(o)(3)(B)(ii)(I) (emphasis added). Exercising its discretion under the statute, the EPA has long declined to obligate blenders. See 40 C.F.R. § 80.1406(a)(1). Refineries and importers have repeatedly objected to the EPA's decision not to require blenders to help shoulder the Program's regulatory burden, including in comments to the 2018 Rule. The EPA, however, dismissed those comments as outside the scope of the rulemaking.

There is no doubt that the EPA is correct that comments regarding the agency's "obligated party" definition fell outside the scope of the 2018 rulemaking. In the Proposed Rule, the EPA expressly declared that it was not reopening the issue: "EPA is not reopening for public comment in this rulemaking the current definition of 'obligated party." Proposed Rule, 82 Fed. Reg. at 34,211. Because the EPA did not reopen the issue, the Obligated Parties' challenge to the EPA's rule is untimely by over seven years, see Regulation of Fuels and Fuel Additives: Modifications to Renewable Fuel Standard Program, 75 Fed. Reg. 26,026, 26,037 (May 10, 2010), and we therefore lack jurisdiction to review the limited reach of the EPA's regulations obligating only refineries and importers of transportation fuel, see Sierra Club, 895 F.3d at 16.

The Obligated Parties, however, again attempt to side-step the sixty-day filing requirement by arguing

that the EPA acted contrary to the Clean Air Act as well as arbitrarily and capriciously by declining to reconsider its definition of "obligated party" in promulgating the annual applicable volumes and percentage standards in the 2018 Rule. We need not consider this argument because this court's recent decision in *Alon Refining* resolves the issue. *See* slip op. at 53.

# C. The EPA's Method of Accounting for Small Refinery Exemptions

After establishing the applicable volumes for a particular year, the EPA translates those volumes into percentage standards by dividing the applicable renewable fuel volumes by the total volume of transportation fuel expected to be sold in the United States in that year. See 42 U.S.C. § 7545(o)(3)(B)(ii)(II); 40 C.F.R. § 80.1405(c). Thus, if every obligated party incorporates the required percentage of renewable fuel into the gasoline and diesel it sells, the transportation fuel industry as a whole will achieve the established applicable volumes. As noted above, however, the Program requires the EPA to exempt from compliance small refineries experiencing disproportionate economic hardship in complying with their renewable fuel obligations. 42 U.S.C. § 7545(o)(9). By permitting some obligated parties to incorporate less renewable fuel into the gasoline and diesel they sell, small refinery exemptions can impede attainment of overall applicable volumes. To avoid such a shortfall, the EPA raises the percentage standard for non-exempt parties in a given year by subtracting from its calculations the transportation fuel contributions of small refineries that were granted exemptions before the EPA established the percentage standard for that year. See 40 C.F.R. § 80.1405(c).

This solution, however, is only partial: the EPA does not currently account for small refinery exemptions granted *after* it promulgates percentage standards for that year—so-called retroactive exemptions. To address any deficiency in its current approach, the EPA solicited comment on how it should account for small refinery exemptions in its calculation of the 2018 percentage standards. Proposed Rule, 82 Fed. Reg. at 34,241-42. The EPA ultimately maintained its previous policy of adjusting fuel percentages for exemptions granted before the percentage standards are promulgated but not for exemptions granted after. 2018 Rule, 82 Fed. Reg. at 58,523.

The National Biodiesel Board challenges the EPA's decision to retain its policy of disregarding retroactive small refinery exemptions as failing to "ensure[]" that obligated parties' renewable fuel contributions achieve total applicable volumes pursuant to 42 U.S.C. section 7545(o)(3)(B)(i). The Board argues that the EPA should have adopted a policy whereby it (1) adjusts the final percentage standards *ex ante* to account "for small-refinery exemptions [the EPA] is reasonably likely to grant after promulgating the standards" and (2) corrects any deficiencies resulting from exemptions actually granted *ex post* by "increasing later years' standards." NBB Br. 18.

The Board, however, did not make its current challenge during the 2018 rulemaking. Under the Clean Air Act, "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment . . . may be raised during judicial review." 42 U.S.C. § 7607(d)(7)(B). "The court enforces this provision 'strictly' to ensure that [the] EPA has an opportunity to respond to every challenge" and so that "the court enjoys the benefit of

the agency's expertise and possibly avoids addressing some of the challenges unnecessarily." *Motor & Equip. Mfrs. Ass'n v. Nichols*, 142 F.3d 449, 462 (D.C. Cir. 1998) (citation omitted) (quoting *Nat. Res. Def. Council v. Thomas*, 805 F.2d 410, 427 (D.C. Cir. 1986)). "[A]lthough we allow commenters 'some leeway in developing their argument before this court,' the comment must have provided 'adequate notification of the general substance of the complaint." *Nat. Res. Def. Council*, 571 F.3d at 1259 (quoting *S. Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882, 891 (D.C. Cir. 2006)).

The Board identifies two sets of comments it claims preserved its current challenge, but both failed to give "adequate notification of the general substance" of the Board's current proposal. *Id.* In one set of comments, the American Petroleum Institute suggested that the EPA cease granting retroactive exemptions altogether. In a similar vein, the other set of comments by BP Products of North America asked the EPA to cease granting retroactive exemptions or, in the alternative, to adjust applicable volumes after the standards are promulgated to account for any retroactive exemptions. The Board's offered solutions are significantly different from these proposals—the Board does not ask the EPA to *cease* granting retroactive exemptions or to adjust the applicable volumes for the same year in which the retroactive exemptions are later granted. Rather, the Board suggests that the EPA should project the number of retroactive exemptions it expects to grant when calculating percentage standards or should adjust the *following year's* applicable volumes to account for any shortfall resulting from the grant of retroactive exemptions. The comments submitted to the EPA therefore did not raise the Board's current proposals with "reasonable specificity," 42 U.S.C. § 7607(d)(7)(B), leaving the EPA no opportunity to respond to the Board's challenge and burdening this court with potentially unnecessary challenges, *see Motor & Equip. Mfrs. Ass'n*, 142 F.3d at 462.

At oral argument, the Board acknowledged that neither of its proposals "specifically was in front of the Agency" but claimed that they are merely "alternative proposals" and that the Board "d[oes] not have a specific proposal" that the EPA must adopt. Oral Arg. Tr. 64, 66. Instead, the Board argued that "the Court should tell EPA that its duty to ensure requires it to do something, and then send [the 2018 Rule] back to the Agency for the Agency to decide what that something is." Oral Arg. Tr. 65-66. Regardless whether we can vacate the 2018 Rule due to the EPA's failure to do an unspecified "something," the Board did not make this argument in its briefs and has therefore forfeited the issue. See Elec. Privacy Info. Ctr. v. Presidential Advisory Comm 'n on Election Integrity, 878 F.3d 371, 379 n.6 (D.C. Cir. 2017).

As a fallback, the Board argues that the EPA's policy regarding small refinery exemptions is a "vital assumption" underlying the 2018 Rule and therefore no comment was necessary to preserve its current challenge. Under the "key assumption" doctrine, an agency has the "duty to examine key assumptions as part of its affirmative burden of promulgating and explaining a non-arbitrary, non-capricious rule' and therefore . . . 'must justify that assumption even if no one objects to it during the comment period." *Okla. Dep't of Envtl. Quality v. EPA*, 740 F.3d 185, 192 (D.C. Cir. 2014) (alteration in original) (quoting *Appalachian Power Co. v. EPA*, 135 F.3d 791, 818 (D.C. Cir. 1998) (per curiam)). But the key assumption doctrine applies to aspects of a rule that are foundational to its

existence, such as assumptions regarding the agency's statutory authority, see Nat. Res. Def. Council v. EPA, 755 F.3d 1010, 1023 (D.C. Cir. 2014) ("[T]hat EPA had statutory authority . . . to exempt some hazardouswaste-derived fuels from regulation was a 'key assumption' underlying EPA's exercise of its discretion . . . . " (internal quotation mark omitted)), or those pertaining to the agency's analytical methodology, see Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 535 (D.C. Cir. 1983) ("[A]ggregate analysis is a vital assumption underlying the [EPA's] model. Thus, EPA must justify that assumption even if no one objects to it during the comment period . . . . "). How the EPA accounts for exemptions granted to a subset of a subset of a subset of obligated parties (small fuel refineries experiencing disproportionate economic hardship) is hardly an assumption undergirding the entire 2018 Rule. In any event, the EPA examined its policy regarding retroactive exemptions, solicited comment on the issue, and reasonably rejected the proposals it received. See Proposed Rule, 82 Fed. Reg. at 34,241-42; 2018 Rule, 82 Fed. Reg. at 58,523. Thus, to the extent the EPA's method of accounting for retroactive exemptions in its percentage standard calculations is a "key assumption," the EPA has carried its "affirmative burden . . . [to] justify that assumption." Okla. Dep't of Envtl. Quality, 740 F.3d at 192 (quoting Appalachian Power Co., 135 F.3d at 818).

## V. Regulatory Flexibility Act

The Regulatory Flexibility Act requires an agency to perform a regulatory flexibility analysis when conducting a rulemaking. 5 U.S.C. §§ 603(a), 604(a). As part of that analysis, the agency must assess any potential effects its proposed rule may have on small entities and must consider alternatives that would

"minimize any significant economic impact" on small entities to which the rule will apply. *Id.* § 603(b)(3), (c); *accord id.* § 604(a)(4), (6). Intervenor Small Retailers Coalition argues that the court should vacate the 2018 Rule because the EPA failed to perform a regulatory flexibility analysis assessing the potential impact of the 2018 Rule on small fuel retailers. Although the Regulatory Flexibility Act argument was articulated in a joint brief filed by the Obligated Parties and the Coalition, the parties agree that only the Coalition raises the argument.

We decline to exercise our discretion to hear this argument brought only by an intervenor and not by any of the petitioners. By failing to file a timely petition for review, the Coalition forfeited any guarantee to judicial review of its claim. See E. Ky. Power Coop., *Inc. v. FERC*, 489 F.3d 1299, 1305 (D.C. Cir. 2007). Generally, "[i]ntervenors may only argue issues that have been raised by the principal parties." Nat'l Ass'n of Regulatory Util. Comm'rs v. ICC, 41 F.3d 721, 729 (D.C. Cir. 1994). "[O]nly in 'extraordinary cases' will we depart from our general rule." Id. at 730 (quoting Lamprecht v. FCC, 958 F.2d 382, 389 (D.C. Cir. 1992)). For example, we will consider an intervenor-only argument that raises "an essential' predicate" to the issues raised by the petitioners—that is, if the argument has been "fully litigated in the agency proceedings and [is] potentially determinative of the outcome of judicial review." Synovus Fin. Corp. v. Bd. of Governors, 952 F.2d 426, 433-34 (D.C. Cir. 1991). But we are reticent to consider an intervenor-only argument if the intervenor "had every incentive to petition for review of the administrative decision and its failure to do so was without excuse." *Id.* at 434.

The Coalition's challenge does not constitute an extraordinary case. Instead of demonstrating that its argument presents an "essential predicate" to the issues the petitioners raise or is otherwise of unusual importance, the Coalition emphasizes (1) that the EPA did not object to its motion to intervene, (2) that the Regulatory Flexibility Act argument raises a pure question of law, and (3) that the Coalition has a history of challenging the EPA's definition of obligated parties. The Coalition points to no case, and we are aware of none, in which we have relied on similar facts to justify considering an intervenor-only argument.

On the other hand, we believe this case is indistinguishable from Time Warner Entertainment Co. v. FCC, 56 F.3d 151 (D.C. Cir. 1995). In Time Warner, we declined to consider an argument under the Regulatory Flexibility Act made only by the intervenor, the Small Cable Business Association. *Id.* at 202-03. In doing so, we observed that the Association had "participated in the agency proceedings and had the opportunity to file an independent petition for review of the Commission's alleged rejection of the Association's . . . [Regulatory Flexibility Act] claim[]." *Id.* at 202. Just so here. The Coalition submitted comments on the Proposed Rule asking the EPA to conduct a regulatory flexibility analysis, and the EPA's alleged failure to conduct the requested analysis gave the Coalition every incentive to file its own petition for review of the final 2018 Rule. The Coalition has offered no excuse for its failure to do so. We therefore decline to exercise our discretion to consider the Coalition's arguments under the Regulatory Flexibility Act.

# VI. Endangered Species Act

Finally, the Environmental Petitioners argue that the EPA failed to comply with its obligations under the

Endangered Species Act (ESA), 16 U.S.C. §§ 1531-1544. The ESA requires agencies to determine whether certain proposed actions may affect endangered and threatened species, known as "listed species," and their critical habitat. Generally, unless an agency determines that an action will not affect these species and habitat, the agency must consult with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the "Services"). The Environmental Petitioners contend that the EPA disregarded these obligations by failing to determine whether the 2018 Rule may affect listed species and critical habitat. This challenge clears several threshold hurdles: we have jurisdiction, the Environmental Petitioners have standing, and the Environmental Petitioners preserved their challenge. On the merits, we agree with the Environmental Petitioners that the EPA did not comply with the ESA.

#### A. Jurisdiction

We have jurisdiction over challenges to "final action[s]" taken by the EPA under the Clean Air Act. 42 U.S.C. § 7607(b)(1); see supra Part II. The term "final action" in the Clean Air Act is synonymous with "final agency action" in the Administrative Procedure Act. See Indep. Equip. Dealers Ass'n v. EPA, 372 F.3d 420, 428 (D.C. Cir. 2004). This means that the Clean Air Act empowers us to hear challenges to "discrete agency actions," but we may not consider more sweeping "programmatic" attacks. See Norton v. S. Utah Wilderness All., 542 U.S. 55, 62-65 (2004); Lujan v. Nat'l Wildlife Fed'n, 497 U.S. 871, 891 (1990). The EPA argues that the Environmental Petitioners' claim is outside our jurisdiction because it is a broad attack seeking "wholesale improvement of" the RFS Program. EPA Br. 85 (quoting *Lujan*, 497 U.S. at 891). We do not understand the claim so broadly. Although the Environmental Petitioners criticize the RFS Program and complain that the EPA has never consulted on the Program during the past decade, their actual challenge is to the 2018 Rule. According to their petition, they "seek review" of "the EPA's failure to comply with the requirements" of the ESA "in promulgating the Final Rule," and they charge the EPA "in this instance" with failing to consult with the Services "to ensure that the Final Rule" would not harm listed species. Envtl. Pet'rs Pet. ¶ 2, No. 18-1040 (D.C. Cir. Feb. 9, 2018). Because the promulgation of the 2018 Rule is a discrete agency action, this challenge is squarely within our jurisdiction under the Clean Air Act.

#### **B.** Standing

The EPA also argues that we may not consider the challenge because the Environmental Petitioners lack standing. "The Constitution limits our 'judicial Power' to 'Cases' and 'Controversies,' and there is no justiciable case or controversy unless the plaintiff has standing." West v. Lynch, 845 F.3d 1228, 1230 (D.C. Cir. 2017) (quoting U.S. Const. art. III, § 2). An association like each of the Environmental Petitioners has standing "only if (1) at least one of its members would have standing to sue in his own right; (2) the interest it seeks to protect is germane to its purpose; and (3) neither the claim asserted nor the relief requested requires the member to participate in the lawsuit." Ctr. for Biological Diversity v. EPA, 861 F.3d 174, 182 (D.C. Cir. 2017) (quoting Am. Trucking Ass'ns v. Fed. Motor Carrier Safety Admin., 724 F.3d 243, 247 (D.C. Cir. 2013)).

The parties do not dispute that one of the Environmental Petitioners—the Sierra Club—satisfies

the latter two elements of associational standing. Nor could they. As an organization dedicated to protecting and enjoying the environment, Addendum to Envtl. Pet'rs Br. ("Add.") 275, 289, the Sierra Club "has an obvious interest in challenging the EPA's failure to engage in consultation," a process that ensures that agency action "does not go forward without full consideration of its effects on listed species," *Ctr. for Biological Diversity*, 861 F.3d at 182 (internal quotation marks omitted). Also, the claim asserted (that the EPA violated its obligations under the ESA) and the relief requested (an order requiring the EPA to comply with its obligations) do not require any member of the Sierra Club to participate in this suit. *See id*.

The only disputed element of associational standing is the first: whether at least one of the Sierra Club's members would have standing to sue in his or her own right. Generally, a plaintiff must meet three requirements to have standing. The plaintiff must have suffered (1) a concrete and particularized injury that (2) was caused by the challenged conduct and (3) is likely to be redressed by a favorable judicial decision. See Hollingsworth v. Perry, 570 U.S. 693, 704 (2013) (citing Lujan v. Defs. of Wildlife, 504 U.S. 555, 560-61 (1992)); Ctr. for Biological Diversity, 861 F.3d at 181-82.

This case involves a twist on the usual standing inquiry because the claim—that the EPA failed to meet its obligations under the ESA—describes an "archetypal procedural injury." Ctr. for Biological Diversity, 861 F.3d at 182 (quoting WildEarth Guardians v. Jewell, 738 F.3d 298, 305 (D.C. Cir. 2013)). In cases involving a procedural injury, our "primary focus" is "whether a plaintiff who has suffered personal and particularized injury has sued a

defendant who has caused that injury," and our analyses of the injury and of causation tend to involve similar concepts. Fla. Audubon Soc'y v. Bentsen, 94 F.3d 658, 664 (D.C. Cir. 1996) (en banc) (citing *Lujan*, 504 U.S. at 572 n.7); see Ctr. for Biological Diversity, 861 F.3d at 182-83. As to injury, the Sierra Club must show that the failure to comply with the ESA "affects its members' concrete . . . interests," Ctr. for Biological Diversity, 861 F.3d at 183; in other words, that the failure "demonstrably increased some specific risk of environmental harm[s]" that "imperil" the members' "particularized interests" in a species or habitat with which the members share a "geographic nexus," Fla. Audubon Soc'y, 94 F.3d at 666-68; see Ctr. for Biological Diversity, 861 F.3d at 183-84. As to causation, the Sierra Club must show two links: "one connecting the omitted procedural step to some substantive government decision that may have been wrongly decided because of the lack of that procedural requirement" and "one connecting that substantive decision to the plaintiff's particularized injury." Ctr. for Biological Diversity, 861 F.3d at 184 (alterations and internal quotation marks omitted). The Sierra Club need not show that harm to a member "has in fact resulted from the EPA's procedural failures," but the Club must "demonstrate that there is a 'substantial probability' that local conditions will be adversely affected" by the final decision infected with procedural failures and "thus harm a [Club] member." *Id.* (quoting Am. Petroleum Inst. v. EPA, 216 F.3d 50, 63 (D.C. Cir. 2000) (per curiam)).

The Sierra Club has established injury and causation through at least two of its members, C. Elaine Giessel and William Fontenot. We begin by describing their interests, then we explain how the 2018 Rule affects those interests.

Giessel has aesthetic and recreational interests in observing the whooping crane. Watching birds, including whooping cranes, is one of her family's favorite activities. Add. 286. For many years, she has supported the conservation of critical habitat for the whooping crane. In 1997, she helped create an organization that supports a Texas wildlife refuge; she now visits the refuge annually to see the whooping cranes. Id. at 283-84. She also belongs to an organization that supports the Quivira National Wildlife Reserve in Kansas, and several times per year she visits that refuge and another in Kansas, the Cheyenne Bottoms State Waterfowl Management Area. She intends to continue visiting these areas "for the foreseeable future," and her "enjoyment would be greatly diminished by the loss of the Whooping cranes." *Id.* at 285. These interests are "undeniably . . . cognizable interest[s] for purpose of standing." Ctr. for Biological Diversity, 861 F.3d at 183 (quoting *Lujan*, 504 U.S. at 562-63).

Fontenot has similarly cognizable educational and conservation interests in observing and studying the sturgeon that live in the Gulf of Mexico and the Mississippi River Basin. He has visited their habitat in the Gulf and intends to do so again in the future. Add. 298. As the Conservation Chairman for a Sierra Club Chapter, he has "been active in efforts to protect the Gulf Sturgeon and its habitat," including commenting on the 2011 draft plan for the Bogue Chitto Refuge at the mouth of the Mississippi River. *Id.* at 299. He has studied sturgeon, such as those in the Pearl River in the Mississippi River Basin, and he wishes to continue studying the species because it helps him understand, protect, and educate others about the Gulf and the Mississippi River. *Id.* at 296-99.

The interests of Giessel and Fontenot are harmed by the EPA's alleged failure to comply with its ESA obligations in promulgating the 2018 Rule. The EPA's own 2018 Triennial Report concluded that the Program's annual standards likely cause the conversion of uncultivated land into agricultural land for growing crops that can be used to make biofuels. Since the Program was enacted, acreage planted with corn and soybeans has increased, and the evidence suggests that some of this increase "is a consequence of increased biofuel production mandates." Id. at 123-25. In the same vein, a declaration by Dr. Tyler Lark, an associate researcher at the University of Wisconsin-Madison's Center for Sustainability and the Global Environment. explains that many studies have found that the RFS Program has heightened demand for ethanol, thus increasing the production of corn, soybeans, and similar crops and incentivizing the conversion of uncultivated land to agricultural land for growing these crops. See id. at 3-7 (Lark Decl. ¶¶ 4-8). Land conversion is particularly marked in areas surrounding ethanol refineries. See id. at 7-8 (Lark Decl. ¶¶ 9-10).

According to the EPA's Triennial Report and Dr. Lark, this increase in crop production and land conversion harms the habitats of numerous animals and fish, see id. at 212-20; id. at 9-18 (Lark Decl. ¶¶ 12-23), including—critically—the particular habitats of the whooping cranes and Gulf sturgeon in which Giessel and Fontenot have interests. Dr. Lark explains that the Program's annual standards may negatively affect the whooping crane "through the loss and fragmentation of habitat." Id. at 13 (Lark Decl. ¶ 17). Most relevant to Giessel, "[t]here is substantial conversion of land to biofuel feedstock crops near the species' designated critical habitat in Kansas." Id. In support, Dr. Lark cites a map showing that potential land

conversion occurred from 2008 to 2016 near and within the very areas that Giessel visits to observe whooping cranes: the Quivira National Wildlife Reserve and Cheyenne Bottoms State Waterfowl Management Area. *Id.* The Triennial Report echoes this refrain, stating that the whooping crane's critical habitat in Kansas is "at risk of impairment" due to recent land conversion, crop production, and ethanol refinery locations. *Id.* at 64.

Gulf sturgeon are also at risk. The increase in crop production and land conversion caused by the Program's annual standards "negatively impact[s] water quality." Id. at 125-26. In particular, the standards contribute to oxygen deficiencies (known as hypoxia) in the northern Gulf of Mexico. *Id.* Indeed, "[t]he link between the Renewable Fuel Standard, increased cropping intensification, and hypoxia in the Gulf of Mexico" is "well established." Id. at 20 (Lark Decl. ¶ 27) (citing studies). This may harm sturgeon, which are "vulnerable" to hypoxia and have migration and feeding ranges and critical habitat in the Gulf and at the mouth of the Mississippi River. Id. at 21 (Lark Decl. ¶¶ 28-29); accord. id. at 65; see also Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Gulf Sturgeon, 68 Fed. Reg. 13,370, 13,390, 13,408 (Mar. 19, 2003) (defining the Gulf sturgeon's critical habitat to include the Pearl River and the Bogue Chitto River in the Mississippi River Basin). These are precisely the waterways where Fontenot observes and studies sturgeon. See Add. 296-99.

In these ways, the 2018 Rule created a demonstratable risk to the particularized interests of two Sierra Club members in the whooping crane in Kansas and the sturgeon in the Gulf and the Mississippi River Basin. That risk is an injury to those members. We

reached the same conclusion in Center for Biological Diversity v. EPA, 861 F.3d 174 (D.C. Cir. 2017). There, an environmental association likewise charged the EPA with failing to meet its ESA obligations before approving a pesticide that was toxic to insects. Id. at 180. We held that two members of the association suffered cognizable injuries because the EPA's alleged failure created a "demonstrable risk" to (1) a beetle that one member sought to observe in a particular habitat several times a year, and (2) a butterfly that lived in a county frequently visited by another member, who intended to return to the county "to look for" the butterfly. Id. at 183-84. Here, the 2018 Rule poses a similar risk to species that share a "geographical nexus" with the Sierra Club members. Id. (quoting Fla. Audubon Soc'y, 94 F.3d at 667). The members have suffered cognizable injuries.

As to causation, the EPA's alleged failure to comply with its ESA obligations is plainly connected to the setting of standards in the 2018 Rule, and those standards might have come out differently if the EPA had complied. See id. at 184. Also, there is a "substantial probability" that the EPA's ultimate decision adversely affected local conditions in Kansas, the Gulf, and the Mississippi River Basin, harming cranes and sturgeon to the detriment of Giessel and Fontenot. *Id.* (internal quotation marks omitted). This establishes causation. Again, Center for Biological Diversity is instructive. In that case, we held that causation existed due to the substantial probability that approving the pesticide threatened the members' interests, particularly given the pesticide's toxicity to insects and the "geographical overlap" between the beetle habitat and the areas of likely pesticide use. Id. at 184-85. The EPA action here similarly affects the local conditions that matter to Giessel and Fontenot. The Sierra Club has established that at least one of its members has suffered an injury caused by the EPA.

The EPA dismisses all this as "generalized concerns with RFS statutory provisions and past RFS action," which "do not provide 'evidence' that the 2018 Rule causes the same alleged injuries." EPA Br. 91. We disagree. The EPA's argument relies on the wrong standard. The Environmental Petitioners need not show that the 2018 Rule "in fact" causes the same injuries; they must show only a "substantial probability" of injury. Ctr. for Biological Diversity, 861 F.3d at 183-84 (internal quotation marks omitted). The EPA's Triennial Report and the Lark declaration provide evidence of just that. They describe the effects of the annual standards promulgated over the past decade, and the 2018 Rule is simply the next iteration of those standards. Thus, the report and declaration certainly serve as evidence of the likely effects of the 2018 Rule.

The EPA also argues that this case is more like Florida Audubon Society than Center for Biological Diversity. Not so. In Florida Audubon Society, an environmental association challenged a new federal tax credit that allegedly harmed wildlife habitats by incentivizing ethanol production. 94 F.3d at 662. We held that no member had standing because there was only a "general risk" of harm throughout the United States, without a "geographic nexus" connecting a member to areas harmed by the tax credit. *Id.* at 667-68. Also, the chain of causation showing that the tax credit would harm habitats was too "protracted" and "speculative," for the chain depended on "predictive assumptions" about uncertain incentives and "presume[d] certain 'independent action[s] of some third party." *Id*. at 670 (quoting Simon v. Eastern Ky. Welfare Rights

Org., 426 U.S. 26, 42 (1976)). By contrast, here the members of the Sierra Club share a geographic nexus with areas likely affected by the 2018 Rule, and the chain of causation does not depend on predictive assumptions about a novel agency action. We have a decade's worth of information, including the EPA's own Triennial Report, on the effects of the Program's annual standards. And unlike in Florida Audubon Society, those standards do not simply establish uncertain tax incentives that might lead third parties to take actions that harm habitats, but rather directly regulate biofuel producers who are "before this court." Id. at 670. It requires "no great speculative leap" to conclude that the EPA caused an injury to the members of the Sierra Club. Ctr. for Biological Diversity, 861 F.3d at 183 n.7.

This injury is also redressable. In this context, the requirement of redressability is "relaxed." *Id.* at 185 (quoting *WildEarth Guardians*, 738 F.3d at 306). The Sierra Club need not show that the EPA "would alter" the 2018 Rule if ordered to comply with its ESA obligations, but rather that "the EPA *could* reach a different conclusion." *Id.* (quoting *Nat'l Parks Conservation Ass'n v. Manson*, 414 F.3d 1, 5 (D.C. Cir. 2005)). The Sierra Club has made this showing. There "remains at least the possibility" that the EPA could set different standards by, for example, invoking the general waiver for severe environmental harm. *Id.*; *see* 42 U.S.C. § 7545(o)(7)(A)(i).

Having established that at least one of its members would have standing to sue, the Sierra Club has associational standing. We do not address whether the other Environmental Petitioner, the Gulf Restoration Network, has standing. When multiple associations bring suit, only one must have standing. See Ctr. for Biological Diversity, 861 F.3d at 182.

#### C. Preservation

The EPA next argues that we may not consider the Environmental Petitioners' challenge because it was not preserved. As we explained in Part IV.C, the Clean Air Act directs that "[o]nly an objection to a rule . . . raised with reasonable specificity during the period for public comment . . . may be raised during judicial review." 42 U.S.C. § 7607(d)(7)(B). An objection is reasonably specific if it provides "adequate notification of the general substance of the complaint." *Nat. Res. Def. Council*, 571 F.3d at 1259 (quoting *S. Coast Air Quality Mgmt. Dist.*, 472 F.3d at 891).

The Environmental Petitioners preserved their claim in a letter sent to the EPA on July 14, 2017. At that time, the upcoming fuel standards were those that were to be promulgated in the 2018 Rule. The letter criticizes the Program generally, but it also objects that the EPA did not consult on the Program's annual standards. The letter states on its first page that the EPA has violated the ESA "[b]y failing to initiate and complete consultation with the [Services] in . . . setting annual volumetric standards for renewable fuels" and in "failing to exercise[] its waiver authority." J.A. 1450. The letter elaborates that the "annual standards" have harmed various species, and in setting the standards, the EPA "ha[s] not complied" with its obligations under the ESA. J.A. 1458-69. The letter specifically identifies these annual standards through 2017.

The EPA argues that the letter is not sufficiently specific because it does not refer to the forthcoming 2018 standards or urge the EPA to consult on the 2018

Rule in particular. Given these omissions, we too might doubt that the letter preserved an objection to the 2018 Rule were it not for some additional facts: the EPA placed the letter in the administrative record for the 2018 Rule, and the letter appears on the EPA's rulemaking docket as a comment on the 2018 Rule. See EPA Docket, EPA-HQ-OAR-2017-0091-5030, J.A. 1450; Oral Arg. Tr. 106. In our view, these facts lend substantial support to the argument that the letter can be reasonably read to target the 2018 Rule and provided "adequate notification of the general substance" of the challenge. Nat. Res. Def. Council, 571 F.3d at 1259 (quoting S. Coast Air Quality Mgmt. Dist., 472 F.3d at 891). After all, the EPA's own actions reflect as much.

We note that the letter is dated July 14, 2017, making it possible that the EPA received the letter before and not "during the period for public comment" that opened on July 21. 42 U.S.C. § 7607(d)(7)(B) (emphasis added); see Proposed Rule, 82 Fed. Reg. at 34,206. But the EPA does not make that argument. See EPA Br. 86 (arguing that the letter was insufficiently specific, not that it was submitted outside the comment period); cf. id. at 86-87 & n.39 (arguing that other documents failed to preserve the challenge because they were submitted after the comment period). Perhaps the EPA does not urge this point because the letter was sent before the comment period but received during the period, which its placement on the rulemaking docket for the 2018 Rule suggests. In any event, we need not resolve this issue. Section 7607(d)(7)(B) does not impose jurisdictional requirements, so we are not obligated to address issues that go undisputed by the parties. See EPA v. EME Homer City Generation, LP, 572 U.S. 489, 511-12 (2014); CTS Corp. v. EPA, 759 F.3d 52, 60 n.2 (D.C. Cir. 2014). On this record and the arguments before us, we hold that the Environmental Petitioners preserved their ESA claim.

#### D. Merits

Because this claim survives the EPA's threshold objections, we turn to its merits. The Environmental Petitioners argue that the EPA did not comply with its obligations under the ESA in promulgating the 2018 Rule. The ESA requires each federal agency to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any [listed] species or result in the destruction or adverse modification" of designated critical habitat by adhering to the consultation process. 16 U.S.C. § 1536(a)(2); see Ctr. for Biological Diversity, 861 F.3d at 177-78; see also 50 C.F.R. § 402.02 (defining "listed species" as those "determined to be endangered or threatened" under 5 U.S.C. § 1533). As the first step in this process, the agency must make an "effects determination," i.e., the agency must assess whether a proposed action "may affect" listed species or critical habitat. 50 C.F.R. § 402.14(a). If so, the agency must engage in formal consultation with the Services. *Id.* But if the agency makes a "no effect" determination by finding that its proposed action "will not affect any listed species or critical habitat," then "it is not required to consult" with the Services. Ctr. for Biological Diversity v. US. Dep't of Interior, 563 F.3d 466, 475 (D.C. Cir. 2009) (emphasis added); see also 50 C.F.R. §§ 402.13(a), 402.14(b) (the consultation process terminates and no further action is necessary if the agency determines, with the written concurrence of the relevant Service, that the action "is not likely to adversely affect" any listed species or critical habitat).

The EPA claims that it was not obligated to make an effects determination or consult with the Services on the 2018 Rule because the Clean Air Act required the agency to establish certain fuel volumes, which eliminated any discretion it might otherwise have had to act differently based on information gathered through consulting with the Services. It is true that the EPA's duty to consult with the Services "covers only discretionary agency actions and does not attach to actions . . . that an agency is required by statute to undertake." Nat'l Ass'n of Home Builders v. Defs. of Wildlife, 551 U.S. 644, 669 (2007). But the EPA's argument fails because the agency had discretion to reduce fuel volumes in at least two ways. First, the EPA could have invoked its authority to issue a general waiver allowing it to reduce statutory volumes that "would severely harm the . . . environment of a State, a region, or the United States." 42 U.S.C. § 7545(o)(7)(A)(i). Second, the EPA retained discretion to establish volumes for biomass-based diesel. When setting such volumes, the EPA must consider six factors, one of which allows the EPA to modify volumes based on environmental considerations, such as concerns about wetland conversion, wildlife habitat, and water quality. *See id.* § 7545(o)(2)(B)(ii)(I).

The EPA next argues that it made a "no effect" determination, thus eliminating any obligation to consult with the Services. According to the EPA, it "expressly determined that its actions do not affect" listed species, EPA Br. 99, by stating in response to comments that "any harm to threatened or endangered species or their critical habitat that may be associated with crop cultivation in 2018 could not be attributed with reasonable certainty to EPA's action" in promulgating the 2018 Rule, *id.* (quoting J.A. 1249); see also J.A. 1253 (EPA similarly stating that "whatever impacts or threats to listed and endangered species or their critical habitats that may be caused by

corn or soy cultivation in 2018 cannot with reasonable certainty be attributed to" the 2018 Rule).

These statements are not a "no effect" determination. The inability to "attribute[]" environmental harms "with reasonable certainty" to the 2018 Rule, EPA Br. 99 (quoting J.A. 1249), is not the same as a finding that the 2018 Rule "will not affect" or "is not likely to adversely affect" listed species or critical habitat. Moreover, the EPA made this purported "no effect" determination in response to comments urging the EPA to reduce volumes through a finding of "severe environmental harm" under 42 U.S.C. § 7545(o)(7)(A)(i). See J.A. 1248-49. Concluding that the 2018 Rule may not cause harms that meet that high threshold does not necessarily mean the 2018 Rule will have no effect on listed species or critical habitat. Finally, the EPA's brief omits an important part of the purported "no effect" determination, which reads: "[W]e believe that even with additional research and analysis, . . . any harm to threatened or endangered species or their critical habitat that may be associated with crop cultivation in 2018 could not be attributed with reasonable certainty to EPA's action . . . . " J.A. 1249 (emphasis added). In other words, the EPA concluded that it is impossible to know whether the 2018 Rule will affect listed species or critical habitat. That is not the same as determining that the 2018 Rule "will not" affect them.

By failing to make an effects determination, the EPA did not comply with its obligations under the ESA. See 16 U.S.C. § 1536(a)(2); 50 C.F.R. §§ 402.13(a), 402.14(a). We therefore grant the Environmental Petitioners' petition for review and remand the 2018 Rule to the EPA to make an appropriate effects determination. See Ctr. for Biological Diversity, 861

F.3d at 188-89; Am. Bird Conservancy, Inc. v. FCC, 516 F.3d 1027, 1034-35 (D.C. Cir. 2008).

The Environmental Petitioners ask us to go a step further and make the effects determination ourselves. In their view, the evidence conclusively establishes that the 2018 Rule "may affect" listed species or critical habitat. Envtl. Pet'rs Br. 28-29. This would trigger formal consultation, 50 C.F.R. § 402.14(a), and so the Environmental Petitioners ask us to order the EPA to consult with the Services, Envtl. Pet'rs Br. 30. On this record, we decline to make this effects determination on the EPA's behalf, preferring instead to allow the EPA to develop the record and decide the issue in the first instance on remand. See Ctr. for Biological Diversity, 861 F.3d at 189 n.13.

Finally, the Environmental Petitioners do not ask us to vacate the 2018 Rule. Envtl. Pet'rs Br. 31 (seeking remand "without vacatur"). Accordingly, and consistent with our practice in similar cases, our remand is without vacatur. See, e.g., Ctr. for Biological Diversity, 861 F.3d at 188-89; North Carolina v. EPA, 550 F.3d 1176, 1178 (D.C. Cir. 2008) (per curiam).

#### VII. Conclusion

For the foregoing reasons, we deny the petitions for review filed by American Fuel & Petrochemical Manufacturers, Valero Energy Corporation, and the National Biodiesel Board. We grant the Environmental Petitioners' petition for review and remand the 2018 Rule without vacatur for further proceedings consistent with this opinion.

So ordered.

#### APPENDIX C

# Title 42—The Public Health and Welfare 42 U.S.C. § 7545. Regulation of Fuels

#### [Content Omitted]

# 42 U.S.C. § 7545(o). Renewable fuel program

#### (1) Definitions

In this section:

#### (A) Additional renewable fuel

The term "additional renewable fuel" means fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in home heating oil or jet fuel.

## (B) Advanced biofuel

# (i) In general

The term "advanced biofuel" means renewable fuel, other than ethanol derived from corn starch, that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than baseline lifecycle greenhouse gas emissions.

#### (ii) Inclusions

The types of fuels eligible for consideration as "advanced biofuel" may include any of the following:

(I) Ethanol derived from cellulose, hemicellulose, or lignin.

- (II) Ethanol derived from sugar or starch (other than corn starch).
- (II) Ethanol derived from waste material, including crop residue, other vegetative waste material, animal waste, and food waste and yard waste.
  - (IV) Biomass-based diesel.
- (V) Biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from renewable biomass.
- (VI) Butanol or other alcohols produced through the conversion of organic matter from renewable biomass.
- (VII) Other fuel derived from cellulosic biomass.
- (C) Baseline lifecycle greenhouse gas emissions

The term "baseline lifecycle greenhouse gas emissions" means the average lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005.

#### (D) Biomass-based diesel

The term "biomass-based diesel" means renewable fuel that is biodiesel as defined in section 13220(f) of this title and that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than the baseline lifecycle greenhouse gas emissions.

Notwithstanding the preceding sentence, renewable fuel derived from co-processing biomass with a petroleum feedstock shall be advanced biofuel if it meets the requirements of subparagraph (B), but is not biomass-based diesel.

#### (E) Cellulosic biofuel

The term "cellulosic biofuel" means renewable fuel derived from any cellulose, hemicellulose, or lignin that is derived from renewable biomass and that has lifecycle greenhouse gas emissions, as determined by the Administrator, that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.

#### (F) Conventional biofuel

The term "conventional biofuel" means renewable fuel that is ethanol derived from corn starch.

## (G) Greenhouse gas

The term "greenhouse gas" means carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, sulfur hexafluoride. The Administrator may include any other anthropogenically-emitted gas that is determined by the Administrator, after notice and comment, to contribute to global warming.

# (H) Lifecycle greenhouse gas emissions

The term "lifecycle greenhouse gas emissions" means the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant

<sup>&</sup>lt;sup>9</sup> So in original. The word "and" probably should appear.

emissions from land use changes), as determined by the Administrator, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.

#### (I) Renewable biomass

The term "renewable biomass" means each of the following:

- (i) Planted crops and crop residue harvested from agricultural land cleared or cultivated at any time prior to December 19, 2007, that is either actively managed or fallow, and nonforested.
- (ii) Planted trees and tree residue from actively managed tree plantations on non-federal<sup>10</sup> land cleared at any time prior to December 19, 2007, including land belonging to an Indian tribe or an Indian individual, that is held in trust by the United States or subject to a restriction against alienation imposed by the United States.
- (iii) Animal waste material and animal byproducts.
- (iv) Slash and pre-commercial thinnings that are from non-federal<sup>10</sup> forestlands, including forestlands belonging to an Indian tribe

<sup>&</sup>lt;sup>10</sup> So in original. Probably should be "non-Federal".

or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States, but not forests or forestlands that are ecological communities with a global or State ranking of critically imperiled, imperiled, or rare pursuant to a State Natural Heritage Program, old growth forest, or late successional forest.

- (v) Biomass obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, at risk from wildfire.
  - (vi) Algae.
- (vii) Separated yard waste or food waste, including recycled cooking and trap grease.

#### (J) Renewable fuel

The term "renewable fuel" means fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel.

# (K) Small refinery

The term "small refinery" means 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.

# (L) Transportation fuel

The term "transportation fuel" means fuel for use in motor vehicles, motor vehicle engines,

nonroad vehicles, or nonroad engines (except for ocean-going vessels).

# (2) Renewable fuel program

# (A) Regulations

# (i) In general

Not later than 1 year after August 8, 2005, the Administrator shall promulgate regulations to ensure that gasoline sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains the applicable volume of renewable fuel determined in accordance with subparagraph (B). Not later than 1 year after December 19, 2007, the Administrator shall revise the regulations under this paragraph to ensure that transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains at least the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, and biomassbased diesel, determined in accordance with subparagraph (B) and, in the case of any such renewable fuel produced from new facilities that commence construction after December 19, 2007, achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions.

# (ii) Noncontiguous State opt-in

## (I) In general

On the petition of a noncontiguous State or territory, the Administrator may allow the renewable fuel program established under this subsection to apply in the noncontiguous State or territory at the same time or any time after the Administrator promulgates regulations under this subparagraph.

# (II) Other actions

In carrying out this clause, the Administrator may—

- (aa) issue or revise regulations under this paragraph;
- (bb) establish applicable percentages under paragraph (3);
- (cc) provide for the generation of credits under paragraph (5); and
- (dd) take such other actions as are necessary to allow for the application of the renewable fuels program in a noncontiguous State or territory.

# (iii) Provisions of regulations

Regardless of the date of promulgation, the regulations promulgated under clause (i)—

(I) shall contain compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate,

to ensure that the requirements of this paragraph are met; but

# (II) shall not—

- (aa) restrict geographic areas in which renewable fuel may be used; or
- (bb) impose any per-gallon obligation for the use of renewable fuel.
- (iv) Requirement in case of failure to promulgate regulations

If the Administrator does not promulgate regulations under clause (i), the percentage of renewable fuel in gasoline sold or dispensed to consumers in the United States, on a volume basis, shall be 2.78 percent for calendar year 2006.

# (B) Applicable volumes

# (i) Calendar years after 2005

# (I) Renewable fuel

For the purpose of subparagraph (A), the applicable volume of renewable fuel for the calendar years 2006 through 2022 shall be determined in accordance with the following table:

	Applicable
	volume of
	renewable fuel
	(in billions
Calendar year:	of gallons):
2006	4.0
2007	4.7
2008	9.0
2009	11.1
2010	12.95
2011	13.95
2012	15.2
2013	16.55
2014	18.15
2015	20.5
2016	22.25
2017	24.0
2018	26.0
2019	28.0
2020	30.0
2021	33.0
2022	36.0

# (II) Advanced biofuel

For the purpose of subparagraph (A), of the volume of renewable fuel required under subclause (I), the applicable volume of advanced biofuel for the calendar years 2009 through 2022 shall be determined in accordance with the following table:

	O
	Applicable volume of
	renewable fuel
	(in billions
Calendar year:	of gallons):
2009	0.6
2010	0.95
2011	1.35
2012	2.0
2013	2.75
2014	3.75
2015	5.5
2016	7.25
2017	9.0
2018	11.0
2019	13.0
2020	15.0
2021	18.0
2022	21.0

# (III) Cellulosic biofuel

For the purpose of subparagraph (A), of the volume of advanced biofuel required under subclause (II), the applicable volume of cellulosic biofuel for the calendar years 2010 through 2022 shall be determined in accordance with the following table:

	8
	Applicable
	volume of
	renewable fuel
	(in billions
Calendar year:	of gallons):
2010	0.1
2011	0.25
2012	0.5
2013	1.0
2014	1.75
2015	3.0
2016	4.25
2017	5.5
2018	7.0
2019	8.5
2020	10.5
2021	13.5
2022	16.0

# (IV) Biomass-based diesel

For the purpose of subparagraph (A), of the volume of advanced biofuel required under subclause (II), the applicable volume of biomass-based diesel for the calendar years 2009 through 2012 shall be determined in accordance with the following table:

	Applicable
	volume of
	renewable fuel
	(in billions
Calendar year:	of gallons):
2009	0.5
2010	0.65
2011	0.80
2012	1.0

## (ii) Other calendar years

For the purposes of subparagraph (A), the applicable volumes of each fuel specified in the tables in clause (i) for calendar years after the calendar years specified in the tables shall be determined by the Administrator, in coordination with the Secretary of Energy and the Secretary of Agriculture, based on a review of the implementation of the program during calendar years specified in the tables, and an analysis of—

(I) the impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply;

- (II) the impact of renewable fuels on the energy security of the United States;
- (III) the expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and biomassbased diesel);
- (IV) the impact of renewable fuels on the infrastructure of the United States, including deliverability of materials, goods, and products other than renewable fuel, and the sufficiency of infrastructure to deliver and use renewable fuel;
- (V) the impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods; and
- (VI) the impact of the use of renewable fuels on other factors, including job creation, the price and supply of agricultural commodities, rural economic development, and food prices.

The Administrator shall promulgate rules establishing the applicable volumes under this clause no later than 14 months before the first year for which such applicable volume will apply.

# (iii) Applicable volume of advanced biofuel

For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of advanced

biofuel shall be at least the same percentage of the applicable volume of renewable fuel as in calendar year 2022.

# (iv) Applicable volume of cellulosic biofuel

For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of cellulosic biofuel established by the Administrator shall be based on the assumption that the Administrator will not need to issue a waiver for such years under paragraph (7)(D).

(v) Minimum applicable volume of biomassbased diesel

For the purpose of making the determinations in clause (ii), the applicable volume of biomass-based diesel shall not be less than the applicable volume listed in clause (i)(IV) for calendar year 2012.

# (3) Applicable percentages

(A) Provision of estimate of volumes of gasoline sales

Not later than October 31 of each of calendar years 2005 through 2021, the Administrator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel projected to be sold or introduced into commerce in the United States.

## (B) Determination of applicable percentages

## (i) In general

Not later than November 30 of each of calendar years 2005 through 2021, based on the estimate provided under subparagraph (A), the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register, with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of paragraph (2) are met.

## (ii) Required elements

The renewable fuel obligation determined for a calendar year under clause (i) shall—

- (I) be applicable to refineries, blenders, and importers, as appropriate;
- (II) be expressed in terms of a volume percentage of transportation fuel sold or introduced into commerce in the United States; and
- (III) subject to subparagraph (C)(i), consist of a single applicable percentage that applies to all categories of persons specified in subclause (I).

# (C) Adjustments

In determining the applicable percentage for a calendar year, the Administrator shall make adjustments—

(i) to prevent the imposition of redundant obligations on any person specified in subparagraph (B)(ii)(I); and

- (ii) to account for the use of renewable fuel during the previous calendar year by small refineries that are exempt under paragraph (9).
- (4) Modification of greenhouse gas reduction percentages

# (A) In general

The Administrator may, in the regulations under the last sentence of paragraph (2)(A)(i), adjust the 20 percent, 50 percent, and 60 percent reductions in lifecycle greenhouse gas emissions specified in paragraphs (2)(A)(i) (relating to renewable fuel), (1)(D) (relating to biomass-based diesel), (1)(B)(i) (relating to advanced biofuel), and (1)(E) (relating to cellulosic biofuel) to a lower percentage. For the 50 and 60 percent reductions, the Administrator may make such an adjustment only if he determines that generally such reduction is not commercially feasible for fuels made using a variety of feedstocks, technologies, and processes to meet the applicable reduction.

#### (B) Amount of adjustment

In promulgating regulations under this paragraph, the specified 50 percent reduction in greenhouse gas emissions from advanced biofuel and in biomass-based diesel may not be reduced below 40 percent. The specified 20 percent reduction in green-house gas emissions from renewable fuel may not be reduced below 10 percent, and the specified 60 percent reduction in greenhouse gas emissions from cellulosic biofuel may not be reduced below 50 percent.

# (C) Adjusted reduction levels

An adjustment under this paragraph to a percent less than the specified 20 percent greenhouse gas reduction for renewable fuel shall be the minimum possible adjustment, and the adjusted greenhouse gas reduction shall be established by the Administrator at the maximum achievable level, taking cost in consideration, for natural gas fired corn-based ethanol plants, allowing for the use of a variety of technologies and processes. An adjustment in the 50 or 60 percent greenhouse gas levels shall be the minimum possible adjustment for the fuel or fuels concerned, and the adjusted greenhouse gas reduction shall be established at the maximum achievable level, taking cost in consideration, allowing for the use of a variety of feedstocks, technologies, and processes.

## (D) 5-year review

Whenever the Administrator makes any adjustment under this paragraph, not later than 5 years thereafter he shall review and revise (based upon the same criteria and standards as required for the initial adjustment) the regulations establishing the adjusted level.

## (E) Subsequent adjustments

After the Administrator has promulgated a final rule under the last sentence of paragraph (2)(A)(i) with respect to the method of determining lifecycle greenhouse gas emissions, except as provided in subparagraph (D), the Administrator may not adjust the percent greenhouse gas reduction levels unless he determines that there has been a significant change in the

analytical methodology used for determining the lifecycle greenhouse gas emissions. If he makes such determination, he may adjust the 20, 50, or 60 percent reduction levels through rulemaking using the criteria and standards set forth in this paragraph.

## (F) Limit on upward adjustments

If, under subparagraph (D) or (E), the Administrator revises a percent level adjusted as provided in subparagraphs (A), (B), and (C) to a higher percent, such higher percent may not exceed the applicable percent specified in paragraph (2)(A)(i), (1)(D), (1)(B)(i), or (1)(E).

## (G) Applicability of adjustments

If the Administrator adjusts, or revises, a percent level referred to in this paragraph or makes a change in the analytical methodology used for determining the lifecycle greenhouse gas emissions, such adjustment, revision, or change (or any combination thereof) shall only apply to renewable fuel from new facilities that commence construction after the effective date of such adjustment, revision, or change.

# (5) Credit program

# (A) In general

The regulations promulgated under paragraph (2)(A) shall provide—

(i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports gasoline that contains a quantity of renewable fuel that is greater than the quantity required under paragraph (2);

- (ii) for the generation of an appropriate amount of credits for biodiesel; and
- (iii) for the generation of credits by small refineries in accordance with paragraph (9)(C).

# (B) Use of credits

A person that generates credits under subparagraph (A) may use the credits, or transfer all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

#### (C) Duration of credits

A credit generated under this paragraph shall be valid to show compliance for the 12 months as of the date of generation.

(D) Inability to generate or purchase sufficient credits

The regulations promulgated under paragraph (2)(A) shall include provisions allowing any person that is unable to generate or purchase sufficient credits to meet the requirements of paragraph (2) to carry forward a renewable fuel deficit on condition that the person, in the calendar year following the year in which the renewable fuel deficit is created—

- (i) achieves compliance with the renewable fuel requirement under paragraph (2); and
- (ii) generates or purchases additional renewable fuel credits to offset the renewable fuel deficit of the previous year.

#### (E) Credits for additional renewable fuel

The Administrator may issue regulations providing: (i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports additional renewable fuels specified by the Administrator; and (ii) for the use of such credits by the generator, or the transfer of all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

#### (6) Seasonal variations in renewable fuel use

#### (A) Study

For each of calendar years 2006 through 2012, the Administrator of the Energy Information Administration shall conduct a study of renewable fuel blending to determine whether there are excessive seasonal variations in the use of renewable fuel.

# (B) Regulation of excessive seasonal variations

If, for any calendar year, the Administrator of the Energy Information Administration, based on the study under sub-paragraph (A), makes the determinations specified in subparagraph (C), the Administrator of the Environmental Protection Agency shall promulgate regulations to en-sure that 25 percent or more of the quantity of renewable fuel necessary to meet the requirements of paragraph (2) is used during each of the 2 periods specified in subparagraph (D) of each subsequent calendar year.

#### (C) Determinations

The determinations referred to in subparagraph (B) are that—

- (i) less than 25 percent of the quantity of renewable fuel necessary to meet the requirements of paragraph (2) has been used during 1 of the 2 periods specified in subparagraph (D) of the calendar year;
- (ii) a pattern of excessive seasonal variation described in clause (i) will continue in subsequent calendar years; and
- (iii) promulgating regulations or other requirements to impose a 25 percent or more seasonal use of renewable fuels will not prevent or interfere with the attainment of national ambient air quality standards or significantly increase the price of motor fuels to the consumer.

## (D) Periods

The 2 periods referred to in this paragraph are—

- (i) April through September; and
- (ii) January through March and October through December.

#### (E) Exclusion

Renewable fuel blended or consumed in calendar year 2006 in a State that has received a waiver under section 7543(b) of this title shall not be included in the study under subparagraph (A).

(F) State exemption from seasonality requirements

Notwithstanding any other provision of law, the seasonality requirement relating to renewable fuel use established by this paragraph shall not apply to any State that has received a waiver under section 7543(b) of this title or any State dependent on refineries in such State for gasoline supplies.

# (7) Waivers

# (A) In general

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

- (i) based on a determination by the Administrator, after public notice and opportunity for comment, that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States; or
- (ii) based on a determination by the Administrator, after public notice and opportunity for comment, that there is an inadequate domestic supply.

#### (B) Petitions for waivers

The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall approve or disapprove a petition for a waiver of the requirements of paragraph (2) within 90 days after the date on which the petition is received by the Administrator.

#### (C) Termination of waivers

A waiver granted under subparagraph (A) shall terminate after 1 year, but may be renewed by the Administrator after consultation with the Secretary of Agriculture and the Secretary of Energy.

#### (D) Cellulosic biofuel

(i) For any calendar year for which the projected volume of cellulosic biofuel production is less than the minimum applicable volume established under paragraph (2)(B), determined by the Administrator based on the estimate provided under paragraph (3)(A), not later than November 30 of the preceding calendar year, the Administrator shall reduce the applicable volume of cellulosic biofuel required under paragraph (2)(B) to the projected volume available during that calendar year. For any calendar year in which the Administrator makes such a reduction, the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B) by the same or a lesser volume.

- (ii) Whenever the Administrator reduces the minimum cellulosic biofuel volume under this subparagraph, the Administrator shall make available for sale cellulosic biofuel credits at the higher of \$0.25 per gallon or the amount by which \$3.00 per gallon exceeds the average wholesale price of a gallon of gasoline in the United States. Such amounts shall be adjusted for inflation by the Administrator for years after 2008.
- (iii) Eighteen months after December 19, 2007, the Administrator shall promulgate regulations to govern the issuance of credits under this subparagraph. The regulations shall set forth the method for determining the exact price of credits in the event of a waiver. The price of such credits shall not be changed more frequently than once each quarter. These regulations shall include such provisions, including limiting the credits' uses and useful life, as the Administrator deems appropriate to assist market liquidity and transparency, to provide appropriate certainty for regulated entities and renewable fuel producers, and to limit any potential misuse of cellulosic biofuel credits to reduce the use of other renewable fuels, and for such other purposes as the Administrator determines will help achieve the goals of this subsection. The regulations shall limit the number of cellulosic biofuel credits for any calendar year to the minimum applicable volume (as reduced under this subparagraph) of cellulosic biofuel for that year.

#### (E) Biomass-based diesel

#### (i) Market evaluation

The Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, shall periodically evaluate the impact of the biomass-based diesel requirements established under this paragraph on the price of diesel fuel.

#### (ii) Waiver

If the Administrator determines that there is a significant renewable feedstock disruption or other market circumstances that would make the price of biomass-based diesel fuel increase significantly, the Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, shall issue an order to reduce, for up to a 60day period, the quantity of biomass-based diesel required under subparagraph (A) by an appropriate quantity that does not exceed 15 percent of the applicable annual requirement for biomass-based diesel. For any calendar year in which the Administrator makes a reduction under this subparagraph, the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B) by the same or a lesser volume.

#### (iii) Extensions

If the Administrator determines that the feedstock disruption or circumstances described in clause (ii) is continuing beyond the 60-day period described in clause (ii) or this clause, the Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, may issue an order to reduce, for up to an additional 60- day period, the quantity of biomass-based diesel required under subparagraph (A) by an appropriate quantity that does not exceed an additional 15 percent of the applicable annual requirement for biomass- based diesel.

# (F) Modification of applicable volumes

For any of the tables in paragraph (2)(B), if the Administrator waives—

- (i) at least 20 percent of the applicable volume requirement set forth in any such table for 2 consecutive years; or
- (ii) at least 50 percent of such volume requirement for a single year,

the Administrator shall promulgate a rule (within 1 year after issuing such waiver) that modifies the applicable volumes set forth in the table concerned for all years following the final year to which the waiver applies, except that no such modification in applicable volumes shall be made for any year before 2016. In promulgating such a rule, the Administrator shall comply with the processes, criteria, and standards set forth in paragraph (2)(B)(ii).

# (8) Study and waiver for initial year of program

#### (A) In general

Not later than 180 days after August 8, 2005, the Secretary of Energy shall conduct for the Administrator a study assessing whether the renewable fuel requirement under paragraph

- (2) will likely result in significant adverse impacts on consumers in 2006, on a national, regional, or State basis.
- (B) Required evaluations

The study shall evaluate renewable fuel—

- (i) supplies and prices;
- (ii) blendstock supplies; and
- (iii) supply and distribution system capabilities.

## (C) Recommendations by the Secretary

Based on the results of the study, the Secretary of Energy shall make specific recommendations to the Administrator concerning waiver of the requirements of paragraph (2), in whole or in part, to prevent any adverse impacts described in subparagraph (A).

#### (D) Waiver

# (i) In general

Not later than 270 days after August 8, 2005, the Administrator shall, if and to the extent recommended by the Secretary of Energy under subparagraph (C), waive, in whole or in part, the renewable fuel requirement under paragraph (2) by reducing the national quantity of renewable fuel required under paragraph (2) in calendar year 2006.

# (ii) No effect on waiver authority

Clause (i) does not limit the authority of the Administrator to waive the requirements of paragraph (2) in whole, or in part, under paragraph (7).

- (9) Small refineries
  - (A) Temporary exemption
    - (i) In general

The requirements of paragraph (2) shall not apply to small refineries until calendar year 2011.

- (ii) Extension of exemption
  - (I) Study by Secretary of Energy

Not later than December 31, 2008, the Secretary of Energy shall conduct for the Administrator a study to determine whether compliance with the requirements of paragraph (2) would impose a disproportionate economic hardship on small refineries.

# (II) Extension of exemption

In the case of a small refinery that the Secretary of Energy determines under subclause (I) would be subject to a disproportionate economic hardship if required to comply with paragraph (2), the Administrator shall extend the exemption under clause (i) for the small refinery for a period of not less than 2 additional years.

- (B) Petitions based on disproportionate economic hardship
  - (i) Extension of exemption

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.

# (ii) Evaluation of petitions

In evaluating a petition under clause (i), the Administrator, in consultation with the Secretary of Energy, shall consider the findings of the study under subparagraph (A)(ii) and other economic factors.

## (iii) Deadline for action on petitions

The Administrator shall act on any petition submitted by a small refinery for a hardship exemption not later than 90 days after the date of receipt of the petition.

# (C) Credit program

If a small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A), the regulations promulgated under paragraph (2)(A) shall provide for the generation of credits by the small refinery under paragraph (5) beginning in the calendar year following the date of notification.

# (D) Opt-in for small refineries

A small refinery shall be subject to the requirements of paragraph (2) if the small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A).

## (10) Ethanol market concentration analysis

# (A) Analysis

# (i) In general

Not later than 180 days after August 8, 2005, and annually thereafter, the Federal Trade Commission shall perform a market concentration analysis of the ethanol production industry using the Herfindahl-Hirschman Index to determine whether there is sufficient competition among industry participants to avoid price-setting and other anticompetitive behavior.

## (ii) Scoring

For the purpose of scoring under clause (i) using the Herfindahl-Hirschman Index, all marketing arrangements among industry participants shall be considered.

# (B) Report

Not later than December 1, 2005, and annually thereafter, the Federal Trade Commission shall submit to Congress and the Administrator a report on the results of the market concentration analysis performed under subparagraph (A)(i).

#### (11) Periodic reviews

To allow for the appropriate adjustment of the requirements described in subparagraph (B) of paragraph (2), the Administrator shall conduct periodic reviews of—

- (A) existing technologies;
- (B) the feasibility of achieving compliance with the requirements; and

(C) the impacts of the requirements described in subsection  $(a)(2)^{11}$  on each individual and entity described in paragraph (2).

## (12) Effect on other provisions

Nothing in this subsection, or regulations issued pursuant to this subsection, shall affect or be construed to affect the regulatory status of carbon dioxide or any other greenhouse gas, or to expand or limit regulatory authority regarding carbon dioxide or any other greenhouse gas, for purposes of other provisions (including section 7475) of this chapter. The previous sentence shall not affect implementation and enforcement of this subsection.

## [Content Omitted]

<sup>&</sup>lt;sup>11</sup> So in original. Subsection (a) does not contain a par. (2).