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A Captive Consumer Paradox: The D.C. Circuit's Attempt to Bring Symmetry to Clean Air Act Incentives for Cellulosic Biofuel Production

American Petroleum Institute v. EPA¹

I. Introduction

In his 2008 State of the Union Address, President George W. Bush asked the nation's scientists, farmers, and entrepreneurs to unite in the goal of reducing the United States' gasoline usage by twenty percent in ten years—coining prospect "Twenty in Ten." A key element to the President's vision called for Congress to "[increase] the supply of renewable and alternative fuels by setting a Mandatory Fuels Standard . . . requir[ing] 35 billion gallons of renewable and alternative fuels in 2017." The President believed the more ambitious transportation fuel standard would drive American innovation in advanced biofuels—a more sustainable and environmentally friendly alternative to a purely fossil fuel driven economy. In support of this proposition, Congress passed a series of bills mandating production and authorizing loan guarantees, subsidies, and tax credits to support a competitive advanced-biofuel industry.

The Federal Government's command for production and ingenuity in the advanced biofuel industry, while well intended, has been a source of controversy.⁶ Proponents of the government's biofuel incentives argue advanced-biofuels are the

¹ 706 F.3d 474, 475 (C.A.D.C. Jan. 2013).

² Twenty In Ten: Strengthening America's Energy Security, THEWHITEHOUSE.GOV (last visited Feb. 22, 2013), http://georgewbush-whitehouse.archives.gov/stateoftheunion/2007/initiatives/energy.html.

³ Id. ⁴ Id.

⁵ pdf Kelsi Bracmort, et al., Cong. Research Serv., RL34738, Cellulosic Biofuels: Analysis of Policy Issues for Congress, Summary (2010), available at http://www.fas.org/sgp/crs/misc/RL34738.pdf. ⁶ See id.

answer to high petroleum prices, pollution, and long-term sustainability. Furthermore, advanced-biofuel is seen as a more economically efficient alternative to accomplishing these ends than corn-based ethanol and biodiesel, the primary biofuels currently utilized in the United States. Opponents of biofuel incentives argue that advancements and technological innovation in the fossil fuel industry cause such fuels to be more economically efficient in meeting the country's energy needs. Critics also argue government subsidies of advanced-biofuels distort energy markets and divert funds from cleaner, more sustainable, energy sources such as wind, solar, or geothermal energy. Description of the substantial energy and t

The case presented here arises out of the tension created by the federal government's policy investment in the advanced-biofuel industry. In *American Petroleum Institute v. EPA*, the United States Court of Appeals for the District of Columbia Circuit struck down an EPA promulgated mandatory fuel standard requiring gasoline to contain a minimum volume of cellulosic biofuel, a promising advanced-biofuel derived from cellulose, in the year 2012.¹¹ Although lauded by the media as a major win for oil refiners, because the cellulosic biofuel industry is in its infancy, the decision may have little effect in the coming years.

⁷ *Id.* at 1.

⁸ *Id.* The long-term economic viability relying solely on these two alternative fuels is questionable, the volume of fuel that can be produced from traditional role crops without causing disruption in other major markets is limited. *Id.*

⁹ Id. ¹⁰ Id.

¹¹ Am. Petroleum Inst. v. EPA, 706 F.3d 474, 475 (C.A.D.C. Jan. 2013). Cellulosic biofuel is an advanced biofuel produced from cellulose, the structural component of plant cells. BRACMORT, ET AL., *supra* note 4, at 1.

II. FACTS AND HOLDING

In 2005, Congress established a "renewable fuel standard" program ("RFS") as an amendment to the Clean Air Act ("CAA"). 12 Congress amended the RFS in 2007, in accordance with the "Twenty in Ten" initiative, to require transportation fuel sold in the United States to contain an increasing percentage of renewable fuel through 2022. 13 The amendment codified volume requirements for all advanced biofuels to be mixed into transportation fuel each year until 2022. 14 In order to comply with the RFS program, fuel refiners must produce transportation fuel containing a minimum volume of applicable advanced biofuels each year. 15 Refiners who fail to meet minimum applicable standards are required to purchase per gallon "credits" to meet compliance standards—in practice this operates as a fine. 16

Congress chose cellulosic biofuel as the advanced biofuel central to the policy's goal. As codified, the RFS program requires more than three fourths of the total advanced biofuel sold in the United States after January 1, 2022, to be cellulosic biofuel. The goals set for cellulosic biofuel assumes significant innovation in the industry; when Congress passed the RFS program there was no commercial production of cellulosic biofuel in the United States. Because of the potential for actual cellulosic biofuel production to fall short of its yearly statutory mandate, the RFS program requires the EPA to set a lower yearly production projection estimate for cellulosic biofuel. The

¹² Am. Petroleum Inst., 706 F.3d at 475.

¹³ *Id*.

¹⁴ *Id.* "Advanced biofuels" "produce lower greenhouse emissions than conventional renewable fuels such as corn-based ethanol." *Id.*

¹⁵ *Id.* at 475-76.

¹⁶ See generally 42 U.S.C. § 7545(o)(5) (2012).

¹⁷ Am. Petroleum Inst., 706 F.3d at 476.

¹⁸ Id

¹⁹ *Id*.

²⁰ *Id*.

Energy Information Administration ("EIA")²¹ provides the estimates that those projections are based on.²² Production is estimated by surveying cellulosic biofuel producers.²³ In the event the EPA makes a production projection for cellulosic biofuel lower than the statutory mandate, the Agency has discretion to reduce the total volume of advanced biofuels required in fuel for that year.²⁴

For the year 2011 the EPA projected cellulosic biofuel production to reach 6.6 million gallons.²⁵ Due to the still embryonic character of the industry, actual reported production was zero.²⁶ Despite this reality, in January 2012, the EPA promulgated a minimum applicable volume for cellulosic biofuel based on a production projection of 8.65 million gallons for the year.²⁷ The Agency's predictive methodology yielded a projection nearly 2 million gallons greater than the EIA's projection of 6.8 million gallons.²⁸ The EPA justified such over estimation with the need to promote growth in the cellulosic biofuel, believing under estimation could potentially harm the fragile industry.²⁹

²¹ U.S. Energy Info. Admin., *About us*, EIA.gov, http://www.eia.gov/about/ (""The U.S. Energy Information Administration (EIA) [is a section of the United States Department of Energy that] collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.").

²² Am. Petroleum Inst., 706 F.3d at 476.

²³ *Id*.

²⁴ *Id*.

²⁵ Id. at 478, n. 1.

²⁶ Id.

²⁷ *Id.* at 476. For the year 2012 the RFS statute mandated the sale of half a billion gallons of cellulosic biofuel. *Id.*

²⁸ *Id.* at 477.

²⁹ Id. at 478.

As passed by Congress, the RFS statute mandated the sale of nearly half a billion gallons of cellulosic biofuel in 2012.³⁰ The projected shortfall in cellulosic biofuel production meant a 490 million gallon deficit in the total volume of advanced biofuel required in fuel for the year.³¹ Despite the EPA's low projection of cellulosic biofuel production, the Agency refused to lower the total volume of advanced biofuel required in 2012.³² The EPA concluded other advanced biofuels, specifically sugarcane ethanol and biomass-based diesel, would make up for the large shortfall.³³

The American Petroleum Institute ("API")³⁴, on behalf of the petroleum industry, filed a claim in United States Court of Appeals for the District of Columbia Circuit seeking judicial review of the EPA's promulgation of these renewable fuel standards.³⁵ First, API challenged that the "EPA's 2012 volume requirement for cellulosic biofuel [was] arbitrary and capricious and exceed[ed] the agency's statutory authority."³⁶ Specifically, that the EPA should have based its production projection on the EIA's estimate and should not have employed a "supplementary analysis."³⁷ API also argued the EPA utilized a methodology biased towards over statement because it relied on predictions

³⁰ Id. at 476.

³¹ Id. at 480-81.

³² Id. at 476.

³³ Id. at 480-81.

³⁴ The American Petroleum Institute is a national trade association representing over 500 petroleum and gas "producers, refiners, suppliers, pipeline operators and marine transporters." API's mission is "to influence public policy in support of a strong, viable U.S. oil and natural gas industry." *About API*, API.ORG (2013),

http://www.api.org/globalitems/globalheaderpages/about-api/api-overview.aspx.

³⁵ Am. Petroleum Inst., 706 F.3d at 476. Judicial review of CAA standards must be sought in the Court of Appeals for the District of Columbia Circuit. 42 U.S.C.A. § 7607(b)(1).

³⁶ Brief for Petitioner at 23, Am. Petroleum Inst. v. EPA, 706 F.3d 474 (D.C. Cir. 2013) No. 12-1139.

³⁷ Am. Petroleum Inst., 706 F.3d at 478.

from cellulosic biofuel producers, which in the past have been overestimated.³⁸ Second, API argued the EPA's justification for overestimation, to stimulate growth in the cellulosic biofuel industry, has no basis in the CAA.³⁹ Lastly, API alleged the "EPA's decision not to decrease the [total] advanced biofuel standard for 2012 was arbitrary and capricious" under the CAA.⁴⁰ API argued the agency failed to provide a reasonable and rational explanation for how other advanced biofuels would make up for the cellulosic biofuel production shortfall.⁴¹

Intervenors for the biofuel industry contested API's challenge of the rule was untimely because the rule merely repeated a rule first employed in 2011. The biofuel industry claimed that API should have filed suit within the sixty-day time limit after the EPA published its 2011 biofuel projections rule in the Federal Register. The EPA contended the RFS's purpose of "increas[ing] the production of clean and renewable fuels" implied the agency had the authority to render the cellulosic biofuel projection. Also, that the Agency's conclusion that sugarcane ethanol and biomass based diesel could make up for the cellulosic biofuel shortfall provided a reasonable and rational explanation for its refusal to lower the total volume of advanced biofuel required for 2012.

Ultimately, the District of Columbia Circuit found the API's challenge was not untimely, the EPA's projection of cellulosic biofuel production exceeded the Agency's statutory

³⁸ *Id*.

³⁹ Id. at 478-79.

⁴⁰ Brief for Petitioner at 43, Am. Petroleum Inst., 706 F.3d 474 (No. 12-1139).

⁴¹ *Id*. at 44-45.

⁴² Am. Petroleum Inst., 706 F.3d at 476-77.

⁴³ *Id.* at 476-77.

⁴⁴ Id. at 477, 479.

⁴⁵ Id. at 481.

authority and the Agency's refusal to lower the total volume of advanced biofuel required in fuel for 2012 was not improper.⁴⁶

III. LEGAL BACKGROUND

A. The Clean Air Act

Congress passed the CAA in 1955 "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." This mission was legitimized by Congress's finding "that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas," and the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare." Because the use of transportation fuel is a large contributor to air pollution, § 7545 of the CAA grants the EPA broad authority to regulate fuel and fuel additives introduced into commerce in the United States.

The Renewable Fuel Standard Program

The RFS program came as an amendment to § 7545 of the CAA under the Energy Policy Act of 2005.⁵⁰ This original version required 7.5 billion gallons of renewable fuel to be blended into transportation fuel by 2012.⁵¹ In 2007, Congress passed the Energy Independence Act of 2007 to coincide with

⁴⁶ Id. at 477, 481.

⁴⁷ 42 U.S.C. § 7401(b)(1).

⁴⁸ *Id.* § 7401(a)(1)-(2).

⁴⁹ *Id.* § 7545(a).

⁵⁰ Envtl. Prot. Agency, *Renewable Fuel Standard (RFS)*, EPA.GOV (last updated Feb. 25, 2013).

http://www.epa.gov/otaq/fuels/renewablefuels/index.htm..

⁵¹ *Id*.

President Bush's "Twenty in Ten" initiative.⁵² The current version of the RFS program requires 36 billion gallons of renewable fuel to be blended into U.S. transportation fuel by 2022.⁵³

The RFS program requires U.S. fuel to contain a minimum volume of applicable renewable fuel, advanced biofuel, cellulosic biofuel and biomass-based diesel annually.⁵⁴ The yearly volumes for each fuel in years 2006-2022 are codified at 42 U.S.C. § 7545(o)(2)(B)(i).⁵⁵ The EPA is charged with ensuring U.S. transportation fuel contains at least the minimum volume of applicable fuels each year, 2005 through 2021, by promulgating yearly renewable fuel obligations before November 30th of the preceding year.⁵⁶

Comm. on Envtl. & Public Works (Apr. 13, 2011), available at http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileSt ore_id=4bb4667c-7e24-4c9b-b76a-f75cefd1647d.

⁵⁶ 42 U.S.C. § 7545(o)(2)(A)(i).

⁵² Testimony of Robert J. Myers, U.S. Envtl. Prot. Agency, before the HR Comm. on Energy & Commerce at 1 (May 6, 2008), available at http://epa.gov/ocir/hearings/testimony/110_2007_2008/2008_0506_rjm.pdf. Testimony of Gina McCarthy, U.S. Envtl. Prot. Agency, before Senate

⁵⁴ 42 U.S.C. § 7545(o)(2)(A)(i). Advanced biofuels are defined by statute as "renewable fuel," other than corn-based ethanol, with life cycle green house gas emissions "at least 50 percent less than base line lifecycle green house emissions." *Id.* § 7545(o)(1)(B)(i). "Baseline lifecycle greenhouse gas emissions" is defined as the average amount of gas emissions by gasoline or diesel in the fuel's lifecycle, as determined in the year 2005. *Id.* § 7545(o)(1)(C). Fuels eligible for this classification include "ethanol derived from cellulose, hemicellulose, or lignin, "ethanol derived from sugar or starch," ethanol derived from waste material," biomass-based diesel," biogas, butanol or "other fuel derived from cellulosic biomass." *Id.* § 7545(o)(1)(B)(ii).

⁵⁵ Id. § 7545(0)(2)(B)(i). "The 'applicable volume' for a particular fuel... determines how much of that fuel refiners, importers and blenders must purchase each year in order to comply with the RFS program." Am. Petroleum Inst. v. EPA, 706 F.3d 474 (C.A.D.C. Jan. 2013).

"Minimum applicable volumes" are expressed in terms of "a volume percentage of fuel sold or introduced into commerce in the United States." Such minimum applicable volumes are required to be based on actual production projections of the transportation fuel, biomass-based diesel and cellulosic biofuel industries for the year. Based on these projections, the EPA is required to make necessary adjustments to minimum applicable volumes "to prevent the imposition of redundant obligations" resulting from production shortfalls. If in any year projected production for cellulosic biofuel is lower than the required statutory volume, the EPA must reduce the year's minimum applicable volume to coincide with the projected production volume.

Transportation fuel produced by domestic refineries, blenders and importers must contain the minimum applicable volume of required advanced biofuels each year. ⁶¹ Individual compliance is measured through a credit system. ⁶² Each year a refiner, blender, or importer must generate the "appropriate amount of credits . . . that contains a quantity of renewable fuel that is greater than the" minimum applicable volume for each required fuel. ⁶³ An industry member that fails to purchase the minimum requirement of applicable fuels must generate or purchase additional credits in the following year. ⁶⁴ When the EPA lowers the applicable volume of cellulosic biofuel the agency must make cellulosic biofuel waiver credits available for purchase by refineries. ⁶⁵

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⁵⁷ *Id.* § 7545(o)(3)(B)(ii).

⁵⁸ *Id.* § 7545(o)(3)(A).

⁵⁹ *Id.* § 7545(o)(3)(C)(i).

⁶⁰ *Id.* § 7545(o)(7)(D)(i).

⁶¹ Id. § 7545(o)(3)(B)(ii).

⁶² Id. § 7545(o)(5)(A).

⁶³ *Id*.

⁶⁴ *Id.* § 7545(o)(5)(D)(ii).

⁶⁵ Id. § 7545(o)(7)(D)(ii). The sale price of these credits is the "higher of \$0.25 per gallon or the amount by which \$3.00 per gallon exceeds the average

B. Judicial Review Under the Clean Air Act

Generally, objections to EPA rule promulgation under the CAA must be filed with the EPA administrator within sixty days of publication in the Federal Register. Judicial review may only be sought if the party seeking review "[raises], with reasonable specificity," an objection during the sixty day period. If an objector can show it would have been impracticable to raise an objection within sixty days, or if grounds arose after the sixty-day period, the EPA must reconsider the rule. If the EPA refuses to reconsider the rule, judicial review may be sought only in the United States Court of Appeals for the District of Columbia. Petitioners who fail to comply with this exhaustion requirement are barred from seeking judicial review.

wholesale price if a gallon of gasoline in the United States." *Id.* When made available, a company is only allowed to purchase waiver credits up to the amount needed to meet the minimum applicable volume of cellulosic biofuel for an individual year. *Id.* § 7545(o)(7)(D)(iii). Cellulosic biofuel credits cannot be traded or banked for subsequent years. 40 C.F.R. § 80.1456 (2010). KELSI BRACMORT, CONG. RESEARCH SERV.,R41106, MEETING THE RFS MANDATE FOR CELLULOSIC BIOFUELS: QUESTIONS AND ANSWERS 6 (2012), *available at* http://www.fas.org/sgp/crs/misc/R41106.pdf. In 2010, 12,186 cellulosic biofuel waiver credits were purchased. *Id.* Because actual production of cellulosic biofuel in 2010 was essentially zero gallons, these 12,186 credits could not possibly make up for the industry shortfall of the EPA's 2010 estimate. *Id.* at 7.

^{66 42} U.S.C. § 7661(d)(b).

⁶⁷ Id. at § 7607(d)(7)(B); compare with Med. Waste Inst. & Energy Recovery Council v. EPA, 645 F.3d 420, 428 (D.C. Cir. 2011).

⁶⁸ 42 U.S.C. § 7607(b).

⁶⁹ Id. § 7607(b)(1). Review extends to "any control or prohibition." Id. Judicial review is limited to the District of Columbia Circuit only for final agency actions having a "nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action" does have a nationwide scope or effect. Id.

⁷⁰ Med. Waste Inst., 645 F.3d at 428 (citing Nat'l Ass'n of Clean Air Agencies v. EPA, 489 F.3d 1221, 1231 (D.C.Cir.2007)).

rule is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." Such judicial review extends to "the promulgation or revision of any regulation pertaining to any fuel or fuel additive" under the RFS program. 72

In Chevron, Inc. v. Natural Resources Defense Counsel, the Supreme Court held that when an agency administers a statute, such as the RFS program, it must perform a two-step analysis in determining if such an action is permissible.⁷³ The first, and most crucial, is whether Congress has unambiguously expressed its intent in implementing the statute at issue.⁷⁴ If Congress has in fact made its intent clear, an agency must give effect to that specific intent in its administration of the statute.⁷⁵ If Congress has not directly addressed its specific intent in enacting a statute, an agency's administration must stem from a reasonable and permissible interpretation of the statute.⁷⁶ "The judiciary is the final authority on issues of statutory construction and must reject administrative constructions which are contrary to clear congressional intent."⁷⁷

C. Technology Forcing Regulation

"The EPA is authorized [under the CAA] to adopt 'technology-forcing' regulations." "Technology-forcing regulations . . . [mandate] subject industries to develop new

⁷¹ Am. Petroleum Inst. v. EPA, 52 F.3d 1113, 1119 (D.C. Cir. 1995).

⁷² 42 U.S.C. § 7607(b)(1).

⁷³ Chevron, Inc. v. Natural Res. Def. Counsel, Inc., 467 U.S. 837, 842 (1984). This analytical rule is known commonly as the *Chevron Doctrine*.

⁷⁴ *Id.* at 842-43.

⁷⁵ *Id*.

 $^{^{76}}$ Id. at 843.

⁷⁷ Id. at 843-44 n. 9. However, a court must respect an Administrator's reasonable interpretation of a statute, it may not substitute its own construction for such an otherwise reasonable interpretation. Id. at 844.

⁷⁸ Nat'l Petrochemical & Refiners Ass'n v. EPA, 287 F.3d 1130, 1136 (D.C. Cir. 2002), *citing* Natural Resources Defense Council v. EPA, 655 F. 2d 318, 333 (D.C. Cir. 1981).

technologies in order to comply with a regulatory standard."79 These regulations may establish standards, such as applicable fuel standards, derived from projections based on future advances in technology.⁸⁰ While the EPA is encouraged to promote improved technology, technology-forcing regulations are "subject to the restraints of reasonableness."81 "The [CAA] requires the EPA to look the future in setting standards, but the agency must also provide a reasoned explanation of its basis for believing that its projection is reliable. This includes a defense of its methodology for arriving at numerical estimates."82

A party challenging the lawfulness of a technology-forcing regulation must show the EPA was arbitrary its future estimates of technological and capricious in innovation.83 It is not sufficient to merely show current technology is inadequate to accomplish the regulatory standard, but rather that it is infeasible to develop technology to satisfy the standard 84

⁷⁹ John Miller, EPA Cellulosic Biofuel Technology Forcing Regulation, THE ENERGY COLLECTIVE (July 5, 2012), http://theenergycollective.com/jemillerep/90551/epa-cellulosic-biofuel-

technology-forcing-regulation. The EPA has promulgated "technology forcing regulations" since Congress passed the CAA in 1970. Id. Existing "[t]echnology [f]orcing regulations include environmental controls, energy efficiency, and replacing petroleum with alternative, renewable fuels." Id. The

success of these regulations in effecting innovation has been mixed. Id. ⁸⁰ Natural Res. Def. Council, Inc. v. EPA, 655 F.2d 318, 328 (D.C. Cir., 1981). 81 Id. (quoting Int'l Harvester Co. v. Ruckelshaus, 478 F.2d 615, 629 (D.C.Cir.1973)). 82 *Id*.

⁸³ *Id*.

⁸⁴ Id. at 322; for further discussion, see id. at 328-29.

D. Statutory Interpretation and the Regulation of Fuels Under the CAA

In American Petroleum Institute v. EPA, the D.C. Circuit held the EPA exceeded its statutory authority in its promulgation of rules under the CAA's reformulated gasoline ("RFG") program. Reformulated gasoline has higher oxygen content than traditional gasoline and therefore burns cleaner, resulting in reduced emissions. The RFG program, § 7545(k)(1) of the CAA, directs the EPA to "promulgate regulations under [the RFG statute] establishing requirements for reformulated gasoline to be used in gasoline-fueled vehicles in specified nonattainment areas." Furthermore, Congress charged the EPA to ensure that these regulations achieve the greatest reduction in harmful emissions possible, considering "cost, energy requirements, and other health and environmental impacts."

In 1994, the EPA issued a renewable oxygenate rule ("ROR"), requiring thirty-percent of increased oxygen in gasoline to result from the use of renewable oxygenates. At the time, corn ethanol and methyl tertiary butyl ether ("MTBE") were the primary oxygenates in the U.S. The EPA believed that the

⁸⁵ Am. Petroleum Inst. v. EPA, 52 F.3d 1113 (D.C. Cir, 1995). Congress enacted the RFG program in 1990 as an amendment to the CAA. *Id.* at 1115. ⁸⁶ JAMES E. MCCARTHY & MARY TIEMANN, CONG. RESEARCH SERV., RL32787, MTBE IN GASOLINE: CLEAN AIR AND DRINKING WATER ISSUES 4 (2001), *available at* www.ncseonline. org/NLE/CRSreports/Air/air 26.cfm?&CFID=6942884&CFTOKEN=41159272. RFG's oxygen content ranges from two to three percent. *Id.* This higher oxygen content is achieved by blending in oxygenate additives, primarily corn-based ethanol and methyl tertiary butyl ether. *Id.* RFG burns cleaner and results in less tailpipe emissions. *Id.* The RFG program has been implemented in only the must heavily polluted parts of the country and today accounts for nearly thirty-percent of gasoline sold in the U.S.. *Id.* ⁸⁷ *Am. Petroleum Inst.*, 52 F.3d at 1115 (quoting 42 U.S.C. § 7545(k)(1)).

Am. Petroleum Inst., 52 F.3d at 1115 (quoting 42 U.S.C. § 7545(k)(1))
Am. Petroleum Inst., 52 F.3d at 1115, 1117.

⁸⁹ Id. at 1115-16.

⁹⁰ *Id.* at 1115.

ROR would help to conserve fossil fuels and reduce global warming by promoting the renewable oxygenates market.⁹¹

On behalf of the oil industry, API brought a claim in the D.C. Circuit seeking judicial review of the EPA's promulgation of the ROR claiming, inter alia, the mandate exceeded the EPA's statutory authority under the RFG program. 92 Specifically, API challenged that in implementing the RFG program Congress's intent was to attain the greatest achievable reduction in harmful automobile emissions, not to promote the renewable oxygenates market.⁹³ The EPA argued the RFG program granted authority to promulgate fuel requirements "designed to ensure that the emissions reduction requirements for RFG are achieved in a way that reasonably optimizes the resulting impacts on cost, energy requirements, and other health and environmental impacts."94 The EPA reasoned the ROR went directly toward optimizing cost. energy requirements, and health impacts on environmental impacts. 95 The EPA asserted this interpretation

⁹¹ *Id.* at 1116.

organic compound ("VOC") emission standard. *Id.* at 1119. This VOC standard required RFG to not surpass a certain level of volatility. *Id.* Ethanol proponents pointed out that ethanol has a volatility, especially in the summer months, that often exceeds the maximum threshold of volatility under the VOC standard. *Id.* at 1115. While this problem can be avoided by converting ethanol to, or mixing it with, a more stable compound, ethyl tertiary butyl ether ("ETBE"), at the time ETBE production was virtually non-existent. *Id.* at 1116. Effectively, in warmer months of the year only MTBE could be utilized to satisfy renewable oxygenate requirements. *Id.* Despite this fact, the EPA required ethanol to maintain a thirty percent share of the renewable oxegenates market, the market share ethanol achieved in the winter months. Furthermore, the EPA maintained its requirement that thirty percent of oxygen in RFG be from renewable oxygenates.

⁹³ Id. at 1116.

⁹⁴ *Id.* at 1117 (internal quotations omitted). These considerations are taken directly from the RFG statute 42 U.S.C. § 7545(k)(1).

⁹⁵ Am. Petroleum Inst., 52 F.3d at 1117.

met the requirements of the *Chevron Doctrine* as a reasonable interpretation of the RFG program of the CAA.⁹⁶

In reversing the EPA's decision to require renewable oxygenates the court concluded that the plain meaning of RFG statute precluded "the adoption of rules . . . not directed toward the reduction of . . . toxic emissions." The court reasoned that although the CAA grants general authority to make rules to carry out the RFG program, that general authority cannot override the specific requirements of the RFG program. The court interpreted the sole grant of authority by the RFG program was to promulgate specific performance standards aimed at reducing toxic emissions. The considerations proper in adopting those standards, "energy requirements," "cost," and "health and environmental concerns," did not grant the EPA additional authority to adopt fuel requirements aimed at mediating those concerns, such as the ROR. The court concluded the EPA exceeded its statutory authority under the CAA and RFG program by requiring renewable oxygenates in RFG. 101

IV. INSTANT DECISION

In American Petroleum Institute v. EPA, the United States Court of Appeals for the District of Columbia Circuit ruled in favor of the EPA on two issues, but ultimately gave credence to the petroleum industry's claim that the EPA's projection of cellulosic biofuel production exceeded the agency's statutory authority. The Senior Circuit Judge wrote for a three judge

⁹⁶ Id.

⁹⁷ *Id.* at 1119. Hence, the courts analysis found Congress's intent to be express, disregarding any argument by the EPA that its interpretation was reasonable. *Id.*

⁹⁸ *Id.* The court also noted that an express withholding of power is not required. *Id.* at 1120.

⁹⁹ *Îd*. at 1119.

¹⁰⁰ *Id.* at 1117.

¹⁰¹ Id. at 1121.

¹⁰² Am. Petroleum Inst. v. EPA, 706 F.3d 474, 481 (D.C. Circ. 2012).

panel addressing three issues: (1) whether the API's claim was timely as filed under the CAA, (2) whether the EPA's cellulosic biofuel production mandate for 2012 exceeded the agency's authority under the CAA, and (3) whether the EPA again exceeded its authority by refusing to lower the total advanced biofuel minimum applicable volume for 2012. 103

The court found API's claim to be timely under the APA, rejecting the EPA's argument that a claim should have been filed within sixty days after publication of the 2011 biofuel production prediction in the Federal Register. The court explained the challenge was proper because API did not challenge the reasonableness of adopting the predictive methodology, but the reasonableness of maintaining a methodology that had produced failure. Here API's argument rested solely on the fact that the EPA's prediction for 2011 was a complete failure, and therefore, the same methodology should not have been applied in 2012. For these reasons API's claim was timely beyond sixty days from the publication of the 2011 biofuel prediction in the Federal Register. 107

On the second issue, the court found the predictive methodology adopted by the EPA did not exceed the scope of the agency's authority but its justification for overestimation did exceed the authority granted by the RFS program as a whole. Granting deference to the EPA's interpretation of § 7745(o)(3)(B), the court held the statute does not require the EPA to strictly adhere to the EIA's production estimates in promulgating yearly production projections and the resulting

¹⁰³ See generally Am. Petroleum Inst., 706 F.3d 474.

¹⁰⁴ *Id.* at 477.

¹⁰⁵ *Id*.

¹⁰⁶ *Id.* at 478.

¹⁰⁷ Id. at 477.

minimum applicable standards for cellulosic biofuel. Rather, yearly minimum applicable standards must be merely "based on" EIA estimates—as applicable standards were in 2012. However, the court found the EPA's justification for departure from EIA estimates caused the agency to exceed its authority under the statute. 110

The court stuck down the EPA's 2012 minimum applicable volume for cellulosic biofuel because the estimate was overestimated with the "non-neutral purpose" of "promoting growth in cellulosic biofuel."111 The court held neither the text nor the general structure of the RFS program "supports EPA's decision to adopt a methodology in which the risk of overestimation is set deliberately to outweigh the risk of under estimation"—the risk of slower progress in the cellulosic biofuel industry. 112 Strictly speaking the words "projected volume of cellulosic biofuel" —the words of § 7545(o)(7)(D)(i)—require an estimate of what will actually happen in the industry, not an aspirational estimate. 113 Put most generally, the court held although one of the purposes of the RFS program was to "increase the production of clean renewable fuels," such a purpose does not mean every element of the statutory scheme can be utilized to advance a "technology-forcing agenda." 114 "Although an agency may flesh out the interstices of a technical regime, that discretion does not entitle the agency to arrogate itself purposes outside of the statutory provision it is applying.",115

¹⁰⁸ *Id.* at 477-78.

¹⁰⁹ *Id.* at 478.

¹¹⁰ Id. at 481.

¹¹¹ Id. at 478-79.

¹¹² Id. at 479. The "risk of under estimation" being failure of the cellulosic biofuel industry. Id.

¹¹³ *Id.* at 478.

¹¹⁴ Id. at 479.

¹¹⁵ Id. at 480.

The court, however, noted expected future technology may dictate an EPA standard or mandate when "there exists a rational connection between the regulatory target and the presumed innovation." Justifying its previous rulings upholding technology-forcing regulation, the court explained in the underlying facts of those rulings "government pressure joined forces with industry specialization and competence." Here, the government is putting pressure on a "captive consumer," fuel refiners, rather than the specialized and competent industry, cellulosic biofuel producers. 117

Thirdly, the court rejected API's argument that the EPA must reduce its projection for overall advanced biofuel production in accordance with a decreased projection for cellulosic biofuel. Rejecting API's argument that the EPA failed to provide a reasonable and rational explanation for refusing to lower the total advanced biofuel minimum applicable volume, the court found the EPA adequately grounded its decision on historical production of other advanced biofuels sufficient to make up for the deficiency of cellulosic biofuel. Ultimately reasoning, a reasonable and rational explanation "does not always imply a high degree of quantitative specificity." 120

Therefore, the court held API's petition for review timely, the promulgation of the 2012 production projection for cellulosic biofuel exceeded the EPA's statutory authority under the CAA, and the EPA did not exceed its statutory authority by refusing to lower the 2012 total minimum applicable volume of advanced biofuel.

¹¹⁶ *Id*.

¹¹⁷ Id.

¹¹⁸ Id. at 481.

¹¹⁹ *Id*i

¹²⁰ *Id*.

V. COMMENT

The D.C. Circuit's ruling in API is not a novel precedent change in CAA interpretation or contraction of the EPA's power to promulgate technology-forcing regulations. Nevertheless, initial media response boasted that the case was a large win for harmed domestic oil refiners. However, the court does little to remedy the oil refiners' harm from the agency's well intentioned, but ill-founded technology picking. The court, while rejecting the EPA's interpretation of the RFS program and its justification for its deviance from EIA estimates in promulgating minimum applicable standards, left intact a methodology still prone to overestimation of cellulosic biofuel production.

Although the two cases are contrastable, the position of this court follows logically from its 1995 opinion in API v. EPA, where the court resisted an EPA "technology forcing agenda." The court analogized the two cases throughout the opinion. ¹²² In the 1995 case, the court held the EPA's general authority to reduce toxic emissions from gasoline did not authorize the EPA to exceed the specific requirements of the RFG program to enforce unauthorized renewable oxygenate requirements. ¹²³ In the most recent case, the reasoning is virtually identical; the RFS program's general mandate of promoting the use alternative fuels does not grant the EPA the authority to use minimum applicable standards to stimulate the cellulosic biofuels industry. ¹²⁴ Overall, the court held in both cases, "[the] EPA cannot rely on its general authority to make rules necessary to carry out its functions when

¹²¹ See Erica Martinson, Court: EPA's unrealistic biofuel goal hurt refiners, POLITICO (Jan. 28, 2013), http://www.politico.com/story/2013/01/court-epasunrealistic-biofuel-goal-hurt-refiners-86785.html; Glenn G. Lammi, D.C. Circuit to EPA: Rules Must be Neutral, Not Aspirational, FORBES (Jan. 29, 2013), http://www.forbes.com/sites/wlf/2013/01/29/d-c-circuit-to-epa-rules-must-be-neutral-not-aspirational/.

¹²² Am. Petroleum Inst., 706 F.3d at 479.

¹²³ Am. Petroleum Inst. v. EPA, 52 F.3d 1113, 1119 (2005).

¹²⁴ Am. Petroleum Inst., 706 F.3d at 479

a specific statutory directive defines the relative functions of [the] EPA in a particular area."¹²⁵

The court's finding of API's petition to be timely is not a major change in procedure, but does ensure a procedural mechanism for future challenges to rule setting methodology that proves to be flawed over time. ¹²⁶ Future objectors to predictive methodology utilized by the EPA may circumvent the procedural requirements of the CAA, specifically those codified in § 7607(d)(7)(B), by showing such methodology proves to be more arbitrary the longer it is maintained "in the face of experience." ¹²⁷ Because the EPA will likely continue to invest its regulatory power in promising but uncertain technological innovation, this case will likely be cited as a vehicle for challenge to stale technology-forcing regulations.

The court heavily criticized the EPA's means of forcing cellulosic biofuel technology, noting that in its past approval of technology-forcing regulations, "government pressure joined forces with industry specialization and competence." In the most recent case, by contrast, the government is applying pressure on one industry, oil refiners, in order to accomplish the regulation's end goal of increased cellulosic biofuel production. The court called this an "asymmetry in incentives" and recognized the oil industry merely becomes a "captive consumer," forced to pay for the shortfalls of the cellulosic biofuel industry. However, because the court did not have authority to review the statutory requirements of the RFS program, the problems highlighted by this dictum will likely

¹²⁵ *Id*.

¹²⁶ *Id.* at 477.

¹²⁷ Id.

¹²⁸ Id. at 480.

¹²⁹ *Id*.

¹³⁰ *Id*.

persist. The court successfully stuck down the EPA's 2012 biofuel projection but left intact a statutory mandated predictive methodology that will continue to create a "captive consumer paradox."

The court ultimately ruled the CAA requires minimum applicable volumes to be calculated utilizing "outcome-neutral methodology" rather than an "aspirational" methodology. 131 derived this conclusion from the court 7545(o)(3)(B)(i)'s requirement that applicable minimum standards be "based-on" the EIA's production projections. 132 This line of reasoning is flawed because EIA estimates in 2012. 6.9 million gallons, were not significantly dissimilar from the promulgated EPA projection of 8.7 million gallons. 133 importantly, neither estimate resembled the actual cellulosic biofuel production for 2012, which was around 20 thousand gallons. 134

This overestimation will likely continue to happen because EIA estimates, like the illegal EPA estimates, are aggregated from predictions of cellulosic biofuel producers. Cellulosic biofuel producers have no incentive to provide accurate estimates when their consumers will pay the price for their failure to produce. It is clear from the period of 2010 to

¹³¹ *Id*.

¹³² *Id.* at 478.

¹³³ Id. at 477.

¹³⁴ 2012 RFS2 Data, EPA.GOV (Last updated Feb. 7, 2013),

http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm. See Cellulosic Biofuels: Basically Still Non-Existent but Must be Purchased Anyway, INST. FOR ENERGY RESEARCH (January 11, 2013),

http://www.instituteforenergyresearch.org/2013/01/11/cellulosic-biofuels-basically-still-nonexistent-but-must-be-purchased-anyway/. Furthermore, the entirety of the 20,069 gallons of cellulosic biofuel produced by domestic facilities were exported abroad. *Id.* The closest EPA has even come to correctly forecasting the amount of cellulosic ethanol produced was in 2010 when zero cellulosic ethanol was produced and EPA estimated that 5 million gallons would be produced. *Id.*

¹³⁵ INST. FOR ENERGY RESEARCH, supra note 131.

2012 that this industry survey methodology is prone to overestimation. This was an argument brought by API against the EPA's projection methodology, but rejected by the court. The court properly refused to accept an argument that would undermine the statute prescribed EIA based estimate. Because the EPA is authorized by statute to set the minimum applicable standard for cellulosic biofuel based on a percentage derived from EIA estimates, the oil industry will likely still be forced to pay for production shortfalls.

For 2013, the EPA has estimated 14 million gallons of cellulosic biofuel will be produced domestically. The agency has stated the methodology used in "developing [this] cellulosic standard . . . is consistent with a ruling from January 2013 by U.S. Court of Appeals for D.C, and . . . the sum of [this volume] expected by the specific companies noted in the proposal . . . is a reasonable representation of expected production." The estimate, however, is 9 million gallons greater than the EIA's estimate of 5 million gallons. Furthermore, the projection appears aspirational promulgated in the face of experience with an under performing cellulosic biofuel industry.

The EPA's estimate is based heavily on production of the only commercial-scale cellulosic biofuel plants capable of

¹³⁶Id. The EIA projected production of cellulosic biofuel to reach 5 million gallons in 2010 and 3.9 million gallons in 2011. Id. In each year, 2010 and 2011, actual production was zero gallons. Id.

¹³⁷ Am. Petroleum Inst., 706 F.3d at 476.

¹³⁸ Id. at 478.

¹³⁹ OFFICE OF TRANSPORTATION AND AIR QUALITY, EPA-420-F-13-007, EPA PROPOSES 2013 RENEWABLE FUEL STANDARDS (2013), available at http://www.epa.gov/otaq/fuels/renewablefuels/documents/420f13007.pdf ¹⁴⁰ Id. at 1-2.

¹⁴¹ U.S. Energy Info. Admn., Cellulosic biofuels begin to flow but in lower volumes than foreseen by statutory targets, EIA.GOV (Feb. 26, 2013), http://www.eia.gov/todayinenergy/detail.cfm?id=10131.

operating in 2013, INEOS Bio's facility in Vero Beach, Florida and KiOR's facility in Columbus, Mississippi. 142 The estimate relies heavily on these facilities achieving full-scale production in As of April 2013 INEOS Bio has reported no production of cellulosic biofuel. 144 KiOR announced its first shipment in late March of 2013 but the company has estimated total production for its facility at a level lower than the EPA has projected. 145 While numerous other facilities are set to open in the coming years, those producers continue to be delayed in their research and development and start-up phases. 146 It has become clear the cellulosic biofuel industry is not one where significant progress is made over the course of a single year; thus, production projections should be issued accordingly. Given the current state of the cellulosic biofuel industry, under the EPA's projections oil refiners will continue to be held captive by industry shortfalls.

Upholding the EPA's decision not to lower the total advanced biofuels volume minimum requirement for the year further aggravates this "captive consumer paradox." The court reasoned the RFS program does not require the EPA to support its decision not to lower the total advanced biofuel requirement

 ¹⁴² Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards,
23, 29 (to be codified at 40 CFR pt. 80) (2013), available at
http://www.epa.gov/otaq/fuels/renewablefuels/documents/rfs-2013-standards-nrpm.pdf

¹⁴³ *Id.* at 22.

¹⁴⁴ John Mavretich, The Biofuel Mandate and EPA's Costly Tall Tale, INSTITUTE FOR ENERGY RESEARCH (April 4, 2013),

http://www.instituteforenergyresearch.org/2013/04/04/the-biofuel-mandate-and-epas-costly-tall-tale/.

¹⁴⁵ *Id.* "EPA projects that in 2013 KiOR will produce 8 million ethanol-equivalent gallons of cellulosic biofuel, 'which is about 5 million gallons of actual pure hydrocarbon fuel.' However, on its most recent earnings call on March 18, 2013, KiOR President and CEO Fred Cannon stated that 'we believe our volume expectations to be approximately 3 to 5 million gallons for the balance of the year." *Id.*

¹⁴⁶ *Id*.

with specific numerical projections. While the court may have been correct in allowing *Chevron* deference on this interpretation of the program, such deference merely allows the EPA to replace the specific with the vague. Cellulosic biofuel shortfalls are thus shifted to other industries where the EPA is not required to make specific production projections. In 2012, the EPA rationalized the 490 million gallon deficiency of advanced biofuel, caused by the cellulosic biofuel industry, could be made up by bio-mass based diesel and sugarcane ethanol. If biomassed based diesel and sugarcane ethanol industries fall short, refiners still pay the price for inadequacies in the cellulosic biofuel industry.

The intact methodology leaves the court's ruling relatively toothless; however, the court made the sternest ruling it could legally make. Hindsight is twenty/twenty; and, it is time for Congress to revisit the RFS program and mediate its inadequacies. As it stands, the statute will likely continue to create a "captive consumer" paradox, forcing refiners to pay for the failures of the cellulosic biofuel industry. A more effective approach to stimulating industry growth, perhaps, would be for subsidies and offerings pull loan to underperforming pilot cellulosic biofuel plants. Currently, the Federal Government offers subsides for both the operating costs and capital costs of cellulosic biofuel plants. 151 The Food,

¹⁴⁷ Am. Petroleum Inst. v. EPA, 706 F.3d 474, 481 (2013).

¹⁴⁸ *Id.* at 478.

¹⁴⁹ *Id.* at 481.

¹⁵⁰ Id. at 475.

¹⁵¹ D. Sandor, et al., NAT'L RENEWABLE ENERGY LAB., NREL/TP-150-42120, UNDERSTANDING THE GROWTH OF THE CELLULOSIC ETHANOL INDUSTRY (2008), available at http://www.nrel.gov/biomass/pdfs/42120.pdf. Operating cost "policies include payments to feedstock producers and subsidies associated with production of cellulosic ethanol." *Id.* at 2. Capital cost policies are mostly capital subsidies for construction of full-scale cellulosic ethanol production plants." *Id.*

Conservation, and Energy Act of 2008 ("the 2008 farm bill") alone provided over \$1 billion of these subsidies. These guaranteed sources of income serve as another moral hazard for cellulosic biofuel producers by insuring economic survival in an otherwise "sink or swim" industry. A stricter allocation of funds to only those plants living up to their own production projections may finally force the cellulosic biofuel industry to live up to its own expectations, rather than falling back on the moral hazard of oil refiners paying the penalty.

CONCLUSION

API v. EPA is not a major change in CAA interpretation or reigning in of EPA power under the RFS program. Other than solidifying a procedural mechanism for challenges to technology-forcing regulations that have proved stale in the face of stalled technological innovation, the decision does little to remedy the inadequacies of the CAA's RFS program. As the law stands, oil refiners will continue to be a "captive consumer" to an industry that has thus far utterly failed to meet expectations. The advanced biofuel industry and oil industry have been litigating the issues created by the RFS program for six years now. It is time for Congress to reconsider not only the technical means of the RFS, but also the ends the program is meant to achieve.

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¹⁵² KELSI BRACMORT, ET AL., CONG. RESEARCH SERV., RL34738, CULLULOSIS BIOFUELS: ANALYSIS OF POLICY ISSUES FOR CONGRESS, SUMMARY (2010) available at http://www.fas.org/sgp/crs/misc/RL34738.pdf. This farm bill also provides a \$1.01 per gallon tax credit for cellulosic biofuel. *Id.*¹⁵³ See generally, BIOFUEL GROUPS SEEK TO INTERVENE IN LATEST LEGAL

¹³³ See generally, BIOFUEL GROUPS SEEK TO INTERVENE IN LATEST LEGAL CHALLENGE TO RFS, 1 (2013), available at http://www.agri-pulse.com/Biofuel-Groups-Ask-to-Intervene-in-Latest-Legal-Challenge-to-Renewable-Fuel-Standard-11042013.as