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January 28, 2014

U.S. Environmental Protection Agency
Air and Radiation Docket and Information Center
Mailcode 2822T
1200 Pennsylvania Ave., NW
Washington, DC 20460

Submitted via www.regulations.gov.

Re: Comments on EPA's 2014 Standards for the Renewable Fuel Standard Program (Docket No. EPA-HQ-OAR-2013-0479).

POET, LLC ("POET") is pleased to comment on the EPA proposed rule "2014 Standards for the Renewable Fuel Standard Program" published in the Federal Register on November 29, 2013 (78 Fed. Reg. 71,732) (the "Proposed Rule").

POET is one of the largest ethanol producers in the world and is a leader in biorefining through its efficient, vertically-integrated approach to production. The company produces more than 1.6 billion gallons of ethanol annually from 27 production facilities nationwide. In building the nation's largest ethanol production network, POET has pioneered a new business model using farmers, communities, and other stakeholders as the primary investors in ethanol plants, allowing ethanol production to give back even more to the communities and states where plants are located. POET has also invested heavily in next-generation cellulosic ethanol technology, and through a joint venture with Royal DSM is scheduled to commence operating its first commercial-scale cellulosic ethanol facility, Project LIBERTY, adjacent to one of its existing plants, in mid-2014. Through its existing plants, and its investment in cellulosic and other advanced biofuels technologies, POET is committed to providing cleaner fuels for our nation's motor vehicles.

Executive Summary of comments on the Proposed Rule

EPA's Proposed Rule represents a complete reversal from prior EPA precedent regarding setting annual RFS targets. Worse still, the Proposed Rule's approaches to setting the 2014 RFS targets are contrary to EPA's statutory authority and based on unduly-conservative estimates of biofuel supply and use. Additionally, EPA finalizing the 2014 standards at the proposed levels would have a devastating impact on biofuels use and development, and undercut the RFS.

In short, EPA does not have the statutory authority to undermine the Congressionally-enacted RFS, which is what the Proposed Rule would do. EPA's final rule must set higher RFS targets for 2014, in line with the statute's Congressional mandates. EPA has previously consistently held that "refiners and importers are required to ensure that the volumes of renewable fuel required under the [RFS] are actually consumed."[1] EPA's reversing course now—and reducing without justification Congressionally-mandated targets—is both contrary to law and sets bad policy, undermining the environmental benefits of the RFS while also rewarding obligated parties for their avoiding the increased use of biofuels (a core EPA transportation-sector regulatory program).

In particular, EPA must set the 2014 RFS conventional renewable fuel target at no less than the statutory level of 14.4 billion gallons. This target represents the difference between the statutory "total renewable" and "advanced" biofuel targets, and has generally been met by ethanol from conventional ethanol facilities, though other biofuels use may also satisfy this target. Any reduction in this target would undermine the regulatory predictability of the RFS and investment in advanced biofuels, including cellulosic biofuels, as explained in detail in these comments. EPA has in the past made significant changes to proposed rules that are significantly flawed, and it needs to do so in this rulemaking.

The non-cellulosic RFS targets can be readily met, in 2014 as well as future years, assuming two basic factors. First, the conventional renewable fuel target (e.g., 14.4 billion gallons in 2014 and then 15 billion gallons in 2015) must be *maintained*. Second, EPA must avoid misusing RFS general waiver provisions—i.e., EPA should not seek to manipulate RIN prices so that they fail to incentivize feasible, near-term increases in the use of ethanol blends over E10 (such as E85 and E15) and biodiesel.

In the comments below, POET discusses the following issues in more detail:

[1] EPA, *Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard*, 77 Fed. Reg. 70,752, 70,772 (November 27, 2012).

Detailed Discussion of Comments

1. EPA must take appropriate action for 2014 to avoid undercutting the RFS for all future years.

EPA finalizing the 2014 standards at the proposed level would have a devastating impact on biofuels use and development, and undercut the RFS.

a. *Undercutting the embedded conventional RFS target would destroy investor confidence in the RFS and undercut the future of cellulosic ethanol.*

The RFS contains several types of annual targets for the blending of biofuels into gasoline and diesel, including a target for advanced biofuels (the "Advanced" target) and a target for total renewable fuels (the "Total" target).[2] As noted above, the difference between the Total and Advanced targets is the embedded "conventional" target.

[2] Clean Air Act (CAA) § 211(o)(2)(B).

Nested within the Advanced target are specific sub-targets for cellulosic biofuels and biomass-based biodiesel (referred to herein as biodiesel).[3]

Undercutting both the conventional and cellulosic targets—as the Proposed Rule would do—would destroy investor confidence in the RFS and undercut the future of cellulosic ethanol. In particular, the development of many cellulosic ethanol production facilities critically relies on the health of conventional, corn-based ethanol production facilities from a corporate balance sheet perspective. For instance, many major firms like POET, Abengoa, and ADM are heavily invested in conventional ethanol production facilities. Major firms like POET rely on the financial health of those facilities to support advanced biofuel investments.

POET's Project LIBERTY and Abengoa's Hugoton, Kansas facility are two of the largest cellulosic ethanol facilities that EPA projects to come on line in the United States in 2014.[4] However, the Proposed Rule has surprised the cellulosic ethanol industry and investment community and has undone expectations regarding the commercial viability of cellulosic ethanol in the United States. POET has aimed to extend cellulosic technology to 26 plants in the POET network (in addition to Project LIBERTY) and beyond that to other corn ethanol plants in the United States, a fact that EPA had previously cited with approval.[5] Similarly, Abengoa, a major corn ethanol producer, has sought to co-locate new cellulosic facilities "with their currently existing starch ethanol facilities around the United States."[6] Abengoa has been reported in the press as indicating that if the RFS targets are lowered, it "is likely to send its planned biofuels refineries to Europe or Brazil."[7] POET's position on the significant adverse impact of the proposed standards on Project LIBERTY is presented in detail in the separate comments filed today by POET-DSM Advanced Biofuels.

Significantly, many cellulosic facilities would have been co-located with conventional, corn-based facilities, through a "bolt-on" model that takes advantage of economies of scale. For instance, POET can cost-effectively expand cellulosic production by siting a cellulosic facility next to an existing grain-based facility, thereby making use of existing infrastructure, including electricity, water, railroad access, and biomass supply (e.g., corn stover from a similar footprint of farms that supplies corn to the pre-existing ethanol facility). This bolt-on model provides for potential rapid expansion of

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[3] *Id*.
[4] *See, e.g.*, 78 Fed. Reg. 71,745.
[5] *See* EPA, *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards*, 78 Fed. Reg. 9,282, 9,289 (February 7, 2013).
[6] 78 Fed. Reg. 71,740.
[7] *See* ClimateWire, *Weak renewable fuel standard would drive investment out of U.S., says CEO* (November 25, 2013).

cellulosic ethanol production by making use of the existing infrastructure of the pre-existing ethanol facility.

Furthermore, many advanced biofuel plants identified by EPA in the Proposed Rule rely on corn in some fashion. For instance, DuPont's Nevada, Iowa facility would use corn stover as a feedstock, and DuPont has been working with corn producers to secure feedstock supplies.[8] Likewise, Sweetwater Energy has two arrangements with corn ethanol facilities to provide cellulosic sugars.[9] Similarly, Edeniq has plans to develop cellulosic ethanol using corn kernel fiber, in a process that it reports would increase the yields of corn starch ethanol production as well.[10]

Thus, for numerous reasons, the future of cellulosic production is tied to a healthy corn sector, which is supported in crucial part by conventional ethanol production and maintenance of the conventional renewable fuel target set in the Clean Air Act.

EPA's Proposed Rule would eviscerate the conventional renewable fuel target and undercut incentives for increased use of ethanol blends over E10. The net effect would be a situation whereby any new cellulosic ethanol production would compete with conventional ethanol plants for a limited pool of ethanol blends over E10 (such as E15 and E85) that would fail to grow without a RIN price incentive. This undermines a significant incentive for conventional ethanol producers such as POET to invest in cellulosic plants.

Additionally, investors must have confidence that the RFS statutory structure will be respected, and targets maintained, in order to make continued investments in the biofuels area. A market-based regulatory program such as the RFS cannot function properly without regulatory predictability and the statutory targets being respected. A report by biofuels expert Dr. Bruce Babcock has found that a "decision by EPA to reduce ethanol mandates in 2014 and 2015 would send a strong signal … to investors to not invest in … next-generation plants that convert cellulosic material to ethanol."[11] Similarly, the International Council on Clean Transportation has found that target reductions such as what EPA has proposed would erode "market confidence for all fuels

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[8] 78 Fed. Reg. 71,741.
[9] *Id*. at 71,743.
[10] *Id*. at 71,744.
[11] Bruce Babcock & Wei Zhou, *Impact on Corn Prices from Reduced Biofuel Mandates*, at 13-14 (November 2013), *available at* http://www.card.iastate.edu/publications/dbs/pdffiles/13wp543.pdf. EPA relies on Professor Babcock in its analysis of Brazilian sugarcane ethanol exports, *see* 78 Fed. Reg. 71,772, and it has previously relied on Professor Babcock, *see* EPA, *Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis*, Dkt. No. EPA-420-R-10-006, at 904 (February 2010).

that fall under the standard," especially for "companies that invest in second-generation fuels (cellulosic and other advanced fuels)."[12] This report also found specific adverse impacts on debt markets used to finance new biofuels plants, noting that "second-generation plants rely heavily on market confidence to access and reduce the price of debt financing for plant expansions as they move to commercialize their technologies."[13]

The Proposed Rule's unduly low embedded conventional and Advanced targets would cause low RIN prices that would undermine biofuels infrastructure investments and additional biofuels use. Among other things, RINs generated by increased biofuels blending provide a revenue stream that ultimately can be passed through as retail price discounts to customers that use higher-level ethanol fuels such as E85. In fact, EPA recognizes that the Proposed Rule would undercut biofuels use. For instance, EPA finds that "*If* the price relationship between E10 and E85 reverts to historic levels significant growth in E85 sales volumes is unlikely."[14] And yet EPA proceeded with targets in the Proposed Rule that would undermine RIN prices and thereby undermine the RFS.

In fact, EPA's announcement that it might adjust 2014 RVO requirements beyond the cellulosic shortfall, and EPA's subsequent issuance of the Proposed Rule, had a significant adverse impact on RIN prices.[15]

In reliance on the RFS, companies have invested billions of dollars developing cellulosic biofuels. Investors will not forget if the EPA jeopardizes these investments and the overall health of the biofuels industry by undercutting the RFS, and the future of cellulosic projection will be undermined. To avoid this adverse outcome, EPA should maintain the conventional renewable fuel target at 14.4 billion gallons for 2014.

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[12] Nathan Miller et al., International Council on Clean Transportation, *Measuring and Addressing Investment Risk in the Second-Generation Biofuels Industry*, at 25 (December 2013), *available at* http://www.theicct.org/sites/default/files/publications/ICCT_AdvancedBiofuelsInvestmentRisk_Dec2013.pdf.

[13] *Id*. Others have made similar comments. *See, e.g*., comments of Anne Steckel of the National Biodiesel Board, noting that "Clearly, getting access to capital for our businesses is a big deal, and having even a proposal [where EPA has cut back RFS targets] has really impacted our businesses dramatically" (E&E TV interview, December 12, 2013).

[14] *See* 78 Fed. Reg. 71,760 (emphasis added). For additional discussion on the relationship between RIN price and investment, see Bruce A. Babcock & Sebastien Pouliot, *The Economic Role of RIN Prices* (November 2013), *available at* http://www.card.iastate.edu/publications/dbs/pdffiles/13pb14.pdf.

[15] *See* Dr. Jesse David, *Analysis of the EPA's Proposal for a Reduction in the RFS Volume Requirements for 2014,* at 3 (January 28, 2014), being filed with comments of Growth Energy to the docket for this Proposed Rule.

b. ***EPA's Proposed Rule would reward a regulated entity (refiners) for non-compliance—a dangerous precedent for all of EPA's programs.***

EPA in the Proposed Rule seems mistakenly persuaded by arguments that since refiners aren't necessarily ethanol blenders (even though some are), this somehow excuses refiners from complying with the mandates on them that Congress imposed. This is not the case.

First, refiners could take any number of actions to promote the blending of ethanol—to positive economic impact. The cost of developing E85 infrastructure is less than what oil companies are spending on RINs. As Professor Babcock has concluded, the "most effective way to reduce [RFS] compliance costs would be to invest in E85 infrastructure."[16] Along these lines, he has found that investing $65 million in infrastructure could reduce RFS compliance costs by $7 billion.[17] Even greater savings may be possible, and this comparatively minor investment (regarding a national energy policy) is less than what *a single* oil company—Valero—is spending on RINs in 2013.[18]

Similarly, much E15 infrastructure is already in place, and E15 dispenser retrofits can be purchased for only $1,800.[19] While the ability to deploy E85 and E15 to meet RFS statutory targets is discussed in detail in Section 2 below, one point is clear—the embedded statutory conventional renewable fuel target of 14.4 billion gallons in 2014 can be readily achieved.

Instead of making comparatively minor investments (that generate significant returns) to allow increased biofuels use, refiners have actively opposed the increased use of ethanol blends. The Federal Trade Commission recently launched an investigation into allegations that the oil industry is impeding retailers from selling renewable fuels such as E15.[20] And many retail branding agreements preclude retailers

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[16] Bruce Babcock & Sebastien Pouliot, *The Economic Role of RIN Prices* (November 2013), *supra*, at 3.

[17] Bruce A. Babcock & Sebastien Pouliot, *Feasibility and Cost of Increasing US Ethanol Consumption Beyond E10*, at 2 (January 2014), *available at* http://www.card.iastate.edu/publications/dbs/pdffiles/14pb17.pdf.

[18] Valero, Form 10-Q at 31 (September 30, 2013), *available at* http://www.valero.com/InvestorRelations/FinancialReports_Filings_Statements/Pages/Home.aspx ("[T]he cost of meeting our obligations under various biofuel blending compliance programs was $454 million for the first nine months of 2013.").

[19] Gilbarco Veeder-Root, *Frequently Asked Questions: Encore 700S Encore S E25 Compatible Unit Options*, available at http://www.ethanolretailer.com/images/uploads/GilbarcoRetrofitKitE15%282%29.pdf.

[20] *See* Tennille Tracy, *FTC Examines Allegations That Oil Industry Blocks Greater Ethanol Use*, Wall Street Journal (August 21, 2013); *see also* Letter from Edith Ramirez, Chairwoman, Federal

from offering higher level ethanol blends under the branded canopy.[21] Refiners have also fought the distribution of E15, falsely alleging adverse impacts to engines, which EPA has *explicitly found* not to be true.[22]

Moreover, it should be noted that the means for achieving compliance with environmental laws is not part of the core business of many types of regulated parties, but environmental compliance is recognized as a cost of doing business.[23] If anything, the means of RFS compliance for refiners *are* closely akin to their core business interests, could generate significant cost savings, and as noted above many refiners do actively blend ethanol, thus generating RINs.

As noted above, EPA itself has recognized that under the RFS, "refiners and importers are required to ensure that the volumes of renewable fuel required under the Act are actually consumed."[24] It is inexplicable now that EPA seeks to reverse course and eviscerate the Congressional RFS mandates for 2014, including by undercutting the conventional renewable fuel target, and excuse refiners from compliance. Biofuel producers have met their end of the "bargain" outlined by the clear terms of the RFS in making available a more-than-adequate "domestic supply" of biofuels both to meet the conventional renewable target of 14.4 billion gallons and the Advanced biofuels target.

Trade Commission, to Hon. Charles E. Grassley, U.S. Senate (August 19, 2013), *available at* http://www.grassley.senate.gov/judiciary/upload/Antitrust-08-19-13-FTC-response-to-Grassley-Klobuchar-renewable-fuels-letter.pdf.

[21] *See, e.g.,* Cezary Podkul, *Insight: Ethanol lobby sees red over a yellow gas hose in Kansas*, Reuters (June 10, 2013), *available at* http://www.reuters.com/article/2013/06/10/us-e15-rules-phillips66-insight-idUSBRE95907G20130610.

[22] *Compare* Cezary Podkul, *Oil industry launches new offensive against ethanol mandate*, Reuters (July 15, 2013) (Referencing an American Petroleum Institute's print, TV, radio and online ad campaign that features a mechanic explaining the "potential for engine damage not covered by car warranties"), *available at* http://www.reuters.com/article/2013/07/15/api-rfs-ad-campaign-idUSL1N0FL1D620130715, *with* EPA's statements in its E15 partial waivers indicating that, for MY 2001 and newer vehicles, E15 would not cause any serious "materials incompatibility" problems. EPA, *Partial Grant and Partial Denial of Clean Air Act Waiver Application Submitted by Growth Energy To Increase the Allowable Ethanol Content of Gasoline to 15 Percent*, 75 Fed. Reg. 68,094, 68,122 (November 4, 2010) and EPA, *Partial Grant of Clean Air Act Waiver Application Submitted by Growth Energy To Increase the Allowable Ethanol Content of Gasoline to 15 Percent*, 76 Fed. Reg.4,662, 4,681 (January 26, 2011).

[23] For instance, owners and operators of electric power plants do not manufacture air pollution control equipment, which may cost billions of dollars per power plant. Industrial effluent dischargers do not necessarily make wastewater treatment systems. But environmental compliance is a cost of doing business.

[24] EPA, *Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard*, 77 Fed. Reg. 70,772.

EPA must not reverse course, and must hold refiners responsible for the readily-obtainable Congressional mandates for increased biofuels use.

In short, the Proposed Rule would allow obligated parties to refuse to take action to achieve compliance, and then have EPA reward them by reducing the compliance obligation due to the growing gap regarding what needs to be done to achieve compliance. EPA's logic in the Proposed Rule is circular and arbitrary and capricious.

c. ***The blendwall is not a surprise—Congress designed the RFS to "scale the blendwall," not have it be gutted by EPA once the blendwall was actually reached***.

Congress specifically enacted RFS targets that were so large that the E10 blendwall would inevitably be reached.[25] Moreover, Congress was well aware that the blendwall would be reached.[26] Furthermore, in the Energy Independence and Security Act that created the RFS2, Congress specifically required significant increases in the corporate average fuel economy (CAFE) standards. Refiners now seek to falsely argue that somehow no one anticipated that CAFE standards would actually result in more efficient vehicles and a decrease in gasoline use.

EPA has also explicitly recognized that "Stakeholders in the refining sector have been aware of the E10 blendwall since passage of EISA in December of 2007."[27]

Furthermore, the means of "scaling the E10 blendwall" have been known and available to refiners for years. In 2010, the EPA granted a partial waiver to allow E15 use in model year 2007 and newer light-duty motor vehicles.[28] On January 26, 2011,

[25] The Energy Independence and Security Act of 2007 (Pub.L. 110-140) (December 19, 2007), which amended the RFS through "RFS2" provisions that dramatically increased RFS targets. *See also* the targets contained in CAA § 211(o)(2)(B), and the rapid increase in targets.

[26] For instance, one of the proposed Senate amendments of what became the RFS2 called for a, "Study of increased consumption of ethanol-blended gasoline with higher levels of ethanol," which would have required EPA and other federal agencies to examine the feasibility of using higher-level ethanol blends. 153 Cong. Rec. H14277 (December 6, 2007). Another reference in the Congressional Record stated that Congress should, "Promote the use of higher blends of ethanol in the existing fleet of automobiles" by instructing EPA, "to conduct analysis of the viability of using higher blends of ethanol (including E-15, E-20, E-30, and E-40) in the existing fleet of automobiles by January 1, 2009." 153 Cong. Rec. S7600 (June 13, 2007).

[27] EPA, *Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard*, 77 Fed. Reg. 70,773.

[28] 75 Fed. Reg. 68,094.

this partial waiver was expanded to include 2001 and newer light-duty motor vehicles.[29] And more than 15 million FFVs are on the road today, ready to use E85.[30]

The RFS's environmental and energy security benefits should not be jeopardized by failures of EPA and petroleum industry members to take reasonable measures to address the blendwall through the greater use of ethanol. With available FFVs and existing E85 stations, a continued disciplined focus on the sale of more FFVs, and the expansion of alternative fuel retail distribution infrastructure, the E10 blendwall can be readily scaled in 2014 and thereafter.

2. **The conventional renewable fuel target must be set at no less than the statutory level of 14.4 billion gallons to accommodate readily available biofuels and avoid undercutting the RFS**.

   a. ***EPA lacks the statutory authority for its proposed approach to reduce the conventional renewable fuel target***.

In short, EPA cannot rely on its general waiver authority to reduce the 2014 Total target. EPA can use its general waiver authority in two narrow situations, neither of which is applicable in 2014: (a) if there an "inadequate domestic supply" of biofuels, or (b) upon a finding that the RFS would "severely harm the economy or environment."[31]

In particular, EPA reducing the "conventional" ethanol share of the Total target based on blendwall concerns—independent of a finding of severe economic harm—lacks statutory foundation. The RFS statute was designed around a careful balancing of interests, and checks and balances. As long as the mandated levels of supply can be met by conventional ethanol producers (and the producers of other biofuels that can also contribute to meeting the conventional renewable fuel target), then the statute only allows EPA to use its general waiver authority if the RFS itself would cause severe harm to the economy (or environment) to a high degree of certainty.[32] EPA has not even attempted to allege that maintaining the conventional renewable fuel target would cause severe economic (or environmental) harm, and the Proposed Rule was not reasoned on that basis because no basis exists for such a finding. With relatively

[29] 76 Fed. Reg. 4,662.
[30] *See, e.g.*, http://www.ethanolrfa.org/pages/e-85 *and* http://www.ffv-awareness.org/.
[31] *See* CAA § 211(o)(7)(A).
[32] *See* EPA, *Notice of Decision Regarding the State of Texas Request for a Waiver of a Portion of the Renewable Fuel Standard*, 73 Fed. Reg. 47,168, 47,171-72 (August 13, 2008)("EPA believes that generally requiring a high degree of confidence that implementation of the RFS would severely harm an economy would appropriately implement Congress' intent for yearly growth in the use of renewable fuels").

modest RIN prices that would have little to no impact on gasoline prices at the pump, E85 and E15 would be incentivized in adequate levels to scale the E10 blendwall.

Absent a finding of severe economic harm, the statute provides a narrow waiver authority based on the *supply* of domestic biofuels, which EPA has inappropriately applied in the Proposed Rule. EPA cannot equate "supply" with "demand" as it has proposed to do. For an extensive discussion of the limits of EPA's statutory authority, and how the Proposed Rule has exceeded those limits, see Attachment A. Simply put, EPA has no statutory basis to reduce the conventional renewable fuel target of 14.4 billion gallons based on "inadequate domestic supply."

No significant dispute exists that there is an adequate supply of domestic biofuels regarding the 2014 targets (except regarding the cellulosic target specified in the statute, which shortfall then carries through, in part, to the Advanced category). And there is no serious debate regarding the ability for producers to provide 14.4 billion gallons of conventional ethanol.[33] Finally, POET does not dispute EPA's ability to carry through the amount of a cellulosic production shortfall into a corresponding reduction of the Advanced target, to the extent that other domestic Advanced biofuels cannot make up for that cellulosic production shortfall.

It is worth emphasizing that EPA's statutory general waiver authority is quite narrow, requiring a "high degree of confidence" that a waiver is necessary, and this situation is not present for 2014.[34] EPA should not reduce RFS targets based on unfounded speculation that undercuts the statutory scheme that Congress enacted to ensure an "increase every year" in biofuels production.[35]

While POET is confident that much higher Total and Advanced targets can be met without causing severe economic harm, in the event that unforeseen events occur, EPA could exercise its general waiver authority at such time that severe economic harm is evident with "a high degree of confidence." But doing so now is premature and contrary to EPA's statutory authority. Notably, the API-commissioned NERA analysis—predicting that the RFS will cause refiners to stop making gasoline and diesel thereby resulting in a "death spiral" of severe impacts to the U.S. economy—is facially-deficient

[33] Current nameplate conventional ethanol production capacity is approximately 14.9 billion gallons. *See* Renewable Fuels Association, "Biorefinery Locations," at http://www.ethanolrfa.org/bio-refinery-locations/.

[34] EPA has discussed this "high degree of confidence" in denying previous requests to waive a portion of the RFS. *See* EPA, *Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard*, 77 Fed. Reg. 70,773-75 and EPA, *Notice of Decision Regarding the State of Texas Request for a Waiver of a Portion of the Renewable Fuel Standard,* 73 Fed. Reg. 47,171-72.

[35] 78 Fed. Reg. 71,754.

and comes nowhere close to providing reliable information to form the key basis for a major regulatory action such as the API-requested waver, and EPA does not even cite to it in the Proposed Rule.[36]

The Proposed Rule is also inconsistent with the statutory purpose of the RFS. The Proposed Rule recognizes that Congress enacted the RFS "to promote substantial, *sustained growth* in biofuel production."[37] The Proposed Rule also notes that "Congress intended that volumes of renewable fuel, advanced biofuel, and cellulosic biofuel *increase every year* through 2022."[38] The Proposed Rule finds that these annual increases in biofuels use were meant to achieve "the central policy goals underlying the RFS program" including "reductions in greenhouse gas emissions, enhanced energy security, economic development, and technological innovation."[39]

Furthermore, the statute requires that EPA promulgate regulations to "ensure" that statutory targets are met. However, the Proposed Rule, if finalized, would do the exact opposite.[40] EPA's proposal would so severely undercut the RFS as to render it practically useless for the purpose of incentivizing investment to enhance the production and use of biofuels. Thus, EPA's proposal is directly contrary to it "ensuring" that RFS mandates are met. In fact, EPA is ensuring that they *won't* be met.

The solution to the Proposed Rule's deficiencies is for EPA to set higher RFS targets that respect the RFS statutory targets and the statutory goals.

b. *The conventional target of 14.4 billion gallons can be met with reasonable increases in E85 and E15 without causing severe economic harm*.

In its Proposed Rule, EPA notes that the AEO 2013 reference case projected 2014 gasoline consumption that "could absorb" approximately 13.2 billion gallons of ethanol as E10."[41] And the E10 blendwall could be considerably higher, ranging from 13.3 to around 13.8 billion gallons, depending on the projections of future gasoline use for

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[36] For a detailed debunking of the NERA "death spiral" analysis, see Growth Energy's October 25, 2013 *Comments on Petition for Partial RFS Mandate Waiver by API and AFPM*. *See also* Bruce A. Babcock & Sebastien Pouliot, *RFS Compliance: Death Spiral or Investment in E85?* (November 2013), *available at* http://www.card.iastate.edu/publications/dbs/pdffiles/13pb16.pdf.

[37] *See* the Proposed Rule at 78 Fed. Reg. 71,734 (emphasis added).

[38] *Id*. at 71,754 (emphasis added).

[39] *Id*. at 71,778.

[40] EPA is required to set renewable fuel requirements each year that "ensure" that the applicable volumes of renewable fuel specified in the statute are used. CAA § 211(o)(2)(A)(i). The D.C. Circuit has found that "ensure" as used here means "to make sure, [or] certain." *See, e.g.*, *Nat'l Petrochemical & Refiners Ass'n v. EPA*, 630 F.3d 145, 153 (D.C. Cir. 2010).

[41] 78 Fed. Reg. 71,758.

2014.[42] Thus, conservatively, 1.2 billion gallons of ethanol in blends above E10 (e.g., either E15 or E85) is all that is needed to reach the conventional target of 14.4 billion gallons, and the needed ethanol in blends above E10 may be as little as 600 million gallons. Importantly, EPA's issuing a waiver of the conventional mandate, instead of leaving in place incentives for higher-level ethanol blends, would conflict with prior EPA statements that "obligated parties … should work with their partners in the vehicle and fuel market to overcome any market limitations on increasing the volume of ethanol that is used."[43] Numerous analyses readily show that these "market limitations" can be overcome, but only if EPA holds firm on the mandated volumes and refiners and other obligated parties adjust accordingly.

Sufficient E85 can be readily consumed to meet the full "conventional" 2014 target of 14.4 billion gallons. Numerous analyses suggest that E85 use, with reasonable RIN prices, could easily exceed one billion gallons. For instance, Dr. Bruce Babcock of Iowa State has found that "it is feasible to meet 2014 and 2015 biofuel mandates with expanded E85 consumption given *existing numbers of flex vehicles and stations that sell E85*."[44] In a subsequent analysis Dr. Babcock tested his assumptions by imposing an E85 cap of 45,000 gallons per month per retail station. Notably, this is not a hard cap, since retail stations are often free to install additional E85 pumps. Nevertheless, Dr. Babcock concludes that an additional *one billion gallons* of ethanol could be consumed as E85 in 2014, even if one were to assume that no new E85 stations are built and that each existing E85 station can sell only up to 45,000 gallons per month.[45] POET has found that a 90,000 gallon per month limit is feasible with the addition of additional E85 dispensers (feasible at many locations, with even more dispensers possible at some locations). A

[42] The Proposed Rule later cites EIA's October 2013 STEO estimated 2014 fuel consumption of approximately 133 billion gallons. 78 Fed. Reg. 71,782. EIA's January 2014 STEO projects gasoline use is 134 billion gallons (Table 4a). Finally, during the period from October-December 2013, gasoline consumption increased 4% over the same period in 2012; if this trend continues into 2014, approximately 138 billion gallons of gasoline will be consumed, which could translate into consumption of *13.8 billion gallons* of ethanol in E10. *See* report of Dr. Jesse David, *supra*, at 8. This latter figure would require only 600 million gallons of ethanol in blends above E10 for 2014.

[43] EPA, *Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard*, 77 Fed. Reg. 70,773.

[44] *See* Bruce A. Babcock & Sebastien Pouliot, *Price It and They Will Buy: How E85 Can Break the Blend Wall*, at 3 (August 2013), *available at* http://www.card.iastate.edu/publications/dbs/pdffiles/13pb11.pdf.

[45] Bruce A. Babcock & Sebastien Pouliot, *Impact of Sales Constraints and Entry on E85 Demand*, at 3 (August 2013), *available at* http://www.card.iastate.edu/publications/dbs/pdffiles/13pb12.pdf.

90,000 gallon per month cap could imply about *1.8 billion gallons* of ethanol additional gallons of ethanol.[46]

Importantly, in another, later analysis, Dr. Babcock confirms that "meeting a 14.4 billion gallon ethanol mandate *is feasible* in 2014 with no new stations [offering E85], modestly lower E85 prices, and judicious use of available carryover RINs."[47] And as Dr. Babcock explains, the RFS (and maintaining the statutory embedded conventional target) is key to incentivizing this increased biofuels use:

> [T]he number of stations that sell E85 will not increase until EPA sets ethanol mandates beyond E10 levels. If increased mandates wait for the stations to be built, mandates will never increase.[48]

Importantly, compliance with the embedded conventional mandate through the use of ethanol is readily feasible for the *remaining duration of RFS*, which limits incentives for conventional renewable fuel at 15 billion gallons. Dr. Babcock finds that it will take some 3,000 additional stations selling E85 to achieve a 15 billion gallon mandate without use of carryover RINs (i.e., for years after 2015 when carryover RINs may be in more limited supply).[49] But this is not a significant number of stations on a national scale, representing only a few percent of the total number of gasoline stations in the United States.[50] Assuming conservatively that "all 3,000 stations needed an additional tank for E85, then it will involve a one-time investment cost of approximately $390 million, or about 20 cents for each gallon of ethanol sold in E85."[51] Dr. Babcock further finds that because "this investment cost is far below what compliance costs would be without the investment, owners of oil refineries would have a strong incentive to make the investment."[52]

As one indication of the importance of EPA maintaining the 14.4 billion gallon target, and the ability to meet long-term RFS targets, Protec Fuel was reportedly on the verge—before EPA released the Proposed Rule—of selling enough new E85 pumps to

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[46] *Id*.
[47] Bruce A. Babcock & Sebastien Pouliot, *Feasibility and Cost of Increasing US Ethanol Consumption Beyond E10*, *supra*, at 1.
[48] *Id*. at 2.
[49] *Id*. at 10.
[50] Dr. Babcock notes that "Currently there are about 2,500 fuel stations that dispense E85, which is about 2 percent of all US fuel stations." *Id*. at 11.
[51] *Id.* at 2.
[52] *Id.*

two oil refineries to increase the number of stations that sell E85 by 450."[53] With key RFS targets left in place, E85 can rapidly scale up.

Other analyses support Dr. Babcock's overall findings of the ability to readily comply with a 14.4 billion conventional target through increased E85 use and relatively low RIN prices. For instance, the Food and Agricultural Policy Research Institute ("FAPRI") finds that if EPA simply carries through the cellulosic waiver, the 14.4 billion gallon target in 2014 can be met with the judicious use of rollover RINs and RIN prices of only 43 cents that stimulate additional E85 or E15 use in 2014.[54] Other studies make similar findings.[55] Furthermore, "historical consumption of E85 represents a small fraction of the consumption capacity of the FFVs currently in use."[56] Even the Proposed Rule notes that "if every FFV currently in the fleet had access to E85 and chose to use it exclusively," the total consumption of these vehicles would be approximately *8 billion gallons* per year.[57]

E15 use can also rapidly increase if the RFS targets are properly maintained. Dispenser conversion costs are not significant. As noted above, rather than purchasing new dispensers, gasoline retailers have the option of retrofitting existing dispensers. One manufacturer currently sells such kits for only $1,800.[58] Moreover, a number of existing dispensers have already been warranted for E15 use.[59] The Proposed Rule arbitrarily assumes that E15 use would be negligible over the next couple of years, and fails to assess the relatively low cost of dispenser upgrades in key markets for deploying

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[53] *Id*. at 9.

[54] FAPRI, *Renewable Fuel Standard Waiver Options for 2014 and Beyond* (December 2013), at 4 (Table 1) & 6 (Table 2), *available at* http://www.fapri.missouri.edu/outreach/publications/2013/FAPRI_MU_Report_07_13.pdf.

[55] *See, e.g.,* Philip K. Verleger, Jr., *Renewable Identification Numbers*, Presentation to the Agricultural Advisory Committee, Commodity Futures Trading Commission, at 20 (July 25, 2013) (Even if E85 sales increased most dramatically in those parts of the country where E85 is comparatively more common, Dr. Verleger calculated "that E85 use in 2014 could reach roughly one billion gallons"), *available at* http://www.pkverlegerllc.com/assets/documents/130725CFTCRINS1.pdf.

[56] 78 Fed. Reg. 71,760.

[57] *Id*. at 71,779.

[58] Gilbarco Veeder-Root, *Frequently Asked Questions: Encore 700S Encore S E25 Compatible Unit Options*, *supra*.

[59] *See, e.g*., Press Release, *Gilbarco Expands Standard Fuel Dispenser Warranty from E10 to E15* (March 31, 2010), *available at* http://www.gilbarco.com/us/content/gilbarco-expands-standard-fuel-dispenser-warranty-e10-e15. Wayne also has indicated that "Our warranty for standard dispensers covers gasoline fuels with up to 15% ethanol content." (January 14, 2014 letter to dispenser users).

E15 and the impact of RIN prices on incentivizing E15 sales in 2014 (if RVOs are more closely aligned with statutory targets).

Furthermore, EPA's assumption that E15 use would be negligible conflicts with its Tier 3 Proposed Rule, which stated that in-use "fuel is projected to continue to change with the implementation of the RFS2 program (e.g., the expansion of the number of retailers that offer E15)."[60] EPA's position is also undercut by the fact that automakers are now warranting numerous new vehicles for use with E15. For instance, a survey has found that "all Ford, GM and Volkswagen 2014 models and certain models of Honda, Toyota, Mercedes-Benz, Jaguar and Land Rover" are warranted for E15.[61] And those are only "new" vehicles. EPA's waiver for E15 covers all light-duty vehicles model year 2001 and newer, which allows E15 use in well over half the vehicles on the road without causing warranty concerns.[62] EPA's "analysis" of E15 overlooks these facts.

Furthermore, markets can rapidly convert to E15. For instance, reformulated gas markets provide a logical starting point for the rapid increase in the use of E15. Due to the regulations that require reduced VOC emissions, reformulated gasoline blendstock already has a low RVP.[63] Total U.S. RFG use averaged around 119,000 thousand gallons per day in 2013.[64] This volume will be mostly PADD 1 (East Coast), California and Texas. If all of this volume moved from E10 to E15, there would be an incremental 2.2 billion gallons of ethanol consumed. Looking at only PADD 1 RFG use, going from 10 to 15% ethanol could result in over 870 million additional gallons of ethanol.

Over the last two years (from January 1, 2012 through December 31, 2013), the Chicago CBOB/ethanol spread has averaged 45 cents per gallon.[65] Based on a survey of retailers that offer E15, E15 offers a $0.05 to $0.10 price per gallon advantage compared

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[60] EPA, *Control of Air Pollution From Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards*, 78 Fed. Reg. 29,816, 29,908 (May 21, 2013).

[61] Renewable Fuels Association, *More than 70 Percent of Top Selling Cars Approved for E15 in 2014*, *available at* http://www.ethanolrfa.org/news/entry/more-than-70-percent-of-top-selling-cars-approved-for-e15-in-2014/.

[62] Growth Energy, *E15 is Here*, *available at* http://www.growthenergy.org/ethanol-issues-policy/e15/.

[63] Furthermore, E15 does not necessarily have a high RVP. EPA notes in its Tier 3 rule that as "the ethanol level increases, the volatility increase caused by blending ethanol with gasoline begins to decline." 78 Fed. Reg. 29,938.

[64] *See* EIA, *U.S. Reformulated Gasoline All Sales/Deliveries by Prime Supplier*, *available at* http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=C010000001&f=M.

[65] Oil Price Information Service.

to regular gas.[66] In the highly competitive retail gas business, this ability to offer lower-cost fuels that include more ethanol can provide a significant advantage in increasing customer visits to a gas station and can quickly defray the costs of E15 infrastructure upgrades, which as discussed above may either be unnecessary or done for a small cost.[67] In addition to increased fuel sales, the ethanol price advantage can also result in increased customer visits to a gas station, which can be crucial because increased visits generally result in increased "inside sales" of non-gasoline products (e.g., food sales) that make up "about 75%" of the profits on average of gasoline retailers.[68] Thus, ethanol's price advantage can result in higher fuel sales while generating even higher-margin "inside sales."

Moreover, certain major retailers have started dispensing E15 and growth is likely. A recent article notes that Murphy USA has begun selling E15 in Arkansas and "plans on expanding the availability" of E15. This news is significant because Murphy USA has nearly 1,200 locations selling fuel in 23 states.[69] In addition to retailers such as Murphy selling E15, areas such as Chicago, Milwaukee, and St. Louis, RFG areas situated in the Midwest, could make ideal markets for rapid conversion from E10 to E15 due to their proximity to ethanol production (adding to the PADD 1 volumes assessed above). Additionally, MAPCO Express, Inc., one of the largest company-operated retail chains in the United States, recently announced that they will be selling E15 at all non-diesel fueling dispensers at their new build and select mega store locations starting in 2014, with the goal to have 100 mega stores offering E15.[70]

In sum, E15 use is expanding and appears likely to continue its expansion through 2014, *if* EPA respects the congressionally mandated Renewable Fuels mandate. EPA may have found it convenient in the Proposed Rule to "simplify the calculations and

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[66] *See* Press Release, *MAPCO Unveils New Plan to Distribute and Sell E15 in New Mega Stores*, (January 15, 2014), *available at* http://www.growthenergy.org/news-media/press-releases/mapco-unveils-new-plan-to-distribute-and-sell-e15-in-new-mega-stores.

[67] Indeed, a Stillwater Associates study estimates the cost of updating pump infrastructure nationwide to accommodate higher blends of ethanol at a range of only 0.0024 cents per gallon to 0.0056 cents per gallon on a 15-year amortized basis. *See* Stillwater Associates, *The Cost of Introducing an Intermediate Blend Ethanol Fuel for 2017- and- Later Vehicles*, (October 17, 2012), available as an attachment to *Growth Energy Comments on Control of Air Pollution From New Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards*, EPA Dkt. No. EPA-HQ-OAR-2011-0135-4681, *available at* http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2011-0135-4681.

[68] Zlati Meyer, *Pain at the pump cuts into 'gas station' profits*, USA Today (April 12, 2012) *available at* http://usatoday30.usatoday.com/money/industries/retail/story/2012-04-12/gas-station-profits/54200106/1.

[69] OPIS Ethanol and Biodiesel Weekly Report, December 16, 2013.

[70] *See* January 15, 2014 Growth Energy press release, *supra*.

the discussion" by assuming E15 use will be negligible.[71] However, doing so is arbitrary and ignores hundreds of millions of additional gallons of ethanol that could be included in setting the 2014 standards.

3. Roll-over RINs must be considered when setting targets, and these roll-over RINs provide additional justification for not reducing the 14.4 billion conventional renewable fuel target.

To the extent necessary, roll-over RINs must be included when setting targets unless *EPA* can show to a high degree of certainty that doing so would result in severe economic harm. Banked RINs are designed to allow individual obligated parties to manage their compliance costs. However, EPA has no statutory authority to preserve a large overhang in the volume of banked roll-over RINs by lowering Congressionally-mandated RFS targets. Contrary to the statute, EPA maintaining a large RINs overhang undermines the investment in biofuels that Congress intended to be made. EPA's proposed treatment of carryover RINs would have the critically adverse impact of depressing the price of RINs, and therefore defeating the intended RFS mechanism for incentivizing biofuels use.[72] An agency cannot arbitrarily interpret a statute in a way that would "frustrate the policy that Congress sought to implement."[73] The RFS requires EPA to "promulgate regulations to ensure that gasoline sold or introduced into commerce in the United States … contains the applicable volume of renewable fuel," and here EPA has done the opposite, taking unnecessary action to frustrate the purposes of the statute.[74]

Indeed, EPA has substantially underestimated the volume of roll-over RINs at 1.2 billion.[75] The volume of available rollover RINs has been estimated at approximately 1.7 billion.[76] EPA's underestimation of the number of roll-over RINs undercuts the rationale and underpinnings of the Proposed Rule. The RFS is not "short" on RINs, these roll-over RINs provide a significant compliance buffer, and the RFS should be left to work with the current conventional target left in place.

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[71] 78 Fed. Reg. 71,758.
[72] *See* David Report at 1-11.
[73] *See, e.g.*, *Shays v. FEC*, 528 F.3d 914, 925 (D.C. Cir. 2008) (quoting *Cont'l Air Lines, Inc. v. Dep't of Transp.*, 843 F.2d 1444, 1453 (D.C. Cir. 1988)).
[74] CAA § 211(o)(2)(A)(i).
[75] 78 Fed. Reg. 71,767.
[76] Nick Paulson, *RIN Update: 2014 Carry In and EPA's Proposed Rulemaking*, University of Illinois Farmdoc Daily (December 27, 2013), *available at* http://farmdocdaily.illinois.edu/2013/12/rin-update-2014-carry-in-epa-rulemaking.html.

Another problem with EPA's proposed "buffer" theory is that the statute already contains mechanisms to provide obligated parties with the desired flexibility. Where a statute expressly addresses a problem, an agency cannot administratively replace Congress's solution with one of the agency's own design. For instance, Congress provided flexibility whereby an obligated party "that is unable to generate or purchase sufficient credits" *may carry forward a RIN deficit*, as long as the party covers that deficit in the next program year.[77] Similarly, Congress provided waiver authority to EPA when it finds severe economic harm caused by the RFS itself to a high degree of confidence.[78]

In setting the 2013 RVO, EPA accounted for RINs carried over from 2012 before concluding "that the statutory volumes for both advanced biofuel and total renewable fuel can be met in 2013."[79] Because obligated parties could reach the statutory levels by using carryover RINs, EPA found no basis for "reducing the national applicable volumes."[80] There is no basis for diverging from this precedent for 2014, given the substantial volume of carry-over RINs, and the importance of maintaining RIN price support to allow the use of ethanol blends over E10 that can be used to readily meet RFS targets in 2015 and beyond.

Even if it were permissible to set aside some number of carryover RINs to serve as a buffer, EPA has offered no sufficient evidence that the correct size of the buffer would be the 1.2 billion carry-over RINs that the Proposed Rule estimates will be available in 2014—let alone the larger figure of 1.7 billion carry-over RINs. Notably, in addition to D6 RINs, substantial volumes of biodiesel RINs exist that could be used to meet the embedded renewable fuels target. The Proposed Rule does not justify setting the RIN "buffer" at that particular level, and failing to do so is arbitrary and capricious. In a robust corn production year, when ethanol can be produced in significant quantities at comparatively low cost, it is particularly inappropriate for EPA to reduce an RVO target to preserve so large a RINs bank absent a showing by EPA that doing so is necessary to prevent severe economic harm.

The Proposed Rule's reducing the 14.4 billion embedded conventional target, as noted above, is inconsistent with EPA's statutory authority, and it is unnecessary because the embedded RFS conventional target of 14.4 billion gallons can be readily

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[77] CAA § 211(o)(5)(D).

[78] CAA § 211(o)(7)(A). *See also* EPA, *Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard*, 77 Fed. Reg. 70,773-75 and EPA, *Notice of Decision Regarding the State of Texas Request for a Waiver of a Portion of the Renewable Fuel Standard,* 73 Fed. Reg. 47,171-72 (discussing the "high degree of confidence" necessary for EPA to exercise its general waiver authority).

[79] EPA, *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards,* 78 Fed. Reg. 49,794, 49,795 (August 15, 2013).

[80] *Id.*

met using E85 (and E15). Using some portion of 1.7 billion roll-over RINs provides an additional measure of flexibility. For instance, if conservative estimates of E85 use and the E10 blendwall are assumed—e.g., 800 million gallons of E85 and a 13.2 billion gallon E10 blendwall—rollover RINs should be used to make up the difference and preserve the embedded conventional renewable fuel target.[81]

In summary, the conventional target of 14.4 billion gallons in 2014 can be met without causing "severe economic harm" and there is no other statutory basis for reducing this target.

4. **EPA's approach to setting its cellulosic target is contrary to its statutory authority and the target must be set higher than proposed**.

EPA's setting its cellulosic target by erring on the side of overly-low cellulosic production estimates is contrary to its statutory authority. The 2013 D.C. Circuit *API v. EPA* decision required that EPA use a "neutral" cellulosic production methodology "that aims at accuracy."[82] Unfortunately, EPA in this Proposed Rule is "deliberately indulging" in using an overly-conservative methodology to set a too-lenient target, which violates the D.C. Circuit's instruction for a "neutral" methodology that aims for accuracy.[83] The Proposed Rule setting a too lenient standard is just as bad as its previously setting a too-stringent target. In fact EPA's current transgression is worse, given the statute's goals of promoting biofuel production and the agency's ability to take corrective measures (as it has in the past) if EPA sets a cellulosic target that turns out to be too stringent.[84]

Furthermore, EPA's approach in its 2014 Proposed Rule arbitrarily diverges from its past cellulosic projections that were based on carefully assessing individual production facilities and engineering judgment.[85] EPA has attempted to cloak its new approach with a veneer of statistical reliability, but EPA has misapplied statistics and arbitrarily and capriciously diverged from its past engineering and plant-specific assessments in setting targets.

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[81] Analysis shows that the impact of "including" rollover RINs as a de facto source of "supply" when setting the 2014 RFS target are not severe. *See e.g.*, Babcock & Pouliot, *Feasibility and Cost of Increasing US Ethanol Consumption Beyond E10*, *supra*, at 1 ("meeting a 14.4 billion gallon ethanol mandate is feasible in 2014 with no new stations, modestly lower E85 prices, and judicious use of available carryover RINs.").

[82] *API v. EPA*, 706 F.3d 474, 479 (D.C. Cir. 2013).

[83] *Id*.

[84] *See, e.g.*, 78 Fed. Reg. 71,751.

[85] *See* EPA, *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards,* 78 Fed. Reg. 49,802-08.

One reason why setting an appropriate cellulosic target is particularly important in the early years of commercial cellulosic production is that cellulosic ethanol will initially have higher production costs than ethanol that uses corn starch. Implicit in the Congressional design is an awareness that customers won't purchase cellulosic ethanol when cellulosic ethanol is first commercialized unless they are required to do so by the RFS mandate. Effectively, EPA's projection of cellulosic production therefore becomes a *cap* on production.

In the Proposed Rule's assessment of cellulosic production for 2014, EPA unduly layers conservative assumption on conservative assumption. First, EPA automatically assumed that the "low end of the range" for new facility production is zero, even if those facilities' development is well underway.[86] As explained in the comments of POET-DSM Advanced Biofuels, EPA's subsequent application of statistics and blunt assessment of the risks of low production—insufficiently tied to the facts and technologies of individual facilities—is inappropriate.[87]

In particular, EPA assumed (1) for existing facilities a "right-skewed or Weibull curve, with the most likely production volume near, but not at, the low end of the range" and (2) a "half-normal" curve for new facilities.[88] These assumptions arbitrarily skew toward the low end of the range and fail to meet the D.C. Circuit's requirement for a neutral methodology that "aims for accuracy."[89]

First, no reason exists for EPA to arbitrarily assume a half-normal curve for all facilities projected to commence operating in 2014. EPA's methodology for estimating the supply of cellulosic ethanol "does not bear a rational relationship to the reality it purports to represent," and is therefore arbitrary and capricious.[90] Rather, EPA should have examined the individual facts of each new facility to determine an appropriate distribution curve (if it wants to use statistics in its projection), as indicated in the report of the statistical expert Dr. Laurentius Marais, provided at Attachment B to these comments. Four cellulosic production facilities are slated to commence production in 2014 for which EPA includes production volumes in its projection of overall 2014 cellulosic production. No justification exists as a matter of statistics (or common sense) to apply a one-size-fits-all (half-normal) distribution.[91] Indeed, even OMB raised this concern in its inter-agency review of the Proposed Rule, stating that "this approach

[86] 78 Fed. Reg. 71,739.
[87] See Comments of POET-DSM Advanced Biofuels at 10-11.
[88] 78 Fed. Reg. 71,747-48.
[89] *API*, 706 F.3d at 479.
[90] *Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C. Cir. 1999). See also, *Chemical Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1265 (D.C. Cir. 1994)(rejecting the use of an EPA model as "arbitrary and capricious if there is simply no rational relationship between the model and the known behavior").
[91] *See* report of Dr. Laurentius Marais, attached at Exhibit B.

doesn't reduce the arbitrariness of the underlying uncertainties."[92] A more careful engineering-based analysis is warranted.

The POET-DSM Project LIBERTY is on track to commence commercial operations in mid-2014. Notably, in setting the Project production volume for Project LIBERTY, EPA admits that it has "no reason to believe" that this facility may be "any more prone" to production challenges as other cellulosic facilities.[93] However, EPA nevertheless assigns POET the same half-normal distribution as EPA assigns to all other facilities commencing operating in 2014 for which EPA includes volumes in the 2014 overall cellulosic projection.[94] EPA fails to assess whether a half-normal distribution is appropriate for Project LIBERTY in light of key factors such as the facility's solid financing, its production technology, and its successful biomass harvest. Indeed, as part of the inter-agency review process, reviewers stated that "We have a hard time with the economic justification for the half normal distribution," specifically raising concerns regarding its application to POET (and the Abengoa and DuPont cellulosic production facilities slated to commence operating in 2014).[95]

Furthermore, EPA should include in the cellulosic target some "volume from facilities that could use pathways which have not yet been approved" but for which such pathway approval, and related production, is reasonably foreseeable for 2014.[96] Including such volume is in the nature of a "projection," as long as it serves a "neutral aim at accuracy" (which is what the statute and the D.C. Circuit has commanded EPA to do).[97] In the event such approval and production does not materialize, EPA could always lower the cellulosic target after-the-fact, as it has done for 2012.[98]

The Proposed Rule notes that, in reliance on RFS incentives, the cellulosic ethanol industry has made significant strides, including commercially operating facilities, higher biofuel yields and lower production costs.[99] But the Proposed Rule will undermine the future of cellulosic biofuels in the United States. EPA's unduly conservative cellulosic projection methodology—in conjunction with undercutting the

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[92] *See* documents contained in "Interagency review of NPRM with OMB (Office of Management and Budget)" EPA Dkt. No. EPA-HQ-OAR-2013-0479-0003, *available at* http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0479-0003.
[93] 78 Fed. Reg. 71,743.
[94] *Id*. at 71,748.
[95] *See* Document 2a contained in "Interagency review of NPRM with OMB (Office of Management and Budget)" EPA Dkt. No. EPA-HQ-OAR-2013-0479-0003, *available at* http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0479-0003, at 34.
[96] *See, e.g*., the facilities identified at 78 Fed. Reg. 71,746-48.
[97] *See* Marais report, *supra*.
[98] 78 Fed. Reg. 71,751.
[99] *Id*. at 71,738.

conventional target—will undermine cellulosic investment. These actions will depress RIN prices and destroy investor confidence, undermining investment and growth in cellulosic biofuels. This Proposed Rule, if finalized, would eviscerate POET's plans for scaling up cellulosic production beyond Project LIBERTY, including to 26 other POET facilities.

In short, if EPA wishes to see continued robust investment in cellulosic facilities, EPA must set aside its flawed, newly-adopted cellulosic projection methodology and set the cellulosic target at a higher level than what was proposed.[100] And EPA must maintain the conventional renewable fuel target at the statutory level, both in 2014 and the years that follow.

5. **EPA should set the 2014 advanced biofuels target at a higher level than proposed, as other domestic advanced biofuels can make up for shortfalls in cellulosic production, and the biodiesel target should be raised commensurately**.

While the statute allows EPA the discretion to reduce Total and Advanced targets by the amount of a shortfall in cellulosic production, EPA should not exercise that discretion to the extent that other Advanced domestic biofuels can make up for those shortfalls in cellulosic production.[101] Maintaining the Advanced target consistent with the ability of domestic Advanced biofuels producers to provide such fuels is consistent with EPA's obligation to ensure that gasoline sold contains the applicable volumes of renewable fuel specified in the statute.[102] Furthermore, it is consistent with Congressional intent that "volumes of renewable fuel, advanced biofuel, and cellulosic biofuel *increase every year*."[103]

EPA should follow its "Option 1" for setting the Advanced biofuel target, whereby other domestic Advanced biofuels (and roll-over RINs) can compensate for a significant share of the cellulosic production shortfall.[104] Key to assessing the Advanced

[100] EPA's projection is also impermissible because it was not "based on" a projection provided by EIA as required under CAA §211(o)(7)(D). EPA made no such reference to an EIA projection in the Proposed Rule. Indeed, EPA says "This range does not account for the estimate that EIA is required to provide to EPA." 78 Fed. Reg. 71,736.

[101] Note that the above discussion of the conventional target is consistent with this approach because, whatever the Advanced target is for 2014, the Advanced target would be added to the 14.4 billion conventional target. Any shortfall in cellulosic production (that cannot be compensated for by producing other domestic Advanced biofuels) that reduces the Advanced target would be "passed through" identically to the Total target as well.

[102] CAA § 211(o)(2)(A)(i).

[103] 78 Fed. Reg. 71,754 (emphasis added).

[104] *Id*. at 71,774-75.

target is the role of biodiesel, both because it is currently produced in significant volumes, and because each gallon of biodiesel can generate 1.5 RINs based on biodiesel's energy intensity.[105] As EPA has noted in the past, the "availability of advanced biofuel is a critical component" in determining whether a shortfall in cellulosic production should be carried through to a reduction in the Advanced target.[106] The Proposed Rule further notes that "In previous rulemakings where we considered reductions in the applicable annual volume of advanced biofuel following a reduction in the statutory volume for cellulosic biofuel, we focused on the *availability* of advanced biofuel (and in some cases available carryover RINs) when making determinations as to whether a reduction in advanced biofuel volumes was warranted."[107] No reason exists for EPA diverting from this prior precedent for 2014, and "Option 1" appropriately focuses on biofuels "availability."

The biodiesel target, which is nested within the Advanced target, should be raised from 1.28 billion biodiesel gallons to 1.7 billion biodiesel gallons. This figure is consistent with the biodiesel target sought by numerous parties at the EPA hearing on the 2014 RVO standards.[108] This biodiesel target also is in line with current actual biodiesel production.[109]

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[105] 40 CFR 80.1415(b).

[106] *See* EPA, *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards,* 78 Fed. Reg. 49,812.

[107] 78 Fed. Reg. 71,774 (emphasis added).

[108] See the comments of various parties, including the National Biodiesel Board, Iowa Biodiesel Board, Iowa Renewable Fuels Association, American Soybean Association, ADM Biodiesel, and Renewable Energy Group located in EPA, *Transcript from The Public Hearing for the 2014 Standards for the Renewable Fuel Standard Program*, *available at* http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0479-0738. In addition, the governors of six Midwest states also requested in a letter that EPA "increase the biodiesel volume to reflect current production levels." *See* Press Release, *Gov. Branstad brings bipartisan group of six governors together in support of RFS* (December 20, 2013), *available at* https://governor.iowa.gov/2013/12/gov-branstad-brings-bipartisan-group-of-six-governors-together-in-support-of-rfs/. This volume is also consistent with that requested by 32 Senators in a letter to EPA in November 2013. *See* Press Release, *Grassley, Colleagues Urge Administration to Support Biodiesel* (November 14, 2013), *available at* http://www.grassley.senate.gov/news/Article.cfm?customel_dataPageID_1502=47477. *See also* Letter from Members of Congress to Gina McCarthy (December 18, 2013) (requesting that EPA set a biodiesel requirement "consistent with the current-year projections of 1.7 billion gallons.").

[109] The Proposed Rule indicates that biodiesel production could reach 1.7 billion gallons in 2013. *See* 78 Fed. Reg. 71,752. In fact, EMTS data from August through November 2013 show an average monthly biodiesel RIN generation of over 250 million RINs, which would equate to an

EPA notes that total production capacity for all biodiesel facilities is about 3.6 billion gallons.[110] Thus a 1.7 billion gallon biodiesel target is well within this production capacity. Setting this higher biodiesel target provides market certainty to allow the use of readily available biodiesel, which in turn can support an enhanced Advanced target.

Production outlook reports place other non-ethanol advanced biofuels (including biogas, naphtha, and renewable diesel) at approximately 132 million gallons.[111] Accordingly, the Advanced target should be at least 2.65 billion ethanol equivalent gallons, taking into account both biodiesel and other domestically-produced advanced biofuels.

Because virtually all of these 2014 domestic Advanced biofuels are not ethanol-based, no significant ethanol blendwall concerns arise regarding setting the Advanced Target by adding the volumes of domestically-produced Advanced ethanol to the 14.4 billion gallons of conventional ethanol to reach a Total target.

6. **EPA recognizes the need for—and must allow—enhanced RIN prices in order to incentivize the greater use of renewable fuels, which is the entire reason Congress enacted the RFS. Increased RIN prices won't increase gas prices at the pump.**

EPA setting impermissibly low RFS targets would destroy RIN value and undercut the RFS. As noted above, EPA admits this, finding that "If the price relationship between E10 and E85 reverts to historic levels [i.e., due to lack of meaningful RINs prices] significant growth in E85 sales volumes is unlikely."[112] EPA further acknowledges "that the volume of E85 sold into the market is likely also a function of the standard for total renewable fuel that we set."[113]

In an abdication of its regulatory responsibilities, EPA in the Proposed Rule surprisingly fails even to do a reasoned analysis of potential E85 sales: "EPA is not in a position to estimate E85 consumption based on data or modeling involving the price relationship between E10 and E85."[114] EPA cannot undercut statutory mandates, using a general waiver authority that requires "a high degree of confidence," without undertaking reasoned analysis.

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annualized production of just over two billion gallons of biodiesel (generating over 3 billion RINs). *See* http://www.epa.gov/otaq/fuels/rfsdata/2013emts.htm.

[110] 78 Fed. Reg. 71,762.

[111] *Id*. at 71,766.

[112] *Id*. at 71,760.

[113] *Id*. at 71,761.

[114] *Id*. at 71,760.

However, others analysts have assessed the ability of E85 sales to readily increase. In a scenario that assumes compliance with the 14.4 billion target through 800 million gallons of ethanol in E85 and 600 million banked RINs, Dr. Babcock finds RIN prices of only $0.69, assuming no new E85 stations.[115] By comparison, if to meet the 14.4 billion gallon target refiners were to invest in 500 additional E85 stations at a cost of $65 million, Dr. Babcock finds that this could reduce RIN prices to approximately only 18 cents and result in "more than a $7 billion drop in the total value of RINs that would be used for compliance in 2014."[116]

Importantly, RIN prices will not significantly impact gasoline prices. A recent economic analysis of the relationship between RIN prices and gas prices in 2013 found that changes in RIN prices "did not cause changes in retail gasoline prices."[117] Furthermore, a prior analysis found that RIN prices of $0.79 (roughly in line with RIN prices that Dr. Babcock has said would allow compliance with a 14.4 billion gallon conventional renewable fuel target) would only impact retail gasoline prices by $0.02 per gallon and that the comparatively lower cost of ethanol versus gasoline could result in net savings by increased ethanol blending.[118]

Similarly, a recent analysis by Dr. Babcock found that "We find that feasible increases in the ethanol mandate in 2014 will cause a *small decline* in the price of E10," and specifically that low ethanol prices and "movement by motorists to E85 from E10 are enough to result in a net decrease in the price of E10."[119] He further notes that "Our results should reassure those in Congress and the Administration who are worried that following the RFS commitment to expanding the use of renewable fuels will result in sharply higher fuel prices for consumers."[120] Rather, Dr. Babcock finds that increasing the RFS mandate in 2014 to require higher use of ethanol should *reduce* gas prices.

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[115] *See* Babcock & Pouliot, *Feasibility and Cost of Increasing US Ethanol Consumption Beyond E10*, *supra*, at 2 and 12.
[116] *Id*. at 2.
[117] Informa Economics, *Analysis of Whether Higher Prices of Renewable Fuel Standard RINs Affected Gasoline Prices in 2013* (January 2014), *available at* http://ethanolrfa.org/page/-/rfa-association-site/studies/Informa_Gasoline_Price_Analysis.pdf?nocdn=1.
[118] Informa Economics, *Retail Gasoline Price Impact of Compliance with the Renewable Fuel Standard* (March 25, 2013), *available at* http://ethanolrfa.3cdn.net/9a854002332b90e05e_tum6b12ys.pdf.
[119] Bruce Babcock & Sebastien Pouliot, *Impact of Increased Ethanol Mandates on Prices at the Pump,* at 3 (January 2014), *available at* http://www.card.iastate.edu/publications/dbs/pdffiles/14pb18.pdf.
[120] *Id*.

While details and assumptions may vary, the fact remains that RIN prices necessary to meet a conventional renewable fuel target of 14.4 billion gallons would not have a significant impact on retail gasoline prices at the pump. And the reasons for this are simple: gasoline prices are principally impacted by other factors, most notably crude oil prices.[121] In fact, in an analysis of the factors that impact gasoline prices by the EIA, RIN prices are not even mentioned.[122]

Furthermore, any increases in E10 prices would be offset by reductions in E85 prices. This is how the statute is designed to work: incentivizing the increased use of increased blends of biofuels.

Domestic ethanol also reduces risks of gasoline supply disruptions, including disruptions and price shocks due to international security issues in politically-unstable oil-producing areas. By way of context, oil prices have nearly quadrupled since 9/11.[123]

Significantly, even in the record drought last year, ethanol was 40 cents less than gasoline on a wholesale price basis, even before considering the RIN value.[124]

In summary, EPA must assume higher levels of E85 and E15 penetration, based on reasonable RIN price support (e.g., in the range of RIN prices projected by Dr. Babcock and others as necessary to meet the 14.4 billion gallon conventional renewable fuel target) to set higher RVO targets than it has proposed. Such RIN prices are not a cause for concern, but rather indicative of a properly functioning RFS consistent with Congressionally-mandated incentives for increased biofuels use.

7. **Implementing these POET suggestions can provide a ready path forward on the RFS for 2014 and beyond**.

RFS targets can be readily met, in 2014 as well as future years, as noted above, assuming several factors: (1) readily-feasible increases in the use of ethanol blends above E10 and biodiesel; (2) the conventional renewable fuel targets are not reduced;

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[121] EIA, *What's up (and down) with gasoline prices?*, *available at* http://www.eia.gov/tools/faqs/faq.cfm?id=1&t=10, ("EIA analysis of the petroleum market points to fluctuations in the price of crude oil as the main contributor to the large changes in gasoline prices the United States has experienced in recent years.").
[122] EIA, *Factors Affecting Gasoline Prices*, *available at* http://www.eia.gov/energyexplained/index.cfm?page=gasoline_factors_affecting_prices.
[123] *See e.g.,* EIA historical pricing information, *available at* http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=rwtc&f=m.
[124] USDA Bioenergy Statistics, *Table 15—Fuel ethanol, corn and gasoline prices, marketing year*, *available at* www.ers.usda.gov/datafiles/US_Bioenergy/Prices/table15.xls.

and (3) the "Advanced" and "Total" renewable RFS targets are reduced to reflect shortfalls in cellulosic ethanol production, but only to the extent that such shortfalls cannot be compensated for by producing other domestic Advanced biofuels.

Importantly, the RFS "conventional" biofuels goals generally can be achieved very soon—i.e., the current conventional production capacity can meet the 2014 RFS target, and this target doesn't grow under the RFS starting in 2015. More specifically, the conventional target in the RFS is 14.4 billion gallons in 2014 and conventional biofuel incentives are limited at 15 billion gallons starting in 2015.[125] Current U.S. corn ethanol production capacity generally is already generally at 15 billion gallons.[126] Therefore, 15 billion gallons of conventional ethanol can readily be supplied for the duration of the RFS.

Biodiesel capacity is also already largely in place to allow for meeting the bulk of the non-cellulosic portion of the Advanced target for the remaining duration of the specified RFS targets (through 2022). Notably, most of the future growth in RFS mandates occurs in the cellulosic targets. The RFS requires that EPA reduce the cellulosic target by the amount of a projected cellulosic production shortfall in any given year.[127] EPA has made such a reduction for every year that there has been a cellulosic target. Biodiesel can readily meet the bulk of the remaining, non-cellulosic portion of the Advanced target, with other types of domestic Advanced biofuels also contributing.

A few points merit emphasizing. First, substantial amounts of E85 use can address E10 blendwall concerns, as noted above. And E15 use can also readily increase with appropriate RIN price support.

Additionally, substantial roll-over RINs exist for use in 2014, which may also be used in 2015. This provides a substantial "cushion" to support the feasibility of the POET-recommended approach over the next year, but a strong signal by EPA now (by maintaining the conventional renewable fuel target) is necessary to encourage the infrastructure investment necessary for the longer-term success of the RFS.

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[125] *See* CAA § 211(o)(2)(B)(i)(I).

[126] Current nameplate conventional ethanol production capacity is approximately 14.9 billion gallons. *See* Renewable Fuels Association, "Biorefinery Locations," at http://www.ethanolrfa.org/bio-refinery-locations/. *See also* Bruce Babcock and Wei Zhou, *Impact on Corn Prices from Reduced Biofuel Mandates,* at 3-4 (November 2013), *supra* (stating "existing corn ethanol plants could produce more than 15 billion gallons" of ethanol).

[127] *See* CAA § 211(o)(7)(D).

Finally, as noted above, other data and multiple analyses show that the 14.4 billion gallon 2014 RFS conventional renewable fuel target can be readily met with reasonable RIN prices.[128]

8. **EPA should take related actions to promote the "production and consumption of higher-level ethanol blends and of renewable fuels.***"*

EPA takes comment on this issue, including what government actions may be needed to "minimize the need for adjustments in the statutory renewable fuel volume requirements in the future."[129] The most key action item for EPA, as outlined throughout these comments, is not to unduly undercut the 2014 RFS targets, and associated RIN prices, based on a misguided interpretation of the RFS general waiver authority based on "supply" concerns. And EPA should expedite the approval of new Advanced biofuel pathways, such as the pending grain sorghum application submitted by POET for its Chancellor facility.[130]

Nevertheless, other parallel EPA regulatory efforts should also be taken. However, these parallel actions must complement, rather than replace, a strong RFS. Maintaining Congressionally-mandated RFS targets is the single most important tool for increasing biofuels use. These complementary actions that EPA should take include:

- The issuance of FFV guidance with an F factor that appropriately reflects increased E85 use.[131]
- Granting a one psi RVP waiver for E15 and other mid-level ethanol blends (i.e., E16-E50).[132]
- Following up on other recommendations of POET as outlined in its comments on EPA's Tier 3 rulemaking, as well as the Tier 3 comments of automakers that seek to promote enhanced ethanol use as a critical, clean-burning

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[128] *See, e.g.*, Babcock & Pouliot, *Feasibility and Cost of Increasing US Ethanol Consumption Beyond E10*, *supra*; Babcock & Pouliot, *Impact of Sales Constraints and Entry on E85 Demand, supra*; Babcock & Pouliot*, Price it and They Will Buy, supra*. *See also* the analyses of FAPRI, Verleger, and Jesse David, *supra*.

[129] 78 Fed. Reg. 71,779.

[130] *See* EPA, *Renewable Fuels: Fuel Pathway Petitions: Under EPA Review*, at http://www.epa.gov/otaq/fuels/renewablefuels/new-pathways/rfs2-pathways-review.htm.

[131] *See* Alliance of Automobile Manufacturers *Comments on EPA Draft Guidance for E85 Flexible Fuel Vehicle Weighting Factor for Model Years 2016–2019 Vehicles Under the Light-Duty Greenhouse Gas Emissions Program* (April 22, 2013*)*, EPA Dkt. No. EPA-HQ-OAR-2013-0120, *available at* http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0120-0006.

[132] *See* POET *Comments on EPA's Proposed Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards* (July 1, 2013), EPA Dkt. No. EPA-HQ-OAR-2011-0135, *available at* http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2011-0135-4462.

source of octane that does not contain harmful aromatics such as benzene.[133] Among other things, these recommendations would promote the use of mid-level ethanol blends.

In fact, ethanol cost-effectively provides a high-octane, clean-burning fuel that is critical for meeting recently-tightened corporate average fuel economy (CAFE) and greenhouse gas emissions standards promulgated by EPA.[134] The RFS, if the 2014 and subsequent targets are appropriately maintained, can ensure that automakers have access to high-octane ethanol blends for meeting these CAFE and greenhouse gas standards.

Furthermore, the greenhouse gas benefits of maintaining RVO targets must not be overlooked. By statute, cellulosic ethanol reduces lifecycle greenhouse gas emissions by 60% as compared to gasoline.[135] And conventional ethanol plants also significantly contribute to transportation sector greenhouse gas emission reductions, particularly given their significant share of the motor vehicle fuel supply. As noted above, the future of cellulosic ethanol rests with maintaining a 2014 conventional renewable fuel target of 14.4 billion gallons.

Conclusion

Quite simply, EPA lacks statutory authority to undermine the RFS, as the Proposed Rule would certainly do. Finalizing EPA's proposed targets would undercut the RFS, destroying investor confidence in the program, terminating investment in next-generation biofuels technologies, undermining transactions to promote the infrastructure for and increased use of higher-level ethanol blends, and eliminating any confidence that EPA could implement the RFS in any sort of predictable manner.

Furthermore EPA's undermining the RFS is unnecessary given that there is an alternative, ready path forward. Most critically, EPA should maintain the embedded conventional renewable fuel target of 14.4 billion gallons for 2014. The cellulosic and biodiesel targets also merit strengthening, with a commensurate increase to EPA's proposed Advanced target.

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[133] *See Id*. and Alliance of Automobile Manufacturers *Comments on the Proposed Rulemaking to Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards* (July 1, 2013), EPA Dkt. No. EPA-HQ-OAR-2011-0135, *available at* http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2011-0135-4461.

[134] EPA's proposed Tier 3 rule notes that mid-level ethanol blends could "help manufacturers that wish to raise compression ratios to improve vehicle efficiency, as a step toward complying with the 2017 and later light-duty greenhouse gas and CAFE standards." 78 Fed. Reg. 29,825.

[135] CAA § 211(o)(1)(E).

EPA must not undermine investor confidence in the RFS, and a vital source of capital and infrastructure necessary for cellulosic biofuels plants, by undermining the conventional renewable fuel RFS targets. For 2014, EPA must stay the course on the conventional target, both for these policy reasons, as well as the fact that EPA has articulated no statutory basis for undercutting the 14.4 billion gallon target. The RFS should be left to work as intended, and provide a solid platform for continued investment in advanced biofuels and the important greenhouse gas benefits that the RFS can continue to bring.

Sincerely,

Kyle Gilley
Senior Vice President of Public Policy and Corporate Affairs

Attachment A

The Proposed Rule Rests On A Flawed Statutory Interpretation of Clean Air Act § 211(o)(7)(A)

Introduction

The following legal analysis examines EPA's statutory waiver authority under Clean Air Act § 211(o)(7)(A). In summary, EPA's proposed use of this waiver provision in the NRPM would exceed the agency's authority.

EPA proposes to rely only on the 'inadequate domestic supply" prong of section 211(o)(7)(A), rather than on the "severely harm the economy" prong. However, the "inadequate supply" provision does not authorize the proposed waiver. There is no domestic shortage of renewable fuel available to the obligated parties under the statute (importers and refiners), and the agency has not made any such finding. Accordingly, EPA lacks grounds for reducing the 2014 total renewable fuel mandate, including in particular the 14.4 billion gallon embedded conventional renewable fuel target, through this waiver authority.

In fact, the proposed rule would turn the statute upside down by interpreting a provision that refers to "inadequate domestic *supply*" of renewable fuels as though it said "inadequate domestic *demand.*" The statute does not permit EPA to equate "supply" and "demand" under the waiver provision. The proposed waiver is a square peg that does not fit into the round hole of the statutory provision. It would fail both "step one" and "step two" of *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.,* 467 U.S. 837 (1984).

Discussion

1. The Proposed Rule Is Inconsistent With The Statute (*Chevron* Step One).

The statute provides:

> 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*.

42 U.S.C. § 7545(o)(7)(A) (emphasis added).

EPA has not previously interpreted or applied the "inadequate domestic supply" waiver standard of CAA section 211(o)(7)(A)(ii). *See* 78 Fed. Reg. at 71,755. However, the NPRM states that the statutory language is "broad and ambiguous," "does not specify what the general term 'supply' refers to," and provides "EPA the discretion to reasonably interpret the scope of the RFS waiver provision." *Id.* at 71,755, 71,756. The NPRM's reasoning is specious.

(a) The Proposed Waiver Ignores The Meaning Of The Term "Supply."

The statute is not "ambiguous" and the term "supply" is not undefined; it plainly refers to "the *national quantity of renewable fuel*," a phrase that occurs in the preceding portion of section 211(o)(7)(A). The NPRM's attempt to pluck out the term "supply" from the statute and construe it in isolation is legally flawed. Numerous decisions in the Supreme Court and D.C. Circuit have rejected the very approach taken in the NPRM – of construing statutory language in the abstract.[1]

[1] E.g., Adoptive Couple v. Baby Girl, 133 S. Ct. 2552, 2563, ___ U.S. ___ (2013) (interpreting provision defining the breakup of a family in light of surrounding provisions); Nat. Federation of Indep. Bus. v. Sebelius, 132 S. Ct. 2566, 2584, ___ U.S. ___ (2012) (distinguishing between "tax" and "assessable penalty" on the basis of full statutory context); Food and Drug Admin. v. Brown & Williamson Tobacco Co., 529 U.S. 120, 132-33 (2000) (stating that courts reviewing whether Congress has spoken to an issue should consult the full statutory context); United Sav. Ass'n of Tex. v. Timbers of Inwood Forest Assocs., Ltd., 484 U.S. 365, 371 (1988) ("Statutory construction, however, is a holistic endeavor."); BFP v. Resolution Trust Corp., 511 U.S. 531, 537 (1994) ("[I]t is generally presumed that Congress acts intentionally and purposely when it includes particular language in one section of a statute but omits it in another.") (quotation and citation omitted); Hearth, Patio & Barbecue Ass'n v. Dep't of Energy, 706 F.3d 499, 504-05 (D.C. Cir. 2013) (Chevron "step one" analysis requires examination of whole statutory context); Ass'n of Private Sector Colleges and Univs. v. Duncan, 681 F.3d 427, 443-44 (D.C. Cir. 2012) (noting that statutory context can override other canons); Petit v. Dep't of Educ., 675 F.3d 769, 781-82 (D.C. Cir. 2012) (placing context on par with plain text as interpretive method); Shays v. FEC, 414 F.3d 76, 105-07 (D.C. Cir. 2005) (examining context as well and provision itself to determine if Congress spoke to

Under elementary principles of statutory interpretation, there is no statutory ambiguity. The relevant product whose quantity is at issue is "renewable fuel," and the agency is charged with determining its "supply." It is axiomatic that statutory construction must be based on the context and structure of the statute as a whole.

Moreover, the statute requires EPA to find that renewable fuel supply "is" inadequate, not that it "might" be. The present tense of the verb rules out speculation about future events, as the agency previously found in *Notice of Decision Regarding the State of Texas Request for a Waiver of a Portion of the Renewable Fuel Standard*, 73 Fed. Reg. 47,168, 47,169 (Aug. 13, 2008).

The NPRM fails to apply the proper statutory standard. Instead, it interprets "the term 'inadequate domestic supply' as it is used under the general waiver authority to include consideration of factors that affect *consumption* of renewable fuel." 78 Fed. Reg. at 71,737 (emphasis added). The NPRM considers "demand" (*id.* at 71,758) and forecasts the amount of renewable fuels that will be consumed in 2014 based on perceived (but not proven) limitations on distribution and use of renewable fuels, as well as consumer preferences, price differentials and other factors. *Id.* at 71,758-61. The NPRM makes clear that the agency is looking at demand and consumption, not supply.

But the factors of "demand" and "consumption" are quite different from "supply." In fact, they are ordinarily understood as opposites. The competitive price that clears the market for a commodity is determined by the interaction of both "supply" and "demand" (or "consumption"), and the agency's interpretation collapsing the two concepts is unreasonable.

(b) "Supply" of "Renewable Fuel" Must Be Judged From The Perspective of Obligated Parties.

Moreover, the supply of renewable fuel must be determined from the viewpoint of the obligated parties under the statute – refiners and importers – rather than end-consumers. The statute takes the perspective of refiners and importers rather than end-users when defining "renewable fuel" and directing the agency to set applicable volumes.

In particular, the statutory definition of "renewable fuel" focuses on *renewable fuel before blending*. *See* Section 211(o)(1)(J) ("The term 'renewable fuel' means fuel that is produced from renewable biomass and that is used to replace or reduce the

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a question); PDK Labs. Inc. v. DEA, 362 F.3d 786, 796-97 (D.C. Cir. 2005) (analyzing the full context of a provision).

quantity of fossil fuel present in a transportation fuel."); *id*. at section 211(o)(2)(B) (setting applicable volumes of "renewable fuel").

Hence, the relevant "supply" to be assessed by EPA is the quantity of renewable fuel *prior to blending*. The NPRM's assertion that the agency may consider the adequacy of supply to end-consumers ignores the fact that the statute is directed to the obligated parties of refiners and importers, rather than end-consumers.

The NPRM's reasoning also ignores the purpose and structure of the statute. The aim of the statute is to permit a waiver only if obligated parties cannot obtain sufficient renewable fuels because not enough is being produced. Production of renewable fuels is out of their control. On the other hand, distribution of the fuel, and pricing practices that make it attractive to consumers, are within the control of obligated parties. Granting a waiver based on an inadequate "supply" of capacity to distribute renewable fuels is fundamentally contrary to congressional intent because it would make the waiver turn on circumstances at least partially *within the control of the obligated parties.* It would create opportunities for manipulation of the statute.

The statute was aimed at forcing obligated parties to make the investments in infrastructure and to price renewable fuels appropriately—as long as the cost is not so severe as to harm the economy. As the NPRM acknowledges, "the volume of E85 sold into the market is likely also a function of the standard for total renewable fuel that we set." 78 Fed. Reg. at 71,761. But if setting higher standards could cause more E85 consumption, than there cannot be a shortage of E85 (much less ethanol). It is only when there is no renewable fuel to distribute that obligated parties should be granted a waiver.

(c) Congress Intended The Agency To Consider "Supply" – Not Distribution, Infrastructure, and Other Factors.

The NPRM asserts that the term "inadequate domestic supply" refers to "the full range of constraints, including fuel infrastructure and other constraints," facing the delivery of alternative fuels. 78 Fed. Reg. at 71,757.

However, if "inadequate supply" had been intended to include limits on distribution, as the NPRM argues, then Congress would not have limited the waiver to "inadequate domestic supply." The same distribution limits apply to foreign supply; the same dispensers, for example, are needed to pump fuel that includes foreign or domestic renewable fuel. The NPRM's reasoning makes little sense.

In fact, Congress considered, but rejected, allowing waivers where there is merely inadequate "distribution capacity" to meet the RFS. For example, the House

version of the Energy Policy Act of 2005 permitted waivers "based on a determination by the Administrator, after public notice and opportunity for comment, that there is an inadequate domestic supply *or distribution capacity* to meet the requirement." H.R. 6, 109th Cong. § 1501 (introduced Apr. 18, 2005) (emphasis added). The NPRM asserts that the agency "is not aware of any conference or committee reports, or other legislative history, explaining why Congress ultimately enacted the language in EISA in lieu of this alternative formulation." 78 Fed. Reg. at 71,757. Yet the courts consider differences in language among legislative proposals to be highly significant, without demanding an explanation in conference or committee reports.[2] The proposed rule conflicts with the statute enacted by Congress.

(d) The Proposed Rule Is Inconsistent With The Statutory Structure.

The NPRM's reliance on infrastructure and distribution constraints flies in the face of the way the term "supply" is used throughout section 211. When Congress intended for EPA to consider other factors besides "supply" – such as distribution capacity – the legislature explicitly said so.

A separate provision of the RFS permits a waiver in 2006, the first year of the program, based on an analysis of "(i) supplies and prices; (ii) blendstock supplies; and (iii) supply and distribution system capabilities." Section 211(o)(8)(B). Congress did not authorize EPA to consider blendstock supplies or distribution capabilities in making subsequent waiver determinations.

[2] See Amgen Inc. v. Conn. Ret. Plans and Trust Funds, 133 S. Ct. 1184, 1201, ___ U.S. ___ (2013) (inferring that "Congress rejected calls to undo the fraud-on-the-market presumption" because it failed to enact H.R. 10 (the Common Sense Legal Reform Act), which would have eliminated the presumption); Complete Auto Transit, Inc. v. Reis, 451 U.S. 401, 416-17 (1981) (discussing legislative history and rejected provisions of the Labor Management Relations Act in order to find that s301(a) does not permit a damages action against individuals violating a no-strike agreement); Whirlpool Corp. v. Marshall, 445 U.S. 1, 14-18 (1980) (applying lessons from rejected provisions of the Occupational Safety and Health Act to interpret the latter statute); Valdes v. United States, 475 F.3d 1319, 1327-28 (D.C. Cir. 2007) (holding that Congress's rejection of older bribery elements in new gratuity provision was decisive in interpreting it, notwithstanding some legislative history); Nat'l Wildlife Fed'n v. Hodel, 839 F.2d 694, 753-54 (D.C. Cir. 1988) (using legislative history of Surface Mining Control and Reclamation Act to understand that it regulated both surface and underground mines); Alabama Power Co. v. Costle, 323, 406 & n.81 (D.C. Cir. 1979) (discussing rejected provisions and parallel language to shed light on meaning of enacted text); Nat'l Consumer Info. Ctr. v. Gallegos, 549 F.2d 822, 825 (D.C. Cir. 1977) (noting legislative history showing importance of rejection of mandatory funding, replaced by discretionary funding).

In another provision, Congress specified many factors EPA should consider in setting the applicable volumes after 2022. Those factors include "the sufficiency of infrastructure to deliver and use renewable fuel." Section 211(o)(2)(B)(ii)(IV). Congress did not authorize EPA to consider "the sufficiency of infrastructure to deliver and use renewable fuels" under section 211(o)(7)(A).

Where Congress meant to refer to broader considerations than "supply," it specified them. For example, CAA section 211(k)(6)(A)(ii) allows EPA to defer application of reformulated gasoline (RFG) requirements if EPA determines that ''there is insufficient domestic *capacity* to produce reformulated gasoline.'' (emphasis added). A related RFG waiver provision concerning the application of RFG requirements in the Ozone Transport Region, section 211(k)(6)(B)(i) and (iii), provides for a waiver of RFG requirements based on ''insufficient *capacity* to supply reformulated gasoline.'' (emphasis added). The NPRM admits that, "[f]or these RFG waiver provisions, Congress more clearly and explicitly indicated that the capacity to supply RFG could include consideration of factors beyond those concerning the capacity to produce RFG." 78 Fed. Reg. at 71,756.

Similarly, section 211(c)(4)(C)(v)(IV)(bb) refers to "supply or distribution interruptions" – making clear that Congress understood the distinction between "supply" and "distribution" factors. Section 211(h)(1) draws a distinction between "offer for supply, transport, or introduce into commerce" – confirming that "supply" and "transport" issues are different. And section 211(m)(3)(C) differentiates between "an inadequate domestic supply of" and "distribution capacity for" oxygenated gasoline or fuel additives.

The NPRM properly acknowledges that in section 211(m)(3)(C) "Congress chose to expressly differentiate between 'domestic supply' and 'distribution capacity,' indicating that each of these elements was to be considered separately." 78 Fed. Reg. at 71,756. The NPRM concedes that, "[i]n contrast to the section 211(m) waiver provision, Congress arguably did not mandate that the RFS waiver provision be interpreted as providing authority to address problems affecting the supply of renewable fuel to the ultimate consumer." *Id.*

Somewhat inexplicably, EPA then reaches precisely the opposite conclusion in its proposed rule. The NPRM asserts: "[t]he RFS waiver provision employs the phrase 'inadequate domestic supply' without further specification or clarification, thus providing EPA the discretion to determine whether the adequacy of the supply of renewable fuel can reasonably be judged in terms of availability for use by the ultimate consumer . . . ." *Id.*

The NPRM's reasoning is flawed. Congress used the term "supply" throughout the statute and drew distinctions among "supply," "transport," "distribution," "capacity," and other factors. The agency may not assert that the statutory distinctions are meaningless and that all such terms may be considered in the guise of considering "supply." The agency is not entitled to presume that the meaning of the term "supply" changes throughout the statute. *See Mississippi ex rel. Hood v. AU Optronics Corp.,* -- S.Ct. --, 2014 WL 113485, *6 (U.S. Jan. 14, 2014). Nor is the agency entitled to ignore the congressionally drawn distinctions in wording. "'[W]here Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.'" *Dean v. United States*, 556 U.S. 568, 573 (2009).

(e) The Proposed Rule Would Impermissibly Expand The Waiver Authority.

The NPRM maintains that the statutory grant of authority to consider "supply" implies that EPA may consider "infrastructure and other constraints" that may affect supply of renewable fuels ultimately available to end-users. *See* 78 Fed. Reg. at 71,757. This reasoning would improperly expand the waiver authority beyond the breaking point. Many other factors (including prices, investments, R&D, taxes, and regulations) also affect supply. Under the reasoning of the NPRM, the agency could consider all of these factors – indeed, any factor *affecting* the renewable fuels industry. The statutory waiver authority cannot be read so broadly. Plainly, the agency's focus must be limited to the national supply of renewable fuel, viewed from the perspective of the obligated parties.

When Congress says an agency may regulate an issue, it may regulate that issue – but not everything related to it. As the D.C. Circuit has opined in striking down an EPA statutory interpretation, "EPA cannot uncouple the first sentence of [a statutory section] from the rest of the section in order to expand its authority beyond the aims and limits of the section as a whole." *American Petroleum Inst. v. EPA*, 52 F.3d 1113, 1119-20 (D.C. Cir. 1995).

In *American Petroleum Inst. v. EPA*, 706 F.3d 474 (D.C. Cir. 2013), the D.C. Circuit held that EPA's 2012 projection of cellulosic biofuel production was in excess of the agency's statutory authority and warned that "discretion does not entitle the agency to arrogate to itself purposes outside the statutory provision it is applying." *Id.* at 480.

The D.C. Circuit has insisted on a narrow construction of agency waiver authority. In *NetworkIP, LLC v. FCC*, 548 F.3d 116, 127-28 (D.C. Cir. 2008), for example, the court of appeals opined that "[t]he criteria used to make waiver determinations are essential. If they are opaque, the danger of arbitrariness (or worse) is increased." *Id.* at 127. The court also warned of the need "to effectively ensure power is not abused."

Id.; *see also Cook v. Food & Drug Admin*., 733 F.3d 1, 10 (D.C. Cir. 2013) (narrowly construing agency waiver authority).

The Supreme Court's decisions are to the same effect. For example, the Supreme Court held that the Attorney General's delegated authority over controlled substances (21 U.S.C. § 821) did not imply the power to announce an interpretive rule that would deregister any physician who assisted in a suicide under Oregon state law. *Gonzales v. Oregon*, 546 U.S. 243, 266-68 (2006). Because of the breadth of the power this would grant to the agency, the Court struck down the rule as exceeding the statutory grant of power. *Id.* at 258-69. The Court could not credit the idea that Congress hid such a broad delegation in a narrow provision. *Id.* at 267. "Congress, we have held, does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes." *Whitman v. American Trucking Assns., Inc*., 531 U.S. 457, 468 (2001).

Similarly, when the SEC used a series of 10-day suspensions to halt trading in a stock for over a year, the Supreme Court found it to be acting in excess of its power to suspend trading "for a period not exceeding ten days." *SEC v. Sloan*, 436 U.S. 103, 111-12 (1978) (interpreting Exchange Act § 12(k)). The Court rejected the SEC's argument that the remedial power implied by § 12(k) could be read as a "panacea," noting that "[i]f extension of the summary suspension power is desirable, the proper source of that power is Congress." *Id.* at 116-17.

Within the RFS statutory scheme, Congress has narrowly bounded EPA's ability to waive the RFS standards, and EPA's proposed interpretation would expand its section 211(o)(7)(A) waiver authority beyond these boundaries.

(f) The "Inadequate Domestic Supply" Waiver Is Not Ambiguous.

The NPRM asserts that CAA section 211(o)(7)(A)(ii) is "broad and ambiguous" (78 Fed. Reg. at 71,756). A comparison with other statutory waiver schemes disproves that assertion. EPA's waiver authority is narrow and targeted, hinging on the domestic supply of renewable fuels. By contrast, other waiver provisions are expansive:

- The FCC has broad authority to grant a waiver from its regulations under a capacious "public interest" test, and a reviewing court applies a "very deferential" standard of review. *Turro v. FCC*, 859 F.2d 1498, 1499 (D.C. Cir. 1988).

- The United States Information Agency (USIA) has discretion to grant or deny waivers of a statutory requirement that members of the Exchange Visitors Program return to their country of origin before applying for permanent

resident status. *Slyper v. Att'y Gen*., 827 F.2d 821, 823-24 (D.C. Cir. 1987).

- The Secretary of Agriculture has open-ended discretion to waive requirements regarding the enrollment of land in the USDA's Conservation Review Program. *North Dakota ex rel. Bd. of Univ. and School Lands v. Yeutter*, 914 F.3d 1031, 1032 (8th Cir. 1990).

- The Secretary of Labor may waive civil penalties under ERISA; the decision is committed to "the Secretary's sole discretion." *Huffer v. Herman*, 188 F. Supp. 2d 815, 820-21 (S.D. Ohio 2001).

In enacting CAA section 211(o)(7)(A)(ii), Congress deliberately chose a different approach and adopted a standard that requires EPA to focus on the domestic supply of renewable fuel.

2. The Agency's Construction Is Unreasonable (*Chevron* Step Two).

For the reasons previously stated, the "inadequate domestic supply" waiver provision is unambiguous under *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.,* 467 U.S. 837, 842-45 (1984), and forecloses the proposed rule. Even if the waiver provision were ambiguous (which it is not), the proposed rule would be unreasonable and would not qualify as a permissible construction of the statute under *Chevron*. "Where Congress has established a clear line, the agency cannot go beyond it; and where Congress has established an ambiguous line, the agency can go no further than the ambiguity will fairly allow." *City of Arlington, Texas v. FCC*, 133 S. Ct. 1863, 1874 (2013).

The proposed waiver inexplicably departs from EPA's prior practice. Until now, EPA has consistently read the "inadequate domestic supply" prong to refer to the supply of renewable fuels. E.g., EPA, *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program*, 75 Fed. Reg. 14,670, 14,698 (Mar. 26, 2010). Although an agency is not prevented from altering its view of a statute, the NPRM's failure to address the issue is the hallmark of arbitrary decisionmaking. *See FCC v. Fox Television Stations, Inc*., 556 U.S. 502, 515 (2009) ("[T]he requirement that an agency provide reasoned explanation for its action would ordinarily demand that it display awareness that it *is* changing position. An agency may not, for example, depart from a prior policy sub silentio or simply disregard rules that are still on the books. And of course the agency must show that there are good reasons for the new policy.") (emphasis in original; citations omitted); *Northpoint Tech., Ltd. v. FCC*, 412 F.3d 145, 151 (D.C. Cir. 2005) (statutory interpretation that conflicts with prior agency view was arbitrary and capricious and unreasonable under *Chevron* step two).

Further, the NPRM's construction of the "inadequate domestic supply" waiver contrasts sharply with section 211(o)(7)(A)(i) (related to severe harm to the economy) and the agency's previous stringent application of that provision. EPA has repeatedly rejected attempts to grant waivers on the basis of "severe[] harm[] to the economy." *See* 77 Fed. Reg. at 70,752 (Nov. 27, 2012); 73 Fed. Reg. 47,168 (Aug. 13, 2008). It would have made little sense for Congress to have carefully created a high barrier for the economic harm standard, only to have simultaneously given EPA carte blanche to consider a host of discretionary factors in the guise of "inadequate domestic supply." It is unreasonable to construe the two prongs of the statutory waiver provision so differently.

Moreover, courts "must reject administrative constructions of [a] statute ... that frustrate the policy that Congress sought to implement." *Shays v. Federal Election Com'n*, 528 F.3d 914, 925 (D.C. Cir. 2008) (citation and internal quotation marks omitted). Here, the proposed waiver would utterly frustrate the purposes of the statutory scheme. Congress created a market-based scheme to promote biofuels production. The NPRM notes that "Congress intended that volumes of renewable fuel, advanced biofuel, and cellulosic biofuel *increase every year* through 2022." 78 Fed. Reg. at 71,754 (emphasis added). EPA itself has recognized that under the RFS, "refiners and importers are required to *ensure* that the volumes of renewable fuel required under the Act are actually consumed."[3]

The proposed waiver would utterly defeat these congressional objectives. To change the rules in the middle of the game would destroy investor confidence in the RFS and undercut renewable fuel production in the future. The NPRM ignores the massive investments by farmers and biofuel producers in reliance on the program that Congress enacted. They have planted corn and other crops, and they have built expensive production facilities. Issuing the proposed waiver will cause them enormous injury, and it will create justifiable skepticism in anyone urged to invest in the future.

The NPRM ignores the important role that RIN prices play in stimulating increased investment in biofuels and increased consumption. EPA's proposed treatment of carryover RINs will substantially depress the price of RINs, and therefore defeat a significant mechanism for encouraging biofuels use.

At the same time, EPA's Proposed Rule would reward a regulated entity (refiners) for failing to achieve the statutory purpose of the RFS scheme. Congress designed a program to stimulate the investments necessary to increase biofuels use.

[3] EPA, *Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard*, 77 Fed. Reg. 70,752, 70,772 (November 27, 2012) (emphasis added).

The proposed waiver runs completely counter to that objective. Relieving the obligated parties from their duty is a dangerous precedent for all of EPA's programs.

The current situation is not a surprise. Congress specifically enacted RFS targets that were so large that the E10 blendwall would inevitably be reached. Moreover, Congress was well aware that the blendwall would be reached. The proposed waiver thus represents a repudiation of the congressional scheme. A reviewing court will reject an agency's interpretation under *Chevron* step two if its construction "is insufficient to meet Congress' mandate." *Natural Resources Defense Council, Inc. v. Daley*, 209 F.3d 747, 749 (D.C. Cir. 2000). "A court will not uphold [an agency's] interpretation that diverges from any realistic meaning of the statute." *Id.* at 753 (citation and internal quotation marks omitted).

If the proposed rule's interpretation of the waiver authority based on "inadequate domestic supply" under section 211(o)(7)(A) is adopted, it will ensure year after year of failure to meet the statutory requirement. A statutory interpretation is not reasonable where it is inconsistent with statutory "structure and purposes." *Kennecott Utah Copper Corp. v. U.S. Dept. of Interior*, 88 F.3d 1191, 1213 (D.C. Cir. 1996); *see also EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7, 34 (D.C. Cir. 2012) (declining to adopt statutory construction that "would blow a hole in that basic structural principle").

EPA's proposed waiver under section 211(o)(7)(A) fails the *Chevron* step two standard.

Conclusion

In short, EPA's proposed waiver under 211(o)(7)(A) conflicts with the statutory structure and purpose, would allow EPA to run roughshod over the statutory limits to its authority, and would frustrate the purposes of the RFS scheme. The proposed waiver is legally invalid.

Attachment B

Comments on EPA's Use of Probability Models in Its Proposed Rule Concerning "2014 Standards for the Renewable Fuel Standard Program" (78 Fed. Reg. 71,732)

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January 27, 2014

1. In the following comments I assess the U.S. Environmental Protection Agency's reliance on probability models, including, in particular, EPA's combinations of subjective probability distributions using the Monte Carlo method, for its projections in support of the November 29, 2013, proposed rule for the "2014 Standards for the Renewable Fuel Standard Program" (78 Fed. Reg. 71,732; the "NPRM"). For instance, EPA employed probability distributions of this kind in making projections regarding the production of cellulosic biofuels and the consumption of the ethanol fuel blend known as E85.

2. For each such projection of an aggregate volume (e.g., the aggregate volume of cellulosic biofuels), EPA specified a subjective probability distribution for each component contributing to that aggregate (e.g., the output provided by an individual producer), and then employed a Monte Carlo method to calculate the resulting subjective probability distribution of the aggregate volume itself, based on the subjective probability distributions of its components. The focus of my comments is not EPA's use of the Monte Carlo method per se, which is simply a computer-friendly method for approximating the mathematically exact "convolutions" of EPA's component distributions.[1] Rather, my comments focus on EPA's determinations of the underlying component distributions.

3. In sum, EPA's implementation of these subjective probabilistic methods is insufficiently tied to the facts and circumstances concerning the cellulosic production facilities at issue, and fails to provide a rational basis for its projections of cellulosic biofuels volumes. EPA's additional applications of these same methods elsewhere in the NPRM are also deficient for the same reasons. For instance, EPA provides no sufficient, rational basis for applying a generic "half-normal" uncertainty distribution to its projection of E85 consumption in 2014.

Cellulosic Biofuel Projections (§§ II.B-C, pp. 71739-51)

4. EPA's "Monte Carlo" calculations for cellulosic biofuels are a tool for combining uncertainty distributions for contributions from individual potential producers into an uncertainty distribution for the aggregate volume of cellulosic biofuels. The validity of the resulting overall uncertainty distribution for the aggregate volume depends critically on the validity of EPA's assumed uncertainty distributions for the producer-specific components. EPA's Monte Carlo calculations per se are mere elaborate arithmetic; if their inputs are arbitrarily chosen or lack validity, then their results are arbitrary and lack validity, notwithstanding the appearance of mathematical sophistication of the method.

[1] The probability distribution of the sum of several uncertain components, each described independently by a specified probability distribution, is termed the "convolution" of the component probability distributions.

EPA's reliance on arbitrary, subjective probability distributions and inadequate linkage of such distributions to specific facts and circumstances concerning individual biofuel producers

5. For purposes of forecasting the volume of cellulosic biofuels that will be available in the U.S. in 2014, EPA lists the known potential producers of these fuels.[2] To recognize and account for the uncertainty in the volume of fuel that will actually be produced by each listed producer, EPA proposes a method for bounding, quantifying, and characterizing the range of possible volumes from each producer:

> EPA has determined a range of potential production volumes for each company rather than a single value as a range better reflects the uncertainty associated with the production from each company.[3]

6. The first step of EPA's proposed method of quantification is to assign to each potential producer *k* of cellulosic biofuel a range, with endpoints LOW_k and $HIGH_k$, say, that represents the reasonably foreseeable volume of biofuel from that producer. EPA characterizes these ranges as follows:

> We believe our range of projected production volumes for each company represents the range of what is likely to actually happen for each company.[4]

EPA explains further, regarding its designation of ranges:

> [T]he high and the low end of each range represents values such that it is possible but highly unlikely that volumes would be higher or lower than this range.[5]

7. These producer-specific ranges (from LOW_k to $HIGH_k$) alone do not fully characterize the foreseeable, possible volumes from each producer because they do not specify the relative likelihoods of volumes within sub-ranges. For example, knowing only the endpoints of a range gives no indication of whether a producer's actual volume is more likely or less likely to fall in its lower half than in its upper half, or equally likely to fall in either half.

[2] 78 Fed. Reg. 71,740-45.
[3] Ibid., 71,740.
[4] Ibid.
[5] Ibid., 71,746.

8. Accordingly, in the second step of its proposed method EPA assigns to each range from the first step a curve representing an "uncertainty distribution" (more precisely, a "probability distribution" defined in terms of a "probability density function") that specifies the relative likelihoods of sub-ranges of the entire range. EPA explains:

> For the purposes of the Monte Carlo analysis, EPA must also identify an uncertainty distribution for production for each facility. These distributions reflect our expectation for the most likely distribution of production volumes within the projected range when taking into account the many different uncertainties associated with the production volume from each facility.[6]

9. EPA recognizes that each potential producer's actual volume in 2014 will be affected by uncertainties arising from its "unique circumstances and challenges."[7] EPA also recognizes that even if these producer-specific circumstances and challenges are grouped into broader categories, the specific effect of each category on a given producer "will vary" among producers:

> While each facility faces its own set of unique circumstances and challenges in producing cellulosic biofuels at commercial scale, many can be grouped into one of several general categories, the impact of which will vary with the progress achieved at that facility to date.[8]

Nevertheless, EPA makes no attempt to tailor its uncertainty distributions to correspond to or represent ascertainable facts about each producer's "unique circumstances and challenges." Rather than tailor such producer-specific distributions to ascertainable facts, EPA proposes a simplified "three sizes fit all" approach: it proposes three so-called "standardized uncertainty distributions,"[9] and then assigns one of these three distributions to each potential producer of cellulosic biofuels.[10]

10. EPA articulates no rational relationship between the specific forms of EPA's standardized distributions and the specific "unique circumstances and challenges" of any individual potential producer. EPA's three standardized uncertainty distributions are drawn, instead, from standard textbook examples of mathematically convenient forms

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[6] Ibid.
[7] Ibid.
[8] Ibid.
[9] EPA does not define the qualifier "standardized." As EPA applies it here, this term has no relevant meaning as a term of art in statistics. It appears to convey only that EPA's three uncertainty distributions are generic, i.e., nonspecific, as opposed to representing accurately the likely effects of any individual producer's specific set of "circumstances and challenges."
[10] 78 Fed. Reg. 71,747-48.

of probability distributions. These textbook distributions are "standard" in the sense that each is an individual member of a family of distributions which is routinely described in textbooks and treatises in mathematical statistics. They are in no way "standard" for the purpose for which EPA proposes to use them in the current NPRM.

11. EPA outlines only a loose correspondence of its three standardized uncertainty distributions to three generic scenarios reflecting different configurations of uncertainty, as follows (emphasis added in boldface):

> Facilities that have already begun producing cellulosic biofuel in 2012 or earlier ... do not face uncertainty associated with delays in the construction and commissioning of the facility. They may, however, face some uncertainty in their ramp-up schedule relative to the progress they have achieved to date ... For facilities facing these uncertainties we expect that the most likely production volume is towards the middle of the range, with decreasing production probabilities as the high and low ends of the production ranges are approached. A **normal curve is appropriate** for this expected production distribution**.** ...
>
> Facilities that began producing cellulosic biofuel in 2013 no longer face uncertainty due to potential delays in the completion of construction ... There is, however, uncertainty regarding these facilities ramp-up schedules which can have a significant impact on the production volumes from these facilities. **We believe** that the expected production of these facilities would be **best represented by a right-skewed or Weibull curve**, with the most likely production volume near, but not at, the low end of the range and the production probabilities gradually towards the high end of the range.
>
> Facilities not expected to begin producing cellulosic biofuel until 2014 face uncertainty associated with a delay in the completion in the construction ... Given this uncertainty, we believe that the most likely production volume is at the low end of the range with decreasing probability as the high end of the range is approached. To represent this asymmetrical uncertainty, **we believe a half-normal curve is a reasonable representation** of the expected production distribution from these facilities.[11]

Nothing in these EPA scenarios logically compels EPA's choices of normal, Weibull, and half-normal probability curves to represent them. Nor does EPA provide any articulated reasoning to support these choices beyond the conclusory statement, devoid of

[11] Ibid.

articulated reasoning, that EPA "believes" them to be reasonable.[12] Based on these descriptions, EPA's three scenarios correspond just as well to many other possible choices from an infinite variety of textbook probability distributions.

12. For instance, whether EPA's half-normal distribution is actually appropriate for a new facility beginning commercial-scale production in 2014 must surely depend, at least to *some* degree, on the technology it uses and its other operational characteristics. Nor does EPA adequately justify its negatively-skewed Weibull curve for facilities commencing operating in 2013. A facility that commenced operating before 2013 (e.g., with a year or more of operational experience), may be constantly striving to improve performance, with likely results more accurately represented by a *positively* skewed distribution than by EPA's symmetric "normal" distribution.

13. There is, moreover, no reason in principle to assume that the uncertainties associated with any producers' "unique circumstances and challenges" are necessarily well described by a mathematically convenient probability distribution from a textbook, as opposed to a specifically tailored ad hoc probability distribution. Such a specifically tailored probability distribution could be developed, for example, from a probability tree representing specific contingencies affecting each potential producer.

14. Given that EPA's current forecast of cellulosic biofuel volume for 2014 anticipates nonzero volume from only five producers, the task of developing producer-specific uncertainty distributions for each relevant producer is hardly greater than the task of developing and validating three *generic* uncertainty distributions.

[12] Some of the mathematical implications of EPA's three standardized uncertainty distributions call into question whether these distributions fully capture the qualitative distinctions among the three corresponding scenarios that EPA intended. Consider, for example, a hypothetical producer with an EPA-assigned range of 0 to 100 million gallons of biofuel in 2014, for a facility commencing commercial operations this year. Assuming EPA's half-normal uncertainty distribution, this producer's expected volume is 38.8 million gallons, compared to an expected volume of 41.6 million gallons assuming EPA's Weibull distribution. The quantitative distinction between forecasting 38.8 as opposed to 41.6 million gallons from a potential 100-million-gallon producer is so fine that it hardly seems congruent with qualitatively distinct scenarios. (Note that only these two uncertainty distributions contribute to EPA's incumbent forecast of cellulosic volume for 2014, since EPA included no potential producers in its projected volume to which it would apply a normal curve.) In the same hypothetical example, the probabilities of realizing a volume in the *top* quarter of the specified range (i.e., between 75 and 100 million gallons) are 8.7%, 9.5%, and 15.5% assuming EPA's half-normal, Weibull, and normal uncertainty distributions, respectively. These quantitative distinctions are again so fine that they hardly seem congruent with qualitatively distinct scenarios. In contrast, facts specific to an individual facility might suggest much higher production volumes than the three generic probability distributions chosen by EPA.

15. On its face EPA's proposed use of "uncertainty distributions" for characterizing the uncertainty in cellulosic biofuel volumes parallels the subjective probability distributions derived through "expert elicitation" methods rooted in the disciplines of decision analysis, Bayesian statistics, and statistical decision theory.[13] "Expert elicitation" in this sense refers to a body of theory and practice that deals with the measurement of one or more designated experts' beliefs about an uncertain datum, and the representation of these measured beliefs in the form of a "subjective probability distribution." Despite their superficial similarity, there are fundamental differences between EPA's probabilistic method and accepted methods for expert elicitation. Specifically, expert elicitation typically applies documented, systematic procedures for measuring the judgments of specific individual experts, and documents each stage of the process.[14] As a result, there is little or no ambiguity about *whose* subjective beliefs are encoded in the final subjective probability distribution, or about the information provided to them or the measurement procedure. EPA's description of its process for arriving at the three standardized uncertainty distributions in the NPRM falls far short of the level of documentation and disclosure recommended for expert elicitation. Thus, EPA's procedure in the NPRM does not conform to accepted guidelines for the reporting of subjective probability distributions elicited from experts.

16. **Recommendation:** If EPA continues to employ subjective probability distributions then, in order to reduce its reliance on partially arbitrary assumptions and improve the accuracy of its forecast of cellulosic volume, EPA should either (1) develop and document a producer-specific uncertainty distribution for each potential producer that accurately represents its "unique circumstances and challenges," or (2) document explicitly and precisely how its assessment of these circumstances and challenges lead to three *generic* uncertainty distributions appropriate for *all* producers despite their "unique circumstances and challenges," or (3) if EPA believes that its conclusions are anyway insensitive to the precise forms of these distributions, provide reasoning that does not appear to rely on seemingly arbitrary choices among pro forma subjective probability distributions. If EPA continues to employ "uncertainty distributions," it should document in accordance with recommended practices for expert elicitation how it derived those distributions.[15] Finally, noting that all three of its standardized uncertainty distributions are *negatively* skewed or, at best, symmetric, EPA should consider whether its probability assessments actually reflect *symmetric* preferences against overestimating or underestimating – as they should if aiming for *accuracy* – as

[13] See, for example, "Expert Elicitation Task Force White Paper," August 2011, Science and Technology Policy Council, U.S. Environmental Protection Agency. (www.epa.gov/stpc/pdfs/ee-white-paper-final.pdf, accessed January 18, 2014)
[14] Ibid.
[15] Ibid.

opposed to reflecting an *asymmetric* preference against overestimating in particular – which would yield an unduly conservative rather than simply accurate assessment.

EPA's assignment of zero volume to certain producers

17. EPA assigns exactly zero volume to some potential producers with approved pathways and to all potential producers with as-yet unapproved pathways, despite recognizing the *possibility* of their producing non-zero volume of cellulosic biofuels in 2014. This deterministic attribution of zero volume is inconsistent with EPA's reliance elsewhere on subjective probabilities to represent uncertain volume outcomes.

18. **Recommendation:** If EPA continues to employ its current subjective probabilistic method for its projections, it should assign a non-zero subjective probability to realizing non-zero volume from each potential producer, and it should include all potential producers in its probabilistic Monte Carlo analysis in accordance with these assigned probabilities.

Other EPA Projections in the NPRM Relying on EPA-Assigned Ranges and Uncertainty Distributions

19. EPA employs essentially the same method of assigning ranges and uncertainty distributions to several other sets of projections in the current NPRM, including those for total renewable fuel (§ IV.B.4), advanced biofuel availability (§ IV.C.1), and the advanced biofuel requirement (§ IV.C.2). Throughout these additional projections EPA continues to use the same three "standardized uncertainty distributions" as for cellulosic biofuels volumes.

20. That EPA deems the *same* three uncertainty distributions to be just as capable of describing, for example, the total national consumption of E85 in 2014 as the production volumes of individual producers of cellulosic biofuels again reveals the non-specific nature of these distributions. EPA's so called "standardized uncertainty distributions" are generic; in no way do they summarize or accurately represent the results of a detailed inquiry into the unique factual circumstances of a specific projection scenario.

21. My comments on EPA's method in the context of cellulosic volumes apply virtually unchanged to EPA's additional applications of the same method. For example, just as EPA articulates no rational relationship between its standardized uncertainty distributions and the unique circumstances and challenges influencing production volumes from any individual potential producer of cellulosic biofuel (see ¶ 10 above),

EPA articulates no rational basis for applying its generic half-normal uncertainty distribution to E85 consumption in 2014.[16]

22. Specifically, paralleling its method for cellulosic volumes, EPA first estimates a range of E85 consumption in 2014 that "encompasses the most likely possibilities."[17] EPA then specifies the relative likelihoods of sub-ranges within that range in terms of a half-normal uncertainty distribution, which is the most strongly negatively skewed of its three so-called "standardized uncertainty distributions."[18] EPA's stated basis for choosing this half-normal uncertainty distribution is as follows:

> [T]here is little historical information on how market prices for E85 might respond to higher RIN prices, nor on how FFV owners might respond to changes in the relative price of E85 and E10.[19]

That there is "little historical information" on how markets might respond to prices provides no apparent rational basis for choosing specifically the most strongly negatively skewed of three pre-specified options, however. EPA's choice appears to reflect a bias towards choosing lower values rather than an attempt to represent accurately the implication of "little historical information."

23. An absence of information implies, if anything, the absence of a rational basis for assigning a greater likelihood to any single sub-range of EPA's entire range for E85 than to any other sub-range. This, in turn, suggests that EPA should consider representing its state of uncertainty about the actual E85 volume in 2014 as a *uniform* distribution on its chosen range rather than a half-normal distribution. Alternatively, instead of proceeding on the basis of "little historical information," EPA could ground its choice of a probability distribution for E85 consumption on a more intensive analysis of likely changes in E85 consumption due to changes in its relative price. Nothing in the current NPRM rules out that such an analysis might yield even a positively-skewed curve (substantially increasing the projected E85 consumption).

24. Lacking an articulated rational basis for its choice of one of its three pre-specified "standardized uncertainty distributions," EPA's application of and inferences from its probabilistic method are no less arbitrary with respect to E85 than in the case of cellulosic biofuels.

25. **Recommendation:** EPA should either (1) provide reasoning in the form of an articulated, rational basis for choosing a specific form of probability distribution to

[16] 78 Fed. Reg. 71,761 and 71,768-69.
[17] Ibid., 71,761.
[18] Ibid., 71,747-48 and 71,768-69.
[19] Ibid., 71,769.

represent its state of uncertainty or (2) if EPA is unable to do so or believes that its conclusions are anyway insensitive to the precise form of this distribution, provide reasoning that does not appear to rely on a seemingly arbitrary choice of a pro forma subjective probability distribution. Here again EPA should consider whether its choice to use only negatively skewed or symmetric uncertainty distributions reflects a symmetric concern for accuracy, as it should, as opposed to an asymmetric preference for conservatism.

Other Technical Issues Arising from EPA's Probability Models

26. EPA defines the "right-skewed" member of its set of three so-called "standardized uncertainty distributions" as a "Weibull distribution with a shape parameter of 0.5 and a scale parameter of 1.7."[20] The same information appears in a supporting memorandum added to the docket.[21] These reported parameter values are, however, inconsistent with EPA's right-skewed curve as displayed in Figures II.C-1 and IV.B.4-1 of the NPRM (there labeled "Skewed"). A Weibull distribution with a *scale* parameter of 0.5 and a *shape* parameter of 1.7 reproduces the curves plotted by EPA. If EPA continues to use this subjective distribution, it should correct this error.

27. EPA consistently refers to the central 90% regions of its subjective probability distributions, bounded by the 5th and 95th percentile values, as "90% confidence intervals." This usage is a misnomer, in that "confidence interval" is a statistical term of art having a specific, generally accepted definition in frequentist interval estimation that has little to do with the concept to which EPA applies it here. A more accurate term for EPA's concept would be "90% central probability interval."[22] If EPA continues to use this subjective probability concept, it should correct this terminology.

28. EPA requests comment on how best to relate each of its assigned ranges to its corresponding assigned uncertainty distribution. Specifically, EPA consistently chooses to identify the endpoints of an assigned range with the 5th and 95th percentiles of the corresponding assigned uncertainty distribution, but requests comment on potential alternative percentile values.[23]

29. **Recommendation:** EPA characterizes its assignment of ranges as follows:

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[20] Ibid., 71,747 and 71,768.

[21] See p. 1 of EPA-HQ-OAR-2013-0479-0027.pdf. EPA does not explain how it arrived at this particular member of the infinitely large Weibull family of probability distributions.

[22] See, for example: Alston, Clair L., Kerrie L. Mengersen, and Anthony N. Pettitt. *Case Studies in Bayesian Statistical Modelling and Analysis (Wiley Series in Probability and Statistics)*. Wiley, 2012.

[23] Ibid., 71,746 and 71,767.

> [T]he high and the low end of each range represents values such that it is possible but highly unlikely that volumes would be higher or lower than this range.[24]

The characterization "highly unlikely" must refer here to the individual or collective subjective judgment of the EPA staff responsible for assigning the range in the first place. The proper choice of percentiles of the corresponding subjective probability distribution to match to these endpoints is dictated by how the same EPA staff would quantify the concept of "highly unlikely" that they applied when assigning these endpoints. For example, if by "is 'highly unlikely' to be lower than the lower endpoint" they meant "has a 5% chance of being lower than the lower endpoint," then the 5th percentile of the probability distribution would self-evidently be the appropriate percentile to match to this endpoint. Whether that is so is not a question that can reasonably be informed by outsiders' comments, however. It is, rather, a question for EPA staff to answer, by explaining what they meant, in precise quantitative terms, by "highly unlikely" when they assigned the ranges in the first place. If EPA staff cannot provide this answer, that fact alone would call into question the coherence and, therefore, the validity of EPA's entire application of subjective probability distributions in the current NPRM.

[24] Ibid., 71,746.