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COMMENTS OF THE AMERICAN FUEL & PETROCHEMICAL MANUFACTURERS

Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards
Docket ID No. EPA-HQ-OAR-2012-0546

The American Fuel & Petrochemical Manufacturers (AFPM)¹ submits these comments in response to the Environmental Protection Agency's (EPA or Agency) proposed rule entitled *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards.*² As manufacturers of liquid transportation fuels, AFPM and its members are directly regulated by the Proposed Rule. AFPM members are injured by EPA's proposal, which could increase emissions of certain pollutants, alter perceptions of individual members' trademarks, and require modifications to fuel distribution systems. AFPM members also are impacted on a competitive basis, as EPA's regulations implementing various biofuel mandates impact the demand for transportation fuels they produce and distribute.

The Energy Independence and Security Act of 2007 (EISA) provides EPA with "tools" to adjust the volumes of renewable fuels in response to market conditions. Notwithstanding the incompatibility of mid-level ethanol blends with existing vehicles and fuel delivery infrastructure and the lack of availability of drop-in cellulosic biofuels, EPA has refused to utilize the flexibility provided under the law to reduce the amount of ethanol that will be mandated under the RFS.

This proposal is taking place at a critical time for the Renewable Fuel Standard (RFS). As the mandated annual biofuel volumes continue to increase in an environment of declining gasoline demand, ethanol will soon exceed the 10% compatibility limit of the overwhelming majority of vehicles and fuel retail infrastructure in the U.S. This is being referred to as the "E10 blendwall." The E10 blendwall is approaching and its early impacts already are being reflected

¹ AFPM is a trade association representing high-tech American manufacturers of virtually the entire U.S. supply of gasoline, diesel, jet fuel, other fuels and home heating oil, as well as the petrochemicals used as building blocks for thousands of products vital to everyday life.

² 78 Federal Register 9282 (February 7, 2013) (hereinafter the "Proposed Rule").

in the exponential increase in RIN prices and volatility. Some obligated parties are finding it impractical to acquire sufficient RINs to cover their production or import of gasoline and diesel. Both 2014 and 2015 likely will present circumstances that result in many obligated parties being unable to acquire enough RINs to meet their RFS obligations at current production levels. Sales of E85 will be too little to help largely because consumers have rejected this alternative fuel.³ In addition, E15 has significant vehicle and refueling infrastructure compatibility problems and will not be available on a widespread basis. To respond to these changed circumstances, EPA must promulgate the 2013 Renewable Fuel Standards at levels that recognize the significant reduction in gasoline demand and the technological limits on the amount of ethanol that may be blended into the gasoline pool. AFPM proposes that EPA take all necessary steps to ensure that the total renewable fuel standards for 2013 be reduced to avoid a requirement to blend ethanol in quantities that exceed ten percent of the nation's gasoline pool. While AFPM believes that EPA should waive the entire RFS, at a minimum, the Agency must reduce the advanced and total RFS volume so that the quantity of ethanol mandated is less than 10% of gasoline demand.⁴

Corn ethanol RIN prices have increased dramatically and this added cost will disadvantage consumers and make the U.S. less competitive in the world gasoline and diesel markets. Moreover, in the face of the E10 blendwall obligated parties that cannot acquire sufficient RINs have four options: (1) limit production of gasoline and diesel, (2) export gasoline and diesel, (3) use banked RINs (although many obligated parties do not have banked RINs in sufficient quantities to meet their obligations), or (4) carry the deficit forward one year (into an even worse situation the following year where the mandates are even higher and where a party that carries forward a deficit must clear the deficit and meet its RVO in full in the second year). These realities combined with the impacts of the drought on corn prices constitute severe economic harm unforeseen by the Congress when the RFS was enacted.

AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. A recent study by NERA Economic Consulting calculates severe economic harm for the U.S. as a result of the blendwall. This severe economic harm is sufficient to trigger EPA's authority to waive the RFS requirements in the amount necessary to avoid promulgating a mandate that forces the economy to crash into the E10 blendwall. This authority, in combination with EPA's ability to reduce the advanced and total volumes commensurate with the reduction in cellulosic biofuel volumes, provides the Agency with the ability to avoid the severe impact of the E10 blendwall.

³ See discussion at Section A.2, infra.

⁴ Letter dated October 18, 2012 from EIA to EPA, (estimating gasoline demand of 133.984 billion gallons). *Note* a more recent estimate appears in the EIA Short Term Annual Energy Outlook (March 12, 2013) (estimating gasoline demand at 8.7 million barrels per day or 133.37 billion gallons in 2013).

⁵ See NERA Economic Consulting, Economic Impacts Resulting from Implementation of RFS2 Program (October 2012).

Against this backdrop, AFPM is concerned with the following aspects of the Proposed Rule:

- The failure to appropriately consider the E10 blendwall.
- The rejection of the Court of Appeals' admonition in *API v. EPA* to use realistic estimates of cellulosic biofuel production in the proposed 2013 cellulosic biofuel RFS.
- The refusal to adjust downward the advanced biofuel and total renewable fuel volumes for 2013 to account for the shortfall in cellulosic biofuel production.
- The incorrect application of the statutory criteria used to establish the biomass-based diesel RFS for 2013 and the Agency's failure to respond to AFPM's petition for reconsideration to correct the deficiencies in this standard.
- The disregard of the Clean Air Act (CAA) deadline to finalize all four standards by November 30, 2012 and the decision to retroactively apply these standards.
- The delay in proposing the 2014 biomass-based diesel mandated volumes under the RFS and the resultant retroactive impact of such delay.

We address each of these issues in detail, below.

A. The Fast-Approaching Blendwall is a Wake-up Call that EPA must Heed.

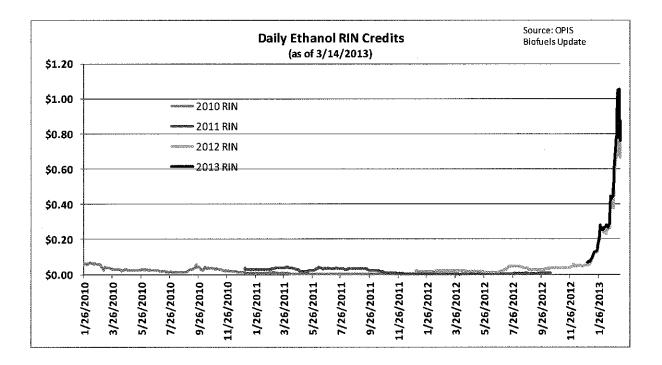
Five years after the enactment of the RFS, we face a crisis that Congress did not anticipate when it passed the Energy Independence and Security Act of 2007 (EISA). For several years, AFPM has warned that the ethanol blendwall will interfere with the implementation of the RFS. These warnings were largely ignored and as a result of changed circumstances the problems created by the ethanol blendwall are now upon us.

The fast-approaching E10 blendwall – the practical limit on the amount of ethanol that may be blended into the gasoline supply was not anticipated at the time of enactment. The fact that the E10 blendwall has become an issue in connection with the establishment of the 2013 RFS is largely the result of changed circumstances in the gasoline market. At the time EISA was being debated in Congress, the nation consumed 142 billion gallons of gasoline and demand was expected to grow to 150 billion gallons by 2013. Today, as the result of an economic slowdown in 2008 and the use of more fuel-efficient automobiles, our nation consumes approximately 134 billion gallons of gasoline – an eleven percent reduction in the amount of gasoline that was anticipated at the time EISA was enacted in 2007. Had market expectations in 2007 held true,

⁶ See U.S. Energy Information Administration, "EIA Frequently Asked Questions: How much gasoline does the United States consume," accessed at http://www.eia.gov/tools/faqs/faq.cfm?id=23&t=10; EIA Annual Energy Outlook 2007, DOE/EIA-0383, p. 80 (February 2007), http://www.eia.gov/oiaf/archive/aeo07/pdf/0383(2007).pdf. See also http://www.eia.gov/dnav/pet/pet_cons-psup_dc_nus_mbbl_a.htm.

we would not be facing the E10 blendwall this year. Indeed, if cellulosic biofuel producers succeeded in producing adequate quantities of so-called drop in fuels that were completely fungible with the existing slate of transportation fuels, rather than cellulosic ethanol that has compatibility issues with the existing fleet and fuel distribution infrastructure, the E10 blendwall may have been avoided in the long term, as well.

The E10 blendwall is not a story woven by obligated parties, but rather a very real problem that is confirmed by a documented RIN market imbalance. The following graph illustrates the market's reaction to the approaching blendwall and the significant shortage of RINs available for compliance with the RFS.



The graph clearly illustrates that when the blendwall was not at issue (pre-2013), ethanol RIN prices were typically priced below 4 cents per RIN. This changed at the end of 2012, when it became obvious that there was not enough gasoline available to accommodate the blending of the required amount of ethanol. This anticipated scarcity resulted in a meteoric rise in ethanol RIN prices. This rise was fueled by EPA's Proposed Rule, which showed that EPA was not prepared to use the tools at its disposal to address the blendwall.

EPA has certain tools to address some of these unintended consequences that have produced a significant market imbalance. EPA has the ability to reduce the cellulosic biofuel RFS to reflect historic production levels and to reduce the advanced and total renewable fuel mandates by an equivalent amount. EPA also has the ability to issue a waiver of the 2013 RFS standards that will ensure that ethanol remains below 10 percent of the gasoline supply based on

severe economic harm or inadequate domestic supply. Such harm is clearly evident in the significant increase in the price and volatility of ethanol RINs since late 2012. The dramatic runup in the price of ethanol RINs will have an impact on the cost of producing transportation fuels. Moreover, high RIN prices create an economic incentive for some obligated parties (who are importers) to divert planned imports of gasoline to other nations to avoid having to purchase RINs and other obligated parties to reduce the amount of gasoline and diesel they produce for the United States, which could have an impact on the available supply of transportation fuels. These market conditions necessitate EPA sending a strong signal that it will do what is necessary to avoid crossing the E10 blendwall.

Proponents of using additional amounts of ethanol have argued that E15 and E85 are viable options for avoiding the blendwall. These alternatives, however, will not work in today's market.

1. <u>E15 is Not a Realistic Solution to the Blendwall</u>. Although EPA issued a partial waiver to allow E15 to enter the marketplace, due to vehicle and refueling infrastructure compatibility issues, E15 will not solve the blendwall problem. EPA concluded that E15 will not damage the emissions control systems of vehicles produced after 2001; however, subsequent data confirms that E15 will damage other engine components and virtually all of the automobile manufacturers have warned against the use of E15 in the vast majority of vehicles on the road. As such, the threat of potential liability from selling E15 stands as a real-world obstacle to the use of this mid-level blend.

Even if EPA could somehow overcome the potential liabilities from gasoline engine damage that will be caused by E15, the vast majority of existing fuel storage and dispensing systems are not compatible with blends exceeding E10. Moreover, this equipment is not "certified" to handle E15. This certification is necessary for individual dealers and distributors to comply with existing regulations governing the storage and dispensing of motor fuels. Underwriter Laboratories will not recertify this existing equipment, creating state and local legal hurdles to the ability of retail service stations to carry this fuel. This means that the introduction of E15 would require independently-owned service stations to replace their storage and dispensing systems. The decision to replace this infrastructure is beyond the control of the obligated parties and likely will not occur, due to the potential vehicle liabilities discussed above, the potential for misfueling, and the substantial capital investment needed to carry E15. We note that obligated parties own approximately five percent of the retail fueling stations in the

⁷ See 42 U.S.C. § 7545(o). We discuss the issue of severe economic harm in more detail below. With respect to inadequate domestic supply, we note that EPA expects the RFS to force the import of 666 million gallons of sugarcane ethanol from Brazil to help meet the Advanced Biofuel requirements. See Proposed Rule at 9298 – 9300. This need to import Brazilian sugarcane ethanol runs counter to EISA's stated purpose of furthering U.S. energy independence and stands as an acknowledgement of inadequate domestic supply.

⁸ See NERA Economic Consulting, Economic Impacts Resulting from Implementation of RFS2 Program (October 2012) (quantifying the severe economic harm that would be caused by the E10 blendwall).

⁹ The Petroleum Marketers Association of America reports that of the 700,000 gasoline dispensers in use, less than 5,000 have been certified for E15 and more than 3,000 miles of underground piping systems have not been certified as safe for E15 as well. See Letter from Dan Gilligan to Wall Street Journal, (March 20, 2013).

United States; independent marketers examine the costs and benefits of replacing their refueling infrastructure.

2. <u>E85 Use is Too Small to Overcome the Blendwall</u>. The ethanol producers and EPA also point to the potential to sell E85 as a means to comply with the 2013 RFS. This solution also is inadequate to overcome the blendwall problem. E85 will damage vehicles that are not specially designed to handle high level ethanol blends. There are approximately 11 million flexible fuel vehicles (FFVs) in the United States – this represents only 5% of the 223 million passenger vehicles in the U.S. While E85 is dispensed at limited locations in the United States, consumers have rejected its use based primarily on poor fuel economy and higher costs. In fact, consumers with FFVs and reasonable access to E85 fill up with E85 less than 4% of the time. This means that E85 represents less than 0.2% of the gasoline sold in the United States and cannot be used to overcome the blendwall.

B. 2013 Cellulosic Biofuel RFS

EPA proposes to establish a cellulosic biofuel mandate of 14 million ethanol-equivalent gallons for calendar year 2013. While this amount represents a significant reduction from the statutory volume of 1.0 billion gallons, it exceeds the Energy Information Administration's (EIA) original projection of 9.6 million gallons (and its more recent projection of 5.0 million gallons) and continues the Agency's aspirational pattern of promulgating a cellulosic biofuel mandate that is disconnected from market realities. As such, this aspect of the Proposed Rule would be arbitrary, capricious and an abuse of EPA's discretion.

AFPM is concerned that EPA is following the same flawed process used to promulgate the 2011 and 2012 standards. The table below contains a representative comparison between EIA and EPA cellulosic biofuel outlooks for 2011 through 2013 and actual production data for 2011 and 2012. The table focuses on the three cellulosic producers EPA analyzed in the Proposed Rule along with EPA's mistaken assumptions for the two prior years.

¹⁰ See U.S. Energy Information Administration (2012). Annual Energy Outlook 2012, Table 58, available at http://www.eia.gov/forecasts/aeo/data.cfm

¹¹ See 75 Federal Register 14670, 14762 (May 26, 2010).

¹² Proposed Rule at 9293.

2011	Firebright LLC	KioR	INP BioEnergy	Range Fuels
EIA utilization	46%		i 1911 - El Come Communica de Librero, comunica de Librero dos Comencias de Librero de Librero de Librero de L	25%
EPA utilization in final rule	47%	100%		75%
EIA volume (million gallons)	2.8			1.0
EPA volume (million gallons) in final rule	2.8	0.2		3.0
Actual production (million gallons)	0.0	0.0	0.0	0.0
2012	Firebright LLC	KioR	INP BioEnergy	
EIA utilization	25%	25%	25%	
EPA utilization in final rule	33%	30%	38%	
EIA volume (million gallons)	1.6	2.0	3.1	
EPA volume (million gallons) in final rule	2.0	3.0	3.0	
Actual production (million gallons)	0.0	0.001024	0.0	
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2013	Firebright LLC	KioR	INP BioEnergy	
EIA utilization		50%	50%	
EPA utilization in proposed rule		73%	75%	
EIA volume (million gallons)		5.5	4.0	
EPA volume (million gallons) in proposed rule		8.0	6.0	

In establishing the 2011 cellulosic biofuel RFS of 6.0 million ethanol-equivalent gallons, EPA relied upon the parochial representations of cellulosic biofuel producers whose facilities had not yet begun to produce cellulosic fuel. In doing so, EPA promulgated a standard that exceeded EIA's projections of 3.94 million gallons for 2011. This methodology proved to be a failure and actual domestic production in 2011 was zero gallons. In 2012, EPA ignored the lack of actual production in 2011 and repeated its erroneous methodology in establishing the cellulosic biofuel volumetric standard. Although EPA knew from its own data that no cellulosic biofuels were being produced, the Agency increased the 2012 mandate by almost 75 percent and promulgated a cellulosic biofuel RFS of 10.45 million ethanol-equivalent gallons for 2012. This standard was determined to be arbitrary and capricious and was vacated by the U.S. Court of Appeals for the District of Columbia Circuit.

In setting the 2013 proposed standards EPA again chose to increase the utilization of the two cellulosic plants beyond EIA's outlook. EPA's expectation that the plants would be fully operational in 1Q 2013, has not materialized as of this date. Perhaps, more importantly, on February 26, 2013, EIA revised downward its 2013 cellulosic biofuel projections. EIA now expects approximately 5 million gallons of cellulosic biofuels to be produced in 2013. This new estimate amounts to only 36 percent of the EPA proposed cellulosic biofuel volumetric standard. Given the insignificant amount of cellulosic biofuels production that has occurred so

¹³ 75 Federal Register 76790 (December 9, 2010).

¹⁴ See Letter from Richard Newell to Lisa Jackson, EPA-HQ-OAR-0133-0099 (October 20, 2010).

¹⁵ 77 Federal Register at 1320 (January 9, 2012).

¹⁶ See U.S. Energy Information Administration, *Today In Energy* (February 26, 2013) accessed March 3, 2013: http://www.eia.gov/todayinenergy/detail.cfm?id=10131.

far this year, EPA's proposal is not a realistic assessment of the amount of cellulosic biofuel that will be available in 2013.¹⁷

1. <u>Court Decision</u>. AFPM is troubled by the timing, substance, and rationale that the Agency used in proposing the 2013 cellulosic biofuel volumetric standard. For several years AFPM's complaints that the cellulosic mandate is far too aggressive, was not in compliance with the CAA, and penalizes obligated parties have fallen on deaf ears. As such, we were encouraged by the U.S. Court of Appeals decision in *API v. EPA*, ¹⁸ which vacated the 2012 cellulosic biofuel standard due to the Agency's unrealistic projections for cellulosic biofuel production. Specifically, the court instructed EPA to abandon its role in "promoting growth" in cellulosic biofuel production and to embrace a prediction "that aims at accuracy, not at deliberately indulging a greater risk of overshooting than undershooting." ¹⁹

Unfortunately, the Proposed Rule continues to suffer from the very same bias that the court found to be unlawful. EPA did not alter the methodology used to predict the amount of cellulosic biofuel that will be produced in 2013. The proposed 2013 cellulosic biofuel production estimates are two orders of magnitude greater than the historical production numbers, exceed EIA's production estimates, and continue the Agency's unrealistic reliance upon the subjective predictions of individual cellulosic biofuel producers.

On January 25, 2013, the U.S. Court of Appeals vacated the 2012 cellulosic biofuel standard and criticized the Agency's methodology for predicting the amount of cellulosic biofuel that will be produced in the coming year. Less than one week following the court's decision, the Administrator signed the Proposed Rule. There is no indication that EPA altered the methodology used to establish the 2013 cellulosic biofuel production estimates in any material way from the methodology the Agency used in establishing the cellulosic biofuel mandates for 2011 and 2012. Indeed, with the exception of a passing reference to the court decision, the preamble to the Proposed Rule contains no discussion of the changes EPA made to its methodology following the court's decision. The Agency's failure to alter its methodology in accordance with Court of Appeals' decision renders the 2013 cellulosic biofuel proposal legally infirm. EPA cannot ignore this controlling judicial decision and continue to base the regulatory volume for 2013 on a flawed methodology that was rejected by the court.

2. <u>2013 Cellulosic Biofuel Production Projection is Inaccurate</u>. EPA utilized the same methodology to predict the 2013 cellulosic biofuel production as it did for 2011 and 2012. Given the historical inaccuracy of this approach, we are surprised that the Agency continues to

¹⁷ EPA's EMTS data show zero cellulosic biofuel production in 2013, EMTS last accessed on April 2, 2013.

¹⁸ See API v. EPA, Case No. 12-1139 (decided January 25, 2013).

¹⁹ Id. at 11.

²⁰ See Proposed Rule at 9294 (noting that the court did not require EPA to use EIA's actual estimate, but failing to discuss any change to the Agency's methodology for predicting cellulosic biofuel volumes).

rely upon this mistaken methodology. EPA continues to believe cellulosic biofuel forecasts from parties who have utterly failed to make a reasonable forecast for three straight years.

Section 211(o) describes the appropriate methodology EPA must utilize in establishing the cellulosic biofuel mandate for the coming year:

Not later than October 31 of each calendar years 2005 through 2021, the Administrator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel projected to be sold or introduced into commerce in the United States.²¹

Not later than November 30 of each of calendar years 2005 through 2021, based on the estimate provided under subparagraph (A), the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register, with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of paragraph (2) are met.²²

For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of cellulosic biofuel established by the Administrator shall be based on the assumption that the Administrator will not need to issue a waiver for such years under paragraph (7)(D).²³

The Renewable Fuel Standard (RFS) clearly specifies EIA's cellulosic biofuel production estimates as the starting point in any analysis. EPA is instructed to establish a cellulosic biofuel mandate that is "based on" EIA's estimate and that would not require the issuance of waivers. Given that EIA has historically overestimated the amount of cellulosic fuel that will be produced, we think it is imminently reasonable, and even statutorily compelled, that the EPA Administrator should revise that estimate *downward* to account for the historical challenges and delays that cellulosic biofuel producers have experienced and that render their estimates inaccurate. Yet, EPA consistently revises EIA's estimate upward, ignoring historical precedent and virtually guaranteeing a cellulosic biofuel shortfall in the marketplace that unfairly

²¹ 42 U.S.C. § 7545(o)(3)(A).

²² 42 U.S.C. § 7545 (o)(3)(B)(i) (emphasis added).

²³ 42 U.S.C. § 7545 (o)(2)(B)(iv).

penalizes obligated parties. The Court of Appeals recently took issue with the consequences of this approach:

Apart from their role as captive consumers, the refiners are in no position to ensure, or even contribute to, growth in the cellulosic biofuel industry. 'Do a good job, cellulosic fuel producers. If you fail, we'll fine your customers.' Given this asymmetry in incentives, EPA's projection is not 'technology-forcing' in the same sense as other innovation-minded regulations that we have upheld.²⁴

EIA originally estimated that there will be 9.6 million gallons of cellulosic biofuel produced in 2013. It has lowered that estimate to 5 million gallons and acknowledged that its estimates have proven to be too optimistic as volumes have been below expectations. In the Proposed Rule, EPA has chosen to reject EIA's estimate; however, instead of lowering the estimate to reflect historical realities and avoid the issuance of waivers, EPA again raised EIA's estimate based on interviews with cellulosic biofuel producers whose motivation is to persuade EPA to expand the mandate for their product. This methodology has repeatedly failed to produce an accurate estimate and most recently resulted in a cellulosic biofuel mandate that was vacated by the court.

EPA's inflated estimate is based primarily on interviews with individual companies that have indicated their commercial cellulosic biofuel production facilities will come on line in the future. The 2012 rule based the cellulosic mandate on planned production from 6 plants. The production did not materialize, and the company owning one of the plants has recently filed for bankruptcy. Of those six plants, two are the basis for the 2013 cellulosic volumes in the proposed rule. Even if they begin reliable commercial production, EPA continues to make a critical error in assuming that a start-up plant using new technologies or applying known technologies in new ways will operate at or near its full capacity. EPA's predictive methodology is flawed and virtually guarantees that the 2013 cellulosic mandate will not be met.

3. <u>Cellulosic RIN Carryover</u>. We also note that since there were zero cellulosic gallons produced in 2011 and only 1,741 cellulosic biofuel Renewable Identification Numbers (RINs) available in the marketplace for all of 2012, there is at best a *de minimis* (*i.e.*, 1,741

²⁴ API v. EPA, Slip Op. at 12.

²⁵ See Proposed Rule at 9290. We note that these same cellulosic biofuel producers previously indicated that they would produce cellulosic biofuel in 2011 and 2012, which were the primary drivers underlying EPA's inaccurate estimates in the prior two years. See 77 Federal Register 1327 (January 9, 2012) and 75 Federal Register 76797 (December 9, 2010).

²⁶ See 77 Federal Register 1327, 1330-1331 (January 9, 2012).

²⁷ See Proposed Rule at 9294 (table shows planned startups in first quarter, with available volumes at levels implying full capacity production for much of the remaining year).

RINs) "carryover" of excess cellulosic biofuel RINs that could be used for compliance with the 2013 cellulosic biofuel mandate. ²⁸

4. <u>A Realistic Cellulosic Biofuel Standard</u>. Based on the data in the EPA Moderated Transaction System (EMTS), EPA is aware that no cellulosic biofuel was produced in 2011 and very little was produced in 2012. EMTS data show zero cellulosic biofuel production in 2013 to date. These facts suggest caution when promulgating the regulatory volume for 2013. The Agency's mistakes in setting overly aggressive cellulosic biofuel standards have consequences. Refiners should not be required to meet a mandate to blend cellulosic biofuels, when the domestic supply is either non-existent or inadequate.

No harm will be caused if EPA establishes a conservative, realistic cellulosic biofuel standard and domestic production exceeds the Agency's mandate. Any excess cellulosic biofuel RINs could be used to meet the advanced biofuel standard. The statutory volume for advanced biofuels is larger than the sum of cellulosic biofuels and biomass-based diesel. Congress intended competition between excess cellulosic biofuel RINs, excess biomass-based diesel RINs and other qualifying renewable biofuels. In fact, excess cellulosic biofuel RINs also can be used for compliance with the total renewable fuel obligation.

There are three options for EPA to consider in its effort to set a realistic cellulosic biofuel standard for 2013 based upon historic production:³⁰

- 1. EPA could set the 2013 cellulosic biofuel obligation at 0 gallons. In 2012, total cellulosic biofuel production was 21,093 gallons, out of which 20,069 gallons were exported. These are very small volumes corresponding to a cellulosic RFS percentage standard of less than 0.00002%.
- 2. The Agency could set the 2013 cellulosic biofuel obligation at 4,092 gallons, which represents the annualized average production of the last three months of 2012. This methodology would conform to S. 251³¹ and H.R. 550, which would

²⁸ In 2012, there were 1,741 RINs that may be available for use in 2013. See 2012 EMTS data at: http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm.

²⁹ AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. Establishing a realistic cellulosic biofuel standard is required by statute; however, even a complete waiver of this mandate, would not be enough to abate the short term crisis caused by the E10 blendwall. EPA should exercise its authority to reduce the total renewable fuel volumes to ensure that the E10 blendwall is not breached.

³⁰ See EPA Moderated Transaction System – 2012 RFS2 Data, accessed on April 3, 2013 at: http://www.epa.gov/otag/fuels/rfsdata/2012emts.htm

³¹ http://thomas.loc.gov/cgi-bin/query/z?c113:S.251.IS:

establish a cellulosic volumetric standard based on the average monthly volume in the prior year.³²

3. EPA could set the cellulosic volumetric standard at 21,093 gallons, which represents the total amount of cellulosic biofuel recorded in EMTS in 2012.

Considering historical production, the proposed 10.45 million gallon cellulosic biofuel mandate is unrealistic and contrary to EPA's statutory authorization.

C. Adjustment of Advanced Biofuel and Total Renewable Fuel Volumes

EPA should reduce the regulatory volume for advanced biofuels and total renewable fuels mandates in 2013 to reflect the very large reduction in the cellulosic biofuel mandate, as well as the vehicle and retail fuel distribution infrastructure constraints (*i.e.*, blendwall).³³

1. <u>Cellulosic Biofuel Shortfall</u>. AFPM urges EPA to adjust the advanced biofuel and total renewable fuel volumes for 2013 to account for the shortfall in cellulosic biofuel production and the realities of the ethanol blendwall. The Agency understands the nested nature of the RFS and correctly points out the following:

Since cellulosic biofuel is also used to satisfy the advanced biofuel standard and the total renewable fuel standard, any reductions in the applicable volume of cellulosic biofuel will also affect the means through which obligated parties comply with these two other standards.³⁴

While both biodiesel and sugarcane ethanol might be used to meet the advanced biofuels mandate, EPA correctly points out that the most likely source of advanced biofuels is imported sugarcane ethanol.

EPA estimates that if biodiesel production in 2013 does not exceed 1.28 bill gallons, and domestic production of other advanced biofuels is about 150 mill gallons, imports of sugarcane ethanol

http://thomas.loc.gov/cgi-bin/query/z?c113:H.R.550.IH:

³³ AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. Reducing the advanced biofuel mandate by an amount equal to the reduction in the cellulosic biofuel standard, would not be enough to abate the short term crisis caused by the E10 blendwall and EPA should exercise its authority to reduce the total renewable fuel volumes to ensure that the E10 blendwall is not breached.

³⁴ Proposed Rule at 9295.

from Brazil would need to reach 666 mill gal in order for the 2.744 bill gal advanced biofuel requirement to be met.³⁵

We believe that the market might choose sugarcane ethanol over additional supplies of biodiesel, given the cost differences between these two fuels, but note that the Proposed Rule does not set forth this critical economic analysis for public comment. If this occurs, EPA's stated need to be consistent with the energy security and greenhouse gas reduction goals of the RFS will be undermined, as additional imported sugarcane ethanol is required and increases in global GHG emissions from additional transportation of corn ethanol exports and sugarcane ethanol imports (*i.e.*, fuel shuffling). Given the Agency's desire to maintain these RFS goals, its failure to reduce the advanced biofuel and total renewable fuel requirements in the face of an inadequate supply of cellulosic biofuels is inconsistent with its stated environmental goals. Moreover, further incentivizing imported sugarcane ethanol will exacerbate the E10 blendwall problem.

The proposed advanced biofuel standard also includes a 28% annual increase in biomass based diesel mandate. EPA failed to correctly apply the statutory criteria in setting this limit and has not fully discussed the challenges of producing the mandated 1.28 billion gallons in 2013, points which have been raised in AFPM's petition for reconsideration. In its rationale, EPA cites biodiesel nameplate capacity of 2.1 billion gallons, which includes idled plants. Idled plants may be brought back on line, but given the time required and the very late effective date of this rule, it is unlikely that such additional production will occur in time to meet the 2013 advanced biofuels mandate. While the National Biodiesel Board will comment on that industry's ability to produce virtually any amount of biodiesel mandated under the RFS, such representations should be scrutinized given incidents of RIN fraud, high feedstock costs, the drought, and consumers' general reluctance to embrace a fuel that costs more, has a lower energy content, poor cold weather performance and inconsistent quality. Moreover, given the high cost of biodiesel relative to other alternatives, EPA's assumption that the demand for biodiesel will exceed the RFS mandated volume is not realistic.

2. <u>Vehicle and Retail Fuel Infrastructure Constraints</u>. EPA proposes to reduce the cellulosic biofuel requirement from the statutory level of 1.0 billion gallons in 2013 to 14 million ethanol-equivalent gallons. The proposed reduction of the cellulosic biofuel standard for 2013 by almost 1.0 billion gallons should trigger a corresponding reduction in the advanced biofuels standard for 2013. As such, the Agency should not promulgate 2.75 billion gallons for the advanced biofuels volumetric standard in 2013 (the statutory level).

Adding the EPA's projection of: (1) 616 million gallons of sugarcane ethanol; (2) 49 million gallons of other advanced ethanol (which may be as high as 150 million gallons if other advanced biofuels do not materialize); and (3) 6 million gallons of cellulosic ethanol to the 13.8 billion gallons of conventional biofuels required to fulfill the total renewable mandate of 16.55 billion gallons of ethanol equivalent, results in 10.9% of the gasoline volumetric

³⁵ Proposed Rule at 9298.

³⁶ We also raise concerns with EPA's sugarcane ethanol pathway, discussed in Section H, infra.

demand.³⁷ EPA knows that the vast majority of U.S. vehicles and retail fuel delivery infrastructure to-date are approved for E10 fuel. Proposing a 2013 RFS standard that "crosses" the 10% blendwall is problematic and could result in significant fuel supply disruptions in the U.S. While AFPM believes that EPA should waive the entire RFS, at a minimum the Agency must reduce the advanced and total RFS volume so that ethanol is less than 10% of the 133.37 billion gallons of gasoline demand.³⁸

Similarly, EPA should reduce the total renewable fuel volume for 2013 to reflect a lower requirement for conventional biofuels. Recently, EIA projected only 13.0 billion gallons of ethanol consumption in 2013. This is 0.8 billion gallons less than the implicit 13.8 billion gallons of conventional biofuels requirement for 2013. EPA should reduce the total renewable fuel volumetric standard for 2013 from 16.55 billion gallons to 14.75 billion gallons to reflect EIA's projection and to account for the reduction in cellulosic biofuels and technological limits on ethanol consumption to ensure that the E10 blendwall is not exceeded. 40

D. 2013 Biomass-Based Diesel Standard

The Proposed Rule contains a brief discussion of the biomass-based diesel volumes for 2013 in the context of EPA's assessment of available volumes of advanced biofuel. EPA mentions that it had finalized a biomass-based diesel volume of 1.28 billion gallons for 2013;⁴¹ however, the Agency fails to mention that this final rule is the subject of a petition for reconsideration and a petition for review filed in the U.S. Court of Appeals for the DC Circuit.⁴² AFPM's petition for reconsideration was based upon new information that the Agency did not consider in promulgating the 2013 biomass-based diesel standard. Included in AFPM's petition for reconsideration is information on the environmental impacts; energy security; cost to consumers; the drought; RIN fraud; and erroneous estimates of job creation.

³⁷ (13.8 + 0.666 + 0.049+0.006)/133.37 = 10.9%. See EIA letter to EPA (October 18, 2012) (estimating gasoline demand of 133.984 billion gallons). Note a more recent estimate appears in the EIA Short Term Annual Energy Outlook (March 12, 2013) (estimating gasoline demand at 8.7 million barrels per day or 133.37 billion gallons in 2013).

³⁸ Letter dated October 18, 2012 from EIA to EPA.

³⁹ Energy Information Administration, Short-Term Energy Outlook, Table 8 (February 12, 2013).

⁴⁰ AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. Reducing the advanced and total RVOs mandate by an amount equal to the reduction in the cellulosic biofuel standard is insufficient to abate the short term crisis caused by the E10 blendwall and EPA should exercise its authority to reduce the RVOs to ensure that the E10 blendwall is not breached.

^{41 77} Federal Register 59458 (September 27, 2012).

We note that more than 4 months after filing our petition for reconsideration, EPA has failed to post the petition to the docket. Accordingly, we attach another copy as Exhibit A hereto.

Given the Proposed Rule's discussion of the 2013 biomass-based diesel mandate and the prospects for increasing production of this alternative fuel, we are disappointed that EPA has not yet issued a decision on AFPM's petition for reconsideration and failed to even mention it in the preamble to the Proposed Rule. The failure to discuss the issues raised in AFPM's petition amounts to the continuation of the Agency's consideration of only those factors that could result in an increased biofuel mandate, while ignoring facts and circumstances that could result in a shortfall in production, significant increases in costs to consumers of transportation fuels, and adverse environmental impacts. The EPA should reconsider the 2013 mandate and amend the September 2012 rulemaking to reduce the 2013 biomass-based diesel mandate to a realistic amount, such as 1 billion gallons.

E. Failure to Timely Propose 2013 RFS Volumes and Potential Retroactive Application of 2013 Standards

Congress mandated that EPA publish the renewable fuel volume obligations for each year by November 30 of the preceding year. EISA requires at least 31 days between the publication of each year's standards and the date that volume obligations begin to accrue under those standards. EPA failed to carry out this statutory directive. The Agency did not issue a proposed or final rule for the 2013 volume obligations during 2012 in direct violation of the lead time provisions of the statute. It is illegal and unfair that EPA has continually missed these legislatively-established deadlines and then forces obligated parties to retroactively comply.

If EPA proceeds with this delayed rulemaking, it would result in the accrual of legal obligations before the effective date of the final rule, as obligations are created with each gallon of gasoline and diesel produced for domestic consumption after January 1, 2013. By imposing obligations on transactions occurring before the rule takes effect, EPA will be engaging in retroactive rulemaking. A rule that imposes new obligations on production and importation that has already occurred is clearly retroactive and illegal. The fact that obligated parties have until February 2014 to obtain RINs for compliance with the obligations for 2013 does not cure the retroactivity problem.

EPA has recognized the importance of minimum lead time in the RFS2 program. The Agency has announced that "for future standards, we intend to issue a proposed rule by summer and a final rule by November 30 of each year in order to determine the appropriate standards applicable in the following year." EPA believes that a notice-and-comment rulemaking for each year's standards is "appropriate" given "the implications of these standards and the necessary judgment that can't be reduced to a formula akin to the RFS1 regulations."

⁴³ See 42 U.S.C. § 7545(o)(2)(B)(i).

⁴⁴ 75 Federal Register 14670, 14675 (March 26, 2010).

⁴⁵ *Id.* at 14675.

The procedure for the 2013 RFS standards should not be repeated for the 2014 standards. AFPM expects the Agency to issue a NPRM this summer for the 2014 standards and promulgate a final rule by November 30, 2013.

EPA's missed statutory deadline undermines the basic rulemaking process established by the Administrative Procedure Act. The familiar sequence is notice, comment, promulgation of a rule, and judicial review. For an administrative agency to delay the final rule for RFS obligations for 2013 and to than apply it retroactively to January 1, 2013 subverts the rulemaking process. In this case, the Administration lost the opportunity to collect public comments on a proposal during 2012 in order to promulgate an improved rule for 2013 compliance prior to January 1, 2013.

The Agency does not have unbounded discretion to determine the regulatory levels of the RFS to apply for 2013 in a final regulation promulgated well after January 1, 2013. AFPM strongly opposes any attempt by EPA to impose retroactive regulatory RFS requirements. EPA also should continue to apply the 2012 RVO, as revised by the court's decision, until an adjusted final rule is promulgated. To address the delay in promulgating the RVOs, EPA should reduce the 2013 requirements to reflect the number of days the rule will be late in being finalized.

F. 2014 Biomass-Based Diesel Standard

EISA requires EPA to promulgate the volume for biomass-based diesel for 2014 no later than 14 months before January 1, 2014. The Proposed Rule does not include a proposed volume for biomass-based diesel for 2014 and instead indicates that the Agency will issue a separate proposal at a later date. We note that the Agency did not publish the biomass-based diesel volume for 2013 until September 2012, providing the industry with less than four months lead time. AFPM is concerned that the Agency continues to ignore this important statutory deadline. Based on the substance of AFPM's petition for reconsideration of the 2013 biomass-based diesel volumetric requirements and the missed statutory deadline, EPA should propose expeditiously a 2014 biomass-based diesel RVO of no more than 1.0 billion gallons.

G. Procedurally, EPA Has Failed to Use the Most Recent EIA Data Available in Establishing These Proposed Standards.

EIA issued its early release of AEO2013 on December 5, 2012. Since EPA will not issue the final rule on 2013 Renewable Fuel Standard until sometime in May or later, it has plenty of time to consider the more recent forecast that EIA has made available.

⁴⁶ AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. Reducing the RVOs by 40 percent to reflect the delay in promulgating the 2013 requirements would help ensure that the E10 blendwall is not breached in the 2013-2014 timeframe.

H. Sugarcane Ethanol Imports

EPA may waive RFS requirements when domestic biofuel supplies are insufficient to satisfy the mandate. By leaving the advanced biofuel standard at the statutory volume, EPA is creating an incentive to import sugarcane ethanol (at least 666 million gallons) into the U.S. from Brazil, contrary to EISA's purpose of furthering U.S. energy independence. At the same time, Brazil is replacing these volumes by importing U.S. corn ethanol or gasoline. This real world fuel shuffling was not considered when EPA approved the sugarcane ethanol pathway. In addition to waiving the imported volumes due to insufficient domestic production, EPA needs to delay any increases in the advanced biofuel volumes until it has reexamined whether the entire Brazilian sugarcane ethanol pathway actually achieves sufficient GHG emissions reductions.

CONCLUSION

AFPM members are dedicated to working cooperatively at all levels to ensure an adequate supply of clean, reliable and affordable transportation fuels. AFPM members are focused on building a better tomorrow for the American people, continuing our efforts to improve the environment at the same time we manufacture vital products to strengthen our economy and improve the lives of families. We stand ready to work with the Administration to ensure a stable and effective fuels policy that utilizes a diversity of resources to improve our national security, benefits consumers and protects our environment.

EISA provides EPA with "tools" to adjust the volumes of renewable fuels under certain circumstances. Given the incompatibility of mid-level ethanol blends with existing vehicles and retail fuel distribution infrastructure (E10 blendwall) and the small amount of cellulosic biofuel production, EPA should utilize the flexibility provided by the law to lower the annual volumetric targets, including the 2013 RVOs.

In promulgating a final rule implementing the 2013 renewable fuel standards, EPA must address the following issues:

- Waive the RFS mandates in their entirety, as the RFS was built on assumptions that are no longer valid and the law is producing absurd results. At a minimum, EPA should adjust the advanced and total RFS volumetric standards to ensure that the E10 blendwall is not breached.
- Promulgate a cellulosic biofuel volumetric standard that accurately reflects the reduced level of cellulosic biofuels that will be available in the U.S. market and appropriately considers the U.S. Court of Appeals recent decision, requiring EPA to change the methodology it uses to predict cellulosic biofuel production for the coming year. This will require a critical look at the *current* state of cellulosic biofuel production and recognition that it will be at least five months into the compliance year before the rule will be finalized and an acknowledgement that virtually no

cellulosic biofuel has been produced in 2013. AFPM recommends a cellulosic biofuel standard of zero based on EPA's EMTS data.

- Promulgate standards with reduced advanced biofuel and total renewable fuel
 mandates that properly reflect the reduced amount of cellulosic biofuels that will be
 available in 2013. The failure to make this corresponding adjustment will increase
 the cost of complying with the RFS, increase the amount of biofuels imported into the
 United States, and increase global GHG emissions as a result of ethanol fuel
 shuffling.
- As soon as practicable, reduce the 2013 biomass-based diesel standard to one billion gallons and respond to AFPM's petition for reconsideration based on new information that became available after the close of the comment period.⁴⁷
- Reduce the 2013 volumetric standards to reflect the number of days the rule will be late in being finalized.
- Promulgate standards for 2014 that address the blendwall by November 30, 2013 and correct what has evolved into a pattern of illegal retroactive rulemaking, as a result of missed statutory deadlines for establishing annual requirements under the RFS.
- Suspend the 2013 advanced biofuel standard due to (1) inadequate domestic supply and (2) until a complete reevaluation of the Brazilian sugarcane ethanol pathway establishes that sufficient GHG emissions reductions are achieved.

If you have any questions concerning these comments, please contact the undersigned or Tim Hogan at (202) 457-0480.

Respectfully submitted,

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Richard Moskowitz

Attachment

⁴⁷ AFPM's petition for reconsideration is attached hereto as Exhibit A.

EXHIBIT A

AFPM Petition for Reconsideration



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November 20, 2012

The Honorable Lisa Jackson Administrator U.S. Environmental Protection Agency 1200 Pennsylvania Avenue Washington, DC

RE: Petition for Reconsideration - Docket No. EPA-HQ-OAR-2010-0133

Dear Administrator Jackson:

Pursuant to Section 307(d)(7)(B) of the Clean Air Act, the American Fuel & Petrochemical Manufacturers ("AFPM"), 1 petitions the Administrator of the U.S. Environmental Protection Agency ("Agency" or "EPA") to reconsider its final rule entitled Regulation of Fuels and Fuel Additives: 2013 Biomass-Based Diesel Renewable Fuel Volume.²

The objections raised in this Petition for Reconsideration were either impracticable to raise during the public comment period or arose after the close of the public comment period, and they are of central relevance to the outcome of the Final Rule. The Administrator must therefore "convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed."

AFPM submits this Petition based on new facts that are material to EPA's application of the statutory criteria the agency must apply in establishing the applicable volume of biomass-based diesel to be used under the renewable fuel standard for 2013.

BACKGROUND

The federal Renewable Fuel Standard ("RFS") requires EPA to promulgate a rule establishing a specific amount of biomass-based diesel for 2013. For 2012 and beyond, Congress provided a floor of 1.0 billion gallons that was intended to provide an insurance policy to the existing

¹ AFPM is a national trade association of more than 400 companies. Its members include virtually all U.S. refiners and petrochemical manufacturers. AFPM members supply consumers with a wide variety of products and services used daily in their homes and businesses. These products include gasoline, diesel fuel, home heating oil, jet fuel, lubricants and the chemicals that serve as "building blocks" in making diverse products, such as plastics, clothing, medicine and computers.

² 77 Federal Register 59458 (September 27, 2012) (hereinafter the "Final Rule").

³ 42 U.S.C. § 7607(d)(7)(B).

biodiesel industry in the form of a guaranteed market for their product. Beyond 2012, EPA was given the discretionary authority to increase the biomass-based diesel mandate beyond a billion gallons, based on its evaluation of six criteria specifically enumerated in the RFS. As demonstrated below, the facts critical to the analyses and application of the statutory criteria have materially changed since the close of the comment period and warrant a reconsideration of the Final Rule.

DISCUSSION

A. The Administrator's Discretion to Increase the Biomass Based Diesel Requirements
Under the RFS is Framed by the Application of Six Specific Statutory Criteria

In determining the biomass based diesel requirements for 2013, Congress instructed EPA to establish a minimum requirement of 1.0 billion gallons.⁴ Congress gave the Administrator the discretion to promulgate a rule that goes beyond the 1.0 billion gallon statutory floor, based on its consideration of the following six factors: (1) environmental impact; (2) impact upon energy security; (3) expected rate of commercial production of renewable fuels; (4) impact upon fuel delivery infrastructure; (5) cost to consumers; and (6) other factors such as job creation, price and supply of agricultural commodities, rural development, and food prices.⁵

The application of these criteria to the Administrator's decision requires a fact-based analysis. As demonstrated below, the facts underlying EPA's analysis for several of the enumerated statutory factors have changed significantly and warrant reconsideration of the Administrator's decision to promulgate a biomass-based diesel mandate in excess of 1.0 billion gallons.

Before addressing the changed circumstances that warrant reconsideration of the Administrator's decision, it is important to understand the rationale underlying the statutory framework created for biomass-based diesel. At the time that the Energy Independence and Security Act of 2007 ("EISA 2007")was under debate, the National Biodiesel Board ("NBB") asked other industries to join them in supporting a specific carve-out for biodiesel that would ensure the viability of its existing brick and mortar facilities. At least one consumer group who historically opposes government fuel mandates joined the NBB in supporting a 1.0 billion gallon carve-out that was intended to be an insurance policy to protect existing biodiesel facilities. At the time, the NBB represented that going forward biodiesel would be able to compete with petroleum-based diesel fuel and supported the inclusion of statutory criteria designed to prevent an increase in the biodiesel mandate if it would result in an increase in diesel fuel costs.

⁴ See 42 U.S.C. § 7545(o)(2)(B)(iv).

⁵ See 42 U.S.C. § 7545(o)(2)(B)(ii).

⁶ There were other elements of this compromise, such as the preemption of state biodiesel mandates, that were not included in the final legislation.

Biomass-based diesel qualifies under the advanced biofuel category of the RFS and therefore should compete with other advanced biofuels to ensure the goals of the RFS are met in the most cost effective manner. The biomass-based diesel mandate is a dedicated carve-out from the advanced biofuel category and increasing it creates a disincentive for investments in other advanced renewable fuels that may overcome some of the performance limitations associated with biodiesel. As such, the increase of the biomass based diesel mandate should be approached very cautiously as the EPA is essentially selecting winners and losers without a clear understanding of the impacts upon the capital investment in future fuels. The 2.75 billion gallon Advanced Biofuel Mandate provides more than enough incentive to grow the biodiesel industry, provided that the biodiesel industry can live up to the promises it made at the time EISA 2007 was enacted. If the industry cannot meet these expectations, then other advanced biofuels should be used to meet consumers' needs in the most cost effective manner possible. The six statutory criteria are designed to force EPA to consider these variables.

B. New Information Critical to the Administrator's Analysis Compels Reconsideration of the Final Rule

The public comment period for the rulemaking that is the subject of this Petition closed on August 11, 2011.⁷ During the time between the conclusion of the public comment period and the promulgation of the Final Rule, several facts changed that significantly impact the statutory criteria enumerated above. We believe that these facts compel the promulgation of a lower biomass-based diesel volumetric requirement for 2013.

1. The Drought

The Agency could not have anticipated the drought our Nation is experiencing when the comment period closed in August 2011. This drought has led to a dramatic reduction in corn and soybean supplies, which has increased livestock and food production costs. The drought has made it very difficult for these industries to plan and remain profitable and has led to multiple waiver requests of the ethanol requirements under the RFS. Soybean crops, the primary feedstock for biodiesel production, have been similarly impacted and the Administrator's discretionary decision to increase the biomass-based diesel component of the RFS mandates warrants reconsideration.

Millions of tons of soybean oil meal are used annually by animal producers. The large increase in soybean oil meal price means hundreds of millions of dollars in increased production costs for these industries. This financial hardship will be exacerbated by the discretionary 28 percent increase in the requirement for biomass-based diesel. This new fact is directly relevant to the statutory criteria Congress created to inform EPA's decision of appropriate biomass-based diesel quantities. At several points in the preamble to the Final Rule, EPA acknowledged that

⁷ See 76 Federal Register 38844 (July 1, 2011) (hereinafter the "Proposed Rule").

the drought will have an impact upon the supply and price of agricultural commodities; however, EPA stopped short of considering its impact in establishing the biomass-based diesel volumetric requirement for 2013:

Cost estimates do not account for projections in recent trends in crop yields and grain prices resulting from drought conditions that are occurring in many areas of the country.⁸

It should be noted that the projections in Table III.B-1 do not account for recent trends in crop yields and grain prices resulting

from drought conditions that are occurring in many areas of the country. Given the wide range of feedstocks from which biodiesel can be produced, the ultimate impact of these drought conditions on the mix of biodiesel feedstocks in 2013 is difficult to predict at this time.⁹

The agency states that it "cannot predict the exact impact that these increases in soybean and soybean oil prices will have on food prices in general;" however, that is exactly what Congress requires of the agency *before* it decides to increase the mandate for biomass-based diesel. ¹⁰

Setting the biomass-based diesel mandate at 1.0 billion gallons for 2013, the statutory minimum, allows fair competition between the biofuels and livestock/food industries for soybean supplies. The Administration should not favor soybean biodiesel producers at the expense of the livestock/food industries and the U.S. consumer. The price impacts on agricultural commodities and the current drought are sufficient justification for the Administration to reconsider the renewable fuel volume for biomass-based diesel in 2013.

The preamble to the final rule also contains a discussion of the price of soy oil in 2013 and estimates that its price will be \$0.45 per pound under the mandate instead of \$0.42 under the billion gallons. This 7 percent increase is significant and as a food source is a factor that Congress mandated EPA to consider in its establishment of the 2013 biomass-based diesel mandate. In the category of new information that is available since the Administrator made her decision, we note that the soy oil futures prices are significantly higher (10 percent) for 2013 than the Administrator's 45 cent estimate. This new information concerning soy oil prices is

⁸ 77 Federal Register at 59459, note 3.

⁹ *Id.* at 59463/2.

¹⁰ Id. at 59465/1.

¹¹ Soy oil futures prices for 2013 currently vary from 49 cents to 50.5 cents. *See* Commodities Futures prices at: www.cnbc.com, last accessed on November 8, 2012.

directly relevant to the statutory criteria EPA applies in determining the appropriate amount of biomass-based diesel for 2013. 12

2. RIN Fraud

EPA is now well aware of the fact that biodiesel producers have inflated the amount of biodiesel actually produced under the RFS mandate. A significant portion of this fraud stems from biodiesel producers generating Renewable Identification Numbers ("RINs") that do not correspond to the gallons of biodiesel they have produced. Another potential source of significant fraud is the failure to retire RINs that correspond to the number of gallons of biomass-based diesel that are exported.

To date, EPA has initiated enforcement actions based on 140 million fraudulent RINs. These RINs represent between 6 and 12 percent of the entire biodiesel market and raise a serious question as to the true amount of biodiesel that has been produced. Moreover, we are aware of several ongoing investigations into additional biodiesel producer fraud that would have a material impact on EPA's estimate of the amount of gallons actually produced. While the existence of RIN fraud was unknown during the public comment period, EPA now recognizes that it is a materially significant problem and is considering regulatory changes to address the predicament. The large number of invalid RINs represents a serious disparity in the estimates of expected commercial rate of biodiesel production and also impacts EPA's conclusion that an increase to 1.28 billion gallons represents only a "moderate" increase in the biomass-based diesel mandate.

3. Diesel Fuel Exports - Impact on Domestic Energy Security

The Administrator mistakenly concludes that the 2013 increase in biomass-based diesel beyond the billion gallon statutory floor will improve U.S. energy security.

This final standard will assure an increased use of biomass-based diesel in the U.S. and help to improve U.S. energy security. Reducing U.S. petroleum imports and increasing the diversity of U.S. liquid fuel supplies lowers both the financial and strategic

¹² On November 16, 2012, EPA denied multiple petitions to waive the RFS requirements for ethanol based upon the impact of the drought. We note that the legal standard for reviewing RFS waiver petitions differs from the statutory criteria EPA must consider in establishing the BBD volumetric requirements for 2013. The standard for waiving the RFS is one of severe economic harm, while the criteria for establishing the BBD volumes include *inter alia* an analysis of the supply of agricultural commodities.

¹³ U.S. Environmental Protection Agency, *Public Release of Draft Quality Assurance Plan Requirements*, EPA-420-B-12-063 (October 31, 2012). http://www.epa.gov/otaq/fuels/renewablefuels/documents/420b12063.pdf.

risks caused by potential sudden disruptions in the supply of imported petroleum to the U.S.

This quote represents a fundamental misunderstanding of the difference between petroleum crude oil and finished transportation fuels. The increase in biomass-based diesel use in the U.S. from 1.0 billion gallons to 1.28 billion gallons will not displace a single barrel of imported crude oil. This is primarily because biomass-based diesel is a substitute for finished diesel fuel and has no impact upon the U.S. demand for gasoline.

Each barrel of oil refined yields approximately 19 gallons of gasoline and 11 gallons of diesel fuel, as well as 12 gallons of other petroleum-derived products. While these proportions can be adjusted on the margins, in manufacturing gasoline the United States generates more diesel fuel than it can consume domestically. As such, the U.S. has become a net exporter of diesel fuel. For this reason, any requirement to blend biomass-based diesel will not reduce the amount of crude oil imported into the U.S., it simply will cause an increase in the amount of exported diesel fuel it displaces. Thus, the Final Rule's increase in biomass-based diesel of 280 million gallons will result in a corresponding increase in the export of petroleum-derived diesel fuel of 280 million gallons. It will have no impact upon the amount of crude oil imported and therefore will have no impact on domestic energy security. These facts have a direct impact on the Administrator's analysis of the statutory criterion of energy security and warrants reconsideration of the decision to extend the biomass-based diesel mandate beyond the 1.0 billion gallon statutory threshold.

The preamble to the Final Rule suggests that the Administrator extrapolated perceived energy security benefits from the RFS generally and applied that analysis to this rulemaking.

Thus, on balance, each gallon of fuel saved as a consequence of the renewable fuel standards is anticipated to reduce total U.S. imports of petroleum by 0.95 gallons.¹⁶

As demonstrated above and based on the fact that we export diesel fuel, this extrapolation produces an erroneous conclusion with respect to the impact on energy security from increasing the biomass-based diesel mandate in 2013.¹⁷

¹⁴ See Energy Information Administration, *Products Made for a Barrel of Crude Oil*, http://www.eia.gov/energyexplained/index.cfm?page=oil_home.

¹⁵ According to the Energy Information Administration, from January 2012 to August 2012, the U.S. exported more than 213 million barrels of distillate fuel. http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MDIEXUS1&f=M

¹⁶ 77 Federal Register at 59470/2.

¹⁷ The Final Rule includes an energy security benefit of \$0.15 per gallon derived from the macroeconomic disruption and adjustment costs component of the energy security premium. See 77 Federal Register at 59471/3. For the reasons stated herein, this benefit is illusory.

The Agency acknowledges that "the U.S. is projected to be a net exporter of diesel fuel in 2013." Notwithstanding this realization, the Agency has ignored Congress' instruction to analyze the energy security impact of this specific Final Rule.

Our energy security analysis does not evaluate the energy security benefits of individual finished petroleum products; rather, our analysis takes into account the energy security benefits of overall net petroleum product imports.

Congress did not give the Administrator the authority to ignore one of the six statutory criteria in her determination of whether to increase the biomass-based diesel mandate beyond the 1.0 billion gallon statutory threshold.

Although we believe that the Agency acted arbitrarily in extrapolating its overall RFS energy security analysis to the Final Rule affecting only the biomass-based diesel mandate, we note a significant change in facts underlying the Agency's original analysis of U.S. energy security. Following the close of the comment period the National Petroleum Council released an 18-month study of North American natural gas and oil resources. This study demonstrates that the United States has much greater access to North American sources of energy than previously thought and warrants reconsideration of the Administrator's conclusions on the impact this rule and the RFS will have on U.S. energy security.

4. Job Creation

EPA's conclusions on the employment benefits associated with an increase in biomass-based diesel from 1.0 billion gallons to 1.28 billion gallons are overstated given the recent closures of certain biodiesel facilities and the underutilization of facilities that have maintained operations. Here again EPA is using biased information provided by the NBB rather than conducting its own analysis. EPA is aware that many of the biodiesel producers are operating at a reduced rate, some have been idled, and others have permanently closed. Reliance on a prior study as to the overall benefits to rural employment under the RFS ignores some of the current facts concerning biodiesel plant utilization that would have a material impact on EPA's conclusions with respect to job creation. EPA should have reviewed the 200 biodiesel producers provided on the NBB list and determined the status and current utilization rates of these facilities as part of its obligation to analyze the statutory criteria. It is far more economical to expand production at an existing plant that is underutilized than it is to bring idle biodiesel plants back on line. Unfortunately, the number of jobs that will be created by increasing the throughput at an

¹⁸ National Petroleum Council, Prudent Development: Realizing the Potential of North America's Abundant Natural Gas and Oil Resources, (September 2011).

already operational plant is nowhere near the NBB estimate of 30 to 40 people.¹⁹ Other estimates of employment provided by NBB are similarly overstated and EPA should independently investigate these facts. For example, some plants are fed by pipeline while most others are located very close to their feedstock source, rendering NBB's estimate of additional transportation workers unrealistic, since it assumes that each driver can make only one delivery per day.²⁰

We also note, that it is improper to consider only the positive employment benefits associated with an increase in the biomass-based diesel mandate and simultaneously acknowledge that the corresponding loss in employment in other economic sectors is not quantifiable and therefore may be ignored.

5. Costs and the Impact on the Consumer

EPA's legal requirement to blend biomass-based diesel will result in increased production and/or imports of this fuel, as obligated parties must comply with the mandate. The question remains, however, at what cost can this fuel be produced under the mandate.

EPA acknowledged the need to restrain the growth of the biomass-based diesel mandate.

In the NPRM we indicated that, based on the limited information available on the current and historical operation of the RFS program, it would be prudent for 2013 to consider only *moderate increases* in biomass-based diesel above the statutory minimum of 1.0 billion gallons.

Notwithstanding this pronouncement, EPA went on to promulgate a 28% increase in the volumetric mandate. This percentage increase during a time of slow economic growth is very aggressive and difficult to justify under the banner of moderate growth.²¹

EPA estimates that the cost of increasing the biomass-based diesel mandate from 1.0 billion to 1.28 billion will add between \$253 million and \$381 million to consumers transportation fuel bill in 2013. We note that this addition to the Nation's transportation fuel bill comes at a time when economic conditions in the country are poor and millions who depend upon transportation fuels remain out of work or underemployed.

At the close of the comment period, EPA had no way to predict the state of the economy in 2013 or whether the \$1 per gallon blending credit would be extended by Congress; however,

¹⁹ On a somewhat related issue, our discussions with a well-known biodiesel plant auditor indicate that the average employment is closer to 25 individuals per plant.

²⁰ See 77 Federal Register at 59477/1.

²¹ 77 Federal Register at 59461/1 (emphasis added).

at the time the Final Rule was issued, EPA should have done everything in its power to lower the costs of transportation fuels for consumers and under no circumstances should have exercised its discretion to mandate the use of biodiesel, a fuel that is significantly more expensive than ULSD. Indeed, Congress requires EPA to consider the cost to consumers as one of the statutory criteria that frames its annual decision to set the biomass-based diesel volumetric requirement.

6. Potential Carbon Reductions

Under the statutory criteria, EPA must consider the environmental impact of its decision to expand the biomass-based diesel mandate by 280 million gallons. We note that because biomass-based diesel operates as a requirement nested within the advanced biofuels mandate, the likely impact of this decision is to ensure the use of additional biomass-based diesel at the expense of ethanol derived from sugar cane. Focusing on the carbon emissions associated with these two fuels, soy-based biodiesel has an average carbon intensity that is ten percent greater than ethanol derived from sugarcane, resulting in the likely increase in carbon emissions from EPA's decision to increase biomass-based diesel by 280 million gallons.²²

C. The Statutory Factors Must be Applied Annually

EPA has chosen to downplay the statutory requirement to apply these factors annually for each year that it promulgates a biomass-based diesel quantity following 2012 and instead has relied upon the long-term RFS economic analysis, which is contrary to Congress' intent in specifying the six factors to be examined each year.

The statute is forward-looking in that it created a program whose energy and environmental benefits are intended to grow over time. To evaluate the program on the basis of only one early year's impacts, as part of near-term implementation, would be to paint an unbalanced and incomplete picture. ²³

In substituting the long-term costs and benefits in place of the specific statutory criteria that are to be applied to biomass-based diesel volumes each year following 2012, EPA has ignored the consumer safeguards that Congress wrote into the statute for each year in which EPA is required to establish a biomass-based diesel volumetric requirement. To safeguard consumers and other interested parties, Congress intended EPA to adjust the volumetric requirement annually based on factors that change each year. Relying on a long-term analysis that ignores the specific variables that change on a more frequent basis is a significant departure from Congressional intent.

²² See 75 Federal Register 14669, 14790-91 (March 26, 2010).

²³ 77 Federal Register at 59482/3.

Congress intended to provide an insurance policy to the biodiesel producing industry by creating a floor of 1.0 billion gallons of biomass-based diesel that must be blended each year.²⁴ Any decision to exceed that floor is a discretionary decision that must be is based upon the annual application of the enumerated statutory factors as directed by Congress.

CONCLUSION

At the close of the comment period, EPA could not foresee whether Congress would eliminate the \$1 per gallon biodiesel blending credit, the impact of the drought on feedstock supplies and prices, the extent of RIN fraud in the biodiesel industry, and the growth of diesel exports ameliorating the energy security benefits from biodiesel, all of which have a material impact upon EPA's analyses of the statutory criteria underlying the establishment of the annual biomass-based diesel requirement. Based upon these changed facts and new information, the Administrator must reconsider her decision to require a 28 percent increase in biomass-based diesel above the statutory minimum established by Congress.

Respectfully submitted,

Richard Moskowitz General Counsel

cc: Gina McCarthy Chris Grundler Byron Bunker Paul Machiele

²⁴ See 42 U.S.C. § 7545(o)(2)(B)(ii)(v).

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued December 10, 2012

Decided January 25, 2013

No. 12-1139

AMERICAN PETROLEUM INSTITUTE, PETITIONER

٧.

ENVIRONMENTAL PROTECTION AGENCY, RESPONDENT

ADVANCED BIOFUELS ASSOCIATION, ET AL., INTERVENORS

On Petition for Review of Final Agency Action of the United States Environmental Protection Agency

Robert A. Long, Jr. argued the cause for petitioner. With him on the brief were Kristen E. Eichensehr and Harry M. Ng.

Daniel R. Dertke, Attorney, U.S. Department of Justice, argued the cause and filed the brief for respondent.

John C. O'Quinn, William H. Burgess, Sandra P. Franco, David B. Salmons, and Bryan M. Killian were on the brief for intervenors.

Before: BROWN and KAVANAUGH, Circuit Judges, and WILLIAMS, Senior Circuit Judge.

Opinion for the Court filed by Senior Circuit Judge WILLIAMS.

WILLIAMS, Senior Circuit Judge: This case arises out of Congress's command that the Environmental Protection Agency make predictions about a promising technology. While the program as a whole is plainly intended to promote that technology, we are not convinced that Congress meant for EPA to let that intent color its work as a predictor, to let the wish be father to the thought.

In 2005 and again in 2007, Congress amended the Clean Air Act ("Act") to establish a renewable fuel standard ("RFS") program, now codified at 42 U.S.C. § 7545(o). See Energy Policy Act of 2005, Pub. L. No. 109-58; Energy Independence and Security Act of 2007, Pub. L. No. 110-140. Under the RFS program, EPA must promulgate regulations to ensure that transportation fuel sold or introduced into commerce (hereafter collectively, "sold") in the 48 contiguous U.S. states contains an increasing measure of renewable fuel through 2022. See generally 42 U.S.C. § 7545(o)(2). The Act enumerates yearly "applicable volume" requirements not only for renewable fuel but also for a subclass known as "advanced biofuels," which produce lower greenhouse gas emissions than conventional renewable fuels such as corn-based ethanol. Id. §§ 7545(o)(1)(B) (definition of advanced biofuel), 7545(o)(2)(B) (applicable volumes). The "applicable volume" for a particular fuel (a phrase used repeatedly in the statute and thus in this opinion) determines how much of that fuel refiners, importers and blenders must purchase each year in order to comply with the RFS program. Id.§ 7545(o)(3)(B).

In establishing the RFS program, Congress made commercial production of cellulosic biofuel, an advanced biofuel derived from sources of lignocellulose such as switchgrass and agricultural wastes, central to the program's objective of reducing greenhouse gas emissions. Subject to the EPA adjustments that are the subject of this case, the Act requires that more than three quarters of advanced biofuel sold in the United States after January 1, 2022 be cellulosic *Id.* § 7545(o)(2)(B)(i)(III). These standards for cellulosic biofuel assumed significant innovation in the industry. When Congress introduced the cellulosic biofuel requirement in 2007, there was no commercial-scale production at all. Yet Congress mandated cellulosic biofuel sales in the U.S. of 100 million gallons in 2010, 250 million in 2011, and half a billion in 2012 (all in ethanol-equivalent gallons). Id.; see also Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards, 77 Fed. Reg. 1,320, 1,325 (Table II.A-1), 1,330-31 (Table II-B.6-1) (Jan. 9, 2012).

Recognizing the technological challenges, Congress provided for the possibility that actual production would fall short of the stated requirements. Section 7545(o)(7)(D)(i) calls for a determination by EPA of the "projected volume of cellulosic biofuel production" for each calendar year, to be made no later than November 30 of the prior year and to be "based on" an estimate of the Energy Information Administration ("EIA"). When that projection is less than the mandated volume, the Administrator is to "reduce the applicable volume of cellulosic biofuel . . . to the projected volume." *Id.* §§ 7545(o)(3)(B), 7545(o)(7)(D)(i). The Act also provides that in the event of such a reduction the Administrator "may also reduce the applicable volume of renewable fuel and advanced biofuels" required for that year. *Id.* § 7545(o)(7)(D)(i).

In a January 2012 Final Rule (the "2012 RFS rule"), EPA projected that 8.65 million gallons of cellulosic biofuel (10.45 million ethanol-equivalent gallons) would be produced in 2012, well short of the 500 million ethanol-equivalent gallons mandated by the Act for that year. See *Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards*, 77 Fed. Reg. at 1,324-31. In the same rule, EPA considered but rejected a reduction in the volume of total advanced biofuels required for 2012, stating that other kinds of advanced biofuels could make up for the shortfall. *Id.* at 1,331-37.

Petitioner American Petroleum Institute ("API") objects both to EPA's 2012 projection for cellulosic biofuel and to its refusal to reduce the applicable advanced biofuels volume for 2012. We reject API's argument that EPA failed to justify its determination not to reduce the applicable advanced biofuels volume for 2012. But we agree with API that because EPA's methodology for making its cellulosic biofuel projection did not take neutral aim at accuracy, it was an unreasonable exercise of agency discretion.

* * *

Timeliness of API's petition. Before turning to the merits we address a claim raised by a coalition of intervenors representing the biofuel industry. They argue that API is jurisdictionally barred from challenging the 2012 RFS rule because that rule merely perpetuates an approach that EPA first employed a year earlier in its projection of cellulosic biofuel volumes for 2011. Had API wanted to challenge the methodology employed in the 2012 RFS rule, intervenors contend, it should have filed suit within 42 U.S.C. § 7607(b)'s 60-day time limit after Federal Register publication of EPA's cellulosic biofuel projection for 2011. In support of this claim, they point to our decision in Medical Waste Institute v. EPA, 645 F.3d 420, 427 (D.C. Cir. 2011), in which we

declined to consider a challenge to a rule because the petitioner had not sought judicial review when the agency had "first use[d]" the approach that rule reflected.

Intervenors' invocation of *Medical Waste* is inapt. Here, unlike in *Medical Waste*, the petitioner attacks a methodology used for *prediction*, which can look more arbitrary the longer it is applied. The reasonableness of adopting a predictive methodology is not the same as the reasonableness of maintaining one in the face of experience; considering whether to maintain a methodology necessarily invites reflection on the success of earlier applications. challenge to the 2012 RFS rule rests significantly on the complete failure of EPA's prediction for 2011: 6.6 million gallons, as against zero in reality. See Regulation of Fuels and Fuel Additives: 2011 Renewable Fuel Standards, 75 Fed. Reg. 76,790, 76,793 (Dec. 9, 2010); EPA, Fuels and Fuel Additives, 2011 RFS2 Data. http://www.epa.gov/otaq/fuels/rfsdata/2011emts.htm. We agree with API that the 2011 failure colors the rationality of EPA's decision to persist in 2012 and sheds light on the weight EPA gave to specific aspects of its approach. Accordingly we find API's petition timely.

Cellulosic biofuel projection. Section 7545(o)(7)(D)(i) of the Act states that an annual "projected volume of cellulosic biofuel production" will be "determined Administrator," which determination is to be "based on" EIA's estimate. 42 U.S.C. §§ 7545(o)(3)(B), 7545(o)(7)(D)(i). In the 2012 RFS rule, EPA explained that its projection of 8.65 million gallons of cellulosic biofuel was "based on several sources of information": projection of 6.9 million gallons for 2012; (2) "Progress that the cellulosic biofuel industry is making"; (3) the agency's "own assessment of the cellulosic biofuel industry's projected volumes" for 2012; and (4) comments on a draft version of the

rule. 77 Fed. Reg. at 1,324, 1,328. The rule further stated that EPA's projection was "very similar" to EIA's, and that the two agencies' figures were derived from the same set of cellulosic biofuel production facilities. Id. at 1,329. EPA attributed its higher results to "slight variations [that] are a result of different methodologies." Id. The most important of these variations related to timing: EIA assumed a "standard utilization factor" of 25 percent of full-capacity production (which EIA applies to all commercial-scale facilities in their first year of production), whereas EPA looked to the start-up dates of the facilities as anticipated by the facilities' owners. EPA also disagreed with EIA's assessment of the production capacities of two facilities, and with its application of a ten percent utilization factor to a "pilot plant," which EPA judged likely to produce fuel on a commercial scale rather than (as EIA expected) an experimental one. *Id.*

This exposition suggests little more than a technocratic exercise of agency discretion. Yet elsewhere in the rule EPA expressed a decidedly non-technocratic bent. In a response to comments submitted by API and others, EPA observed that "[i]n directing EPA to project cellulosic biofuel production for purposes of setting the annual cellulosic biofuel standard, Congress did not specify what degree of certainty should be reflected in the projections." *Id.* at 1,325. It went on:

While the cellulosic biofuel standard that we set should be within the range of what can be attained based on projected domestic production and import potential, the standard that we set helps drive the production of volumes that will be made available... Thus while any standard we set for cellulosic biofuel standard for 2012 will have some uncertainty in terms of actual attainment, our intention is to balance such uncertainty with the objective of promoting growth in the industry. Our

final projected available volume . . . for 2012 reflects these considerations.

Id. (emphasis added). The agency went on to state its concern that setting 2012 cellulosic biofuel production figures "at the low end of the proposed range, or some lower volume, could potentially result in a depressed market for cellulosic biofuel." Id. at 1,330. The figures the agency chose, by contrast, would "provide the appropriate economic conditions for the cellulosic biofuel industry to grow." Id.

In comments to EPA and before us, API offers several broad critiques of the agency's cellulosic biofuel projection for 2012. First, API argues that EPA did not base its projection on EIA's estimate, but rather used a "supplementary analysis" that "effectively supplanted" EIA's prediction. Pet'r Br. 27-28 (quoting *Sierra Club v. EPA*, 356 F.3d 296, 306 (D.C. Cir. 2004)). The table below expresses the divergence:

Cellulosic biofuel production, 2010-2012 (millions of gallons)¹

	2010	2011	2012
EIA Projected	5.0	3.9	6.9
EPA Projected	5.0	6.6	8.7
Actual	0	0	

Putting aside EPA's deliberate choice of a non-neutral purpose, discussed below, and deviations from the EIA estimates that seem likely to have been a product of that choice, we aren't persuaded that there is any illegality in EPA's treatment of EIA's work. The statute called first for EIA to supply an estimate of the amount of cellulosic biofuel to be sold, 42 U.S.C. § 7545(o)(3)(A), then for EPA to "determine" the obligation "based on" that estimate, *id*. § 7545(o)(3)(B). Plainly Congress didn't contemplate slavish adherence by EPA to the EIA estimate; had it so intended, it could have skipped the EPA "determination" altogether. We think EPA was entitled under *Chevron USA*, *Inc. v. Natural*

¹ Source: Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards, 77 Fed. Reg. 1,320, 1,325-30 (Jan. 9, 2012); Regulation of Fuels and Fuel Additives: 2011 Renewable Fuel Standards, 75 Fed. Reg. 76,790, 76,793-97 (Dec. 9, 2010); Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 75 Fed. Reg. 14,670, 14,748-49, 51 (Mar. 26, 2010); EPA, Fuels and Fuel Additives, 2011 RFS2 Data, http://www.epa.gov/otaq/fuels/rfsdata/2011emts.htm; EPA, Fuels and Fuel Additives, 2010 RFS2 Data, http://www.epa.gov/otaq/fuels/rfsdata/2010emts.htm.

Resources Defense Council, Inc., 467 U.S. 837 (1984), to read the phrase "based on" as requiring great respect but allowing deviation consistent with that respect.

Second, API claims that EPA's projection derived from a methodology biased towards overstatement, inasmuch as it relied largely on statements from cellulosic biofuel facility owners, who in 2011 predicted significant production and yet generated no fuel at all. Joint Appendix 100; Pet'r Br. at 33-35. But the producers were not only an almost inevitable source of information but were also a principal source of EIA's estimates; at least if EPA regarded that information with suitable caution, we can hardly fault it for following EIA's lead.

Finally, API challenges the special tilt with which EPA expressly viewed the data—a tilt, in its words, toward "promoting growth" in the cellulosic biofuel industry. We agree with API that such a purpose has no basis in the relevant text of the Act.

EPA is correct that one of Congress's stated purposes in establishing the current RFS program was to "increase the production of clean renewable fuels." See Pub. L. No. 110-140, 121 Stat. 1492, 1492 (2007). But that general mandate does not mean that every constitutive element of the RFS program should be understood to individually advance a technology-forcing agenda, at least where the text does not support such a reading. As we observed in *American Petroleum Institute v. EPA*, 52 F.3d 1113, 1119 (D.C. Cir. 1995), "EPA cannot rely on its general authority to make rules necessary to carry out its functions when a specific statutory directive defines the relevant functions of EPA in a particular area." Although here EPA invokes not its general rulemaking authority, but rather the general purpose of the RFS program,

we think the same principle applies: a broad programmatic objective cannot trump specific instructions.

We do not think the text of § 7545(o)(7)(D)(i) or the general structure of the RFS program supports EPA's decision to adopt a methodology in which the risk of overestimation is set deliberately to outweigh the risk of underestimation.² Section 7545(o)(7)(D)(i)'s reference to the "projected volume of cellulosic biofuel" seems plainly to call for a prediction of what will *actually* happen. EPA points to no instance in which the term "projected" is used to allow the projector to let its aspirations for a self-fulfilling prophecy divert it from a neutral methodology.

In fact, the general structure of the RFS program militates against such a conclusion. Section 7545(o)(7)(D)(i) serves as a non-discretionary safety valve when the refiners and importers of transportation fuel subject to § 7545(o)'s mandate would otherwise be put in an impossible position, or at least a highly punitive one—that is, forced to purchase volumes of cellulosic biofuel greater than total production, or pay fines for failing to do so. Only with regard to cellulosic biofuel did Congress adopt so cautious an approach—perhaps because of the industry's embryonic character. The only other fuel-specific waiver provision in the RFS Program is for biomass-based diesel; but that waiver authorizes no more than a fifteen percent reduction in applicable volumes, does not require EPA to project available fuel, and is tied to price spikes, not production volumes. See 42 § 7545(o)(7)(E)(ii). In other words, only with respect to

² More precisely, a methodology that *plans* for the expected value of upside errors (the summation of each upside deviation, weighted by its likelihood) to exceed the expected value of downside errors.

cellulosic biofuel did Congress evince a clear concern for production shortfalls.

Viewed in this light, the most natural reading of the provision is to call for a projection that aims at accuracy, not at deliberately indulging a greater risk of overshooting than undershooting. Although as EPA notes the Act allows an obligated entity to carry over a deficit in renewable fuel purchases into the following year, see 42 $\S7545(o)(5)(D)$; 40 C.F.R. $\S80.1427(b)(1)$, that simply makes the controlling unit of time two years rather than one hardly long enough to sharply reduce the risk of a penalty. As reflected in the chart, supra at 8, history suggests the opposite conclusion: a refiner forced to carry a deficit in 2010, when EPA projected five million gallons of cellulosic biofuel yet none was produced, would not have found relief in 2011, when the agency predicted 6.6 million and actual production was again zero.

Further, the Act's requirement that EPA's projection be "based on" EIA's estimate similarly implicates an outcomeneutral methodology over an aspirational one. Though we above rejected API's advocacy of apparently near carboncopy reliance on EIA, EPA's effort to kickstart cellulosic biofuel production does not look like the sort of "supplemental analysis" in pursuit of the same regulatory objective that we found permissible in *Sierra Club*, 356 F.3d at 306 n.7, but rather like the adoption of an entirely new goal.

Our prior decisions relating to technology-forcing standards are no bar to this conclusion. We recognize here, as we have recognized in the past, that an agency may base a standard or mandate on future technology when there exists a rational connection between the regulatory target and the presumed innovation. In *National Petrochemical & Refiners Ass'n v. EPA*, 287 F.3d 1130 (D.C. Cir. 2002), for example,

we upheld EPA's adoption of a technology-forcing standard for diesel engines on the reasoning that "[i]n the absence of theoretical objections to the technology, the agency need only identify the major steps necessary for development of the device, and give plausible reasons for its belief that the industry will be able to solve those problems in the time remaining." *Id.* at 1144 (quoting *Natural Resources Defense Council v. EPA*, 655 F.2d 318, 333 (D.C. Cir. 1981). We invoked similar principles in rejecting challenges to emissions standards in *Natural Resources Defense Council v. Thomas*, 805 F.2d 410, 428-430 (D.C. Cir. 1986), and *Sierra Club v. Costle*, 657 F.2d 298, 364 (D.C. Cir. 1981).

In all these cases, government pressure joined forces with industry specialization and competence. Here, by contrast, EPA applies the pressure to one industry (the refiners), see Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 75 Fed. Reg. 14,670, 14,731 (Mar. 26, 2010); see also 42 U.S.C. § 7545(d)(1); 40 C.F.R. § 80.1463, yet it is another (the producers of cellulosic biofuel) that enjoys the requisite expertise, plant, capital and ultimate opportunity for profit. Apart from their role as captive consumers, the refiners are in no position to ensure, or even contribute to, growth in the cellulosic biofuel industry. "Do a good job, cellulosic fuel producers. If you fail, we'll fine your customers." Given this asymmetry in incentives, EPA's projection is not "technology-forcing" in the same sense as other innovation-minded regulations that we have upheld.

Although an agency may flesh out the interstices of a technical regime, *Catawba Cnty. v. EPA*, 571 F.3d 20, 36-38 (D.C. Cir. 2009), that discretion does not entitle the agency to arrogate to itself purposes outside the statutory provision it is applying. See also *Railway Labor Executives' Ass'n v. Nat'l Mediation Bd.*, 29 F.3d 655, 671 (D.C. Cir. 1994) ("Were

courts to *presume* a delegation of power absent an express withholding of such power, agencies would enjoy virtually limitless hegemony "). Yet that is precisely what EPA appears to have done in projecting cellulosic biofuel production for 2012.

Advanced biofuels volume. Section 7545(o)(7)(D)(i)states that in any year where EPA reduces the applicable volume of cellulosic biofuel, "the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels." 42 U.S.C. § 7545(o)(7)(D)(i) (emphasis added). In the 2012 RFS rule, EPA concluded that other sources of advanced biofuels, in particular imported sugarcane ethanol and biomass-based diesel, could make up for the 490 million gallon shortfall in cellulosic biofuel it had projected for 2012. 77 Fed. Reg. at 1,331-37. The agency accordingly declined to reduce the applicable volume of advanced biofuels. *Id.* EPA, however, did not specify precisely how much sugarcane ethanol or biomass-based diesel it thought would be available, nor did it indicate in what combination these two sources would amount to 490 million gallons. API asserts that this failure to provide numerical projections "reveals the arbitrary nature" of EPA's findings and "violates the agency's duty to provide a reasoned explanation for its decisions." Pet'r Br. at 45.

We find these arguments unpersuasive. Nothing in the text of § 7545(o)(7)(D)(i), or any other applicable provision of the Act, plainly requires EPA to support its decision not to reduce the applicable volume of advanced biofuels with specific numerical projections. This stands in contrast to the Act's explicit instruction that EPA make a numerical projection for cellulosic biofuel. Certainly EPA must provide a reasoned explanation for its actions, but rationality does not always imply a high degree of quantitative specificity.

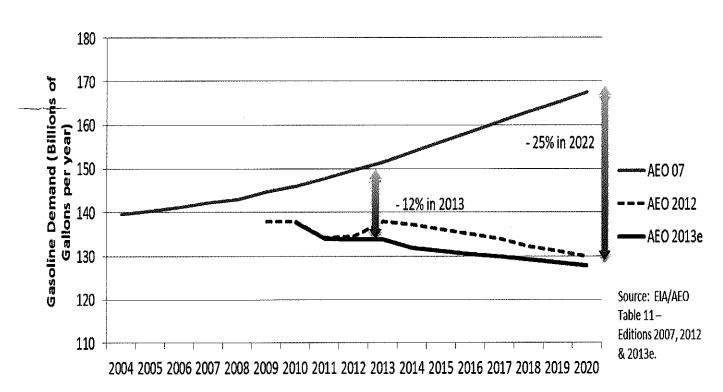
Turning to the explanation that EPA did provide, we think EPA has "articulate[d] a satisfactory explanation for its action including a rational connection between the facts found and the choice made." Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) (quotations removed). The agency adequately grounded its determination in historical data on sugarcane ethanol imports and biodiesel production, as well as governmental and non-governmental projections for future production of those fuels. See 77 Fed. We find especially relevant EIA's Reg. at 1,331-37. projection of 300 million gallons of sugarcane ethanol imports for 2012 and EPA's estimation of 2.4 billion gallons in U.S. biodiesel production capacity. See id. at 1,332, 1,334. These data plausibly suggest that some combination of the two sources of advanced biofuels will be available to make up for the shortfall in cellulosic biofuel. Moreover, in sharp distinction with cellulosic biofuel, there appears to be no great obstacle to the *production* of advanced biofuel generally; to the extent that estimates in the record are relatively low, that seems to be based on want of a market, which of course continued pressure will tend to solve. *Id.* at 1,334-35.

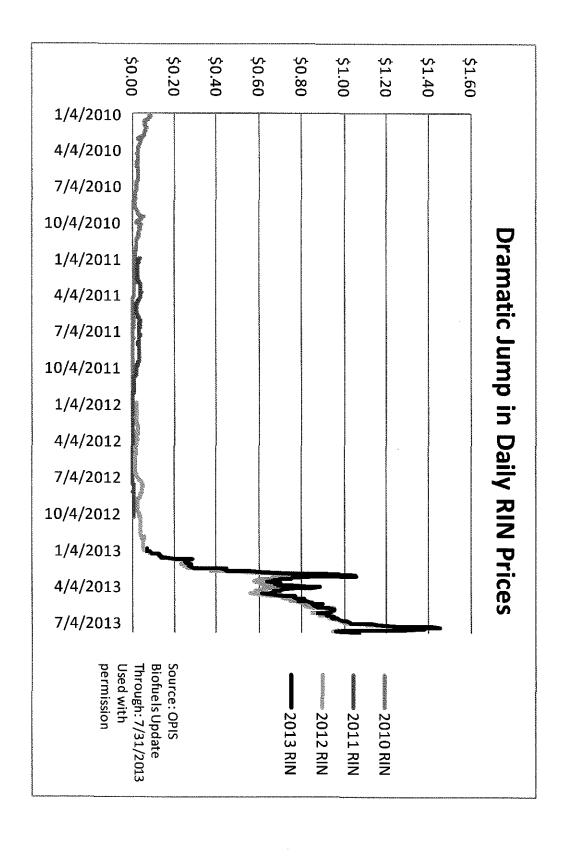
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For the reasons set out above, we reject API's challenge to EPA's refusal to lower the applicable volume of advanced biofuels for 2012. However, we agree with API that EPA's 2012 projection of cellulosic biofuel production was in excess of the agency's statutory authority. We accordingly vacate that aspect of the 2012 RFS rule and remand for further proceedings consistent with this opinion.

So ordered.

Drastic Unanticipated Drop in Gasoline Demand





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