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Re: EPA-HQ-OAR-2019-0168 – Section 610 Review of “Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program”

The American Fuel & Petrochemical Manufacturers (“AFPM”) submits these comments in response to the Environmental Protection Agency’s (“EPA’s”) Section 610 Review of “Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program.”¹ AFPM is a national trade association whose members comprise virtually all United States refining and petrochemical manufacturing capacity. AFPM members are directly regulated as obligated parties under the Renewable Fuel Standard (“RFS”) and will be substantially affected by the outcome of EPA’s 610 Review.

Section 610 of the Regulatory Flexibility Act requires a periodic review of rules issued that have a significant economic impact on a substantial number of small entities.² Each agency is required to review its rules within 10 years of the rule’s effective date. The agency shall consider in its review:

1. the continued need for the rule;
2. the nature of complaints or public comments;
3. the complexity of the rule;
4. the extent to which the rule overlaps, duplicates or conflicts with other Federal, State and local government rules; and
5. the length of time since the rule has been evaluated or the degree to which technology, economic conditions, or other factors have changed.

Because the RFS has a significant, negative impact on small entities, the entire refining sector, and American consumers, AFPM submits the following comments.

1. The continued need for the rule

The RFS is costly and was designed in a different era: one of declining oil and fuel production in the United States and increasing fuel demand by consumers. Now domestic production is up,

¹ See 84 Fed. Reg. 29,690 (June 24, 2019).

² See Regulatory Flexibility Act, 5 U.S.C. § 610.



and U.S. gasoline demand is flat. Because of its poor design, the RFS become increasingly expensive for the refining industry, particularly small refineries, and consumers. Congress should repeal or at least significantly reform the RFS. Part of the intent of the 610 review is to inform Congress about burdensome laws so that it may take up legislative reform. EPA should communicate these burdens to Congress. In the meantime, EPA can take steps to ameliorate some of the adverse impacts on small entities. For example, EPA should limit ethanol mandates to no higher than 10% of the gasoline pool in recognition of the ethanol blendwall, and the high costs of biodiesel (which can be used as a substitute to comply with the total renewable fuel standard).

The RFS has successfully introduced conventional ethanol into the gasoline supply, but further increasing RFS mandates will only impose significantly higher compliance costs on obligated parties, particularly small refineries, without achieving greater blending. That is because ethanol faces “blendwall” constraints. EPA has previously and repeatedly acknowledged the existence of the E10 blendwall.³ There is insufficient certified-compatible distribution infrastructure to support 15 billion gallons of ethanol, including retail storage tanks and pumps.⁴ EPA has presumed 15 billion gallons of ethanol for the past three years and not once has the market been able to reach this level of blending. Indeed, the recent report on potential policies to meet food, land-use, and greenhouse gas emissions goals in 2050 from the World Resources Institute claims that, “[i]n the past few years, the blend wall has effectively blocked expansion of ethanol in the United States.”⁵

Higher than achievable volumes increase the cost of the program but do not materially increase blended ethanol. Instead, the artificially high assumptions of ethanol consumption have had unintended consequences, including RIN volatility, added programmatic costs, wealth transfer

³ “[T]he rate of growth in the use of ethanol in the U.S. has decreased in recent years as a result of a number of factors, including that the gasoline market has to a large degree become saturated with gasoline that contains 10 volume percent ethanol (E10), favorable blending economics diminish for gasoline-ethanol blends beyond E10, gasoline demand has leveled off, and efforts to expand the use of higher ethanol blends such as E15 and E85 have not been sufficient to maintain past growth rates in total ethanol use .” Market impacts of biofuels, David Korotney, Office of Transportation and Air Quality, November 27, 2017 at 1. This same analysis was confirmed in mid-2018. Memorandum from David Korotney, U.S. EPA, Office of Transportation and Air Quality, Market Impacts of Biofuels in 2019, (June 26, 2018), at 1. This same analysis was substantially repeated in the docket for the proposed rule. David Korotney, Market Impacts of Biofuels in 2020, U.S. EPA, Office of Transportation and Air Quality (July 3, 2019), at 2, <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2019-0136-0067&contentType=pdf> (“[W]e also believe that there are real constraints on the ability of the market to significantly exceed an average nationwide ethanol content of 10% in 2020.”).

⁴ U.S. Energy Information Administration, *New EPA ruling expands sale of 15% ethanol blended motor gasoline*. July 16, 2019. (“On a national level, however, less than 2% of retail fueling stations offer E15.”) <https://www.eia.gov/todayinenergy/detail.php?id=40095>.

⁵ “Creating A Sustainable Food Future: A Menu of Solutions to Feed Nearly 10 Billion People by 2050,” World Resources Institute, July 2019, at 115 https://wrr-food.wri.org/sites/default/files/2019-07/WRR_Food_Full_Report_0.pdf.



from obligated parties to blenders without the desired increase in infrastructure needed to accommodate additional ethanol, incentivizing increased biomass-based diesel (“BBD”) at a higher rate than petroleum imports, and adverse environmental impacts.⁶

Lower RFS mandates are unlikely to decrease ethanol blending. The RFS has delivered the infrastructure buildout necessary to support the widespread use of conventional ethanol in E10 blends. Today, nearly all unfinished gasoline blendstocks, or “BOBs,” are formulated to be blended with ethanol to increase octane and become finished gasoline. Ethanol is now an important part of the gasoline supply as an economically competitive octane booster. It would be used whether mandated or not. Both industry experts and academics alike recognize this.⁷ Moreover, recent research indicates that the RFS does not support U.S. corn growers. A July 2019 study performed by Energy Ventures Analysis found that if the RFS standards were eliminated, U.S. corn-based ethanol and biobutanol production would remain at nearly the same levels as in the U.S. Energy Information Administration’s (“EIA”) Annual Energy Outlook 2019 reference case.⁸

The RFS has failed to produce economically competitive advanced biofuels. Biodiesel has consistently cost greater than 50 cents per gallon more than diesel and at times greater than \$2 a gallon more.⁹ EPA cannot continue to overlook the substantial price difference between biodiesel and petroleum-based diesel. EPA can reduce the cost of the RFS program by lowering the level of the BBD standard to the statutory minimum 1 billion gallons. EPA would ensure that it achieved the lowest possible cost to small refineries and consumers because the free market and other RFS volume mandates would dictate the actual use of BBD. Expensive biodiesel harms small businesses, particularly small businesses that rely on diesel fuels, including trucking, farming, and landscaping. According to the U.S. Department of Transportation

⁶ See COVINGTON & BURLING LLP, AN ANALYSIS OF THE RENEWABLE FUEL STANDARD’S RIN MARKET WHITE PAPER 26 (Feb. 15, 2019), <https://www.api.org/~media/Files/Policy/Fuels-and-Renewables/2019/RIN-market-paper.pdf>; American Action Forum, “Even with New Reforms, the RFS is a Costly Policy,” <https://www.americanactionforum.org/insight/even-with-new-reforms-the-rfs-is-a-costly-policy/>; World Resources Institute, “Creating a Sustainable Food Future: A Menu of Solutions to Feed Nearly 10 Billion People by 2050, July 2019,” https://wrr-food.wri.org/sites/default/files/2019-07/WRR_Food_Full_Report_0.pdf.

⁷ “The Shocking Truth About America’s Ethanol Law: It Doesn’t Matter (For Now),” National Public Radio, <https://www.npr.org/sections/thesalt/2016/02/10/466010209/the-shocking-truth-about-americas-ethanol-law-it-doesnt-matter-for-now> (“If the law changed tomorrow and gasoline companies were free to ignore ethanol, they’d almost certainly keep right on blending ethanol into their fuel. Got that? The ethanol mandate requires gasoline companies to do something that, at the moment, they’d do anyway.”).

⁸ *An Assessment of the Renewable Fuel Standard Using EVA-NEMS*, Energy Venture Analysis, July 17, 2019, https://www.evainc.com/wp-content/uploads/2019/07/EVA_RFS_REPORT-final.pdf.

⁹ EPA has estimated the cost difference between soybean biodiesel and petroleum diesel at \$0.74 to \$1.23 per gallon. See Memorandum from Michael Shelby, Dallas Burkholder and Aaron Sobel. S. EPA, Office of Transportation and Air Quality, Cost Impacts of the Final 2019 Annual Renewable Fuel Standards, U13 tbl. 2-2, <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2019-0136-0027&contentType=pdf>.



(“DOT”), 91.3% of for-hire carriers in the U.S. operate 6 or fewer trucks, and 97.4% operate fewer than 20 trucks.¹⁰

The environmental benefits of BBD are dubious. Some recent studies have cast doubt on the GHG benefits of biofuels, for example. Some economists recently found “that the total GHG costs of consuming biofuels, rather than gasoline or diesel, range from 35% more for sugarcane ethanol to 230% more for soybean biodiesel.”¹¹ Even if one assumes biodiesel reduces emissions under the EPA’s current evaluation, it is a very expensive way to reduce emissions. For example, if BBD is \$0.70 per gallon more expensive and, as is currently supposed, reduces GHGs by 60-80 percent, then the cost of abatement is approximately \$102-\$135 per ton.¹² This figure is between 2 and 22 times as high as the estimated cost of carbon abatement in other regulations.^{13,14}

2. The nature of complaints or public comments

Year after year, AFPM, along with many other stakeholders, submit comments detailing the broken nature of the RFS and how it should be reformed. Since 2017, EPA has received more than 1.3 million comments on its annual RFS proposals.¹⁵ Despite the glut of feedback from all corners of the economy, EPA has not substantially changed the program. Wall Street banks and very large blenders continue to participate in the RIN market,¹⁶ disadvantaging smaller players

¹⁰ American Trucking Association, Reports, Trends, and Statistics,

https://www.trucking.org/News_and_Information_Reports_Industry_Data.aspx (last visited Sept. 19, 2019).

¹¹ See generally Timothy D. Searchinger, Stefan Wirsenius, Tim Beringer & Patrice Dumas, *Assessing the efficiency of changes in land use for mitigating climate change*, 564 NATURE 249 (2018),

<https://www.nature.com/articles/s41586-018-0757-z>.

¹² Resources for the Future, “Calculating Various Fuel Prices Under a Carbon Tax” (Nov. 28, 2017),

<https://www.resourcesmag.org/common-resources/calculating-various-fuel-prices-under-a-carbon-tax/>.

¹³ Regulatory Impact Analysis for the Review of the Clean Power Plan: Proposal, U.S. Environmental Protection Agency Office of Air and Radiation Office of Air Quality Planning and Standards (Oct. 2017),

https://www.epa.gov/sites/production/files/2017-10/documents/ria_proposed-cpp-repeal_2017-10.pdf.

¹⁴ Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis, (August 26, 2016), at tbl A1, https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc_tsd_final_clean_8_26_16.pdf (Annual SC-CO₂ Values: 2010-2050: 2007 \$/metric ton CO₂).

¹⁵ 756,525 (2017) + 236,405 (2018) + 351,426 (2019) + 5,727 (2020);

<https://www.regulations.gov/searchResults?rpp=25&po=0&s=%22Renewable%2BFuel%2BStandard%2BProgram%22&fp=true&ns=true>.

¹⁶ “To manage their compliance obligation without violating the holding limits, large covered entities have often found it necessary to engage in forward or futures transactions with liquidity providers, often banks, which agree to provide the allowances they will need for compliance when they need them, while hedging price risk. These ‘cost-of-carry’ transactions are facilitated in part by the program’s escalation of the auction reserve (or ‘floor’) price, which rises by five percent plus the rate of inflation each year, making such transactions an attractive investment for banks. As a consequence, a robust secondary market has developed for exchange-cleared over-the-counter and futures contracts on the Intercontinental Exchange.” Covington & Burling LLP *supra* note 6.



and merchant refiners. Beyond harming the refining industry, the RFS jeopardizes economic growth and stability in many sectors of the economy.

While AFPM supports the sensible integration of alternative fuels into commerce, consumer choice in the marketplace, not mandates, should dictate how these fuels are used. The growing chorus of concern from food, livestock, engine, and consumer communities continues to highlight the mandate's unintended consequences and destructive nature.

The RFS's mandated volumes can make E0 extremely rare and expensive, disadvantaging those who prefer E0 fuels, including boaters, antique car owners, motorcyclists, and landscapers. The Outdoor Power Equipment Institute ("OPEI") evinced this concern in their comments to EPA's E15 rulemaking:

Beyond the new products being sold each day, OPEI also estimates as many as 250 million legacy products owned by U.S. households and businesses, all of which require gasoline with no more than 10% ethanol to run properly and safely. It is also important to note that many of the commercial-grade and higher price point products manufactured by our members will likely be in service for decades to come. We therefore recommend that EPA propose to require the continued sale of E10 and E0 fuels, as well as require fuel retailers to maintain a dedicated pump for E0 or E10 gasoline.¹⁷

The Petroleum Marketers Association of America ("PMAA") also cautions against mandating further ethanol volumes because "[c]onsumers see little use for a fuel that can't be used in motorcycles, boats, landscape equipment and other small gasoline engine applications."¹⁸

Furthermore, the nation's food supply is not immune to the RFS's perverse impacts. The RFS ethanol mandate effectively requires American consumers, and everyone who operates a business in the food supply chain, to pay a tax on the food they purchase. The RFS, on the margin, increases the proportion of corn that goes to making fuel, disadvantaging livestock producers, restaurants, and consumers. In 2016 testimony before the House Energy and Commerce Committee, the National Council of Chain Restaurants stated that, "RFS's conventional biofuel mandate would raise commodity costs for the chain restaurant industry,

¹⁷ See Daniel J. Mustico, Vice President, Government & Market Affairs, Outdoor Power Equipment Institute (OPEI), Comment on Proposed Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations (Apr. 17, 2019), <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2018-0775-0611&attachmentNumber=1&contentType=pdf>.

¹⁸ See Mark S. Morgan, Regulatory Counsel, Petroleum Marketers Association of America (PMAA), Comment on Proposed Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations (Apr. 29, 2019) <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2018-0775-0845&attachmentNumber=1&contentType=pdf>.



which is but one segment of the overall restaurant sector, by \$3.2 billion per year, every year the RFS remains in effect.”¹⁹ This translates to “an annual cost of approximately \$18,000, per restaurant location.”²⁰ Further, the National Chicken Council has argued the RFS imposes biofuel blending requirements that greatly impact the chicken industry, as well as all poultry and livestock production. The tradeoff of food versus fuel has put severe pressure on feedstock. Since 2007 under the RFS, broiler chicken producers have faced \$68.5 billion in higher feed costs for the production of broiler meat because of the RFS.²¹

To the extent the RFS incentivizes E15 or E85 usage, it disproportionately benefits large fuel retailers over smaller providers. Larger retailers are much more likely to have large real estate footprints and capital to “harden” their equipment to be able to sell higher percentage ethanol blends.²² Approximately 80% of U.S. gas stations are owned by independent retailers, most with only one or two stations. These are small business owners that the Regulatory Flexibility Act was most designed to protect. PMAA cautions that without the ability to prove fuel dispensing and storage system compatibility, the vast majority of the retail gasoline tanks operated by their members may be forced to close on a long-term temporary or permanent basis should the RFS force E15 into the marketplace. Even if PMAA members were able to afford replacement of E10 equipment with E15 certified components and do so without disrupting the petroleum supply chain, PMAA warns that there are not enough compatible UST system components available for retrofit or trained professional to install them.²³ Aside from these pump and underground storage tank compatibility issues, which would require significant retrofit investment from these small business owners, PMAA calls E15 “a boutique fuel with limited market penetration. An E15 mandate would be a marketing disaster for retail marketers.”²⁴

¹⁹ Statement of the National Council of Chain Restaurants submitted to the U.S. House Committee on Energy and Commerce, Subcommittee on Energy and Power for its hearing on “The Renewable Fuel Standard – Implementation Issues” held on June 22, 2016. <https://docs.house.gov/meetings/IF/IF03/20160622/105101/HHRG-114-IF03-20160622-SD008.pdf>.

²⁰ *Id.*

²¹ See Mike Brown, President, National Chicken Council (NCC), Comment on Proposed Renewable Fuel Standard Program: Standards for 2020 and Biomass-Based Diesel Volume for 2021, Response to the Remand of the 2016 Standards, and Other Changes (Aug. 30, 2019), <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2019-0136-0278&attachmentNumber=1&contentType=pdf>.

²² See Suzanne Murray, Haynes and Boone, LLP on behalf of Small Retailers Coalition, Comment on Proposed Renewable Fuel Standard Program: Standards for 2020 and Biomass-Based Diesel Volume for 2021, Response to the Remand of the 2016 Standards, and Other Changes (Aug. 30, 2019), <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2019-0136-0195&attachmentNumber=1&contentType=pdf>.

²³ See Mark S. Morgan, Regulatory Counsel, Petroleum Marketers Association of America (PMAA), Comment on Proposed Renewable Fuel Standard Program: Standards for 2020 and Biomass-Based Diesel Volume for 2021, Response to the Remand of the 2016 Standards, and Other Changes (Aug. 30, 2019).

²⁴ See Mark S. Morgan, Regulatory Counsel, Petroleum Marketers Association of America (PMAA), Comment on Proposed Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations (Apr. 29, 2019) <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2018-0775-0845&attachmentNumber=1&contentType=pdf>.



3. The complexity of the rule

One of the biggest challenges American fuel manufacturers experience today are the regulatory conflicts and problems with the size and scope of EPA's RFS program. Under the Energy Independence and Security Act ("EISA"), each of the four renewable fuel categories has its own volumetric requirements, which EPA translates into four corresponding fractional requirements through annual rulemakings. These categories are defined in terms of their reductions in life-cycle emissions of GHGs relative to petroleum, in terms of their feedstock, and in of their fuel characteristics. Furthermore, because of the nested fuel structure of the RFS, RIN prices can further depend not just on market conditions for the fuel generating the RIN, but on markets for other biofuels.

The complex system has a high risk for fraudulent RIN generation if proper regulatory controls are not implemented. Biodiesel fraud remains a concern. The RIN system and the EPA Moderated Transaction System ("EMTS") must work for refiners and other obligated parties so that they know they will be able to comply with the RFS without being punished as the victims of fraud. Those who attempt to comply with the program in good faith should be shielded from punitive measures, such as requiring the victim of fraud to surrender even more RINs. Additionally, there remains a fundamental disconnect between biogas production and certainty that the biogas is used as vehicle fuel in transportation to support valid RIN generation.²⁵

Congress included a safety valve to protect consumers if advanced cellulosic fuels were not produced. The RFS allows obligated parties to purchase cellulosic waiver credits ("CWCs") if cellulosic fuels are not available at a reasonable price. However, RFS regulations restrict the use of CWCs to compliance with only the cellulosic biofuel standard rather than all of the nested categories that a gallon of cellulosic biofuel counts towards. That means that companies must purchase additional RINs to comply with the cellulosic mandate for fuels that never materialized. Instead, EPA should revise treatment of CWCs to ensure that these credits also count towards compliance with the nested obligations (i.e., advanced biofuel and total renewable fuel). In other words, CWCs should be treated in the same way as RINs.²⁶ EPA could amend 40 CFR 80.1456(c)(4) to include advanced biofuel RVO and total renewable fuel RVO and reduce the burden of compliance.²⁷

²⁵ AFPM also has concerns with the validity of possible future e-RINs generated for electricity produced from biomass and used as transportation fuel.

²⁶ There is nothing within the RFS credit provisions (CAA §211(o)(5)) or the CWC provisions (CAA §211(o)(7)(D)(ii)) that directs EPA to treat CWCs in the manner that it has done through regulation.

²⁷ Amend 40 CFR 80.1456(c)(4) as follows (additions underlined, deletion in strikethrough): (4) Cellulosic biofuel waiver credits may ~~only~~ be used to meet an obligated party's cellulosic biofuel RVO, advanced biofuel RVO, and total renewable fuel RVO.



Another way to reduce complexity from the rule would be to move the point of obligation consistent with AFPM's petition for rulemaking.²⁸ Doing so will make the RFS program more equitable, ease the administrative burden on EPA, and combat fraud. It also could obviate the need for other forms of relief (*e.g.*, some small refinery exemptions).

4. The extent to which the rule overlaps, duplicates or conflicts with other Federal, State and local government rules

AFPM supports sensible regulations that protect our well-being and provide clear rules all businesses can follow. Too often, however, the U.S. regulatory regime is opaque, duplicative, or outright conflicting—creating uncertainty for businesses, shuttering beneficial projects, and ultimately harming consumers. There are common sense regulatory reform measures that will promote transparency, good government, and sound science without compromising the environment, health, or safety. Far from undermining sensible regulation, such reforms would allow regulated entities to deliver better results for lower costs. The RFS is duplicative and overlaps with other federal, state, or local rules.

There are currently 336 state or federal biodiesel laws or incentives, according to the Department of Energy.²⁹ There is considerable overlap in these initiatives. Moreover, with the multitude of laws or incentives favoring biodiesel, EPA can ameliorate the significant cost BBD imposes on consumers directly through the RFS by setting the volume requirement at the statutory minimum of 1 billion gallons (and lowering the nested mandates). EPA can also note in its report to Congress that there is considerable duplication of programs to encourage biodiesel. More broadly, there are hundreds of programs to spur rural development including crop insurance and direct subsidies.

There are also other federal programs that seek to reduce GHG impacts or achieve other goals of the RFS, including DOT's Corporate Average Fuel Economy (CAFE) program and the EPA's mobile source GHG standards. These programs already seek to reduce GHGs in transportation and decrease petroleum consumption and imports.

EPA can eliminate duplicative reporting requirements in the RFS that impose programmatic costs without any additional benefits. One example is the RFS 0104 report. All information for the RFS 0104 report comes straight from the EMTS. EPA already has access to this information and should not maintain a separate reporting requirement for information it already has in its possession.

²⁸ See AFPM Petition for Rulemaking – Point of Obligation 8.4.2016, <https://www.regulations.gov/document?D=EPA-HQ-OAR-2016-0544-0004>.

²⁹ U.S. Department of Energy Alternative Fuels Data Center, <https://afdc.energy.gov/laws/search>



5. The length of time since the rule has been evaluated or the degree to which technology, economic conditions, or other factors have changed

Congress enacted the RFS to enhance energy independence and security by reducing American fuel imports. However, the energy landscape in the United States is markedly different than it was when the RFS was enacted, as the U.S. is experiencing an oil and gas revolution that is redefining energy security. The United States is now the number one oil producer and refined product manufacturer in the world, obviating the need for RFS. This fact should cause Congress to at least consider whether the RFS is an efficient means to achieve that objective. It is also clear that the RFS is not only failing to achieve many of its original purposes, but in many cases undermines its own goals. Specifically, EPA's increase in annual levels of BBD volume levels have incentivized imports of fuel at a higher rate than petroleum imports, contravening the primary purpose of the Energy Independence and Security Act.³⁰ Mandates that result in the importation of foreign biofuels does not help U.S. energy independence.

When Congress enacted the RFS, DOE predicted that the U.S. would consume 150 billion gallons of gasoline. Due to increasingly efficient vehicles and other factors, gasoline demand has not exceeded 144 billion gallons and is projected by EIA to be 143 billion gallons in 2020. It was originally projected to be more than 167.5 billion gallons in 2020.^{31,32} As noted above, the expansion of the RFS poses extreme costs to other stakeholders and consumers and will not appreciably increase ethanol blending above 10 percent of the gasoline pool. Reducing the implied conventional ethanol volumes to no more than 10 percent of the projected gasoline can mitigate some of these costs.

Advanced biofuels other than biodiesel have not developed in any demonstrable fashion. Cellulosic biofuel, the main portion of advanced biofuel under the RFS, has not been produced in appreciable volumes, and EPA has used its cellulosic waiver authority to lower statutory mandates and the overall mandated volume. EPA acknowledges this problem: “[r]eal-world challenges, in particular the slower-than-expected development of the cellulosic biofuel industry, has slowed progress towards meeting Congressional goals for renewable fuels. Given the nested nature of the standards, the shortfall in cellulosic biofuels has made the volume targets

³⁰ Draft Statutory Factors Assessment for the 2021 Biomass Based Diesel (BBD) Applicable Volume, U.S. EPA, Office of Transportation and Air Quality, <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2019-0136-0030&contentType=pdf>.

³¹ U.S. Energy Information Administration, Annual Energy Outlook, 2007.

³² If this projection had come true, the conventional implied mandate would not have approached the ten percent blendwall.



established by Congress for 2018 for advanced biofuels and total renewable fuels beyond reach.”³³

Cellulosic biofuel mandates have been a complete failure, as volumes are a very small percentage of the statutory targets. Furthermore, cellulosic RIN values for CNG/LNG derived from biogas are extremely high, approximately nine times the value of the fuel in 2018.³⁴ Currently only a trickle of cellulosic ethanol is produced – a miniscule .00005 of the total gasoline supply³⁵ – and the overwhelming majority of RINs generated under the mandate for the cellulosic category are from biogas. Some of this biogas contains siloxane, making it a suspect transportation fuel not equivalent to natural gas purity. Moreover, because landfills meeting certain design capacity and emissions criteria are required to collect landfill gas and either flare it or use it for energy, much of this biogas would be generated even without RIN generation. Since this activity would occur without a mandate, basing increases of cellulosic biofuel on biogas is nothing more than a transfer of wealth from the refining industry, its employees, and American consumers to waste companies that would already be capturing biogas.

6. Conclusion

The RFS is broken and U.S. manufacturers, refiners, and ultimately consumers are paying the price. For the forgoing reasons, EPA has several areas where it can reform the RFS to ameliorate impacts on small entities. Those areas include respecting the blendwall by mandating levels no more than 10% of the gasoline pool, moving the point of obligation, counting CWC towards nested categories, and setting the BBD level at no more than 1 billion gallons. It should also report to Congress that fuels policy is duplicative with other state and federal programs.

Respectfully submitted,

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³³ See Renewable Fuel Standard Program: Standards for 2018 and Biomass Based Diesel Volume for 2019, 82 Fed. Reg. at 58487.

³⁴ 84 Fed. Reg. 36,771 (July 29, 2019).

³⁵ 7,000,000-gal cellulosic ethanol / 143,000,000,000 gasoline supply = .00005.