RENEWABLE FUEL STANDARD (RFS) PROGRAM: RFS ANNUAL RULES

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Comments of the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, AFL-CIO

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I. Introduction

O'Donoghue & O'Donoghue serves as general counsel for the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, AFL-CIO ("UA" or "United Association") and respectfully submits these comments in response to the U.S. Environmental Protection Agency's ("EPA" or "Agency") proposed Renewable Volume Obligations ("RVOs") for 2020, 2021, and 2022 under the Renewable Fuel Standards ("RFS") program.[1] The UA, which represents over 359,000 skilled craftspeople in the plumbing and pipe fitting trades, is the leading international labor union in the energy sectors. For the reasons set forth below, we have major concerns regarding this rulemaking, including its negative impact on jobs, as well as other adverse effects the proposed standard will have on the energy sector and the economy generally.

The United Association is submitting these comments because of an urgent concern that the EPA's proposed RVOs for 2022 will have a severe and disproportionate impact on independent refiners that do not have their own ethanol blending operations. This, in turn, will have devastating consequences for tens of thousands of union refinery workers and their families, from the UA as well as other building trades, who rely on these facilities to support a good, middle-class lifestyle.

In this rulemaking, the EPA proposes to modify the RVOs for 2020 and 2021 to reflect the amounts of biofuel that were consumed those years. The EPA is also proposing a Total Renewable Fuel obligation and associated RVOs for 2022. Refineries are obligated parties under the RFS, and they demonstrate compliance with RVOs by submitting Renewable Identification Numbers (RINs) to the EPA, which are generated each time a recognized biofuel is blended with petroleum to produce a final, consumable product.[2]

For purposes of the "conventional renewable fuel" component of the RVOs, large, integrated refiners often assume responsibility for blending ethanol themselves, and are thus able to self-generate the RINs used for compliance with this mandate.[3] Independent refineries, however, have historically not blended ethanol themselves, and have instead purchased RINs on the open market to demonstrate compliance with the RFS.[4] As discussed below, proposed RVOs that substantially impact the market for RINs can therefore be expected to disproportionately impact the small and independent refineries that rely on that market for compliance.

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[1] Renewable Fuel Standard (RFS) Program: RFS Annual Rules, 86 Fed. Reg. 72,436 (Dec. 21, 2021) ("NPRM").

[2] U.S DEP'T OF ENERGY, OFFICE OF POLICY & INT'L AFFAIRS, SMALL REFINERY EXEMPTION STUDY: AN INVESTIGATION INTO DISPROPORTIONATE ECONOMIC HARDSHIP, at 4 (Mar. 2011) ("DOE 2011 Study").

[3] *See id*. at 22-23.

[4] *See* SMALL REFINERS COAL., *Comments on Renewable Fuel Standard Program: Standards for 2020 and Biomass-Based Diesel Volume for 2021, Response to Remand of the 2016 Standards, and Other Changes, EPA-HQ-OAR-2019-0136-0021*, at 1 (Aug. 30, 2019), available at https://downloads.regulations.gov/EPA-HQ-OAR-2019-0136-0324/attachment_1.pdf ("SRC 2020 Comments").

II. Executive Summary

The EPA's proposed modifications to the RVOs for 2020 and 2021 are clearly sensible given the stark drop-off in demand for fuel consumption in these years due to the COVID-19 pandemic. That stark demand shock was not anticipated when the original blending mandates for those years were issued and threatened the ability of obligated parties to comply with the mandates initially issued for those years. However, as demonstrated below, the conventional renewable fuel component of the proposed 2022 RVO *is 1.2 billion gallons higher than the market and refueling infrastructure can tolerate*. As a result, the price of the RINs used to demonstrate compliance with that blending mandate is expected to skyrocket in a manner similar to the demand shocks of 2020.[5]

Refineries that are required to purchase RINs are likely to slow or even halt production as a means of reducing the cost of their RFS compliance under the EPA's proposal, which will have a devastating impact on the refinery workers and their families who rely on those refineries for good, middle-class jobs. The EPA is required by law to consider such loss of employment as a factor when resetting statutory RVO targets,[6] and in the instant case there are compelling grounds for such consideration. The adverse impact of the proposed 2022 standard is not merely theoretical. Industry data shows that *over 3,000* full-time refining jobs were lost in 2020 alone, in large part because of the major drop in demand for transportation fuels at the beginning of the COVID-19 pandemic.[7] Hundreds more have been lost since then.[8]

Moreover, since each full-time refining job supports up to 25 additional jobs in the surrounding community,[9] lost refinery jobs are likely to trigger tens of thousands of additional, indirect job losses. It is no exaggeration to say that a decision to close a refinery can often be the difference between a vibrant and distressed local economy. Given the heavy losses experienced by independent refiners in recent years that led to these recent lay-offs and closures, a decision by the EPA to increase RFS compliance costs by setting an unobtainable conventional renewable fuel mandate will needlessly and painfully exacerbate these headwinds and lead to further lay-offs.

Further, the jobs that will be lost are good, union jobs, which, as one refinery worker explains, are often "one of the higher-paying jobs in the area [for workers] with just a high school

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[5] Jennifer A. Dlouhy & Kim Chipman, *Biden Eases Biofuel Quota Blow to Farmers With Future Growth*, BLOOMBERG GREEN (last updated Dec. 7, 2021 5:48 PM EST), https://www.bloomberg.com/news/articles/2021-12-07/biden-slashes-biofuel-targets-in-blow-to-agriculture-industry.

[6] NPRM, *supra* note 1, at 72,438.

[7] PBF ENERGY, INC., *Re: Notice of Receipt of Petitions for a Waiver of the 2019 and 2020 Renewable Fuel Standards; Docket ID No. EPA-HQ-OAR-2020-0322; FRL-10011-04-OAR*, at 2 (Feb. 18, 2021), https://downloads.regulations.gov/EPA-HQ-OAR-2020-0322-0568/attachment_1.pdf ("PBF 2021 Comments").

[8] *See, e.g.,* Rob Masson, *Belle Chase refinery closure a huge economic blow; over 800 lost jobs*, KALB (Nov. 10, 2021 6:16 PM EST), https://www.kalb.com/2021/11/10/belle-chase-refinery-closure-huge-economic-blow-over-800-lost-jobs/ (estimating refinery closure will result in at least 850 direct job losses).

[9] PBF ENERGY, INC., *supra* note 7.

diploma."[10] The EPA did not sufficiently take these impacts on refinery workers into account when issuing the proposed 2022 RVOs and these issues must be reconsidered and corrected in this rulemaking.

There are other compelling grounds for the EPA to lower the conventional renewable fuel mandate for 2022 as well. First, the Agency itself acknowledges that its proposed RVO will result in higher gas and food prices for consumers. Although it characterizes these increases as "relatively modest,"[11] those price increases will occur in the context of market-wide inflation.[12] The EPA therefore risks contributing to a so-called "wage-price spiral" by proposing an excessive conventional renewable fuel mandate.[13] Second, the proposed conventional renewable fuel mandate will increase U.S. reliance on imported biofuels, which are typically subject to far less environmental regulation than domestically produced biofuels. Moreover, for a host of reasons, America needs greater energy independence, not less.[14]

Finally, as shown below, the EPA's Draft Regulatory Impact Analysis is overly optimistic regarding the environmental benefits of the conventional renewable fuel mandate while consistently dismissing adverse impacts of the policy as too complicated to measure or beyond the scope of this rulemaking. A more balanced assessment of the environmental benefits of the conventional renewable fuel mandate suggests those benefits are negligible at best. For these reasons, we submit it would be arbitrary and capricious for the EPA to propose a rule that will threaten thousands of good middle-class jobs, create more fuel for inflation, and curtail energy independence without producing meaningful environmental benefits.[15]

Given these factors, the EPA should revise its proposed rule by increasing the 2022 mandate for non-cellulosic advanced biofuels by 1.2 billion gallons. As demonstrated below, readjusting the mandate to this level will allow the EPA to maintain the same Total Renewable Fuel obligation for 2022 while also bringing the conventional renewable fuel mandate down to an achievable level, thus stabilizing the market for RINs and alleviating the disproportionate impact on refineries without their own blending operations. Alternatively, or in addition to this change, the Agency should strongly consider resuming its practice of granting small refinery hardship exemptions ("SREs").

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[10] Laila Kearney & Stephanie Kelly, *Laid-off Philadelphia refinery workers struggle with shrinking sector*, REUTERS (Jan. 22, 2020 11:37 AM), https://www.reuters.com/article/us-pes-bankruptcy-workers/laid-off-philadelphia-refinery-workers-struggle-with-shrinking-sector-idUSKBN1ZL2DA.

[11] U.S. ENV'T PROT. AGENCY, EPA-420-D-21-002, DRAFT REGULATORY IMPACT ANALYSIS: RFS ANNUAL RULES, at 212 (2021) ("DRIA").

[12] Jeff Cox, *Inflation rises 7% over the past year, highest since 1982*, CNBC (Jan. 12, 2022 8:31 AM EST), https://www.cnbc.com/2022/01/12/cpi-december-2021-.html.

[13] *See* Naomi Ludlow, *Wages are rising, but so are consumer prices. Is this a wage-price spiral?*, USA TODAY (Nov. 11, 2021), https://www.usatoday.com/story/money/personalfinance/2021/11/11/wage-price-spiral-possible-inflation-consumer-price-index-rise/6390947001/ (explaining concept of wage-price spiral).

[14] NPRM, *supra* note 1, at 72,448.

[15] *See Business Roundtable v. Secs. & Exch. Comm'n*, 647 F.3d 1144 (D.C. Cir. 2011) (holding an agency rulemaking was arbitrary and capricious when it failed to consider adverse impacts and did not substantiate the rule's supposed benefits).

III. The Proposed 2022 Blending Mandate is Unrealistic and Unobtainable

The EPA's proposal in this rulemaking that obligated parties blend 15 billion gallons of "conventional renewable fuel" in 2022 is unrealistic and unobtainable. Although the EPA does not directly establish a blending mandate for conventional renewable fuels under the RFS, an "implied" mandate for conventional renewable fuels results from the difference between the Total Renewable Fuel obligation the EPA establishes and the RVO it sets for advanced biofuels. Because the EPA is proposing a Total Renewable Fuel obligation of 36 billion gallons and an advanced biofuels mandate of 21 billion gallons, the resulting, implied mandate for conventional renewable fuels is 15 billion gallons.[16] The "vast majority" of conventional renewable fuel that is used for purposes of RFS compliance is ethanol derived from corn crops.[17]

The principal reason the EPA's proposed conventional renewable fuel mandate for 2022 is unobtainable is because of a concept known as the "E10 blendwall." Nearly all gasoline produced in America consists of about 10% ethanol and is therefore referred to as "E10" gasoline. The high octane content of ethanol means this level of blending is generally economical even in the absence of the market incentives created by the RFS.[18] However, EPA's data shows that the total amount of ethanol blended into gasoline in the U.S. has essentially remained flat at 10% of the total volume of gasoline consumed in the U.S. since about 2013.[19] This phenomenon is known as the "E10 blendwall," and it reflects the fundamental market reality that there is both little demand from consumers for fuels with higher concentrations of ethanol and scant infrastructure in place to distribute such fuels. In other words, the market is essentially incapable of blending an amount of corn ethanol into gasoline that exceeds 10% of total gasoline consumption.

There is nothing in the Agency's proposal suggesting it expects these fundamental constraints on ethanol blending above the E10 level to change over the next year. The EPA is projecting in 2022 that Americans will consume 136.8 billion gallons of gasoline and about 13.8 billion gallons of corn ethanol, *i.e.,* roughly 10% of the total amount of gas consumed.[20] On the demand side, this E10 blendwall partly results from the fact there are few vehicles in use that are approved for use with the highly concentrated E85 blend. For example, EPA estimates that use of "flex fuel vehicles" capable of using the E85 blend peaked in 2018 at 8.9% of the in-use car fleet and will continue to decline.[21]

On the supply side, only 2.7% of gasoline retail stations are equipped to distribute the E85 blend, and the "vast majority" of retail stations are similarly not compatible or not confirmed to be compatible with the only slightly more concentrated E15 blend.[22] In summary, there is extremely little market demand for gasoline blends containing more than 10% ethanol and a resulting dearth

[16] *Id.* at 72,451 n.83.

[17] *Id.* at 72,447.

[18] *See* NPRM, *supra* note 1, at 72,447.

[19] DRIA, *supra* note 11, at 22.

[20] *Id.* at 185; NPRM, *supra* note 1, at 72,447 n.68.

[21] DRIA, *supra* note 11, at 192.

[22] *Id.* at 193-95.

of infrastructure in place to distribute such blends. EPA's projection regarding the amount of corn ethanol that will be consumed in 2022 and acknowledgement that the "RFS program has had limited success in helping to increase the use of higher ethanol blends"[23] confirms fundamental market constraints on greater levels of blending.

Despite this impracticability of blending corn ethanol into gasoline at levels above the E10 blendwall, the EPA is proposing to mandate 15 billions of conventional renewable fuel blending in 2022—despite the Agency's own data showing this is over 1 billion gallons more corn ethanol than Americans will consume this year.[24] The EPA acknowledges this is significantly higher than the conventional renewable fuel mandate for 2020 and 2021 and that the market has never actually achieved this level of blending in any calendar year.[25]

The EPA defends its proposed conventional renewable fuel mandate for 2022, in part, by citing the statutory blending mandate Congress established for 2022 when it enacted the Energy Independence and Security Act (EISA) in 2007. This statutory mandate would also require the blending of 15 billion gallons of conventional renewable fuel this year. The Agency suggests the equivalence between its proposed mandate and the statutory target indicates its proposal is consistent with Congressional intent.[26] That suggestion, however, reflects a misunderstanding of what Congress was doing when it established the statutory blending targets under the RFS.

When Congress established those statutory blending targets, it did so at a time when the federal government was projecting that demand for gasoline would rise indefinitely and would reach 150 billion gallons by 2022.[27] In other words, the "statutory" conventional renewable fuel mandate Congress set for 2022 is equal to exactly 10% of the amount of gasoline Americans were projected to consume this year. The statutory target was therefore intended to be entirely consistent with the E10 blendwall and does not show that Congress ever intended for the Agency to set a blending mandate for conventional renewable fuels that exceeds this blendwall, as proposed in this rulemaking.

In short, it is arbitrary and capricious for the EPA to use its "reset" authority under the RFS to establish a conventional renewable fuel blending mandate that is unrealistic and unobtainable. Mandating levels of blending above the E10 blendwall is not only inconsistent with Congressional intent, it also fails to recognize inherent market constraints on greater levels of blending described above.

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[23] NPRM, *supra* note 1, at 72,447.

[24] *Id.* at 72,447 n.68; DRIA, *supra* note 11, at 185.

[25] NPRM, *supra* note 1, at 72,439, 72,447.

[26] *See id.* at 72,451 ("We note that this approach of maintaining the statutory implied conventional and non-cellulosic advanced biofuel volumes is inherently consistent with the volumes Congress itself established in EISA.").

[27] AM. FUEL & PETROCHEMICAL MFRS., *Comment of the American Fuel & Petrochemical Manufacturers on the Environmental Protection Agency's Notice of Proposed Rulemaking, '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,' Docket No. EPA-HQ-OAR-2019-0136-0021*, at 4, 6 (Aug. 30, 2019), available at https://downloads.regulations.gov/EPA-HQ-OAR-2019-0136-0299/attachment_1.pdf ("AFPM 2020 Comments").

Moreover, as it must, the Agency fully acknowledges its unobtainable mandate will do nothing to affect these fundamental constraints on greater levels of blending and that the market will fail to achieve its proposed 2022 RVO.[28] There is simply no logical reason to believe that increasing the regulatory burden placed on refineries will incentivize American consumers to demand more highly concentrated ethanol blends or retail stations to invest in the infrastructure necessary to distribute such blends. Rather than creating those incentives, the EPA's proposed 2022 RVO will instead result in severe economic hardship for refinery workers and negative economic impacts for the American public at large, as discussed in the following sections.

IV. The 2022 Target Threatens Good Jobs and Harms Small, Independent Refiners

The EPA's proposed 2022 RVO for conventional renewable fuels, which is unrealistic for the reasons discussed in the previous section, will threaten thousands of good, union jobs by disproportionately burdening the small and independent refiners that do not blend ethanol into petroleum themselves. This is because those small and independent refiners must purchase RINs on the open market to demonstrate RFS compliance, and the unobtainable nature of the proposed conventional renewable fuel mandate will send that market for RINs into a tailspin, as occurred after the demand shocks of 2020.[29] If those refiners choose to slow or halt production as a means of reducing their cost of RFS compliance, the consequences will be disastrous for the hardworking union members employed at those refineries, their families, and the surrounding communities.

Small, independent refiners and larger, integrated refiners have typically adopted different strategies of RFS compliance. Where possible, the blending of corn ethanol into petroleum occurs close to the final point of distribution to consumers, in part because ethanol products are generally unsuitable for transport by existing pipelines.[30] As a result, many small and independent refiners do not assume responsibility for blending ethanol themselves. Instead, they produce an intermediate blend known as a "BOB" (blendstock for oxygenate blending), which is then transported to independent blenders, who add ethanol to the BOB to make the final gasoline product.[31] Because these refiners do not assume responsibility for blending themselves, they must purchase RINs on the open market to demonstrate compliance with the RFS. By contrast, the companies that own and operate larger and integrated refineries are typically able to arrange for blending themselves, and thus can self-generate RINs used for RFS compliance.

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[28] NPRM, *supra* note 1, at 72,447, 72,451 (projecting market will fail to blend 15 billion gallons of conventional renewable fuel in 2022).

[29] *See Ethanol, biomass-based diesel RIN prices approaching all-time highs*, OIL & GAS J., Feb. 24, 2021, https://www.ogj.com/general-interest/economics-markets/article/14198250/ethanol-biomassbased-diesel-rin-prices-approaching-alltime-highs.

[30] *See* U.S. DEP'T OF ENERGY, ALT. FUELS DATA CTR., *Ethanol Production and Distribution* (last visited Jan. 19, 2022), https://afdc.energy.gov/fuels/ethanol_production.html.

[31] AFPM 2020 Comments, *supra* note 27, at 5; SRC 2020 Comments, *supra* note 4, at 1.

Consequently, those integrated refiners do not need to rely on purchasing RINs on the open market, or at least do not need to rely on that market to the same extent as smaller refiners.[32] EPA actions that distort the market for RINs can therefore be expected to disproportionately impact the small and independent refineries that rely on the open market for compliance.

When the EPA sets a conventional renewable fuel mandate that is unobtainable, the price of RINs becomes increasingly volatile and generally increases.[33] These market dynamics were clearly demonstrated in 2020, when the price of RINs skyrocketed in response to the collapse in demand for gasoline at the beginning of the COVID-19 pandemic, which threatened the ability of obligated parties to meet their original 2020 volume obligations. These price dynamics are causing some small refineries to report they are currently spending more on RIN purchases for RFS compliance than they are spending on the entirety of their operational costs.[34] By comparison, RFS compliance costs for large, integrated refiners that self-generate RINs "may be essentially zero."[35]

The EPA acknowledges the above dynamics occurring in the RIN market and the disproportionate impact they have on small and independent refiners but claims there is no problem because refiners will ultimately pass on the costs of RFS compliance to consumers.[36] However, this position is contradicted by an earlier study prepared by the Department of Energy assessing the cost of RFS compliance for obligated parties.[37] That study found smaller refiners, by their very nature, have less market power than larger refiners, and thus less influence on the overall price of gasoline.[38]

In addition, this study found that "[t]he cost for small refiners to comply with the RFS2 requirements can be substantial," while the corresponding costs for a large refiner "may be essentially zero" because of the increased number of options at the large refiner's disposal.[39] The study concluded by finding that over a dozen small refineries were, in fact, disproportionately impacted by the RFS program.[40] EPA's proposed 2022 RVO for conventional renewable fuel inappropriately and inequitably disregards this disproportionate impact of the proposal on small and independent refiners.

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[32] *See* DOE 2011 Study, *supra* note 2, at 23.

[33] *Id.* at 3; AFPM 2020 Comments, *supra* note 27, at 8.

[34] Dlouhy & Chipman, *supra* note 5.

[35] DOE 2011 study, *supra* note 2, at 3.

[36] NPRM, *supra* note 1, at 72,463.

[37] DOE 2011 Study, *supra* note 2.

[38] *Id.* at 22-23.

[39] *Id.* at 3, 23.

[40] *Id.* at 37.

The issues in the market for RINs discussed above are further exacerbated by the fact that the bank of "carryover" RINs available for purchase was substantially depleted by the EPA's 2019 RVO and will likely be reduced further by the proposed 2022 RVO. This essentially means that the supply of carryover RINs is falling at the same that the demand for such RINs—spurred by the Agency's unobtainable conventional renewable fuel mandate—will increase. This dynamic will add only further fuel to the volatility of the RIN market in 2022 under the EPA's current proposal.

The EPA recognizes that "[a] bank of carryover RINs is extremely important in providing a liquid and well-functioning RIN market *upon which success of the entire program depends*."[41] The EPA therefore acknowledges it would "not be appropriate" to propose a 2022 RVO that would "intentionally reduce the size of the carryover RIN bank."[42] Nevertheless, that is ***exactly*** what the EPA has done here by mandating an unobtainable conventional renewable fuel target. Obligated parties will obviously rely on the bank of carryover RINs from prior years to establish RFS compliance when it is impossible to generate enough RINs to comply with the Agency's blending mandates. That is precisely what occurred in 2019, when EPA similarly implemented an unobtainable conventional renewable fuel mandate which the Agency now estimates resulted in a drawdown of the carryover RIN bank by over 50%.[43]

The EPA even acknowledges in this rulemaking that a further drawdown of the RIN bank will occur if the "projected growth in renewable fuel volumes do not materialize."[44] Growth in volumes of conventional renewable fuel will not materialize because of the fundamental constraints imposed by the E10 blendwall discussed in the previous section. Therefore, following the Agency's own logic, a further drawdown in the carryover RIN bank *will* occur in 2022—despite EPA's acknowledgement this is an unacceptable result. That drawdown will lead to a further deterioration of the market for RINs and further threaten the ability of refiners without their own blending operations to comply with the proposed 2022 RVO.

Although "small" in comparison to large, integrated operations, independent refiners are still hugely important economic engines for the communities in which they are located and support thousands of jobs each. For example, First Energy's Toledo Refinery directly and indirectly contributes $5.2 billion annually to the Northwest Ohio economy, while PBF Energy's Delaware City refinery generates nearly $400 million in direct economic value for the state of Delaware.[45] These estimates are consistent with modeling published by the federal government, which shows that even a very small refinery producing only 30,000 barrels per day directly and indirectly

[41] NPRM, *supra* note 1, at 72,454 (emphasis added).

[42] *Id.*

[43] *Id.* at 72,449.

[44] *Id.* at 72,455.

[45] PBF ENERGY, INC., *supra* note 7, at 3.

supports nearly 3,000 full-time jobs associated with refinery operations.[46] The refining industry is heavily unionized, and the average hourly wage for non-supervisory workers in the industry approaches $40/hour.[47]

Simply put, these figures show that independent refineries are a valuable source of good-paying, middle-class, union jobs—the exact types of jobs that are badly needed in today's economy and which President Biden has promised to fight for. Because the cost of a refinery's RFS compliance depends on that refinery's output, it is likely that some independent refineries will choose to slow—or even halt—production and lay-off these refinery workers in response to the severe and disproportionate economic impact resulting from the proposed 2022 RVO. Those decisions will have disastrous implications for both the workers in those facilities and their families, as well as businesses in the surrounding communities that depend on the spending of those refinery workers.

The EPA should revise its proposed 2022 RVOs because of this disproportionate impact its proposal will have on small and independent refineries without their own blending operations and the correspondingly severe and negative impact on refinery workers that will result. The EPA is required by law to consider this impact on refinery jobs when it exercises its "reset" authority under the RFS, which the Agency proposes to do here.[48] Because this disproportionate impact directly results from the unobtainable nature of the proposed conventional renewable fuel mandate, the EPA should revise its 2022 RVO by increasing the non-cellulosic advanced biofuels mandate by about 1.2 billion gallons, which will result in a reduction by the same amount of the mandate for conventional renewable fuels.

V. The Unobtainable 2022 Target Will Drive Higher Food and Gas Prices and Exacerbate Inflationary Trends

In addition to the impact on refinery jobs described in the previous section, another compelling reason for the EPA to modify its proposed 2022 RVOs is the admittedly inflationary impact of the current proposal on the prices consumers pay for food and gasoline. Although the Agency characterizes the price increases that will result from its proposed RVOs as "relatively modest,"[49] those increases must be evaluated within the context of ongoing, market-wide inflation. Because an unobtainable conventional renewable fuel mandate will drive up RFS compliance cost due to the impact of the mandate on the price of RINs, the EPA can reduce the costs that are passed through to consumers because of the RFS by lowering the proposed 2022 conventional renewable fuel mandate.

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[46] NAT'L RENEWABLE ENERGY LAB., NREL/SR-6A20-60657, PETROLEUM REFINERY JOBS AND ECONOMIC DEVELOPMENT IMPACT (JEDI) MODEL USER REFERENCE GUIDE, at 8 (Dec. 2013), available at https://www.nrel.gov/docs/fy14osti/60657.pdf.

[47] U.S. DEP'T OF LABOR, BUREAU OF LABOR STATISTICS, *Petroleum and Coal Products Manufacturing: NAICS 324* (last visited Jan. 3, 2022), https://www.bls.gov/iag/tgs/iag324.htm.

[48] NPRM, *supra* note 1, at 72,438.

[49] DRIA, *supra* note 11, at 212.

The Agency acknowledges its proposed 2022 RVOs will cause the price of fuel, corn, soybean oil, and soybean meal to rise.[50] In total, it estimates consumers will spend over $4.3 billion more on food products in 2022 because of its proposed volumes than they otherwise would.[51] However, there are good reasons to believe the EPA underestimated the amount of these price impacts resulting from its proposal. Independent analysis suggests, for example, that the Agency relied on outdated data when making these estimates that ignored a "bidding war between biofuel producers and food producers" for soybean oil, leading the EPA to assume soybean oil prices that are up to 91% lower than actual market prices and, consequently, underestimate the inflationary impact of its proposed RVOs.[52] These rising food and fuel prices disproportionately impact lower-income individuals, who spend a larger share of their income on those products.[53] The EPA is required by law to consider this impact on food prices and the supply of agricultural commodities when exercising its "reset" authority under the RFS, which the Agency proposes to do here.[54]

Moreover, while the Agency does acknowledge its proposed 2022 RVOs will cause consumer prices to rise, it crucially fails to place those anticipated price increases in the greater market context. The Consumer Price Index, a commonly used gauge of inflation, rose by 7% in December 2021—the fastest annual pace of inflation measured by that Index since 1982.[55] In an inflationary environment, price increases can lead to a cascading effect as workers demand wage increases to compensate for rising prices at the grocery store and gas pump, which, in turn, can drive the prices of those goods even higher. This phenomenon is sometimes referred to as a "wage-price spiral."[56] These inflationary concerns are particularly relevant here given that demand for food is "very inelastic" (for obvious reasons), meaning consumers are unlikely to change their consumption patterns in response to price signals.[57] The EPA thus risks contributing to a wage-price spiral by setting an unobtainable renewable fuel mandate, and it is inappropriate for the Agency to estimate the price increases associated with its proposal in a vacuum that does not take this market-wide inflation into account.

Because of the ongoing, market-wide inflation described above, the EPA should be particularly cautious about proposing RVOs that will lead to rapidly escalating RFS compliance costs. Given that the Agency assumes those compliance costs will be passed through to consumers,[58] a rapid escalation of those costs will be a potent and accelerating fuel for the

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[50] *Id.* at 212-14; NPRM, *supra* note 1, at 72,441 ("[R]eplacing petroleum fuels with renewable fuels is projected to cause small increases in food and fuel prices…").

[51] DRIA, *supra* note 11, at 214.

[52] Jay Sjerven, *US EPA mandates spark food versus fuel debate*, WORLD GRAIN (Dec. 10, 2021), https://www.world-grain.com/articles/16217-us-epa-mandates-spark-food-versus-fuel-debate.

[53] DRIA, *supra* note 11, at 225.

[54] NPRM, *supra* note 1, at 72,438.

[55] Cox, *supra* note 12.

[56] Ludlow, *supra* note 13.

[57] DRIA, *supra* note 11, at 213.

[58] *See* NPRM, *supra* note 1, at 72,463 ("[O]ur assessment indicates that small refineries fully recover the costs of RFS compliance through higher prices on sales of gasoline and diesel…").

inflationary forces currently impacting the market. The EPA should therefore modify its proposed 2022 RVOs to lower the conventional renewable fuel mandate and reduce the likelihood that its proposed volumes will have this undesirable effect.

VI. The Proposed 2022 Target Will Increase Reliance on Foreign Energy

The proposed 2022 RVOs will increase America's reliance on foreign energy, as shown by the EPA's projection that obligated parties will need to rely on imported biodiesel to satisfy the conventional renewable fuel mandate. This projection is due, in part, to the fundamental constraints on domestic consumption and blending imposed by the E10 blendwall.[59] However, importing foreign biodiesel to satisfy RFS mandates is problematic for several reasons, including the implications for domestic energy security and the negative environmental benefit associated with this practice.

Substituting petroleum-based gasoline with domestically produced conventional renewable fuels is typically associated with a 20% reduction in GHGs at the point of use.[60] When the Agency proposes a conventional renewable fuel mandate that ignores the market constraints imposed by the E10 blendwall, however, it anticipates that obligated parties will need to rely on imported volumes of biodiesel to make up the resulting compliance gap. The Agency acknowledges that much of this imported fuel may be sourced from "grandfathered facilities that may not achieve the desired GHG reductions," *i.e.*, that use of this imported biodiesel is not associated with the same 20% reduction in GHGs achieved by domestically produced conventional renewable fuels.[61]

Moreover, the EPA estimates that setting a 2022 RVO that incentivizes obligated parties to import foreign biodiesel for compliance purposes will result in "additional foreign land being converted to cropland for the production of palm oil," which leads to "adverse wildlife impacts" and GHG emissions associated with "international land use changes."[62] In other words, imported biodiesel is often associated with minimal reductions in GHG emissions, yet increased production of that biodiesel results in significant environmental damage in the countries where it is produced. One report suggests, for example, that use of biodiesel derived from palm oil results in 800% more carbon emissions than fossil-fuel diesel, because tropical rainforests—"the planet's single most valuable mechanism of carbon capture"—must be cleared in order to grow that crop.[63]

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[59] *See id.* at 72,447-48.

[60] *Id.* at 72,447.

[61] *Id.* at 72,448.

[62] *Id*.

[63] Mario Loyola, *Stop the Ethanol Madness*, THE ATLANTIC (Nov. 23, 2019), https://www.theatlantic.com/ideas/archive/2019/11/ethanol-has-forsaken-us/602191/.

In addition to these environmental considerations, increased reliance on foreign biodiesel will have negative consequences for both our domestic energy independence and national security. The EPA admittedly failed to consider the impacts of increased imports of foreign diesel on domestic energy security when issuing the current proposal, explaining it did "not separately assess the energy security implications of renewable volumes which are expected to be imported."[64] It is arbitrary for the EPA to propose a 2022 RVO that will result in increased imports of foreign diesel—which are associated with minimal environmental benefits at best—without considering the impact of those imports on domestic energy security.[65]

Incentivizing the foreign production of biofuels is not one of the purposes of the RFS, and it is contrary to statutory intent for the jobs of hardworking American refinery workers to be sacrificed for that end.[66] The EPA should therefore lower the proposed conventional 2022 renewable fuel mandate to an achievable level at or below the E10 blendwall to ensure the RFS does not promote foreign production at the expense of American workers.

VII. Increased Production of Corn Ethanol Will Lead to Negligible Environmental Benefits

It is arbitrary and capricious for the EPA to propose a conventional renewable fuel mandate for 2022 that is greater than the limit imposed by the E10 blendwall and will result in the economic harms discussed in the previous sections (*i.e.,* a devastating loss of jobs and income for American refinery workers, further fuel for the ongoing market-wide inflation, and a loss of energy security and independence) when the environmental benefits associated with setting this mandate above the blendwall are likely to be negligible.[67] The very modest GHG reductions that are achieved by substituting petroleum-based gasoline with gasoline blended with corn ethanol must be weighed against the collapse of ecological systems the RFS program precipitates in regions where significant amounts of land is devoted to growing corn for RFS compliance. The EPA has arguably failed to even attempt such a balancing in this rulemaking, as shown below.

Although substituting petroleum-based gasoline with conventional renewable fuels is typically associated with a 20% reduction in GHGs at the point of use, research considering the full production processes of these types of fuels shows that the production of corn-based ethanol results in more pollution than the production of petroleum-based gasoline.[68] Moreover, ethanol blends are also associated with greater evaporative emissions than petroleum-based gasoline,

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[64] DRIA, *supra* note 11, at 144 n.416.

[65] *See Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (holding an agency rule is arbitrary and capricious if it "entirely fail[s] to consider an important aspect of the problem").

[66] *See* 42 U.S.C. § 7545(o)(2)(B)(ii)(VI) (providing the EPA must consider the "impact of the use of renewable fuels" on "job creation" when exercising its reset authority under the RFS).

[67] *See Motor Vehicle Mfrs. Ass'n of the U.S., Inc.*, 463 U.S. at 43; *Business Roundtable*, 647 F.3d at 263-64.

[68] Loyola, *supra* note 63.

which contribute to the formation of harmful, ground-level ozone and smog.[69] It is therefore inaccurate and overly simplistic to assume that use of corn ethanol is 20% "cleaner" than traditional, petroleum-based gasoline; the true reduction in GHGs, considering the full production cycle of these fuels, is likely much lower. The U.S. Energy Information Administration acknowledges that whether use of corn-based ethanol is associated with a reduction in GHG emissions is ultimately uncertain and contingent on many factors relating to the ethanol production process.[70]

This exceptionally modest reduction in GHG emissions associated with the use of corn ethanol must be weighed against the significant environmental damage caused by the increase in land devoted to growing corn, particularly in the Midwest. The EPA admits that increasing the amount of land dedicated to growing corn for purposes of RFS compliance results in a loss of wetlands, "adverse impacts on ecosystems and wildlife habitat," and "negative impacts on water quality and supply."[71] For example, the Agency finds in its Draft Regulatory Impact Analysis that grassland wildlife species are at risk from increased corn production, including grassland bird species that are "species of conservation concern."[72]
This is consistent with independent research concluding that declines in both species diversity and species abundance are attributable to the RFS.[73]

The impacts of increased corn production on water quality and supply are potentially even more concerning. The EPA acknowledges that increasing the land area devoted to growing corn is likely to result in increased pesticide usage and nutrient run-off.[74] Pesticide and nutrient run-off is associated with algal blooms and hypoxia in downstream waters and is cited by the Agency as a "leading cause of impairment of freshwater and coastal ecosystems."[75]

Most corn grown in the U.S. is planted in the Midwest, with Iowa and Illinois alone typically accounting for about a third of U.S.-grown corn.[76] It comes as no surprise, then, that rivers and streams designated by the EPA as having "poor" water quality because of excess nutrients are most prevalent in the Midwest. The Midwest and Great Lakes regions have also

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[69] U.S. ENERGY INFO. ADMIN., *Biofuels explained: Ethanol and the environment* (last updated Dec. 2, 2021), https://www.eia.gov/energyexplained/biofuels/ethanol-and-the-environment.php.

[70] *Id.* ("The effect that increased ethanol use has on net CO_2 emissions depends on how ethanol is made and whether or not indirect impacts on land use are included in the calculations.").

[71] NPRM, *supra* note 1, at 72,447.

[72] DRIA, *supra* note 11, at 96-97.

[73] Arthur R. Wardle, *A Review of the Environmental Effects of the Renewable Fuel Standard's Corn Ethanol Mandate*, UTAH STATE UNIV., CTR. FOR GROWTH & OPPORTUNITY, at 4 (Sep. 2018), https://www.thecgo.org/wp-content/uploads/2020/10/A-Review-of-the-Environmental-Effects-of-the-Renewable-Fuel-Standards-Corn-Ethanol-Mandate-1.pdf.

[74] DRIA, *supra* note 11, at 101-02.

[75] *Id.* at 107-08.

[76] U.S. DEP'T OF AGRIC., ECON. RSCH. SERV., *Feedgrains Sector at a Glance* (last updated June 28, 2021), https://www.ers.usda.gov/topics/crops/corn-and-other-feedgrains/feedgrains-sector-at-a-glance/.

experienced the most rapid decline in the number of fish species in recent years, with several watersheds losing 20 or more species. Finally, the EPA also recognizes that groundwater in certain areas where a significant amount of land is devoted to growing corn is already over-pumped.[77] These negative impacts on water quality associated with increased corn ethanol production disproportionately impact indigenous and other environmental justice communities that rely on freshwater fish for sustenance and income.[78]

The Agency is also overly optimistic in adopting a timeframe over which to measure the environmental benefits of its proposed 2022 mandate for conventional renewable fuels. While admitting that use of corn ethanol may result in greater GHG emissions than petroleum-based fuel in the short-term, the EPA suggests this initial "pulse" of emissions associated with the production of corn ethanol is made up by the lower emissions associated with burning ethanol over a 30-year timeframe.[79]

The use of a 30-year timeframe for measuring this emissions impact, however, is incredibly dubious, particularly in light of the modeling assumption that "in each of the ensuing 29 years, aggregate renewable fuel consumption for each category [will exceed] baseline levels."[80] The EPA is elsewhere taking steps to increase the adoption of electric cars,[81] and the current administration has set a target that 50% of passenger cars sold in 2030 should be electric.[82] A 30-year timeframe for measuring the emissions impact of corn ethanol production is therefore overly optimistic and inappropriate, because a majority of the in-use car fleet may be electric by that time, severely limiting the market for conventional renewable fuels. It seems impossible to reconcile the Agency's assumption in this rulemaking regarding future renewable fuel consumption and the steps it is taking elsewhere to accelerate the transition to electric vehicles.

Thus, when proposing a conventional renewable fuel mandate under the RFS, the EPA must weigh the modest reduction in GHGs achieved by conventional renewable fuels at the point of use against the significant environmental damage caused by converting land for corn growing and the significant GHG emissions associated with corn ethanol production. However, rather than engage in a serious effort to balance these considerations, the EPA has essentially thrown up its hands when confronted with these adverse environmental impacts.

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[77] DRIA, *supra* note 11, at 109, 117.

[78] *Id.* at 224.

[79] *Id.* at 73-76.

[80] *Id.* at 73.

[81] Carrie Jenks & Hana Vizcarra, *EPA's Clean Cars Standards: Solid First Step Toward Electrification* (Aug. 12, 2021), https://eelp.law.harvard.edu/2021/08/epas-cars-rule-a-durable-framework-for-vehicle-ghg-emissions-reduction-and-building-toward-an-ev-future/.

[82] THE WHITE HOUSE, *FACT SHEET: President Biden Announces Steps to Drive American Leadership Forward on Clean Cars and Trucks* (Aug. 5, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/05/fact-sheet-president-biden-announces-steps-to-drive-american-leadership-forward-on-clean-cars-and-trucks/.

On no less than *seven* occasions in the "Environmental Impacts" chapter of the Draft Regulatory Impact Analysis accompanying this rulemaking, the EPA suggests that a full consideration of the adverse environmental impacts associated with corn ethanol either "[cannot] be performed on the timeline of this rulemaking," requires further research, or cannot be measured "with any degree of confidence."[83] Perhaps the Agency's failure to balance these considerations is less the result of its abilities and capacity, but instead a lack of willingness to truly grapple with the adverse environmental impacts of its corn ethanol policies. Either way, the first factor the EPA is required by law to consider when exercising its "reset" authority under the RFS is:

> [T]he impact of the production and use of renewable fuels on the environment, including on air quality, climate change, *conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply*[.]

42 U.S.C. § 7545(o)(2)(B)(ii)(I) (emphasis added). It is arbitrary and capricious for the Agency to propose a conventional renewable fuel mandate for 2022 that will result in the economic harms detailed in the previous sections when the Agency is apparently unable, based on its own Draft Regulatory Impact Analysis, to state with any degree of certainty whether that mandate will have any beneficial environmental impact in the aggregate.[84]

VIII. To Limit the Proposed Standard's Negative Impact, the EPA Should Increase the Non-Cellulosic Advanced Biofuels Mandate

To mitigate the serious economic pains discussed above, which will result from the EPA's current proposal, the UA submits that the proposed 2022 RVOs should be modified by increasing the non-cellulosic advanced biofuels mandate by 1.2 billion gallons. That change will result in a reduction of the conventional renewable fuels mandate by the same amount, thus bringing the conventional renewable fuels mandate in line with the fundamental market constraints imposed by the E10 blendwall. Consequently, this modification will save the jobs of American refinery workers, prevent the market for carryover RINs from further deteriorating, and mitigate the inflationary impacts of the EPA's proposal.

Moreover, unlike the proposed conventional renewable fuels mandate, there is no reason to believe the market will not be able to achieve greater levels of blending of non-cellulosic advanced biofuels in 2022. To the contrary, the Agency projects that "[h]igh domestic production capacity and availability of imports" may lead to *greater* blending of advanced biofuels than required by its 2022 proposal.[85] The EPA also anticipates "significant growth in the use of

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[83] DRIA, *supra* note 11, at 60 ("More research is needed on these impacts."); 67-68 ("At this time, we are unable to perform such extensive modeling of the GHG effects of the proposed volumes."); 91 ("[S]uch analysis would be expansive and could not be performed on the timeline of this rulemaking."); 92 ("[S]uch an analysis would be expansive and could not be conducted in time to be included in this rulemaking."); 98 ("[I]t is not possible to confidently estimate the fraction of wildlife habitat loss…attributable to biofuel production or use."); 112 ("A full comparison between the effects of the two fuel types…would be expansive and could not be performed on the timeline of this rulemaking."); 114 ("[T]he potential cumulative impacts of future land use changes…would be expansive and could not be performed on the timeline of this rulemaking.").

[84] *See id.*; *Motor Vehicle Mfrs. Ass'n of the U.S., Inc.*, 463 U.S. at 43; *Business Roundtable*, 647 F.3d at 263-64.

[85] NPRM, *supra* note 1, at 72,446.

noncellulosic advanced biofuels."[86] The change proposed here would therefore essentially align the RFS with these market realities: both the constraints on conventional renewable fuel imposed by the blendwall and the potential for growth in the blending of non-cellulosic advanced biofuels. According to the EPA, this proposed increase to the non-cellulosic advanced biofuels mandate would also likely result in "energy security benefits, increase[d] domestic employment in the biofuels industry, and increase[d] income for biofuel feedstock producers."[87]

If the EPA is unwilling to lower the conventional renewable fuels mandate by increasing the non-cellulosic advanced biofuels mandate, the Agency should alternatively strongly consider resuming its practice of granting SREs to the small and independent refiners that will be disproportionately impacted by its proposed volumes. Although resuming this practice would not fully address some of the fundamental issues underlying the current RFS discussed in these comments—such as the environmental damage caused by increased corn production and a deteriorating market for RINs for those who do not receive an SRE—it would nevertheless alleviate the potentially severe consequences of the current proposal for the skilled and hardworking refinery workers at facilities that are granted an SRE. In this regard, the UA urges the EPA to review the Supreme Court's recent decision in *HollyFrontier Cheyenne Refining, LLC v. Renewable Fuels Assoc.,*[88] in which a majority of the Court strongly affirmed the EPA's authority to issue SREs under the RFS, as well as the study previously prepared by the Department of Energy on the issue of SREs, which found that small and independent refineries are, in fact, disproportionately impacted by conventional renewable fuel mandates.[89] That study casts serious doubt on the EPA's current position that small refiners can fully pass through the cost of RFS compliance to consumers in exactly the same manner as large refiners.[90] This position ignores the large differences in market power between these types of entities, which directly affects their ability to influence the price of gasoline.

Regardless of whether the EPA chooses to modify its current proposal by increasing the non-cellulosic advanced biofuels mandate or by resuming its practice of granting SREs, one principle should be clear: good-paying, union jobs should not be sacrificed in favor of a policy that will add further fuel to inflation and weaken our energy independence, all while producing negligible (if any) environmental benefit.

IX. Conclusion

For the reasons discussed above, the United Association respectfully urges the EPA to reconsider its proposed 2022 RVO for conventional renewable fuels. The current proposal requires obligated parties to blend 1.2 billion gallons more of this fuel than the market and refueling infrastructure can tolerate, which will correspondingly send the market for RINs used to

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[86] *Id.* at 72,451.

[87] *Id.* at 72,447.

[88] 141 S.Ct. 2172 (2021).

[89] *See* DOE 2011 Study, *supra* note 2.

[90] NPRM, *supra* note 1, at 72,463.

demonstrate compliance with this mandate into a tailspin. Independent refineries will slow or halt their production as a means of reducing their cost of RFS compliance, with devastating consequences for thousands of hardworking, union refinery workers and their families who rely on those refineries to support a middle-class lifestyle. The EPA is required by law to consider these impacts on job creation when exercising its reset authority under the RFS.

To prevent these severe consequences from occurring, the Agency should strongly consider increasing the non-cellulosic advanced biofuels mandate by 1.2 billion gallons while maintaining the same Total Renewable Fuel obligation and resuming its practice of granting SREs. Thank you for your time and consideration in this matter.

Sincerely,

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