



February 10, 2023

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The Honorable Michael Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

RE: Renewable Fuel Standard Program: Standards for 2023-2025 and Other Changes [EPA-HQ-OAR-2021-0427-0421]

Dear Administrator Regan:

The National Association of Convenience Stores (“NACS”), NATSO, Representing America’s Travel Plazas and Truckstops (“NATSO”), and SIGMA: America’s Leading Fuel Marketers (“SIGMA”) (collectively, the “Associations”), respectfully submit these comments in response to the Environmental Protection Agency’s (“EPA’s” or the “Agency’s”) proposed applicable volumes and percentage standards for 2023 through 2025 for cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel under the Renewable Fuel Standard (“Proposed Rule” or the “Proposal”). As a part of its Proposed Rule on renewable volume obligations (“RVO’s”) under the Renewable Fuel Standard (“RFS” or the “Program”), the Agency also proposed to allow for the generation of Renewable Identification Numbers (“RINs”) from renewable electricity (“eRINs”).¹ The Associations also submit these comments in response to the proposed regulations governing eRINs under the RFS.

The RFS’s “Set” process presents EPA with an extraordinary opportunity to prompt tangible, immediate carbon reductions in transportation energy. Every gallon of biodiesel and renewable diesel consumed reduces diesel fuel’s greenhouse gas emissions by at least 50 percent, with reductions often higher than 70 percent. Virtually every gallon of ethanol reduces gasoline’s greenhouse gas emissions by at least 20 percent. In the future, the value of eRINs could be leveraged to catalyze private investment in fast, convenient, reliable electric vehicle (“EV”) charging stations. There is no other policy at the Administration’s disposal that can have such a positive impact on near-to-medium term transportation emissions.

¹ Environmental Protection Agency, “Renewable Fuel Standard Program: Standards for 2023-2025 and Other Changes”, 87 FR 80582 (December 30, 2022) available at <https://www.govinfo.gov/content/pkg/FR-2022-12-30/pdf/2022-26499.pdf> [hereinafter the “Proposed Rule”]

Although the Proposed Rule will result in meaningful emissions reductions, it represents a missed opportunity to signal unambiguously that EPA will leverage the RFS to encourage fuel marketers and retailers – as well as other market participants – to invest in the most environmentally attractive alternative fuel technologies. Instead, it offers a series of substantively flimsy rationales for incentivizing less environmentally attractive fuels at the expense of the lowest carbon advanced biofuels that the Program should prioritize. What’s more, the proposed eRIN construct exhibits a curiously disproportionate concern with the Agency’s professed bandwidth limitations at the expense of maximizing the Program’s capacity for incentivizing investments in electrifying the transportation sector.

As discussed in the following comments, the Associations encourage EPA to refine the Proposal by:

- 1) Increasing the total advanced mandate by *at least* an additional 250-350 million gallons for each year in order to accommodate the additional renewable diesel that will be introduced into commerce;
- 2) Clarifying that any ethanol blending above projected levels will result in a concomitant increase in the total advanced category; and
- 3) Changing the proposed eRIN regime such that eRINs are generated by publicly accessible charging station owners and operators rather than original equipment manufacturers (“OEMs” or “automakers”). In the alternative, the Agency should establish a “carve-out” to enable charging station owners (in addition to OEMs) to generate eRINs. The economics of installing and operating charging stations are exceedingly challenging; eRINs offer an opportunity for EPA to establish a clearer pathway to profitability for charging station investments.

Fuel retailers and marketers are more successful when they are able to optimize low carbon fuels and seamlessly integrate those fuels into the fuel supply. The Associations’ members have a proven history of responding to policy signals – including the RFS – with strategic investments that improve transportation energy’s environmental attributes, enhance America’s energy security, and minimize consumer costs. The following comments are intended to enable the Agency to revise the Proposal in a manner that better accomplishes these objectives.

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I. SUMMARY OF COMMENTS

A. The Agency Should Increase the Advanced Renewable Volume Obligations

- The Associations represent the most sophisticated fuel retailers in the United States. These companies have made meaningful investments in response to the RFS' policy signals that have enabled the Program to achieve its objectives. Lessons learned from liquid biofuels can be applied to other alternative fuels such as electricity to achieve similarly positive outcomes.
- Given the carbon reduction opportunities that it presents, the Proposed Rule fails to capitalize on the Agency's extraordinary statutory authority to reconfigure the RFS in a manner that indisputably gravitates investment toward the lowest carbon intensity fuels. The Agency has proposed just 100-million-gallon increases above 2022 levels for non-cellulosic advanced biofuels for 2023, 2024, and 2025. Given the clear climate benefits associated with advanced biofuels, and the market's tangible, demonstrable capacity for additional production and consumption, the Proposal is surprisingly modest. **The Associations encourage EPA to increase the total advanced mandate by at least 250-350 million gallons each year above proposed levels.**
- The Inflation Reduction Act included provisions providing preferential tax treatment for sustainable aviation fuel ("SAF") relative to renewable diesel and biodiesel. This threatens to initiate a competition over feedstock that could result in SAF growth that is offset by concomitant renewable diesel and biodiesel demand destruction. Feedstock migrating away from renewable diesel and biodiesel toward SAF would result in an increase in carbon emissions due to the SAF production process' relative inefficiencies. It would also increase the cost of diesel fuel and all consumer goods that are transported by truck. These undesirable consequences could be mitigated by requiring obligated parties to assume a separate RVO for each gallon of conventional jet fuel that they produce, and ensuring that renewable diesel and biodiesel generate more RINs on a per-gallon basis than SAF. The RFS is designed to discourage capital investments from flowing toward more expensive, less environmentally attractive fuel technologies when a more efficient, demonstrable, environmentally compelling alternative is available.
- The Associations appreciate the Agency's desire to establish ambitious, growth-oriented conventional biofuel mandates. We believe the proposed volumes for conventional biofuel will productively drive investment in both conventional and advanced biofuels and therefore support the Agency's approach.
- The Agency is proposing *advanced* biofuel blending mandates well *below* what the market is prepared to absorb, and *conventional* biofuel mandates well *above* what the market is prepared to absorb. This appears designed to excessively rely on biomass-based diesel ("BBD") RINs to be used by obligated parties to satisfy their total renewable fuel obligation (above and beyond the BBD and total advanced

standards). When this happens (or when the market expects this to happen), the price for D4 and D6 RIN types should converge. This would signal to the market that investments in more environmentally attractive advanced biofuels (such as biodiesel and renewable diesel) may have effectively the same financial upside as investments in less environmentally compelling conventional biofuels.

- The Proposed Rule is silent as to how EPA would respond if ethanol blendwall constraints are overcome. Ethanol consumption is currently constrained by policy impediments, including uncertainty surrounding year-round sales of gasoline with an ethanol content of up to 15 percent (“E15”) and onerous, inconsistent equipment compatibility demonstration requirements in different state and local jurisdictions. These policy constraints should be removed. If these impediments are overcome, then under the Proposal conventional biofuel gallons will begin to crowd out advanced biofuel gallons unless the total advanced category increases commensurate with the additional incremental ethanol gallons. **The Agency should avoid this perverse outcome by clarifying that it would respond to an unanticipated increase in ethanol demand by increasing the total advanced RVO commensurate with the additional incremental ethanol gallons.**

B. The Agency Should Permit Public Charging Station Owners to Generate eRINs

- The RFS has been remarkably successful at eliciting private investment to transition the transportation sector towards renewable alternatives. To date, it has induced the retail fuel industry to invest over \$1 billion in alternative fuels, and if structured appropriately, could be just as effective in prompting investment in EV charging stations. Unfortunately, the Proposal’s structure of only allowing automakers to generate eRINs will not result in the types of investments that are necessary to support the charging infrastructure that is critical for transportation electrification.
- The Proposal’s eRIN structure is premised on two flawed assumptions: (1) That EV price is the primary barrier to transportation electrification, and (2) that creating a new revenue stream for OEMs will yield a reduction in EV price. In fact, a lack of a convenient, publicly accessible network of charging stations is a greater impediment to EV uptake than vehicle price. The availability of EV charging stations at existing retail fuel outlets is the most effective way to overcome EV consumers’ refueling concerns. These investments are being hampered, however, by an electricity market structure that was not designed for, and is not compatible with, selling transportation energy to on-the-go motorists. Allowing public EV charging station owners and operators to generate eRINs would enable fuel retailers and other private businesses to overcome most existing market impediments.
- We urge EPA to revise the Proposal to permit public charging station owners and operators to generate eRINs rather than OEMs. In the alternative, we could support a “hybrid” model that enables charging station owners to monetize eRINs as a means of overcoming market impediments to EV charging station investments.

II. INTRODUCTION AND BACKGROUND

A. Overview of the Associations and Their Members

Collectively, the Associations represent approximately 90 percent of retail sales of motor fuel in the United States.² Fuel retailers' sole objective is to sell legal products, in a lawful way, to customers who want to buy them. As new fuels enter the market, the Associations' members want to be able to sell those fuels lawfully, with minimal risk, and a clear opportunity to generate a return on investments made. While agnostic as to what types of fuel they sell to satisfy customer demand, fuel retailers do have a bias: they believe it is best for the American consumer and America's industrial and geopolitical position in the world marketplace to have low and stable energy prices. Biofuels have been a key component in achieving that stability and security of supply. Lessons learned in the biofuels space can be applied to other alternative fuels such as electricity to achieve similarly positive outcomes.

B. Price Flow at Retail

The retail fuels market is the most transparent, competitive commodities market in the United States. As every American knows, customers can see gasoline retailers' price signs from blocks away, or compare prices on apps on their cell phones. These signs represent more than just pricing information; they are value propositions to potential customers, not only with respect to fuel, but also food and other convenience items that are sold in stores.

The gasoline market is extraordinarily competitive – consumers will often change where they buy gas to save just a few cents per gallon.³ Likewise, the retail diesel market is remarkably competitive and transparent, in part because many diesel customers – truck drivers and trucking fleets – are even savvier and more price-conscious than typical American motorists. (Fuel generally amounts to 30-40 percent of a motor carrier's overall costs.) Truck drivers are often aware of retail fuel prices when they are 100 miles away from potential refueling sites, and fleet managers use this information to direct drivers to specific retail locations in order to purchase the lowest-priced fuel available. This imposes strong downward pressure on retail diesel prices.

The competitive nature of the retail fuels market compels retailers to pass through cost savings to consumers in order to maintain and increase their market share. Fuel marketers are “price takers” at retail. This means they must take the price of fuel that the market sets and compete to gain market share as the transparency of the market exerts constant downward pressure on retail fuel prices. Fuel moves through many hands before it is sold to consumers at retail, and any costs

² NACS is an international trade association representing the convenience store industry with more than 1,300 retail and 1,600 supplier companies as members, the majority of whom are based in the United States. NATSO currently represents approximately 5,000 travel plazas and truckstops nationwide, comprising both national chains and small, independent locations. SIGMA represents a diverse membership of approximately 260 independent chain retailers and marketers of motor fuel.

³ According to a 2022 survey from the National Association of Convenience Stores, 64 percent of consumers say they would drive five minutes out of their way to save 5 cents per gallon, and 69 percent say that price is the most important factor in determining where they buy gas. See “How the pandemic reshaped fueling,” *See NACS Magazine*, April 2022 available at <https://www.nacsmagazine.com/issues/april-2022/how-pandemic-reshaped-fueling>.

that are incurred along the fuel production and supply chain will be passed down to retailers and ultimately absorbed by consumers.

At the same time, cost *savings* are necessarily *also* passed through to consumers. In their efforts to provide the most competitively priced fuel to their customers, many of the Associations' members buy and blend biofuels into their fuel supply when blending economics allow them to do so. Even those that do not blend themselves frequently purchase pre-blended biofuels and pass along the associated savings to their customers.

C. RINs and the Market: RIN Prices are “Baked Into” Wholesale Fuel Prices

Obligated parties' RIN obligations are included in the “crack spread,” *i.e.*, the gross margin that a refinery makes by refining crude oil into petroleum products (such as motor fuel). RIN prices, as with all commodity prices, fluctuate depending on a variety of factors including supply and demand. When assessing how much of a product to produce and at what price, all refiners use linear programs to examine a multitude of variables to determine what product output will generate the best result for the refiner. RIN costs are one of the variables that refiners consider and incorporate into their economic decision-making models. Obligated parties “consistently consider the cost of RINs in their trading decisions around obligated products” and obligated parties “consistently incorporate expected RINs costs into their obligated product pricing.”⁴ In other words, costs associated with RIN compliance are included in the price of fuel when sold by a refiner.

EPA has repeatedly demonstrated and reaffirmed these market realities.⁵ Because all refiners and importers have RFS obligations in proportion to the fuels they produce or import, they all have similar per-gallon costs of compliance related to the RFS program, and they all seek to recover those costs through the pricing of their products, whether that product is blended with renewable fuel and sold at a terminal or is unblended petroleum blendstocks sold at the refinery gate.⁶ Merchant refiners and small refiners can expend significant funds to purchase the RINs needed to demonstrate compliance with the RFS, but that cost is offset by a corresponding increase in the market price of the fuel they sell that is attributable to the RFS obligations. The market price they receive for the gasoline and diesel fuel they sell reflects the cost of RINs.⁷

Thus, RIN prices, like the cost of crude oil, transportation, taxes, and labor, are simply a cost of manufacturing or importing any gallon of motor fuel in the United States. This is a sound

⁴ Argus Media Group Consulting Services, “Do Obligated Parties Include RINs Costs in Product Prices?,” February 2017, P. 33, <https://www.regulations.gov/document?D=EPA-HQ-OAR-2016-0544-0269>; *see also* Christopher Knittel, “The Passthrough of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard,” ed. James Stock, July 2015, <https://www.nber.org/papers/w21343.pdf>.

⁵ *See, e.g.*, EPA Denial of Petitions for Rulemaking to Change the RFS Point of Obligation (EPA Report No. EPA-420-R-17-008), November 2017, P. 22, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100TBGV.pdf>.

⁶ *Id.*

⁷ *Id.*

construct that is conducive to efficiently displacing petroleum-based fuel with renewable substitutes.

D. Fuel Marketers and Retailers Use RINs to Fulfill the RFS' Purpose

Congress established the RFS to enhance America's energy independence while improving the emissions characteristics of the motor fuels consumed in the United States and stimulating domestic production of renewable fuel. Overall, the RFS has been successful in achieving these outcomes. If implemented properly, the Program may continue to achieve Congressional objectives for many years to come.

Fuel marketers that blend renewable fuel into their petroleum-based fuel supply can use the value of the RINs associated with the resulting renewable blend to lower their costs of goods sold. This allows them to price products more competitively and increase their market share. Stated more simply, the RIN allows gasoline/ethanol and diesel/biomass-based-diesel blends to be sold at retail for less money than neat gasoline or diesel fuel. RINs, therefore, play a critical role in encouraging fuel marketers to invest in the physical infrastructure and intellectual capital necessary to efficiently incorporate renewable fuels into their suite of fueling options.

With respect to physical infrastructure, the retail fuels industry has invested more than \$1 billion into the infrastructure necessary to store, blend, and dispense renewable fuels. This includes new underground storage tanks, underground lines, and new fuel pumps that are necessary to lawfully store, transport, and dispense biofuel blends.

Beyond acquiring this physical infrastructure, however, successful fuel marketers have also adjusted their *business models* substantially since the RFS was enacted. Many of the Associations' members have become active participants in different markets, such as ethanol (which is tied to corn prices) and biodiesel (which is largely tied to soybean and other feedstock prices). These companies invested in alternative modes of transportation (such as rail) that can be more amenable to moving these products from place-to-place, and increased their footprint at fuel terminals in order to control the manner in which the products are blended and brought to market. Fuel marketers have spent tens of millions of dollars on compliance personnel, developing internal systems in order to monetize RINs, and seamlessly integrating renewable fuels into their fuel supply while complying with the litany of regulatory obligations associated with lawfully buying, blending, and selling such products and the associated RINs. Many of our member companies have or are currently "staffing up" to add electricity and power market competencies in anticipation of increasing demand from EV drivers. This is precisely the type of behavior that the RFS was designed to incentivize.

III. THE RFS CAN HELP TO LOWER THE CARBON INTENSITY OF TRANSPORTATION ENERGY

A. The RFS is Market-Oriented and Consumer-Focused

The fuel marketing and retail industries have long maintained that a core tenet of sound clean fuel policy is avoiding mandates, and pursuing competitive market incentives that ensure a

level playing field and provide long-term consumer benefits.⁸ The Program’s design, while imperfect, does create an incentive structure that drives consumer adoption of lower carbon fuels by making those fuels less expensive than any available substitutes. This has created enormous environmental benefits in a relatively brief period of time.

The RFS has succeeded because Congress, in designing the Program, recognized that the most effective way to get American motorists to consume more low carbon biofuels is to make biofuel blends *less expensive* than the petroleum-based fuels they are designed to displace. While the RFS creates for fuel marketers an *incentive* to blend as much renewable fuel as they can, this incentive only exists as long as their customers view the end product as an attractive value proposition. Of the various mandates contained in the RFS, Congress did *not* include a mandate for consumers to purchase anything.

It is in fuel marketers’ interest to sell more fuel. Consumers tend to purchase more fuel when fuel prices are lower. Fuel marketers blend biofuels into their fuel supply to lower the price of the fuels that they sell. The RFS was designed to reward companies that blend biofuel because those companies can use the value of the RINs associated with those blends to lower their costs of goods sold and increase their market share. These incentives apply to refiners, wholesalers, *and* retailers that do their own blending, and passes the benefits along to retailers that simply sell blended products but do not blend themselves.

Over the past two years, the economic opportunities associated with selling higher biofuel blends have grown. As petroleum prices rise and refined product supplies tighten, blending incentives tend to increase as retailers gravitate toward lower-priced alternatives to remain competitive. When retailers have this optionality, it lowers the price that consumers pay at the pump.

B. The Proposed Rule Fails to Maximize the RFS’s Potential to Reduce Transportation Emissions

Given the carbon reduction opportunities that it presents, the Proposed Rule fails to capitalize on the Agency’s statutory authority to reconfigure the RFS in a manner that indisputably gravitates investment toward the lowest carbon intensity fuels.

The market responds to unambiguous policy signals. This rulemaking could unleash massive investments in renewable diesel, biodiesel, and other low carbon biofuels if the final RVOs send a clear signal to the market that those investments will be rewarded. The Proposal, however, establishes a total advanced biofuel mandate that is well below the Agency’s own projections of the market’s ability to produce and consume those more environmentally attractive fuels. At the same time, the Proposal would *increase* the conventional biofuel mandate well above

⁸ See NACS, NATSO, and SIGMA, “Principles for Advancing Alternative Fuels in the Market,” January 27, 2021, https://www.natso.com/resources/resources/view/document/844?utm_source=Informz&utm_medium=Email&utm_campaign=Emails&_zs=eqGHR&_zl=HEjP2. (“Fuel retailers today are best positioned to provide alternative sources of transportation energy because they are fuel agnostic and have a keen understanding of consumer preferences and tendencies. The industry made consequential investments in alternative fuels in response to existing incentives that allow them to offer those fuels at a price at which consumers are willing to buy them.”)

EPA's projections of the market's ability to absorb additional ethanol gallons. The market is predictably interpreting this incongruity as a clear signal that the Agency and the RFS cannot be confidently relied upon to reward capital-intensive investments – which already entail long return horizons and policy and market uncertainties – that facilitate marketing lower carbon fuels.

Similarly, this rulemaking could prompt fuel retailers and other private businesses throughout the country to invest in state-of-the-art direct current fast charging stations for EVs (“DC fast chargers”) if the Agency allowed public charging station owners and operators to generate eRINs. Instead, the Proposal only permits automakers to generate eRINs and will therefore fail to make a meaningfully positive contribution to the development of DC fast chargers.⁹ And, as discussed further below, the Proposal is unlikely to incentivize additional OEM production or consumer purchase of EVs.

The remainder of these comments articulate these concerns in more detail.

IV. RENEWABLE VOLUME OBLIGATIONS

A. The Agency Should Establish More Aggressive Advanced Biofuel Mandates

Establishing more robust total advanced mandates is a clear and present opportunity for the Agency to lower the carbon footprint of transportation fuel in the United States. Given the carbon reduction opportunities it presents, the RFS has been underutilized. It is an extraordinary incentive structure that drives consumer adoption of lower carbon fuels by making those fuels less expensive than any available substitutes. It has led to environmental benefits in a relatively short period of time. Given the number of combustion vehicles on the road, greater biofuel blending can achieve significant greenhouse gas reductions.¹⁰ EPA should use the Set process to build upon this regulatory construct to leverage existing infrastructure and supply chains to achieve increasing environmental benefits as while working toward reaching more long-term aspirations.

The Agency has proposed very modest increases of approximately 100 million gallons per year of non-cellulosic advanced biofuel (which will generally be biodiesel and renewable diesel). These are astonishingly low increases given the Administration's climate goals and what the market is clearly capable of delivering. These annual mandates should be *at least* 250-350 million gallons higher than proposed *per year*.

⁹ It is especially perplexing to the Associations that the Agency suggests the Proposal was designed in this way primarily to address the burden that a different regulatory scheme would place on EPA staff.

¹⁰ More efficient diesel engines coupled with low carbon biomass-based diesel can reduce emissions immediately. As calculated and certified under California's Low Carbon Fuel Standard, biomass-based diesel can achieve substantial reductions of greenhouse gas (“GHG”) emissions on the order of 66-81 percent compared to petroleum diesel. *See* ESF Office of Communications, “Report Shows Substantial Reductions of Greenhouse Gas Emissions from Biomass-Produced Diesel and Renewable Natural Gas,” SUNY-ESF, January 27, 2022, <https://www.esf.edu/communications/view.asp?newsID=9956>.

1) *Advanced Biofuels Cost More than the Fuels they are Designed to Displace*

The only reason that any fuel marketer incorporates biomass-based diesel into their diesel fuel supply is to make the finished product less expensive. Absent government incentives, biodiesel and renewable diesel as commodities are substantially more expensive than diesel fuel. These and other advanced biofuels would therefore not be blended into diesel fuel in the absence of the RFS and other government incentives.

Because advanced biofuels cost more money than the fuels they are designed to displace, advanced biofuels must continue to be subject to robust federal incentives for a period of years if there is any hope for them to be competitive. As those incentives dissipate, so too do the prospects of advanced biofuels displacing petroleum-based fuels. This outcome is inconsistent with the Agency's climate objectives.

2) *There is No "Blend Wall" for Biomass-Based Diesel*

There is no blend wall for biodiesel or renewable diesel. Renewable diesel, while chemically distinct and more environmentally attractive, meets the same American Society for Testing and Materials ("ASTM") specifications as neat diesel fuel and therefore can be stored and dispensed through traditional diesel infrastructure. All trucks that run on diesel fuel can run on 100 percent renewable diesel.

With respect to biodiesel, there is more than sufficient demand to eliminate any concerns about the market's ability to satisfy a more aggressive advanced biofuels mandate than the Agency proposed. All diesel fuel infrastructure is certified to store up to 20 percent biodiesel ("B20"). Virtually all over-the-road trucks are warranted to run on biodiesel blends up to 20 percent. EPA's proposed biomass-based diesel RVOs amount to approximately six percent of the volume of diesel fuel sold in the United States.

3) *Renewable Diesel Capacity Coming Online*

According to data from EPA's Moderated Transaction System, the U.S. market consumed more than 3 billion gallons of BBD in 2021 and 2022. The Energy Information Administration's Short Term Energy Outlook, which until this Proposal has informed EPA's decisions on annual RFS volumes, projects a 500 million gallon increase in biodiesel and renewable diesel consumption for 2023. Nevertheless, EPA's proposed volumes for the BBD category is limited to 65 million gallons of growth per year through 2025. It would not reach the 3 billion gallons that were consumed in 2021 and 2022 even in the final year potentially covered under the proposal (2025). The Proposal, therefore, disregards the gallons currently in the market and fails to account for the sector's projected growth.¹¹

¹¹ The result is even more anomalous in light of EPA's final rule creating a pathway to produce advanced biofuels from canola oil (which the Associations support). This allowance will enable a more diverse feedstock supply for advanced biofuels. The Proposal does not account for this potential growth.

4) *The Proposal Enables More Expensive, Less Environmentally Compelling SAF to Crowd Out Over-the-Road BBD Production*

The recently enacted Inflation Reduction Act provides preferential tax treatment for SAF relative to renewable diesel and biodiesel.¹² The technology and feedstocks that can be used to produce SAF today are generally the same as those currently used to produce renewable diesel.¹³ Finite feedstock availability is “likely to cause any growth in renewable jet fuel to come at the expense of biodiesel and renewable diesel.”¹⁴ In other words, biofuel producers will have to assess whether it is more profitable for them to produce SAF or renewable diesel.

The RFS is specifically designed and should be implemented in a manner that ensures that environmental outcomes govern that assessment.

The SAF production process is similar to, though ultimately less efficient than, the renewable diesel production process.¹⁵ The same amount of feedstock will yield fewer gallons of SAF than renewable diesel. The production of SAF also requires more energy inputs than the production of renewable diesel. The cost of saving one kilogram of carbon dioxide (“CO₂”) is higher for SAF than it is for renewable diesel. Every gallon of SAF delivers lower CO₂ savings than every gallon of renewable diesel; the displacement of one megajoule (“MJ”) of fossil *jet fuel* avoids less CO₂ than the displacement of one MJ of fossil *diesel*.¹⁶

Prioritizing SAF over biodiesel and renewable diesel is inconsistent with the Program’s climate goals. It is prompting markets to allocate limited feedstocks toward SAF production. The environmental benefits of that SAF production will be more than offset by concomitant reductions in renewable diesel and biodiesel production (and thus *increases* in petroleum-diesel production). The transportation sector’s overall carbon emissions will increase. This undesirable trend could be mitigated if biomass-based diesel production generated more RINs on a per-gallon basis than SAF production. It would also be mitigated if jet fuel production resulted in a separate RVO for obligated parties. **The Associations hereby request EPA to initiate a rulemaking to consider making jet fuel an RVO fuel under the RFS.**

SAF production using feedstocks that could otherwise more efficiently produce renewable diesel increases the cost of fuel and goods.¹⁷ Today, fuel marketers’ are able to integrate renewable diesel and biodiesel into their diesel fuel supply and in so doing lower their retail price of diesel

¹² Compare 26 U.S.C. 45Z(a)(3)(A)(ii) and 26 U.S.C. 40B(a)(2) (SAF credits) with 26 U.S.C. 45Z(a)(2)(B) (non-SAF biofuel credit).

¹³ See Proposed Rule P. 80596 (“For example, the same refinery process that produces renewable diesel from waste fats, oils, and greases or plant oils also produces hydrocarbons in the distillation range of jet fuel that can be separated and sold as SAF instead of being sold as renewable diesel.”)

¹⁴ *Id.*

¹⁵ SAF requires more processing than renewable diesel due to the lower freezing point. This requires greater hydrogen input for SAF compared to renewable diesel, which in turn requires more natural gas usage.

¹⁶ The baseline lifecycle emissions value for fossil jet fuel is 89gCO₂/MJ under California’s Low Carbon Fuel Standard program. The emissions factor for fossil diesel fuel is 97gCO₂/MJ.

¹⁷ See CAA section 211(o)(2)(B)(ii)(V); see also Kruse, *infra* n.20.

fuel. In this respect, renewable diesel and biodiesel lower the price that truck drivers pay for fuel, and thus the price that consumers pay for goods that are moved by truck – which are a majority of all consumer goods throughout the economy.¹⁸

SAF displacing over-the-road biofuel consumption is not only more expensive and environmentally deleterious in the aggregate, but it would harm communities disproportionately impacted by climate change.¹⁹ Over-the-road BBD use results in lower emissions of oxides of nitrogen (“NOx”) compared with fossil diesel fuel; feedstock migration from over-the-road biofuels to SAF would thus increase ground-level emissions in vulnerable communities that experience heavy truck traffic.

The final rule should discourage this economically, socially, and environmentally suboptimal outcome. Policy should not encourage capital investments to flow toward more expensive, less environmentally attractive fuel technologies when a more efficient, demonstrable, environmentally compelling alternative is available. EPA should affirmatively seek to limit the extent to which SAF crowds out over-the-road biofuels in the coming years. It can do this by requiring obligated parties to assume an RVO for each gallon of conventional jet fuel that they produce, and ensuring that renewable diesel and biodiesel generate more RINs on a per-gallon basis than SAF producers.

5) A Higher Total Advance Mandate Would Help Offset Diesel Supply Tightness

Throughout the last two years, members of the Biden Administration have eagerly contacted the Associations and our members during significant fuel supply disruptions. The Administration has generally inquired what, if anything, can be done to extend supply and soften retail fuel prices.

The associations have repeatedly said during these conversations that more aggressive advanced RVOs will help to mitigate low diesel inventories that have been common during the past 12 months.²⁰

We are eager to continue having these recurring communications and look forward to serving as a resource for the Administration to the extent the information we provide is useful.

¹⁸ Trucks move 72.2% of goods in the United States by weight. *See* American Trucking Associations, *See* American Trucking Associations, “Economics and Industry Data,” American Trucking Associations, <https://www.trucking.org/economics-and-industry-data#:~:text=Trucks%20move%20roughly%2072.2%25%20of.>

¹⁹ *See* Proposed Rule P. 80585.

²⁰ John Kruse, “The Offsetting Impact of Expanded Biomass-Based Diesel Production on Diesel Prices,” April 29, 2022, https://cleanfuels.org/docs/default-source/news-releases---supporting-files/the-offsetting-impact-of-expanded-biomass-based-diesel-production-on-diesel-prices-4-29-2022.pdf?sfvrsn=d952e00_5. (Finding that BBD supply saves consumers approximately 4% on the price of diesel fuel; these savings lower the cost of nearly every consumer good moved by truck).

6) *Palm Oil is Not an Economically Viable BBD Feedstock*

EPA rationalizes its proposed total advanced mandate by suggesting that an increase in the supply of BBD could place additional strain on the BBD feedstock supplies, resulting in partial backfilling with imported palm oil, which could offset some or all of the greenhouse gas benefit one might otherwise expect.²¹ This concern is ill-founded.

Despite recent historically high RIN prices, little (if any) renewable diesel consumed in the U.S. today is made from palm oil. This is because palm-based renewable diesel does not satisfy the greenhouse gas requirements for California's (or any other state's) low carbon fuel standard. Palm oil is similarly being phased out of the European hydrotreated vegetable oil ("HVO") and renewable diesel complex. In response to these policy signals, the market is investing heavily in vegetable oil and waste oil capacity. It is not investing in palm oil capacity. There is no facility in the United States today that is (1) logistically capable of using imported palm oil to produce biofuel and (2) inclined to do so. The Agency's concerns over palm oil use in BBD are misplaced. Such concerns should not influence the final rulemaking.

In fact, a compressed price spread between D4 and D6 RINs could potentially open up an arbitrage that does not currently exist for palm-derived renewable diesel from Asian production facilities that have been grandfathered under the Program and thus could generate a D6 RIN. A more aggressive advanced mandate would maintain that price spread and keep lessen the likelihood of that arbitrage opportunity. It could also prompt meaningful investment in more environmentally credible feedstocks such as used cooking oil, for which there is ample global supply but insufficient collection, verification, and distribution infrastructure.

7) *EPA Should Limit RIN Separation Amounts to the Equivalence Value of the Renewable Fuel*

The Proposal would limit the assignment to and separation of RINs for a gallon of renewable fuel to the equivalence value of the renewable fuel. The Associations strongly support this aspect of the Proposal. It would bring transparency to RIN assignment and separation practices, limit unnecessary complexity and fraud, and enable smaller, less sophisticated retailers to harness the RFS to sell lower carbon fuels.

RIN separation that is confined to the equivalence value for the applicable gallon of renewable fuel will allow for more RIN market participation in blending renewable fuels from all levels of the fuel distribution network. This will result in lower prices at the pump for consumers. Many downstream blenders who are registered with EPA and physically blend biofuel into motor fuel are unable to access biodiesel with RINs attached. This is because certain producers assign more RINs to a volume of renewable fuel than were able to be generated for the fuel using the equivalence value (a process known as "RIN-flashing"). These activities – which are particularly pervasive in markets that are not close to biofuel production facilities – undermine parties' ability

²¹ See Proposed Rule P. 80629.

to ascertain the origin and validity of fuels and RINs. It also unnecessarily restricts many markets' ability to leverage the RFS to lower the price and carbon intensity of the fuels they sell.

8) *EPA Should Consider Options to Mitigate a Negative Outlook for Many Domestic Biodiesel Producers*

In some ways, the RFS is becoming a victim of its own success. When establishing the RFS, one of Congress's core objectives was to create a meaningful, stable, and growing role for biodiesel throughout the United States. As a result of increased renewable diesel production and, going forward, SAF as well, the U.S. biodiesel industry's growth trajectory is not positive.

Biodiesel has, until recently, had favorable blending economics in many regions throughout the United States. This has enabled a geographically diverse swath of Americans to benefit from biodiesel's emission reductions and cost benefits. Since 2016, however, biodiesel volumes have declined nearly every year due to feedstock competition from renewable diesel and SAF producers. These producers almost invariably ship their fuel to California to take advantage of that state's Low Carbon Fuel Standard incentives.²²

Not only does this deny biomass-based diesel's cost and climate benefits to non-Californians, but it threatens to bankrupt more than one hundred small and medium-sized biodiesel production facilities. It is arguably inconsistent with the RFS's overarching objectives to allow growth in certain biomass-based diesel technologies – the benefits of which are concentrated in one region of the country – to initiate the demise of the very businesses that the RFS was designed to create.

The Associations urge EPA to consider ways to mitigate this undesirable, unintended consequence. One proposal the Agency should review involves establishing a minimum volume of biodiesel (i.e., fuel that meets the specifications of ASTM D6751) within the BBD category.²³ In addition, the Agency should reconsider the Proposal's prohibition on RINs being separated from gallons of home heating oil if the blend exceeds 20 percent. This would effectively devalue any heating oil blend above this amount and discourage higher blends from being offered in the marketplace. Although trucks generally do not have warranties for blends greater than B20, this restriction does not exist for home heating oil infrastructure. It cuts off a meaningful source of demand for biodiesel in the northeast, harming the fuel's producers, dealers, and consumers.

²² See Proposed Rule P. 80598 (“We project slight decreases in the volume of biodiesel used in the U.S. as renewable diesel producers are able to out-compete some existing biodiesel producers for limited feedstocks. One significant factor that is likely to negatively impact biodiesel production is that opportunities for biodiesel expansion in California, where producers can benefit from LCFS credits in addition to RFS incentives, are very limited while there is significant opportunity for the expansion of renewable diesel consumption in California.”)

²³ Small Advanced Biofuel Refiners (SABR) Coalition, “Letter to EPA on Biodiesel and the SET Process,” August 31, 2022, <https://www.natso.com/resources/resources/view/document/928>.

B. The Associations Support the Proposed Conventional RVOs

The Associations believe that the Agency's overall approach to establishing conventional biofuel RVOs is sound. The proposed conventional biofuel RVO, while ambitious, will nevertheless incentivize fuel marketers to displace more gallons of gasoline with ethanol without mandating more ethanol than the market can absorb. This furthers the Program's objectives. At the same time, the Associations recognize that when D6 RIN prices reach a certain level, the inevitable political backlash and ensuing policy volatility and uncertainty tend to have counterproductive consequences that outweigh any short-term incremental increase in ethanol incentives.²⁴ We urge EPA to be similarly mindful.

Although the Associations appreciate EPA's desire to establish ambitious, growth-oriented conventional biofuel mandates, it nevertheless is perplexing that the Agency is proposing advanced biofuel blending mandates well below what it believes the market is prepared to absorb, and conventional biofuel mandates well above what it believes the market is prepared to absorb.

1) *EPA Should Disentangle Treatment of Advanced Biofuels and Conventional Biofuels to Avoid Advanced Biofuel Demand Destruction*

The Associations are concerned that the Agency is entangling its approach to establishing RVOs for advanced biofuel with its approach to establishing RVOs for conventional biofuel (*i.e.*, ethanol). Ethanol is an economical source of octane and therefore would be blended with gasoline even if the RFS did not exist. Biodiesel and renewable diesel extend the diesel supply rather than functioning as an essential blending component thereof. These different purposes create different economic and market considerations with respect to conventional versus advanced biofuels.

When these fundamentally different considerations are exceedingly intertwined with one another, it tends to disproportionately harm advanced biofuels, which are more environmentally attractive than conventional biofuels. In recent years, advanced biofuels have effectively been collateral damage as policies seemingly designed to lower conventional biofuel RIN prices have disproportionately undercut advanced biofuel markets.²⁵ This has resulted in substantial demand destruction for advanced biofuels because it makes it less likely that retailers can offer the lowest priced fuel possible by incorporating advanced biofuels into their fuel supply; selling straight diesel fuel frequently became more economical.

The Proposal presents a mirror image of this problem: It would establish advanced biofuel blending mandates well below what the Agency believes the market is prepared to absorb, and

²⁴ This is true notwithstanding the fact that higher RIN costs are recovered by obligated parties in the price of the fuels that they sell. *See supra* nn. 4-5 and accompanying text.

²⁵ *See generally* NACS, NATSO and SIGMA Comment Letter on *Proposed Rule, Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations* (April 29, 2019), available at <https://www.regulations.gov/comment/EPA-HQ-OAR-2018-0775-0912>; NATSO Comments Letter on *Renewable Fuel Standard Program: Standards for 2020 and Biomass-Based Diesel Volume for 2021, and Response to the Remand of the 2016 Standards; Supplemental Notice of Proposed Rulemaking* (Nov. 29, 2019), available at <https://www.regulations.gov/comment/EPA-HQ-OAR-2019-0136-0540>.

conventional biofuel mandates well above what it believes the market is prepared to absorb. This outcome appears designed to excessively rely on BBD RINs to be used by obligated parties to satisfy their total renewable fuel obligation (above and beyond the BBD and total advanced standards).²⁶ When this happens (or when the market expects this to happen), the price for D4 and D6 RIN types should converge.²⁷

The Proposal, therefore, is overtly designed to signal to the market that investments in more environmentally attractive advanced biofuels (such as biodiesel and renewable diesel) may have effectively the same financial upside as investments in less environmentally compelling conventional biofuels.²⁸ This is flawed. It is also conspicuously misaligned with the so-called “tech neutral” scheme that the Inflation Reduction Act establishes for the very same biofuels that are incentivized under the RFS.²⁹ Under that tech neutral scheme, biofuels that have more environmentally attractive carbon intensity scores receive higher tax credits than biofuels with less environmentally attractive scores. The Proposal, by contrast, would reconfigure the RFS so that it does not necessarily drive capital investments toward the most climate-friendly fuel technologies. This sends mixed policy signals that undermine the attractiveness of clean fuel investments.

It is hard to overstate the retail fuel industry’s confusion and disappointment with this scenario. The confusion is exacerbated by EPA’s silence as to how it intends to respond if ethanol blendwall constraints are overcome. As discussed below, ethanol consumption is currently artificially constrained by unnecessary policy impediments, including uncertainty surrounding year-round sales of E15 and onerous, inconsistent equipment compatibility demonstration requirements in different state and local jurisdictions. These policy constraints can be removed or refined. If these impediments are overcome, conventional biofuel gallons will begin to crowd out advanced biofuel gallons. The Agency should avoid this perverse outcome. Specifically, EPA should clarify that it would respond to an unanticipated increase in ethanol demand by increasing the total advanced RVO commensurate with the additional incremental ethanol gallons.

2) Policy Impediments to Higher Ethanol Blends

There are currently two major impediments to higher blends of ethanol being sold in the United States: (i) policy uncertainty around year-round sales of E15; and (ii) retailers’ liability concerns tied to the expense and complexity of fulfilling their obligations to affirmatively demonstrate that their infrastructure is compatible with higher ethanol blends. Until the impediments to higher ethanol blends are removed, it is important that EPA be cognizant of them when establishing RVOs.

²⁶ See generally Proposed Rule P. 80603 (“This excess non-cellulosic advanced biofuel would make up for the shortfall in corn ethanol...”).

²⁷ See, e.g., 83 Fed. Reg. 32052 (July 10, 2018).

²⁸ See 87 Fed. Reg. 80627 (Noting that most corn ethanol production in the United States is grandfathered under the provisions of 40 C.F.R. 80.1403 and thus not even required to achieve a 20 percent reduction in GHGs).

²⁹ Compare 26 U.S.C. 45Z(b)(1)(B)(iii) (SAF modeling) with 26 U.S.C. 45Z(b)(1)(B)(ii) (non-SAF modeling).

a. Reid Vapor Pressure and Year-Round Sales of E15

When blended with gasoline, ethanol increases the evaporative tendency of the fuel measured as Reid Vapor Pressure (“RVP”) and expressed in pounds per square inch (“PSI”). Increasing the evaporative tendency of the fuel increases tailpipe emissions. This increase reaches its maximum negative effect when fuel contains 8 percent ethanol; after that point, the PSI increase associated with ethanol diminishes.

To improve air quality, regulations require fuel in the summer months to have a lower RVP than during the winter months. For ethanol to be sold throughout the year, the Clean Air Act allows gasoline blended with 9-10 percent ethanol to exceed by 1 PSI the RVP control maximum that exists in most of the country. Because of how the statute is written, this “RVP waiver” does not apply to any other ethanol blends, including E15.

Retailers, therefore, are not currently permitted to sell E15 year-round in many parts of the country without violating the Clean Air Act. Although there are efforts underway to remove this impediment for the summer 2023 driving season, it is unclear how successful these efforts will be. If there is not more clarity around this issue by the end of the first quarter of 2023, it will force retailers who may otherwise be interested in selling E15 during the summer 2023 driving season to rethink those plans. EPA should consider taking steps to initiate recurring emergency waivers for the summer 2023 driving season similar to the waivers issued during the 2022 summer driving season.³⁰ Most of the variables the Agency cited as justifying the waivers in April 2022 remain pertinent today.³¹

b. Retailer Liability Concerns

Liability concerns are a key factor in fuel retailers’ assessment of whether to sell E15.³² Federal and state laws, as well as banking and insurance covenants, fire codes, and other mandates require retailers to store and dispense renewable fuel blends in equipment that has been listed by a nationally recognized testing laboratory as compatible with the fuel. Many of these requirements are unnecessarily complex and expensive to comply with without any underlying policy justification. EPA does not provide flexible or site-specific guidance on compatibility demonstration practices. States have their own patchwork of compatibility requirements, while the National Institute of Standards and Technology (“NIST”) has requirements that are often at odds

³⁰ Environmental Protection Agency, “May 1, 2022 E15 Reid Vapor Pressure Fuel Waiver,” April 29, 2022, <https://www.epa.gov/system/files/documents/2022-04/nationwide-fuel-waiver-allowing-e15-gasoline.pdf>.

³¹ *Id.* (citing the “severe energy supply disruption” caused by “Russia’s unjustified, unprovoked, and unconscionable war against Ukraine” and its “ongoing destructive military campaign” as having a “profound impact on global and domestic energy markets.”)

³² *See generally* 80 Fed. Reg. 77420 (noting that EPA “[does] not believe, based on past experience, that the core concerns retailers have with liability over equipment compatibility and misfueling would change if the RFS volume requirements were increased significantly . . . [and does] not believe that the E15 expansion can occur on the scale and timeframe that ethanol proponents believe it can”), available at <https://www.gpo.gov/fdsys/pkg/FR-2015-12-14/pdf/2015-30893.pdf>.

with federal requirements. As long as these obstacles are in place, they will function as a headwind to more widespread sales of higher ethanol blends.

i. *Dispensers*

The Occupational Safety and Health Administration’s (“OSHA’s”) regulations require retailers to use equipment that has been listed by a nationally recognized testing laboratory as compatible with the fuel that the equipment is storing and dispensing.³³ The primary testing laboratory is Underwriters Laboratories (“UL”). Prior to 2010, UL had not listed a single dispenser as compatible with any ethanol concentration greater than 10 percent. UL has a policy of not retroactively revising a device’s compatibility listing. Consequently, any retailers that have dispensers more than thirteen years old and wish to sell E15 must acquire a new dispenser that has been listed as compatible with the product. Dispensers can cost well above \$40,000, to say nothing of supply chain delays and additional expenses. Many retailers are reluctant to dispose of functional and modern dispensers.³⁴

ii. *Component Parts*

To sell higher ethanol blends, retailers must ensure that the small component parts that allow fuels to be dispensed from an underground storage tank (“UST”) to a vehicle are compatible with those blends (*e.g.*, overfill valve, tank probe, sump sensor, impact valve, etc.). The costs of replacing these smaller items can rapidly add up to many thousands of dollars. For example, it costs approximately \$2,500 to replace a tank probe, so if a retailer has four USTs at a particular site, it would cost approximately \$10,000 to replace the tank probes in those tanks. These costs serve as another potential deterrent for retailers to be able to sell higher ethanol blends.

iii. *Underground Storage Tanks*

It is exceedingly complicated to determine the compatibility of underground storage equipment, mainly due to insufficient recordkeeping over time. Retail fueling facilities often change hands several times after a tank system is installed. In fact, retail outlets have experienced significant turnover in recent years as the industry continues to consolidate, and before that, as major integrated oil companies exited the retail market. These transitions often leave current owners uncertain of the compatibility status of underground equipment. For decades, there have been no regulations that require retail outlets to keep records of their underground equipment to pass on to successive owners. With the turnover in the industry and lack of records on UST equipment, determining compatibility with higher ethanol content fuels is nearly impossible

³³ See 29 C.F.R. 1926.152(a)(1) (“Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids.” The term “Approved” is defined at 29 C.F.R. 1910.106(35) (“Approved unless otherwise indicated, approved, or listed by a nationally recognized testing laboratory.”)

³⁴ It is feasible to convert dispensers to ensure compatibility with higher levels of ethanol-blended fuel, but that is an expensive undertaking. The two primary device manufacturers – Gilbarco and Wayne-GE – have obtained UL listing for retrofit kits for some of their dispenser units to upgrade their compatibility to accommodate fuels containing up to 25 percent ethanol. These units are currently available for at least \$2,000-\$5,000 per kit and may be available for more than 50 percent of the dispensers currently in use.

without breaking concrete (at which point costs can rapidly exceed \$100,000 per location). Failure to comply with federal UST regulations can subject retailers to penalties of up to \$37,500 for each day of noncompliance. As a practical matter, without the ability to verify and proactively demonstrate that their equipment is UL-listed to store higher ethanol blends, the retailer is assuming substantial liability risk if it stores such fuels. Insurance covenants and local fire codes all require similar compatibility demonstrations to be made under pains and penalties of perjury.

In January 2021, EPA proposed a rule that, if finalized, would mitigate some of these liability concerns and facilitate additional sales of E15.³⁵ The Associations filed comments in response to that proposal, and hereby incorporate those comments by reference and encourage the Agency to finalize that proposal in accordance with those comments.³⁶

iv. *Misfueling and Automobile Warranties*

Assuming a retailer's equipment is listed as compatible with E15, there is still liability exposure if customers misfuel. EPA's rule authorizing the sale of E15 restricts its use to vehicles manufactured in 2001 or later and prohibits its use in earlier models or small engines.³⁷ EPA issued a misfuelling mitigation rule requiring the placement of dispenser decals near the E15 selector and requiring additional measures. Unlike the leaded-unleaded switch, however, there are no *physical* applications available to prevent consumer misfuelling.³⁸ This puts retailers in a precarious situation: If they offer E15 and a consumer uses that fuel in a non-approved engine, retailers can be held responsible for violating the Clean Air Act and subject to fines of up to \$37,500 per violation. Even if the retailer is fully compliant with EPA's misfuelling mitigation requirements, it may be subject to civil litigation under the Act's private right of action provision.

Relatedly, many engine manufacturer owners' manuals and warranties do not authorize the use of E15. Retailers may be subject to liability for engine damage or for selling a type of fuel that voids the consumer's warranty. This exposure could threaten a facility's economic viability.

Liability concerns associated with misfueling and automobile warranties have dissipated in recent years as fewer cars on the road were made before 2001, and as more cars on the road are warrantied to run on higher ethanol blends. The concerns would be eliminated completely if either (a) federal law stipulated that those retailers who sell higher ethanol blends such as E15 in a manner consistent with federal labeling requirements are absolved from any liability associated with

³⁵ See Environmental Protection Agency, "E15 Fuel Dispenser Labeling and Compatibility with Underground Storage Tanks," 86 FR 5094 (January 19, 2021), available at <https://www.federalregister.gov/documents/2021/01/19/2021-00203/e15-fuel-dispenserlabeling-and-compatibilitywith-underground-storage-tanks>.

³⁶ NACS, NATSO, and SIGMA Letter to the Environmental Protection Agency on its E15 Fuel Dispenser Labeling and Compatibility with Underground Storage Tanks Proposed Rule (April 20, 2021) available at <https://www.regulations.gov/comment/EPA-HQ-OAR-2020-0448-0053>.

³⁷ See 40 C.F.R. 80.1504; see also Environmental Protection Agency, "Regulation to Mitigate the Misfueling of Vehicles and Engines with Gasoline Containing Greater Than Ten Volume Percent Ethanol and Modifications to the Reformulated and Conventional Gasoline Programs," 76 Fed. Reg. 44406 (July 25, 2011).

³⁸ See also Federal Trade Commission, "Automotive Fuel Ratings, Certification and Posting", 81 FR 2054 (January 14, 2016) available at <https://www.federalregister.gov/d/2015-32972>

consumer misfuelling, or (b) other participants in the supply chain with an interest in greater ethanol penetration agreed to indemnify retailers for any liability exposure associated with consumer misfuelling or warranty issues. The Associations' members would support either or both of these solutions.

The Associations strongly support removing all of the above impediments. Higher ethanol blends represent a clear opportunity for retailers to diversify their supply options in a manner that lowers costs for consumers while improving gasoline's emissions characteristics. These favorable environmental outcomes would be enhanced with higher E15 penetration. Over time, the environmental upside to ethanol should only increase as more biofuel facilities invest in more environmentally friendly production processes and carbon capture and sequestration projects. The RFS should be implemented in a way that rewards these costly investments.

C. EPA Should Not Finalize RVOs Beyond 2024

The Associations strongly discourage EPA from establishing RVOs for more than two years. We are not indifferent to the positive impact that certainty of demand provides for long-term decisions and investment planning. This certainty is somewhat of a façade, however, as the Agency remains willing and able to reopen the RVOs at any time in response to unintended market, policy, or political developments.³⁹ The market knows this.

The Proposal comes at a time of extraordinary market uncertainty. It is unclear how feedstock markets will respond to various policies and geopolitical developments that will influence different commodities' end use.⁴⁰ It is similarly difficult to ascertain how much of the additional renewable diesel capacity slated to come online in the coming years will actually come to fruition,⁴¹ and whether the artificial policy impediments precluding additional ethanol blending will be removed.⁴² Unforeseen market circumstances involving not only renewable fuel supply but also relevant economics mean that fuels markets are continually evolving and changing in ways that cannot be predicted.⁴³ Establishing RVOs for more than two years will inevitably invite unintended, unanticipated consequences in light of these supply uncertainties. The Associations discourage the Agency from doing this.

³⁹ See Proposed Rule P. 80590 (“[W]e retain our legal authority to waive volumes in the future under the [Program’s statutory] waiver authorities should circumstances warrant...Therefore, in the future, EPA could modify the volume targets for 2023 and beyond through the use of our waiver authorities as we have in past annual standard-setting rulemakings.”)

⁴⁰ See, e.g., Proposed Rule P. 80612 (“It is not clear to what extent the current oil price volatility will continue, increase, or be transitory in the 2023–2025 period addressed by this proposed rule.”)

⁴¹ See Proposed Rule P. 80597 (“In total over 5 billion gallons of new renewable diesel capacity has been announced, though it is likely that not all these announced projects will be completed, and not all of those that are completed will necessarily produce renewable diesel in the 2023–2025 timeframe addressed by this rule... In future years it is possible that feedstock limitations may result in renewable diesel facilities operating below their production capacity.”)

⁴² See Section IV-B-2 *supra*.

⁴³ See Proposed Rule P. 80592.

V. The Agency Should Revise the eRIN Proposal and Align it With the Goal of Increasing Charging Infrastructure

The Proposal represents the first time that the federal government is extending its primary alternative fuel policy to promote transportation electrification. The Associations support this concept. Fuel retailers are eager to support EV drivers' refueling demands. It is our strong view, however, that allowing owners of publicly accessible chargers to generate RINs – possibly coupled with making power generators or distributors “obligated parties” under the RFS – is the approach that is most likely to achieve the Program’s objectives and most aligned with the RFS as it currently exists.

Accordingly, the Associations urge the Agency to revise the Proposed Rule to permit public charging station owners and operators to generate eRINs rather than OEMs. This would enable charging station owners and operators to monetize eRINs as a means of overcoming a very challenging investment picture for high quality, consumer-friendly fast chargers. In the alternative, the Associations could support a “hybrid” model, wherein charging station owners and operators would generate eRINs for public charging, with the remainder of eRINs accruing to the OEMs. Finally, **the Associations hereby request that EPA initiate a rulemaking that would consider whether power generators or distributors should be “obligated parties” under the RFS.**

If these steps require that the eRIN portion of the Proposal be severed from the rest of the Proposal, we encourage the Agency to target 2024 as the start date for the eRIN program. If that start date cannot be met, a delay would be unfortunate but nevertheless, over time, lead to more rapid investment in EV charging stations and a resulting uptick in EV purchases as consumers become comfortable with their refueling options.⁴⁴ This outcome would be far more aligned with the Administration’s EV charging policy priorities.⁴⁵

As discussed further below, the Proposal would have minimal impacts on the trajectory of both EV penetration and EV charging installation. The goal of delivering electric vehicle miles traveled (eVMT) into the transport mix would be far better served if EV charging station owners and operators could generate eRINs. This would place eRINs directly in the renewable fuel supply chain and facilitate the buildout of public, state of the art charging stations that are essential for continued transportation electrification. If the final rule does not allow charging station owners to generate eRINs, it would represent a wasted opportunity for the Agency to make businesses more likely to install charging stations, and thus consumers more likely to purchase EVs.

⁴⁴ See generally Proposed Rule P. 80648 (discussing the Agency’s preference for delaying the eRIN program until 2024 to ensure it can be implemented properly to achieve the Program’s objectives).

⁴⁵ President Biden [@POTUS] “We’re building 500,000 electric vehicle charging stations across the country. The great American road trip will be fully electrified.” *Twitter*, (December 3, 2022) available at <https://twitter.com/POTUS/status/1599054477402804225?lang=en>

A. Allowing Public Charging Station Owners and Operators to Generate eRINs is the Best Way to Achieve EPA's Objectives

Expanding the RFS to promote vehicle electrification is designed to achieve two primary objectives. First, it is designed to further the development of qualifying biogas pathways. Second, it is designed to promote vehicle electrification.

Any of the various eRIN program structures that EPA is considering will be effective at further developing qualifying biogas pathways. All of the outcomes will result in the market directing significant resources to further the buildout of waste-to-energy systems that will provide low carbon or carbon-negative fuels into the transportation system. By designating OEMs of EVs as the locus of eRIN generation, however, the Agency would fail to promote vehicle electrification anywhere near as effectively as it could.

The Proposed Rule's eRIN structure is premised on two key assumptions: (1) EV price is the primary barrier to transportation electrification, and (2) that creating a new revenue stream for OEMs will yield a reduction in EV price.⁴⁶ Both assumptions are flawed.

1) Allowing Public Charging Station Owners and Operators to Generate eRINs is Most Aligned with the RFS as it Currently Exists

The RFS has successfully incentivized fuel retailers throughout the United States to invest more than \$1 billion to bring alternative fuels to market. The retail fuel industry is intimately familiar with the Program's reporting and compliance requirements. The industry has utilized RINs as a mechanism to make biofuels more attractive to consumers. This, in turn, has made biofuels more attractive to retailers, compounding the incentives to make additional biofuel investments. This is how the Program was designed to work. These competitive dynamics and positive outcomes can be replicated with respect to electricity as a transportation fuel, provided eRINs can be generated by owners and operators of public charging stations.

Placing the point of eRIN generation at the point of public charging activity would align eRINs with the Program's broader regulatory and market construct. The RFS makes biofuels more attractive for consumers and retailers, while also benefitting biofuel producers. RINs today are technically "generated" when a gallon of biofuel is produced; this is somewhat of a legal fiction, however, because the RIN cannot be "separated" from the wet gallon of biofuel (sold and traded) until it is blended into transportation fuel. This design serves to minimize instances of "RIN-fraud" while also maximizing the amount of RIN value that ends up in consumers' pockets. Indeed, the price (or value) of RINs today are shared throughout the supply chain, including by consumers in the form of lower fuel prices. If RINs could be separated at the point of production (rather than at the point where biofuels are blended with transportation fuel), biofuel producers would, in practice, retain virtually all of the RINs' value. In other words, the RIN values wouldn't flow downstream and biofuels would be less attractive to consumers and retailers.

⁴⁶ See Proposed Rule P. 80664 ("We anticipate that the degree of competition between OEMs on the pricing of EVs will dictate in large part how much of the eRIN value they receive is passed on to consumers in the form of lower purchase prices for new vehicles or subsidized services (e.g., charging).")

A similar structure would serve well as a model for eRINs. An equivalent of product transfer documents could be used to follow electricity generated from biogas through the distribution network and ultimately to the charging station owner/operator. The charging station, then, would be the point at which it would become clear that the electricity was used for transportation energy and the eRIN could be generated (or “separated”) and sold. This system would ensure some degree of sharing of the value of the eRIN throughout the distribution chain – thereby providing incentives for generators, distributors, and retailers to all work together to ensure the system functioned properly. This would stand in stark contrast to the model in the Proposal which would not incentivize any system for distributing eligible electricity to the transportation sector.⁴⁷

If eRINs could be generated by public charging owners and operators, it would support the RFS’ core objectives of making the initial alternative fuel infrastructure capital expenditure more attractive, while programmatically imposing downward pressure on the price that consumers pay for the transportation energy. (This consumer pricing consideration will become increasingly important as more and more Americans from a variety of socioeconomic backgrounds consider purchasing an EV.) Power generators – including potential new entrants to that market – would be incentivized to invest in generation from eligible sources of electricity, while charging station networks and site hosts would incorporate the eRIN’s value into their contractual agreements. As it does today, the eRIN’s value would be shared across the supply chain.

2) Vehicle Price is Not the Primary Barrier to EV Charging Uptake

Vehicle price is not the primary barrier to EV uptake. EV penetration has risen rapidly in recent years, and this growth trajectory is expected to continue through the remainder of this decade.⁴⁸ Some estimates even suggest that sales of electric light-duty vehicles will exceed those of internal combustion engine (“ICE”) vehicles by 2030.⁴⁹ These projections exist notwithstanding the various barriers to EV adoption, which are known to include consumer skepticism toward new technology, higher costs than ICE vehicles, limited range, lack of convenient public charging infrastructure, uncertain battery aging and resale value, longer refueling times compared with conventional vehicles, dismissive or deceptive car dealerships, lack of available models, and other supply constraints.⁵⁰

To address consumer concerns about price, a number of policies already exist to incentivize OEMs to manufacture more EVs. The Inflation Reduction Act alone included several incentives

⁴⁷ It is worth noting that the assumptions in the Proposal regarding electricity use are divorced from any reality regarding how eligible electricity is actually used. ERINs could, for example, be generated in situations when the electricity in question is clearly used for other purposes entirely. A product transfer documentation approach would overcome that issue and the legal questions it raises for the Agency’s authority to implement eRINs in the first place.

⁴⁸ Peter Valdes-Dapena, “Electric Vehicle Sales Hit a Tipping Point in 2022,” CNN, December 27, 2022, <https://www.cnn.com/2022/12/27/business/electric-vehicle-tipping-point/index.html>.

⁴⁹ Ira Boudway, “More than Half of US Car Sales Will Be Electric by 2030,” Bloomberg Green, September 20, 2022, <https://www.bloomberg.com/news/articles/2022-09-20/more-than-half-of-us-car-sales-will-be-electric-by-2030>.

⁵⁰ Matteo Muratori et al., “The Rise of Electric Vehicles—2020 Status and Future Expectations,” *Progress in Energy* 3, no. 2 (March 25, 2021): 022002, <https://doi.org/10.1088/2516-1083/abe0ad>.

for such vehicles.⁵¹ Several OEMs have already committed to producing far higher numbers of EVs.⁵²

With respect to EV manufacturing challenges, the cost of batteries and manufacturing will continue to drop in response to investments from OEMs and robust incentives.⁵³ Various federal, state, and local incentives that can total \$10,000 or more per vehicle have further enabled market maturation and have created more consumer comfort with this new technology.

While federal policies have aggressively sought to bring down EV sticker prices, those incentives have often proved a combination of regressive and ineffective. Consumers who are not price-sensitive when purchasing EVs will still benefit from cost reductions that are shouldered by the taxpayers.⁵⁴ EV tax credits disproportionately benefit wealthy Americans who purchase EVs for environmental reasons and incidentally enjoy the benefit of lower costs.⁵⁵

EPA should allow the slew of recently enacted tax credits to take full effect and monitor the market's response *before* providing additional, robust incentives to OEMs under the RFS.

a. Automakers Are Unlikely to Meaningfully Share eRIN Revenue with Customers

Even for the fraction of the potential EV customer base that would be swayed by an additional marginal reduction in price, the Proposed eRIN scheme would not in fact deliver such a reduction. An investigation of the incidence of the hybrid vehicle tax credits created under the 2005 Energy Policy Act found that “hybrid prices increase by \$0.75 on average for every additional

⁵¹ “Electrification Coalition - Inflation Reduction Act Impacts on Electric Vehicles,” Electrification Coalition, n.d., <https://electrificationcoalition.org/work/federal-ev-policy/inflation-reduction-act/>.

⁵² Jim Motavalli, “Every Automaker’s EV Plans through 2035 and Beyond,” *Forbes Wheels*, July 27, 2021, <https://www.forbes.com/wheels/news/automaker-ev-plans/>.

⁵³ Steven Loveday, “EV Battery Cell & Pack Prices Dropping at Surprising Rate,” *InsideEVs*, December 2, 2021, <https://insideevs.com/news/552010/electric-car-battery-prices-dropping/>.

⁵⁴ A recent review of 239 studies published in well-respected, peer-reviewed journals found that purchase-based incentives are only one of a suite of motivators driving EV purchase decisions, alongside climate consciousness, use-based incentives, and peer perception. See Rajeev Ranjan Kumar and Kumar Alok, “Adoption of Electric Vehicle: A Literature Review and Prospects for Sustainability,” *Journal of Cleaner Production* 253, no. 1 (April 2020): 119911, <https://doi.org/10.1016/j.jclepro.2019.119911>; see also Congressional Research Service, “purchases that are motivated for other reasons, such as HOV-lane access or general desire for a high-end vehicle that happens to be electric, might still qualify for federal credits. **For taxpayers who purchase [EVs] for other reasons, tax credits are a windfall gain. They reduce federal revenue but do not increase plug-in EV sales.**” U.S. Congressional Research Service. The Plug-In Electric Vehicle Tax Credit (IF11017; May 14, 2019), by Molly F. Sherlock, available at <https://trid.trb.org/view/1658674> (emphasis added).

⁵⁵ Haobing Liu et al., “Equity Issues Associated with U.S. Plug-in Electric Vehicle Income Tax Credits,” *Transportation Research Part D: Transport and Environment* 102 (January 2022): 103159, <https://doi.org/10.1016/j.trd.2021.103159>; see also Severin Borenstein and Lucas W. Davis, “The Distributional Effects of US Clean Energy Tax Credits,” *Tax Policy and the Economy* 30, no. 1 (January 2016): 191–234, <https://doi.org/10.1086/685597> (finding that tax credits for EVs are the most regressive in terms of the incentive distribution)

dollar of credit.”⁵⁶ Thus, the majority of the subsidy accrued to the sellers rather than the consumers. In states that participate in the Zero Emission Vehicle (“ZEV”) program, the price effect of these subsidies is even more extreme.⁵⁷

EPA’s own draft Regulatory Impact Analysis estimated that OEMs could expect \$279 per year in eRIN revenue per EV they sell. Assuming a 15-year vehicle lifetime, and a 7 percent discount rate, this amounts to approximately \$2,500 in net present value (“NPV”) per vehicle. This revenue stream, however, is subject to several uncertainties, including D3 RIN price volatility and political or policy changes that alter the RFS’s market impact. As such, these future revenues will be heavily discounted by OEMs, leading to a value well below the aforementioned \$2,500 NPV. Based on the low NPV of eRIN revenue and the empirical evidence on the incidence of EV incentives, there is little reason to believe that adding eRIN revenue to the existing federal and state incentives and mandates will cause the OEMs to take action that will lead to an increase in EV sales.

The greatest limitation on vehicle electrification lies not in the price of the car, but rather in the so-called “range anxiety” that consumers feel about the readily available public charging.⁵⁸ Incentivizing behavior to address those challenges should be the focus of policy in this area.

3) *Lack of Convenient, Publicly Available Charging is the Primary Barrier to EV Uptake*

Vehicle uptake has far outpaced the development of the public charging infrastructure that is necessary to accommodate new EVs on the road. Last year, according to data reported by the U.S. Department of Energy’s Alternative Fuels Data Center, EV sales increased 65 percent nationally, while public EV charging stations grew by less than 15 percent over the same period.⁵⁹ Though Congress has appropriated limited funds designed to mitigate that gap, on their own, grant programs like the National Electric Vehicle Infrastructure Program are insufficient to catalyze a nationwide network of EV chargers.

⁵⁶ Melissa A. Boyle and Victor A. Matheson, “Measuring Tax Incidence: A Natural Experiment in the Hybrid Vehicle Market,” *Environmental Economics and Policy Studies* 10, no. 2-4 (June 2009): 101–7, <https://doi.org/10.1007/bf03353981>.

⁵⁷ “For the 70 percent of EVs that are sold in ZEV states, the tax credit affects vehicle prices, but not sales, since automakers often meet, but rarely exceed, the ZEV requirement.... [O]ffering a tax credit of \$7,500 functionally results in ZEV prices that are \$7,500 higher than they would be otherwise. This means that automakers capture the entire benefit of the tax credit.” See Joshua Linn, “Who Benefits from EV Subsidies? The Complicating Role of Zero-Emissions Vehicle Standards,” University of Maryland Transportation Economics, April 15, 2021, <https://blog.umd.edu/transportation/2021/04/15/who-benefits-from-ev-subsidies-the-complicating-role-of-zero-emissions-vehicle-standards/>.

⁵⁸ “Fact from Fiction: Why Consumers Don’t Buy EVs,” Blink Charging, April 8, 2020, <https://blinkcharging.com/fact-from-fiction-the-real-reason-why-consumers-dont-buy-electric-vehicles/?locale=en>.

⁵⁹ Abby Brown et al., “Electric Vehicle Charging Infrastructure Trends from the Alternative Fueling Station Locator: Second Quarter 2022,” 2022, https://afdc.energy.gov/files/u/publication/electric_vehicle_charging_infrastructure_trends_second_quarter_2022.pdf.

The extent to which EV penetration is outpacing public charging station deployment is changing the landscape of the EV market. A 2022 national, representative survey by Consumer Reports and the University of Chicago found that 61 percent of Americans point to “not enough public charging stations” as the primary issue preventing them from buying or leasing an EV.⁶⁰ In fact, 2022 was the first year in which the study found that ‘access to charging’ exceeded ‘upfront cost’ as the greatest barrier to consumers purchasing an EV. The same survey found that 45 percent of Americans say that easy access to public fast-charging stations would be the most likely variable to affirmatively *encourage* them to buy or lease an EV. A mere 21 percent of respondents pointed to “similar purchase price to gasoline-powered vehicles” as a primary motivator.⁶¹

This trend threatens the development and durability of transportation electrification. A 2021 study from the University of California at Davis Institute for Transportation Studies found that almost 20 percent of EV owners in California switched back to a gas vehicle because of the difficulty of consistently charging their vehicle.⁶² (This is in the state with the best-developed EV charging infrastructure in the nation by an order of magnitude.)

4) *Availability of EV Charging Stations at Existing Retail Fuel Outlets is the Most Effective Way to Overcome EV Consumers’ Refueling Concerns*

To be successful, the on-the-go refueling experience for EVs should be as similar as possible to the conventional refueling experience to which consumers are accustomed. Fuel retailers are well positioned to offer fast, safe, and convenient EV charging services because they have a keen understanding of consumer preferences and tendencies. This fact is essential when it comes to adoption of EVs – the transition to EVs will require what was previously a quick stop to become a 30-minute consumer experience. Currently, it takes the driver of a passenger vehicle approximately two to three minutes to complete a refueling experience. It takes the driver of an EV, however, 20 to 40 minutes to recharge at a Direct Current Fast Charger (“DCFC”), depending upon the vehicle and the capacity of the charger available. EV charging hosts should be forced to compete on the service and amenities they offer their customers during this refueling experience, just as fuel retailers do today. This would be a positive dynamic for consumers, for whom “range anxiety” concerns about where they will (and will not) be able to “refuel” EVs are the primary impediment to purchasing an EV.⁶³

Availability of EV charging stations at existing locations motorists utilize today is the most effective way to solve range anxiety. Consumers freely drive their gas- and diesel-powered vehicles to every part of the country without concerns about whether they will be able to refuel safely and reliably whenever necessary. Offering EV charging at fuel retailing locations would mean drivers would not need to change their habits—they can refuel on the go at the same

⁶⁰ Consumer Reports, “Battery Electric Vehicles and Low Carbon Fuel: Overview of Methodology,” April 2022, https://article.images.consumerreports.org/prod/content/dam/surveys/Consumer_Reports_BEV%20AND%20LCF%20SURVEY_18_FEBRUARY_2022.

⁶¹ *Id.*

⁶² Scott Hardman and Gil Tal, “Understanding Discontinuance among California’s Electric Vehicle Owners,” *Nature Energy*, April 26, 2021, <https://doi.org/10.1038/s41560-021-00814-9>.

⁶³ See supra n.60 and accompanying text.

convenient locations they do today. The availability of EV charging on large price signs at fuel retailers' locations in communities and along America's highways will effectively relieve EV range anxiety.

Consumers frequently use their vehicles to visit family and friends and travel on vacations far from home. Most consumers are not in a position to purchase or rent a separate vehicle solely for these types of trips. Consumers must also be able to trust that the charging stations they visit will be functional, an issue that has increasingly presented a significant problem. We see this playing out today throughout the country in situations where chargers are owned and operated by entities – often utilities – that do not have a financial incentive to keep them in good working order.⁶⁴ If EV charging is not both available *and* reliable in the neighborhoods consumers want to visit, as well as along Interstate locations, many Americans simply will not purchase an EV, no matter the price.

Placing chargers only in individual garages in private homes, apartment buildings, and parking lots cannot combat the notion of “range anxiety” as effectively as fuel retailers offering that service. If EVs are to be adopted at the rate the Biden Administration desires, and by broader demographics than those that can currently afford an EV, the charging model must include the full range of options available in the refueling experience that exists today.

The majority of renters across the nation do not have garages, nor do many homeowners. Although approximately 80 percent of households have off-street parking, only 56 percent of vehicles have a dedicated off-street parking space (with only 47 percent at an owned residence).⁶⁵

*Thus, while much of the new vehicle market will have easy access to home charging, expanding the market to all vehicle buyers will require enabling plug-in vehicle charging for those in dense cities or multi-unit developments, where a higher proportion of drivers are unable to access home charging. According to several studies, a lack of home charging capacity is perceived as one major barrier to [EV] purchase.*⁶⁶

Low-income communities and communities of color are disproportionately likely to need access to regular public charging in order to own an EV. Deploying public charging infrastructure, thereby supporting the ability of *all* Americans to own an EV, would also help to reduce air pollution and improve air quality in low-income communities. Any light-duty vehicle electrification policy that forsakes a central focus on public charging should be amended to consider low-income Americans and the communities in which they reside.

⁶⁴ One in every five consumer attempts to charge their EV failed in 2022. See Hannah Lutz, “EV Drivers Struggle with Declining Reliability of Charging Network,” *Automotive News*, February 8, 2023, <https://www.autonews.com/mobility-report/ev-drivers-struggle-declining-reliability-charging-network>.

⁶⁵ Traut, E.J., T.C. Cherng, C. Hendrickson, and J.J. Micalek. 2013. US residential charging potential for electric vehicles. *Transportation Research Part D: Transport and Environment* 25: 139-145.

⁶⁶ National Academies of Sciences, *Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy – 2025-2035*, at pg. F-133 (internal quotations and citations omitted).

Even those Americans that *do* have garages often do not have space in their garage for the total number of vehicles their family drives, nor do they have the electrical capacity in their garage to support a charger or multiple chargers. This is also true for workplaces; many Americans, especially those working in low-income jobs, will not have the option, for a variety of reasons, to charge at work. Consumers must have viable charging options available outside of their home or workplace for widespread vehicle electrification to take place.

Refueling stations are strategically located where consumer demand is highest, competing with one another on price, speed, and quality of service. These locations include safe, accessible restrooms and parking lots, food and beverage options, vehicle service and repair centers, and even showers and other amenities for professional drivers.⁶⁷ Consumers demand all of this, regardless of the type of fuel their vehicle consumes, and fuel retailers respond accordingly.

5) Market Impediments to Private Investment in EV Charging Stations

The Associations' members, including many of the largest privately held companies in the United States, have invested meaningful resources into analyzing business development opportunities associated with EV charging station investments.⁶⁸ These companies' respective teams include grant-writing specialists to help them access various federal and state grant opportunities,⁶⁹ and electricity market and utility specialists to assess and interface with their potential "fuel suppliers" for EV charging stations. A number of companies have installed EV charging stations at their outlets, utilizing any number of business models and ownership structures.⁷⁰ These generally include either a "landlord" model (where the site hosts leases real

⁶⁷ Existing refueling locations also have on-site employees whose job function includes calling law enforcement in the event of an emergency. Such amenities that attract other travelers also minimize the chances of desolation (and thus vulnerability) for EV drivers while they recharge. Co-locating charging stations with 24/7 amenities means that EV drivers will invariably be more comfortable purchasing an EV without concern of exposing themselves to undue safety risk during on-the-go refueling events.

⁶⁸ Compare Section II-D supra.

⁶⁹ The Associations actively supported the development of the National Electric Vehicle Infrastructure ("NEVI") and Alternative Fuel Corridor grant programs that were included in the Infrastructure Investment and Jobs Act. Our members are in the process of analyzing and applying for grant opportunities. These programs will make a meaningful difference in mitigating the *upfront capital expenditures* associated with installing EV charging stations. Absent additional policy incentives or market reforms, however, *the grant programs will not enhance the business case for investing in charging stations as a means of generating a profit by selling electricity to EV drivers.* EPA has an extraordinary opportunity to supplement these EV charging grant programs by encouraging greater investment in charging stations through eRINs.

⁷⁰ See Umar Shakir, "EV Chargers Are Coming, This Time at TA Rest Stops," The Verge, January 30, 2023, <https://www.theverge.com/2023/1/30/23577696/electrify-america-travelcenters-petro-ev-dc-fast-chargers>; Kalea Hall, "GM Partners with Pilot to Install Chargers at up to 500 Travel Centers Nationwide," The Detroit News, July 14, 2022, <https://www.detroitnews.com/story/business/autos/general-motors/2022/07/14/gm-pilot-partner-add-charging-access-along-u-s-highways/10052246002/>; Aria Alamalhodei, "7-Eleven to install 500 EV charging ports by the end of 2022," Techcrunch, June 1, 2021, [7-Eleven to install 500 EV charging ports by the end of 2022 | TechCrunch](https://techcrunch.com/2021/06/01/7-eleven-to-install-500-ev-charging-ports-by-the-end-of-2022/); Dana Hull, "How Sheetz Partnered with Tesla and Brought EV Charging to Rural America," Bloomberg.com, July 14, 2022, <https://www.bloomberg.com/features/2022-tesla-electric-car-charging-stations-road-trip-sheetz/#xj4y7vzkg>; Tom Moloughney, "Love's Travel Stops to Further Expand Charging Network," InsideEVs, August 18, 2020, <https://insideevs.com/news/439519/electrify-america-loves-travel-stops-partnership/>; "Wawa

estate to a charging station operator), or a limited public subsidy in the form of grants, rebates, and/or utility subsidies underwritten by residential and commercial ratepayers. Very few, if any, of these investments are profitable on a self-sustaining basis where a private business consistently earns a profit on EV charging events. These existing investments therefore should be interpreted as “beta tests” by companies exploring the charging space, rather than indicative of a viable, sustainable business model.

At the moment, there are several impediments that make it challenging for private businesses to identify a pathway to profitability with respect to EV charging. Most of these impediments involve an electricity market structure that was not designed for – and is incompatible with – the retail fuel market.

Foremost among these market impediments is antiquated electricity pricing schemes that utilities are slow and reluctant to modernize. Many states are exacerbating this problem by allowing utilities to pass through the costs of EV charging stations to all of their customers on their monthly utility bill, rather than having EV drivers pay for the costs of refueling their own vehicles. Rising electricity prices, in conjunction with softer gas prices, made EVs more expensive to fuel than gas-powered cars at the end of 2022.⁷¹

There are no purchasing options or pricing structures for retailers to provide electricity as a fuel. Retailers with EV chargers today are forced to pay retail prices for electricity with very high demand charges. There is no business case for buying electricity at retail prices and selling electricity at retail prices. Regulated utilities that own and operate their own charging stations are not subject to demand charges and thus have an insurmountable competitive advantage over anyone else in that market. This situation has dramatically reduced the private sector investments in EV charging stations. Policy signals designed to incentivize private investment in EV charging will allow the Agency to meet its goals for increased EV driving.

6) Allowing Public EV Charging Station Owners and Operators to Generate eRINs would Enable Fuel Retailers to Offset Many Existing Market Impediments.

There is a well-known chicken-and-egg problem between EV purchases and EV charging station development. Absent thoughtful, targeted government intervention, it would likely take decades for the necessary infrastructure to develop to support widespread transport

Partners with EVgo to Expand Electric Vehicle Charging Network,” Convenience Store News, March 10, 2022, <https://www.csnews.com/wawa-partners-evgo-expand-electric-vehicle-charging-network>; “Casey’s Doubles Stores with EV Chargers throughout Network,” www.petrolplaza.com, November 4, 2022, <https://www.petrolplaza.com/news/31296>; “GoMart to Launch EV-Charging Stations at over 40% of Its C-Stores,” C-Store Dive, October 25, 2022, <https://www.cstoredive.com/news/gomart-to-launch-ev-charging-stations-at-over-40-of-its-c-stores/634911/>.

⁷¹ See “Gas-Powered Cars Cheaper to Fuel than Electric in Late 2022 – Anderson Economic Group,” January 24, 2023, <https://www.andersoneconomicgroup.com/cars-gas-powered-cheaper-to-fuel-than-electric-in-late-2022/>.

electrification.⁷² To keep up with EV sales growth, the U.S. public fast charging network will need to grow drastically.⁷³ The economics of vehicle charging, however, are simply insufficiently attractive to impel the charging network that a fully, or even partially electrified nation would need.⁷⁴ Using econometric methods to estimate consumer willingness to pay, researchers have found that the existence of fast charging along intercity routes to be worth \$6,500 to the owners of electric vehicles.⁷⁵

OEMs are already making a profit on every EV they sell. This is not the case for the owners of charging equipment. Internal data collected from our members mirrors what was already understood by economists – that only where utility demand charges are very low and utilization rates higher than anticipated do they expect a positive return on their investment. DC fast charger investments are capital-intensive, costing \$150,000-\$200,000 to install even in locations with existing utility service and sufficient open space. Unfortunately, even where support is available to defray this capital investment, the cost structure to operate and maintain these chargers on an ongoing basis makes their economics extremely challenging.

As noted previously, charging station owners – like most commercial electric power customers – foot the bill for energy costs per kilowatt hour (kWh). Unlike a conventional electricity consumer, however, commercial businesses that own charging stations are burdened by demand charges that reflect total maximum power demand (in kW) over a given period.

Demand charges have rendered the total cost of operating a DCFC practically insurmountable for private industry. Adding just two DC fast chargers to a convenience store typically increases its demand charges from under \$1,000 per month to almost \$4,500 per month. Since demand charges are a function of peak demand, they remain fixed no matter how often a given charger is utilized. This means that the relative cost per kWh delivered is very high for chargers with low utilization. Most chargers today have very low utilization, and this is expected to continue for many years in most markets.

Importantly, our members have indicated that even with the expected low utilization rate, if eRINs could be generated by owners of public charging stations, installations with a projected negative rate would be shifted to a positive rate of return. Specifically, certain projects that would have been projected to lose 9 percent annually over their first ten years would, with the value of eRINs, actually return 5 percent annually. In that scenario, installation costs could be paid off in as quickly as 8 years. While these experiences and projections are anecdotal and subject to regional

⁷² “Overcoming Barriers to Deployment of Plug-in Electric Vehicles” at NAP.edu, National Academies, <https://nap.nationalacademies.org/read/21725/chapter/1>.

⁷³ “Study: Pace of US EV Adoption Requires 8X Charger Growth by 2030,” Green Car Reports, https://www.greencarreports.com/news/1138424_study-pace-of-us-ev-adoption-requires-8x-charger-growth-by-2030.

⁷⁴ Brennan Borlaug et al., “Public Electric Vehicle Charging Station Utilization in the United States,” *Transportation Research Part D: Transport and Environment* 114 (January 1, 2023): 103564, <https://doi.org/10.1016/j.trd.2022.103564>.

⁷⁵ L. Greene et al., “Public Charging Infrastructure for Plug-in Electric Vehicles: What Is It Worth?,” *Transportation Research Part D: Transport and Environment* 78 (January 2020): 102182, <https://doi.org/10.1016/j.trd.2019.11.011>.

and other variabilities, they are broadly representative of the market conditions experienced by our members across the country. **If EPA allows charging station operators to generate eRINs, new state-of-the-art fast chargers will be installed as a direct result of the RFS.** If only OEMs generate eRINs, this is not going to be the case.

Vesting the owners and operators of public charging stations with the ability to generate eRINs would incentivize our membership to make significant investments in EV charging. The fueling market is much more competitive than the vehicle market, meaning that the owners of this infrastructure would reliably share eRIN revenue with consumers. This would create a virtuous cycle in this industry, reducing the price of electricity sold, thereby increasing charging station utilization rates and further improving the economics of this critical infrastructure.

Improving the economics of public charging would also facilitate fuel switching in hard-to-decarbonize transport sectors such as heavy-duty trucking and public transit, for which access to reliable and affordable fueling has proven a key barrier to electrification. Moreover, it would spur innovation in transportation and DCFC business models. For example, it could facilitate the deployment of demand-responsive charging technology and the installation of on-site solar panels to generate electricity or battery storage to manage demand charges – all in the long-term best interest of power grid operations, vehicle/grid integration, and carbon emissions.

Early uptake of EVs has been inequitable, with the benefits of EV ownership disproportionately falling to wealthier Americans, those with more education, and those more likely to own a home.⁷⁶ As noted previously, access to public charging infrastructure is particularly important in facilitating EV uptake among communities that are less likely to own a single-family home, and therefore will have inconsistent access to at-home charging.⁷⁷ By facilitating the installation of public chargers, EPA could leverage the RFS market to deliver more equitable access to vehicle electrification.

B. Alternative “Carve-Out” Method to Allow Charging Stations to Generate eRINs

Given the various political and, to a lesser degree, administrative complications associated with allowing only public charging stations to generate eRINs, the Associations encourage the Agency to consider potential “hybrid” models that would allow both OEMs *and* charging station owners and operators to generate eRINs. There are various potential approaches for the Agency to implement a hybrid model that would enable private businesses to overcome the various market impediments that make it challenging to invest in EV charging stations today, and the Associations could support any such model that enables its members to overcome those impediments.

⁷⁶ California Clean Vehicle Rebate Project, “EV Consumer Survey Dashboard | Clean Vehicle Rebate Project,” [cleanvehiclerebate.org](https://cleanvehiclerebate.org/en/survey-dashboard/ev), accessed February 5, 2023, <https://cleanvehiclerebate.org/en/survey-dashboard/ev>.

⁷⁷ Simon Árpád Funke et al., “How Much Charging Infrastructure Do Electric Vehicles Need? ^[SEP]A Review of the Evidence and International Comparison,” *Transportation Research Part D: Transport and Environment* 77 (December 2019): 224–42, <https://doi.org/10.1016/j.trd.2019.10.024>.

In this section, we outline one potential charging station “carve-out” approach that we encourage the Agency to consider.

1) *Basic Structure*

OEMs would provide data to EPA that would establish the maximum amount of transportation energy for which their fleet could potentially generate RINs in the same manner as outlined in the Proposal.⁷⁸ Public charging station owners and operators would separately use charging event information collected as a regular course of business. These entities would need to rely on contractual relationships with renewable electricity generators and biogas producers to demonstrate that renewable electricity was generated from qualifying biogas or renewable natural gas.

2) *Establishing and Implementing a Charging Station “Carve-Out”*

The following process would satisfy the need for “some form of adjustment . . . to subtract the charge events that occurred at charge stations from the overall transportation fuel use calculated by the OEMs to ensure that no double counting of electricity used for transportation occurs.”⁷⁹

First, estimate the percentage of all kWh delivered to EVs that is delivered by public charging stations, using the best available information to establish this “public charging percentage.”

Second, require OEMs to “carve out” this “public charging percentage” of the kWh from the overall transportation fuel use calculated by the OEMs *before* the OEMs procure renewable electricity under RIN generation agreements (*i.e.*, before OEMs are able to generate eRINs). By “carving out” the percentage of kWh estimated to be delivered at public stations from the estimate of kWh on which OEM eRIN credit generation is based, the OEM would be prohibited from producing eRINs from the kWh that were delivered to public charging stations. This would prevent double-counting before it can occur.

Third, allow public charging station owners and operators to generate eRINs on the same reporting schedule as OEMs. These would be based on either aggregated quarterly reports of the kWh delivered at each qualified EV charger, or an estimate of average kWh delivered by each kW of charging capacity open to the public.⁸⁰ The percentage of eRINs that will be generated by public charging stations would thus have been estimated in advance and carved out of OEM eRIN generation each reporting period, thereby avoiding double counting vulnerability associated with charging station eRIN generation.

⁷⁸ See Proposed Rule P. 80649.

⁷⁹ See Proposed Rule P. 80665.

⁸⁰ The Associations encourage the Agency to utilize empirical data rather than estimates, as this would place the eRIN regime on firmer legal footing. That being said, EPA could reasonably estimate average kWh delivered per kW of charging capacity based on extensive public reports of charging station utilization collected by various governmental entities.

Fourth, the Agency would recalibrate the “public charging percentage” on a periodic basis to ensure the estimate of overall transportation fuel delivered to EVs at public charging stations is accurate. The variability of charging station utilization suggests that frequent revisions to these estimates will be necessary.⁸¹ This recalibration should be based upon actual eRIN production numbers from the previous reporting period, consistent with EPA’s intention to use data collected in the program to “both help verify the proposed RIN generation equations as well as provide a basis for ongoing program improvement.”⁸²

Fifth, after EPA recalibrates the “public charging percentage” of kWh delivered at public charging stations, OEMs would “carve out” the recalibrated percentage from the overall transportation fuel use calculated by OEMs in order to generate eRINs in subsequent reporting periods, and then the process would begin anew starting with the *second step* outlined above utilizing the recalibrated “public charging percentage” prospectively.

By estimating the “public charging percentage” as accurately as possible, including frequent recalibration based on new information, EPA would ensure the percentage is a highly accurate estimate designed to avoid double-counting without the need for OEMs to engage in a complicated “reconciliation” after the fact. This outcome would be consistent with EPA’s stated preferences for estimates, ongoing program improvement, and application of the law of averages.

Finally, by requiring that all OEMs “carve out” the same “public charging percentage” in a uniform manner across all makes and models, this proffered method would be most consistent with the Agency’s stated preference for EVs to “be treated in a uniform fashion for the purposes of calculating their renewable electricity consumption.”⁸³

In its push to electrify transportation, it would be imprudent to shift drivers into EVs *en masse* without first ensuring that the infrastructure is in place for them to use those vehicles successfully. The Proposed Rule’s eRIN structure would do nothing to deliver this infrastructure. Instead, it rolls the dice on delivering to drivers a small fraction of eRIN revenue in the form of a modest, additional purchase rebate they are not demanding.

In the strongest possible terms, the Associations urge EPA to allow EV charging station owners and operators to generate eRINs and thereby use the Program to facilitate the buildout of EV charging stations that are critical for continued transportation electrification.

⁸¹ If EPA has continued concerns about the overproduction of eRINs in a certain quarter, several mitigation measures might be employed, including retroactively calculating the aggregate amount of over crediting and deducting it from the next quarter’s carveout.

⁸² See Proposed Rule P. 80656.

⁸³ See Proposed Rule P. 80652.

VI. CONCLUSION

Thank you for the opportunity to provide these comments. The Associations are grateful for EPA's effort to responsibly implement such an important, complex regulatory regime and stand ready to assist the Agency as it moves forward.

Sincerely,

A handwritten signature in blue ink, appearing to read 'D. H. Fialkov', with a checkmark at the end.

David H. Fialkov
Executive Vice President, Government Affairs
NATSO, Representing America's Travel Plazas and Truckstops
SIGMA: America's Leading Fuel Marketers

A handwritten signature in black ink, appearing to read 'D. S. Kantor', with a checkmark at the end.

Douglas S. Kantor
General Counsel
National Association of Convenience Stores (NACS)