



March 8, 2022

Re: Hearing on “Charging Forward: Securing American Manufacturing and Our EV Future”

Chairman Rush, Ranking Member Upton, and Members of the Energy Subcommittee,

Electrify America appreciates the opportunity to provide a written statement on the hearing, “Charging Forward: Securing American Manufacturing and Our EV Future.” We welcome any questions and would be pleased to provide further information or relevant resources that the Subcommittee might find useful or helpful.

About Electrify America

Electrify America LLC, the largest open DC fast charging network in the U.S., is investing \$2 billion over 10 years in Zero Emission Vehicle (ZEV) infrastructure, education and access. The investment will enable millions of Americans to discover the benefits of electric driving and support the build-out of a nationwide network of workplace, community and highway chargers that are convenient and reliable.

Electrify America currently has over 700 stations with over 3,000 ultra-fast chargers, in 46 states and Washington, D.C. With the recently announced Boost Plan, the company will deploy more than 1,700 fast charging stations and 9,500 individual chargers installed by the end of 2025. The expansion will increase the deployment of 150 and 350 kilowatt chargers – the fastest speeds available today – and help pave the way for more electric vehicles in North America.

Public and Private Financial Incentives for Public Charging

Congress is to be commended for passing the Infrastructure Investment and Jobs Act (IIJA) and including \$7.5 billion for Electric Vehicle (EV) charging infrastructure.

In addition to specific funding opportunities, the Infrastructure Investment and Jobs Act includes other measures to promote greater electrification of the transportation sector—especially section 40431. This provision amends PURPA to require state utility regulators and utilities to consider rates specific to EV charging infrastructure which:

- Promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicles charging infrastructure
- Improve the customer experience associated with EV charging, including reducing charging times for light-, medium-, and heavy-duty vehicles
- Accelerate third-party investments in EV charging for light-, medium-, and heavy-duty vehicles.
- Recover the marginal costs of delivering electricity and EVs and EV charging infrastructure.

Considering these elements will be critical to achieving widespread deployment of electric vehicles and decarbonizing our transportation sector.

The ultimate success of EVs will depend upon a scale up of both EV manufacturing and upon the deployment and widespread availability of EV charging infrastructure. Achieving this latter goal will require not only significant capital expenditures, but will also require that we create the necessary market conditions for public charging networks to generate sufficient revenue from the sale of electricity to be able to maintain profitability and build additional charging infrastructure. As noted by Atlas Public Policy¹:

Atlas Public Policy research shows that to achieve 100 percent passenger electric vehicle sales by 2035 and put the nation on the path to full electrification, over \$87 billion in investments in charging infrastructure will be needed over the next decade, including \$39 billion for public charging.

The need for consistent charging access throughout the country is essential to enable widespread electric vehicle adoption. Public charging infrastructure investments have emerged as a critical gap, however, since *the direct revenue from providing these services often does not cover the costs of installation and operation of the equipment...*The analysis also found that achieving 100 percent passenger electric vehicle sales by 2035 will require installation of an estimated 495,000 public and workplace charging ports, a finding similar to the 500,000 EV chargers called for in the American Jobs Plan. (emphasis added)

Demand Charges

According to a Great Plains Institute report, demand charges “can lead to operating costs that far exceed the revenue these chargers can receive from customer payments.”² As such, they pose an existential threat to the long-term viability of public charging and are a barrier to the sustainability of public investments such as the \$7.5 billion investment in the IJJA.

Demand charges are assessed by utilities based on the peak power demand consumption and cannot be passed along to consumers. For ultra-fast DC fast chargers, demand charges can comprise upwards of 90% of utility costs.³ For example, Q1-Q3 2020 electric bills for New York resulted in an effective rate of \$1.47/kWh which is equivalent to a gas price of \$10.46/gallon. The economic viability of public charging stations—and consumer fuel prices—are at stake.

Demand charges, based on what is an essentially random peak power draw, is a model that is not appropriate for electric vehicle charging infrastructure, and FERC and other involved in such charges should address this issue as soon as possible and in a way that does not jeopardize the viability of both the public and private sector investments in charging infrastructure. Indeed, while FERC has jurisdiction over capacity charges rather than demand charges, both of these fees are in the universe of demand-based fees. Therefore, on the federal level, FERC can address wholesale capacity charges, a type of demand-based fee, while the federal government in general should ensure that its recent PURPA 111(d) amendments are implemented by state public utility commissions (PUCs), who now have an obligation to consider limiting demand charges under Section 40431.

¹ McKenzie, L. & Nigro, N., *U.S. Passenger Vehicle Electrification Infrastructure Assessment*, Atlas Public Policy (April 2021) available at <https://atlaspolicy.com/u-s-passenger-vehicle-electrification-infrastructure-assessment/>

² McFarlane, D., et al, *Overcoming Barriers to Expanding Fast Charging Infrastructure in the Midcontinent Region*, Great Plains Institute (July 2019).

³ McFarlane, D., et al. (2019).

Equity

Ensuring equity with regard to EVs and EV charging is a critical element of our transportation future. EVs will help reduce air pollution, especially in already overburdened areas, and the more EVs are deployed at all levels of society, the greater this beneficial impact will be. EVs will also save money for consumers in the long term, so long as utility rates are reformed to establish EV-charging specific rates. Specific rates will address a current inequality between low utility residential rates (which those who can charge at home benefit from), and high commercial rates (which public charging companies that serve multi-unit dwelling populations must pay). This inequity, if not addressed through the utility rate reform process required in Section 40431 of IIJA, is an established barrier to EV adoption in the low-income and diverse communities that the President has prioritized in his Justice40 Initiative.

Inaccessibility of EV charging is a major hurdle to the adoption of electric vehicles in lower-income communities. Urban households are more than twice as likely as suburban households to live in multifamily housing (apartments, condos, row houses)—with 37 percent of urban households and 16 percent of suburban households living in such units.⁴ This presents an obstacle because more than 80% of all charging sessions happen at home.⁵ Apartment buildings may or may not have dedicated space for charging and even where there is a space and a charger, vehicles cannot routinely be left overnight, as other residents will need access to charging. And where there is only on-street parking, vehicle charging may not be possible at all.

As a result, only 8-15% of residents at apartment complexes have access to residential charging.⁶ Furthermore, 86% of the 31.4M multi-family housing units in the US are rented, and these residents have the greatest difficulty charging at home.⁷ A recent study by the Dept. of Energy's National Renewable Energy Lab (NREL) indicates that only "33% of the current light duty vehicles stock in the United States is parked close to electrical access"⁸ These numerous factors indicate that public DCFC is critical to ensuring all groups access the benefits of electrification.

We share the objective of equitably electrifying America and ensuring all Americans can access electric cars. Investment in ultra-fast chargers, in particular, is an important equity tool. First, according to UCLA's most recent research,⁹ multi-unit dwelling (MUD) residents rely on DCFC as their primary source of charging. Second, Harvard¹⁰ and Bloomberg¹¹ research demonstrates that those who live in MUDs and rent are lower income and more racially and ethnically diverse than the average population. And third, according to a 2021 report from the California Energy Commission, DCFC charger deployment is more heavily centered on low- and moderate-income communities, which have

⁴ Mortgage Bankers Ass'n., *MBA Chart of Week: Distribution of Housing Types, Race and Ethnicity (Urban Areas and U.S.)*, <https://newslink.mba.org/mba-newslinks/2017/october/mba-newslink-monday-10-2-17/mba-chart-of-week-distribution-of-housing-types-race-and-ethnicity-urban-areas-and-u-s/> (Oct. 2, 2017).

⁵ Blonsky, M., et al., *Incorporating Residential Smart Electric Vehicle Charging in Home Energy Management Systems*, NATIONAL RENEWABLE ENERGY LAB (April 2021).

⁶ Ge, Yanbo et al., *There's No Place Like Home: Residential Parking, Electrical Access, and Implications for the Future of Electric Vehicle Charging Infrastructure*, NATIONAL RENEWABLE ENERGY LABORATORY (2021).

⁷ Neal, M. et al., *Housing Supply Chartbook*, Urban Institute (January 2020).

⁸ Ge, Yanbo et al., (2021).

⁹ DeShazo, J.R. and J. Di Filippo, *Evaluating Multi-Unit Resident Charging Behavior at Direct Current Fast Chargers: Evidence From EVgo's High Power Charging Plaza Pilot* (February 2021).

¹⁰ Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing* 2018. (2018).

¹¹ Bloomberg CityLab, *Who Owns a Home in America*, in 12 Charts, August (2018).

11 and 14 DCFC per 100,000 people respectively.^{12 13} High income communities have the lowest concentration of DCFC per capita, with only nine units per 100,000 residents. In stark contrast, high income communities have 25% higher levels of Level 2 charger deployment per capita than low-income communities.

This study demonstrates that investing state funding in ultra-fast, reliable public charging stations, instead of Level 2 charging stations, is more likely to lead to investment in the lower-income and disadvantaged communities prioritized by the Energy and Commerce Committee in recent legislative proposals.

The E-RIN opportunity

Another key opportunity the Federal Government needs to focus on is the potential for the federal Renewable Fuel Standard to incentivize electric vehicles and therefore to achieve additional greenhouse gas reductions as the Congress intended. To date, this is a lost opportunity—and one that the Congress has repeatedly directed the EPA to realize.

The Federal Renewable Fuel Standard provides EPA with the legal authority and the obligation to process registration applications for electricity-based Renewable Identification Numbers (E-RINs). EPA finalized RFS rulemakings in 2010 and 2014 that addressed electricity derived from biogas and used as transportation fuel.

In the 2010 Rule, EPA recognized that electricity derived from renewable biomass that displaces fossil fuels as transportation fuel must be credited under the RFS system. EPA stated that “we are allowing fuel producers, importers and end users to include electricity, natural gas, and propane made from renewable biomass as a RIN generating renewable fuel in RFS.”¹⁴

In 2014, EPA approved a fuel pathway for electricity produced from biogas, and created associated registration, reporting and recordkeeping requirements applicable to the generation of RINs for electricity.¹⁵ Under the 2014 Rule, RIN generators would be required to match production of electricity with its end-use as a transportation fuel by demonstrating (through affidavits or contracts) how the fuel was ultimately used by electric vehicles (EVs).¹⁶

Although seven years have passed since EPA adopted regulations that would allow parties to generate RINs for renewable electricity (E-RINs) used as a transportation fuel produced from biogas sourced from landfills, anaerobic digesters and wastewater treatment facilities, EPA has not yet approved any registrations for E-RINs.

¹² CALIFORNIA ENERGY COMMISSION, Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment – Analyzing Charging Needs to Support Zero-Emission Vehicles in 2030 (2021).

¹³ CALIFORNIA ENERGY COMMISSION, SB 1000 Electric Vehicle Charging Infrastructure Deployment Assessment, California Energy Commission, December (2020).

¹⁴ ENVIRONMENTAL PROTECTION AGENCY, Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 75 Fed. Reg. 14,670, 14,686 (Mar. 26, 2010).

¹⁵ ENVIRONMENTAL PROTECTION AGENCY, Regulation of Fuels and Fuel Additives: RFS Pathways II, and Technical Amendments to the RFS Standards and E15 Misfueling Mitigation Requirements, 79 Fed. Reg. 42,128, 42,128 (July 18, 2014).

¹⁶ See 79 Fed. Reg. at 42,144 (“These provisions allow for the use of signed affidavits, when written contracts are not available, to prove the use or sale of renewable electricity and renewable CNG/LNG for transportation purposes These affidavits would then be matched, by the registered fuel producer, to the delivery or sale of an equivalent amount of qualifying renewable electricity or renewable CNG/ LNG.”).

It is well worth highlighting that Congress itself has repeatedly directed EPA to take action regarding E-RINs. In 2019, the House and Senate Committees on Appropriations included language requiring EPA to take action on E-RINs, which read: Electric Pathway.

The Committee notes the backlog of applications under the Renewable Fuels Pathway II rule finalized in 2014. No applications for the electric pathway, which could help support rural agricultural communities, have been approved since the rule went into effect. The Agency shall take action on the existing applications within 90 days of the enactment of this act.¹⁷

In June 2020, the House Select Committee on the Climate Crisis (majority) recommended Congress direct EPA to begin issuing RINs for electricity generated from renewable biogas and used to power EVs. Specifically, the Committee recommended that, until Congress creates a successor RFS program, EPA should complete any steps necessary to allow the generation of E-RINs.¹⁸

In December of 2020, Congress enacted the Consolidated Appropriations Act (H.R. 133), which was signed into law on December 27, 2020. The explanatory statement accompanying this bill instructs EPA to use \$500,000 of the funding to process applications seeking to generate credits¹⁹ for electricity:

Within the funds provided to the Office of Transportation and Air Quality (OTAQ), not less than \$500,000 shall be for processing applications under the Renewable Fuels Pathway II rule for the electric pathway. The Committees note the backlog of applications under the Renewable Fuels Pathway II rule finalized in 2014. No applications for the electric pathway, which could help support rural agricultural communities, have been approved since the rule went into effect. The Agency shall take action on the existing applications within 90 days of the enactment of this Act...²⁰

In July 2021, the House Appropriations directed the EPA to take immediate action to address the E-RIN program:

[t]he Committee is dismayed that the Agency yet to take any action on long-pending Electric Pathway II applications under the Renewable Fuels Standard. Within 10 days of enactment of this Act, the Committee directs the Administrator to take final action on applications that have been pending for more than 12 months.²¹

Most recently, in August 2021, ten Members of Congress joined Rep. Ruiz, M.D., in a letter to EPA to request an update on E-RINs and to express their desire for accelerated action on approvals:

One immediate action that the EPA should take to facilitate the advancement of EV deployment is approving long-pending applications to produce RFS credits – known as E-RINS – under the

¹⁷ S. Rept. 116-123 —Accompanies S.2580 Department of The Interior, Environment, And Related Agencies Appropriations Bill, 2020

¹⁸ House Select Committee on the Climate Crisis, 116th Cong. Solving the Climate Crisis – Prepared by Majority Committee Staff Pursuant to H.Res.6, p.103 (June 2020)

<https://climatecrisis.house.gov/sites/climatecrisis.house.gov/files/Climate%20Crisis%20Action%20Plan.pdf>

¹⁹ These credits are called Renewable Identification Numbers (RINS). Credits that would be generated from Renewable Electricity are referred to as “E-RINS.”

²⁰ Explanation of the Consolidated Appropriations Act, Congressional Record 166:218 (December 21, 2020) p. H8539.

²¹ H. Rept. 117-83 Dept. of the Interior, Environment, and Related Agencies Appropriations Bill, 2022. 117th Cong. House Committee on Appropriations (July 2021).

biogas to electricity pathway. Acting on this policy in the near term will produce decarbonization benefits for many years down the road.²²

EPA has long agreed that E-RINs can be an important part of incentivizing electric vehicles and electric vehicle infrastructure, thereby reducing greenhouse gases from the transportation sector. In 2018, the benefits were quantified by the Department of Energy's Oak Ridge National Laboratory.

E-RINs could help spur the purchase of 19,700,000 additional EVs in the United States by 2030.²³ They would also help save consumers an average of \$6,050. Additionally, 8,000 farms could support digesters to generate biogas, which has the potential electricity output of 41.2 TWh/year.²⁴

EPA decided upon a "case by case" approach to approving E-RIN applications in 2014 and that approach remains consistent with EPA's applicable regulations. However, to date—nearly seven years later—the EPA has not processed any registration requests. This inaction hinders the potential growth of the EV and EV charging makers and discourages investment at a time when reducing greenhouse gas emissions has never been more urgent.

We understand that EPA is in the process of developing a rule regarding E-RINS, and we urge Congress to provide EPA with encouragement and support so that they can finalize such a rule as soon as possible. We have filed comments urging EPA to consider the issue of E-RINS in upcoming RFS rules including rules that address the volume requirements for 2023 and beyond, which are also under active consideration by the EPA.

Conclusion

Electrify America stands ready to work with Chairman Rush and Ranking Member Upton and the Members of the Subcommittee and full Committee to incentivize the deployment of EVs and the build-out of needed charging infrastructure. A robust public charging infrastructure will be needed in order to ensure construction and deployment of a just and equitable infrastructure. The \$7.5 billion investment in the IIJA is an excellent start for EV infrastructure, but it must be paired with additional incentives and address the demand charge issue in order for it to fulfill its promise of spurring rapid growth in EVs and a lasting build-out of the critical associated charging infrastructure.

Sincerely,

_____/s/____

Andrew Poliakoff
Federal Affairs Lead
Electrify America, LLC

²² *Letter to EPA Administrator, Michael Regan on August 23, 2021*, signed by Reps. Ruiz, M.D., DeSaulnier, Courtney, Eshoo, Garamendi, DeGette, Napolitano, Hayes, Nadler, T. Ryan and Payne.

²³ Xie F, Zhenhong L, Podkaminer K, GCB Bioenergy, 11-623-634 (2018). Available at: <https://onlinelibrary.wiley.com/doi/full/10.1111/gcbb.12581>

²⁴ Xie, F. (2018).



February 4, 2022

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

Re: Renewable Fuel Standard (RFS) Program: RFS Annual Rules: Proposed Rules. 40 CFR Parts 80 and 1090. Docket ID: EPA-HQ-OAR-2021-0324. FRL-8521-02-OAR. RIN 2060-AV11. 86 Fed. Reg. 72436 (December 21, 2021)

Administrator Regan,

Electrify America appreciates the opportunity to submit the following comments regarding EPA's Proposed Renewable Fuel Standard (RFS) Annual Rules (EPA-HQ-OAR-2021-0324. FRL-8521-02-OAR). We welcome any questions and would be pleased to provide further information or relevant resources that EPA might seek as a result of our comments.

About Electrify America

Electrify America LLC, the largest open DC fast charging network in the U.S., is investing \$2 billion over 10 years in Zero Emission Vehicle (ZEV) infrastructure, education and access. The investment will enable millions of Americans to discover the benefits of electric driving and support the build-out of a nationwide network of workplace, community and highway chargers that are convenient and reliable.

Electrify America currently has over 700 stations with over 3,000 ultra-fast chargers, in 46 states and Washington, D.C. With the recently announced Boost Plan, the company will deploy more than 1,800 fast charging stations and 10,000 individual chargers; installed by the end of 2025. The expansion will increase the deployment of 150 and 350 kilowatt ultra-fast chargers – the fastest speed available today – and help pave the way for more electric vehicles in North America.

Background Regarding the Renewable Fuels Standard and Renewable Electricity

The Renewable Fuel Standard provides EPA with the legal authority and the obligation to process registration applications for electricity-based Renewable Identification Numbers (E-RINs).

EPA finalized RFS rulemakings in 2010 and 2014 that addressed electricity, compressed gas and liquefied gas (CNG/LNG) derived from biogas and used as transportation fuel. In the 2010 Rule, EPA recognized that electricity derived from renewable biomass that displaces fossil fuels as transportation fuel must be credited under the RFS system. EPA stated that “we are allowing fuel producers, importers

and end users to include electricity, natural gas, and propane made from renewable biomass as a RIN-generating renewable fuel in RFS.”¹

The 2010 rule also established equivalence values, registration, reporting and recordkeeping requirements for each of those renewable fuels, including electricity.² While approving fuel pathways for natural gas and propane, the 2010 rule did not approve a fuel pathway for electricity. Accordingly, EPA began approving RIN generation for natural gas and propane produced from biogas, but it did not do so for electricity produced from biogas.

In 2014, EPA approved a fuel pathway for electricity produced from biogas, and created associated registration, reporting and recordkeeping requirements applicable to the generation of RINs for electricity.³ Under the 2014 Rule, RIN generators would be required to match production of electricity with its end-use as a transportation fuel by demonstrating (through affidavits or contracts) how the fuel was ultimately used by electric vehicles (EVs).⁴

Although seven years have passed since EPA adopted regulations that would allow parties to generate RINs for renewable electricity (E-RINs) used as a transportation fuel produced from biogas sourced from landfills, anaerobic digesters and wastewater treatment facilities, EPA has not yet approved any registrations for E-RINs.

Appropriations Language

Congress has repeatedly directed EPA to take action regarding E-RINs. In 2019, the House and Senate Committees on Appropriations included language requiring EPA to take action on E-RINs, which read:

Electric Pathway.—The Committee notes the backlog of applications under the Renewable Fuels Pathway II rule finalized in 2014. No applications for the electric pathway, which could help support rural agricultural communities, have been approved since the rule went into effect. The Agency shall take action on the existing applications within 90 days of the enactment of this act.⁵

In June 2020, the House Select Committee on the Climate Crisis (majority) recommended Congress direct EPA to begin issuing RINs for electricity generated from renewable biogas and used to power EVs. Specifically, the Committee recommended that, until Congress creates a successor RFS program,

¹ ENVIRONMENTAL PROTECTION AGENCY, *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program*, 75 Fed. Reg. 14,670, 14,686 (Mar. 26, 2010).

² The 2010 Rule established that 22.6 kW-hr of electricity represents one gallon of renewable fuel with an equivalence value of 1.0. 75 Fed. Reg. at 14869, as amended by 75. Fed. Reg. 26,026, 26,037 (May 10, 2010). This equivalence value regulation for electricity is codified at 40 C.F.R. § 80.1415(b)(6).

³ ENVIRONMENTAL PROTECTION AGENCY, *Regulation of Fuels and Fuel Additives: RFS Pathways II, and Technical Amendments to the RFS Standards and E15 Misfueling Mitigation Requirements*, 79 Fed. Reg. 42,128, 42,128 (July 18, 2014).

⁴ See 79 Fed. Reg. at 42,144 (“These provisions allow for the use of signed affidavits, when written contracts are not available, to prove the use or sale of renewable electricity and renewable CNG/LNG for transportation purposes . . . These affidavits would then be matched, by the registered fuel producer, to the delivery or sale of an equivalent amount of qualifying renewable electricity or renewable CNG/ LNG.”).

⁵ S. Rept. 116-123 —Accompanies S.2580 Department Of The Interior, Environment, And Related Agencies Appropriations Bill, 2020

such as a Low Carbon Fuel Standard, EPA should complete any steps necessary to allow the generation of E-RINs.⁶

In December of 2020, Congress enacted the Consolidated Appropriations Act (H.R. 133), which was signed into law on December 27, 2020. This act, provided direction and funding to EPA, among many other agencies. The explanatory statement accompanying this bill instructs EPA to use \$500,000 of the funding to process applications seeking to generate credits⁷ for electricity:

. . . Within the funds provided to the Office of Transportation and Air Quality (OTAQ), not less than \$500,000 shall be for processing applications under the Renewable Fuels Pathway II rule for the electric pathway. The Committees note the backlog of applications under the Renewable Fuels Pathway II rule finalized in 2014. No applications for the electric pathway, which could help support rural agricultural communities, have been approved since the rule went into effect. The Agency shall take action on the existing applications within 90 days of the enactment of this Act . . .⁸

Most recently, in July 2021, the House Appropriations directed the EPA to take immediate action to address the E-RIN program:

. . . [t]he Committee is dismayed that the Agency yet to take any action on long-pending Electric Pathway II applications under the Renewable Fuels Standard. Within 10 days of enactment of this Act, the Committee directs the Administrator to take final action on applications that have been pending for more than 12 months.⁹

The Proposed RFS Annual Rules

The proposed RFS annual rules do not discuss or address E-RINs. E-RINs are not included in the calculation for the annual volume limits to be set as a Renewable Volume Obligation (RVO). However, the Draft Regulatory Impact Analysis¹⁰ for the proposed annual rules indicates that the EPA will not be able to address outstanding issues related to E-RINs in time for E-RINs to be generated for 2022:

5.1.3.2 Electricity Used as Transportation Fuel

Commenters have also suggested that EPA include electricity produced from qualifying cellulosic feedstocks and used for transportation purposes in the projected volume of available cellulosic biofuel for 2021. We stated in the preamble to the 2016 Renewables Enhancement and Growth Support (REGS) proposed rule that the existing regulatory framework for RIN generation with regard to renewable electricity “create[s] an untenable environment for the approval of any single registration request by the EPA to date.” Among other technical and

⁶ House Select Committee on the Climate Crisis, 116th Cong. *Solving the Climate Crisis – Prepared by Majority Committee Staff Pursuant to H.Res.6*, p.103 (June 2020)

<https://climatecrisis.house.gov/sites/climatecrisis.house.gov/files/Climate%20Crisis%20Action%20Plan.pdf>

⁷ These credits are called Renewable Identification Numbers (RINS). Credits that would be generated from Renewable Electricity are referred to as “E-RINS.”

⁸ Explanation of the Consolidated Appropriations Act, *Congressional Record* 166:218 (December 21, 2020) p. H8539.

⁹ H. Rept. 117-83 Dept. of the Interior, Environment, and Related Agencies Appropriations Bill, 2022. 117th Cong. House Committee on Appropriations (July 2021).

¹⁰ Draft Regulatory Impact Analysis: RFS Annual Rules: Draft Regulatory Impact Analysis: RFS Annual Rules (EPA-420-D-21-002, December 2021) at page 165

regulatory issues discussed in the REGS preamble, under the existing framework EPA cannot ensure that parties registering to generate RINs will be able to demonstrate that the electricity is not claimed by multiple parties attempting to demonstrate transportation use. We have therefore not included electricity in our projection of cellulosic biofuel production for 2021 or 2022 in light of the significant technical and regulatory issues that must be addressed prior to facilities being able to demonstrate that the electricity qualifies as cellulosic biofuel and thus generate cellulosic RINs for electricity used as transportation fuel. As stated in the REGS rule, we believe these are best addressed through a public rulemaking process. We are not addressing the outstanding, substantive technical and regulatory issues here and, at this time, we do not expect that these issues will be resolved in time for a significant volume of cellulosic RINs to be generate[d] for electricity used as transportation fuel for 2021 or 2022.

As noted previously, EPA has promulgated rules that provide a pathway for E-RINs and has an obligation to move forward with E-RIN registrations, as noted by Congress in its appropriations language.

As explained in greater detail below, charging events generate robust, high-quality data sets, both through vehicle telematics and networked charging dispensers. The empirical data sets produced by networked EV chargers using non-proprietary communications protocols are what Electrify America uses to compile its annual report to EPA. The industry uses these data sets as the basis of commercial transactions between automakers and charging companies. And most importantly, data from networked charging stations currently forms the quantitative basis for production of clean fuels program credits in multiple states and Canadian provinces, and environmental program administrators have developed multiple, different approaches that each prevent multiple parties from claiming delivery of the same electricity to an electric vehicle, thereby preventing double counting of charging events in their clean fuels programs. Electrify America is not aware of any legal or practical reason why EPA could not develop a similar framework for the RFS.

The demonstrated experience by state and provincial environmental regulators, and the funding provided by the Appropriations Committees in Congress, provides us with confidence that EPA has the means and sophistication necessary to approve E-RIN registrations under a regulatory framework that prevents double counting on a timeline necessary to allow E-RIN generation from 2022 activities.

Volume Requirements for 2023 and Beyond (The SET Rule)

EPA has indicated that it intends to propose volume requirements for 2023 and beyond. The current schedule calls for a proposal in May of 2022.¹¹ These post-2022 volume requirements are scheduled to be finalized before the end of 2022. They will include volume requirements for years beyond 2023 as well. It is not clear whether EPA intends to include E-RINs in its calculation for the post-2022 time period. If EPA does decide to include E-RINS, it would have a profound impact on EV deployment and would support President Biden's goals of expanding EV adoption and the Justice40 initiative.

The U.S. has committed to reducing the nation's economy-wide net greenhouse gas pollution by 50-52 percent compared to 2005 levels by 2030.¹² The E-RIN pathway under the RFS could help reach

¹¹ See Volume Requirements for 2023 and Beyond Under the Renewable Fuel Standard Program: RIN 2060-AV14 <https://www.reginfo.gov/public/do/eAgendaViewRule?publd=202110&RIN=2060-AV14>

¹² UNITED STATES, OFFICE OF THE PRESS SECRETARY, *Fact Sheet: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies* (Apr. 22,

this goal through the abatement of approximately 50 million tonnes of CO₂e and by enabling the deployment of 19,700,000 additional electric vehicles.¹³

Additionally, the generation of E-RINs is essential to attain the President's target of electric vehicles accounting for 50 percent of sales in 2030¹⁴ and the goal of achieving a national network of 500,000 electric vehicle chargers to support affordable travel by drivers of zero emission vehicles across the country.¹⁵

The E-RIN Program Will Support President Biden's Justice40 Initiative

An active and thriving E-RIN program would support President Biden's Justice40 Initiative by bolstering public DC fast charging — a critical element within the EV adoption and access plan in underserved communities.¹⁶

Accessibility to EV charging is a major hurdle to EV adoption in lower income communities. More than 80% of all charging sessions happen at home.¹⁷ But in urban areas, there is greater difficulty charging because urban households are more than twice as likely as suburban households to live in multifamily housing (apartments, condos, row houses) -- with 37 percent of urban households and 16 percent of suburban households living in such units.¹⁸ Furthermore, 86% of the 31.4M multi-family housing units in the US are rented, and these residents have the greatest difficulty charging at home.¹⁹ To that point, a recent study by the Dept. of Energy's National Renewable Energy Lab (NREL) indicates that only "33% of the current light duty vehicle stock in the United States is parked close to electrical access."²⁰

According to research by Harvard University and Bloomberg, there are also discrepancies in home ownership based on race and income.²¹

2021) available at <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>

¹³ Xie F, Zhenhong L, Podkaminer K, GCB Bioenergy, 11-623-634 (2018). Available at: <https://onlinelibrary.wiley.com/doi/full/10.1111/gcbb.12581>

¹⁴ Fact Sheet: President Biden Announces Steps to Drive American Leadership Forward on Clean Cars and Trucks. The White House. (5 August 2021). Available at: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/05/fact-sheet-president-biden-announces-steps-to-drive-american-leadership-forward-on-clean-cars-and-trucks/>

¹⁵ Fact Sheet: Biden Administration Advances Electric Vehicle Charging Infrastructure. The White House. (22 April 2021). Available at: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-biden-administration-advances-electric-vehicle-charging-infrastructure/>

¹⁶ Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, Sec. 223, Justice40 Initiative (27 Jan. 2021).

¹⁷ Hurlbut D., et al., *Electric Vehicle Charging Implications for Utility Ratemaking in Colorado*, NATIONAL RENEWABLE ENERGY LABORATORY, accessed on June 30, 2021.

¹⁸ Mortgage Bankers Ass'n., *MBA Chart of Week: Distribution of Housing Types, Race and Ethnicity (Urban Areas and U.S.)*, <https://newslink.mba.org/mba-newslinks/2017/october/mba-newslink-monday-10-2-17/mba-chart-of-week-distribution-of-housing-types-race-and-ethnicity-urban-areas-and-u-s/> (Oct. 2, 2017).

¹⁹ Michael Neal, Laurie Goodman, and Caitlin Young, *Housing Supply Chartbook*, Urban Institute (January 2020).

²⁰ Ge, Yanbo et al., *There's No Place Like Home: Residential Parking, Electrical Access, and Implications for the Future of Electric Vehicle Charging Infrastructure*, NATIONAL RENEWABLE ENERGY LABORATORY (October 2021).

²¹ Bloomberg CityLab concludes that "households earning less than \$50,000 per year have a homeownership rate of around 45 percent, while nearly 80 percent of households earning more than \$50,000 own." Harvard found that 43 percent of black adults own homes, compared to 72 percent of white adults. David Montgomery, *Who Owns a Home in America, in 12 Charts*, Bloomberg CityLab (Aug. 8, 2018); Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing 2018* (2018).

Americans living in multi-unit dwellings and/or who rent their residences are more likely to be without access to at-home charging, and this impacted population is more urban, lower-income, and more diverse than the general population. Therefore, public ultra-fast charging is an important environmental justice tool to provide charging accessibility to those without access at home.

While public charging stations are an important tool to attain the Administration's goals, these station operators face an operating cost challenge. Demand charges are onerous fees based on peak power consumption that are assessed by utilities on commercial customers. These demand charges can account for nearly 90% of utility costs at a station.²² As a Great Plains Institute report noted in 2019, "[t]his situation can lead to operating costs that far exceed the revenue these chargers can receive from customer payments."²³ If these demand charges were passed along to consumers, Americans who depend on public charging stations – including those who reside in multi-unit dwellings or rent their homes and cannot charge at home – would bear these costs.

The E-RIN program would bolster President Biden's Justice40 Initiative by providing a credit marketplace to offset high DC fast charging operating expenses associated with demand charges. Moreover, given the concentration of DC fast charging in low-income and middle-income communities, the E-RIN program would create more investment in communities of concern.²⁴ Public fast charging providers would utilize the E-RIN value to defray the cost of demand charges and eliminate the need to raise prices for low-carbon fuel. Such action would ensure the long term economic sustainability of public ultra-fast charging and support underserved communities through continued access to EV charging.

Comments of Electrify America

Electrify America supports action as soon as possible to allow for E-RINS to be generated under the RFS. There are a number of actions that EPA could take immediately to begin this process:

1. EPA Action on Registration Applications

EPA has statutory and regulatory authority to address registrations for E-RINs under existing rules and pathways. EPA could address the issues it raised in the 2016 draft REGS rule via guidance, consistent with the existing direction from Congress that EPA "shall" make decisions regarding "existing registration applications."

We understand and appreciate that EPA currently plans to conduct a further rulemaking process regarding E-RINS. If that is so, Electrify America respectfully urges EPA to act expeditiously to propose and finalize an E-RIN specific-rule on a schedule necessary to enable E-RIN generation associated with EV charging activity in 2022.

2. Propose and Finalize an E-RIN Rule in 2022

²² McFarlane, D., et al, *Overcoming Barriers to Expanding Fast Charging Infrastructure in the Midcontinent Region*, Great Plains Institute (July 2019).

²³ *Id.*

²⁴ California Energy Commission, Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment Analyzing Charging Needs to Support ZEVs in 2030 (July 14, 2021).

EPA has indicated that it prefers to address the technical and regulatory issues related to E-RINs through a new formal rulemaking process. EPA has cited the draft REGS rule proposal in 2016 to describe these issues. As indicated in the draft RIA cited above:

EPA Draft Regulatory Impact Analysis: RFS Annual Rules: [Draft Regulatory Impact Analysis: RFS Annual Rules \(EPA-420-D-21-002, December 2021\)](#) (page 163)

For renewable electricity, the outstanding technical and regulatory issues include ensuring that the volumes of the fuel claimed as being used to replace or reduce the quantity of fossil fuel present in transportation fuel are in fact used for that purpose without double counting volumes claimable by others.

EPA elaborates on this point in footnote 472 and says that:

Vehicle charging data demonstrate the use of electricity as transportation fuel, one of the two main requirements for RIN generation (production from renewable biomass being the other). However, there are several sources of charging data that could be provided to verify the use of electricity as transportation fuel...Any of these sources of data could conceivably be used as the basis for generating RINs for renewable electricity. Although multiple types of data can be used to demonstrate the use of electricity as transportation fuel, allowing them to be used simultaneously would almost certainly result in the generation of RINs by multiple parties for the same charging event (i.e., double counting).

These issues can be resolved, and Electrify America stands ready to participate in a stakeholder process, to provide input on the high-quality empirical charging data available from both public charging networks and electric vehicle telematics as the basis for generating E-RINs, and to facilitate dialogue and consensus among stakeholder groups in order to facilitate the statutory goal of increasing the use of cellulosic biofuel, including electricity from biogas as transportation fuel. Electrify America and many other stakeholders will be pleased to provide relevant data and information regarding possible regulatory approaches.

Electrify America respectfully requests that EPA release a schedule for its rulemaking and stakeholder engagement process that would enable E-RIN generation associated with EV charging activity in 2022.

3. Include E-RINs in volume requirements for 2023 and Beyond (The SET Rule).

The SET rule will encompass 2023 and years beyond 2023. The Statute directs the EPA Administrator to base these volumes on a number of factors, including “an analysis of ... the expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and biomass-based diesel)”. When considering the volumes of cellulosic biofuel that will be required of obligated parties during this period, volumes associated with E-RINs represent a foreseeable “future commercial production” of cellulosic biofuel that will become available when EPA begins processing registration applications or finalizes a new, E-RIN specific regulation. It is therefore appropriate to factor E-RIN volumes into the volumes required for 2023 and beyond.

In the event that EPA decides not to include anticipated volumes of cellulosic biofuel associated with E-RINs when establishing future volumes in the SET rule, Electrify America strongly encourages EPA to establish a process in the SET rule to update applicable cellulosic biofuel volume obligations for 2023

and beyond to include E-RINS, when such E-RINs become available to obligated parties in the marketplace.

Such a process would establish a means to include all foreseeable and anticipated future commercial production of cellulosic biofuel, consistent with statutory direction, and it would address any concerns about market disruption that could be caused by a multi-year mismatch between cellulosic biofuel RIN supply and demand.

3. Key Features of an E-RIN Specific Rule

Whether EPA chooses to proceed with an E-RIN specific regulation or issue guidance, creating a market for E-RINs will facilitate the private sector investment and consumer purchasing changes essential to the achievement of President Biden’s ambitious sustainable transportation and climate goals, including 50% EV adoption by 2030, 500,000 charging stations deployed by 2030, and the Global Methane Pledge to cut emissions of methane by 30%. Electrify America humbly suggests that the “technical and regulatory issues” identified in the EPA Draft Regulatory Impact Analysis could be addressed through an E-RIN regulation or guidance that implements the following concepts.

- A. Enable E-RIN credits to be generated by matching EV charging that pulls from the electricity grid with carbon-negative electricity generation (produced from biogas) delivered to the same connected grid systems.
- B. Use empirical evidence (i.e. charging data) as the basis for calculating volumes of petroleum fuel displaced. Charging data (collected by public EV charging stations and EV telematics) and carbon-negative electricity generation data can demonstrate that both the quantity of electricity delivered to EVs and used as a transportation fuel and the associated petroleum fuel displacements are accurate and verifiable.
- C. Leverage charging data from both EV manufacturers and public EV charging network companies. Public EV charging stations produce auditable, verifiable records of charging events, kept at the interval level based on a non-proprietary standard. Onboard EV telematics provide detailed data regarding charging events, serving as an alternative data source for home charging events where charging station data is not available. These datasets represent the most robust, empirical, detailed, geographically-specific information on EV charging events, with auditable and third-party verified records.
- D. Specify the E-RIN credit generator in the value chain by charging event type (e.g. residential charging, public charging, workplace charging) to avoid double counting. Current clean fuels programs in California, Oregon, and British Columbia each avoid double counting by this means.
- E. Fully account for the energy content of biogas in credit generation calculations. Energy from biogas is delivered to an electric vehicle post combustion, whereas energy from biogas delivered to a natural gas internal combustion vehicle is delivered to the vehicle pre-combustion. Regulators should adjust the “equivalence value” to recognize that the post-combustion energy content of electricity derived from the combustion of biogas is substantially lower than the energy content of the original biogas.

Thank you for your consideration of this important topic. We look forward to working with EPA staff on all of the issues outlined above.

Sincerely,

/s/

Matthew Nelson

Director of Government Affairs

Congress of the United States
Washington, DC 20515

August 23, 2021

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

Dear Administrator Regan,

We are writing to request an update on the actions the Environmental Protection Agency (EPA) has taken to support deployment of electric vehicles (EVs) and EV charging infrastructure using authorities available under the Renewable Fuel Standard (RFS).

Expanding the availability and efficiency of EVs and EV charging infrastructure will be critical to the reaching the United States' decarbonization goals. We commend the Administration's ambitious EV and EV charging infrastructure goals outlined in the American Jobs Plan and encourage the EPA to use all available authorities to reach this goal.

One immediate action that the EPA should take to facilitate the advancement of EV deployment is approving long-pending applications to produce RFS credits – known as E-RINS – under the biogas to electricity pathway. Acting on this policy in the near term will produce decarbonization benefits for many years down the road.

In order to advance this policy, we request that the EPA take the following actions. First, the EPA should begin approving registrations from automakers and charging companies under the 2014 biogas to electricity pathway under the RFS, as required by Congress. Second, the EPA should include projected volumes of E-RINs in the FY22 Renewable Volume Obligation (RVO) calculation. Finally, we ask that the EPA address the E-RIN “equivalency factor” issue to account for electricity being a post-combustion fuel that provides more than three-fold the number of miles traveled per unit of energy than pre-combustion liquid fuels used in internal combustion engines.

A 2017 study conducted by the Department of Energy's Oak Ridge National Laboratory concluded that if the EPA were to approve registrations and address the equivalency factor, it would increase EV deployment by nearly 5 million vehicles in 2025 and by 9.61 million in 2030. EPA action would displace more than 3.8 billion gallons of gasoline use in 2030 alone -- equivalent to 55% of U.S. gasoline consumption last year.¹ These findings underscore the importance of EPA acting on pending E-RIN applications.

It is also important to note that not only does the EPA have the authority to begin approving these outstanding E-RIN applications, but Congress has provided funding and direction to take action via the FY21 Appropriations bills.²

¹ <https://info.ornl.gov/sites/publications/Files/Pub72437.pdf>

² <https://www.congress.gov/116/crpt/hrpt448/CRPT-116hrpt448.pdf>

Since we are past the March 27, 2021, deadline Congress established for EPA to take action on existing registration applications, we request that the EPA respond with the status of EPA's progress on evaluating and approving biogas to electricity registration applications. Please note how many applications are pending, how many have been substantively reviewed, and how many applicants have received approval. We also request that you respond with your plan and schedule for completing the review of the pending applications for E-RINS under the biogas to electricity pathway.

Finally, will the EPA include E-RIN volumes in its FY22 RVO calculation? If so, will EPA address the E-RIN "equivalency factor" issue to account for electricity being a post-combustion fuel?

We appreciate your attention to this matter, and we look forward to your response by September 22, 2021, to the questions outlined above. We are eager to work with you and your agency to reach our decarbonization goals and advance the EV market across the nation.

Sincerely,



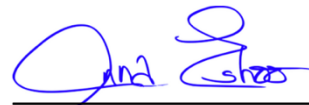
Raul Ruiz, M.D.
Member of Congress



Mark DeSaulnier
Member of Congress



Joe Courtney
Member of Congress



Anna G. Eshoo
Member of Congress

_____/s/_____

John Garamendi
Member of Congress

_____/s/_____

Diana DeGette
Member of Congress

_____/s/_____

Grace F. Napolitano
Member of Congress

_____/s/_____

Jahana Hayes
Member of Congress

_____/s/_____

Jerrold Nadler
Member of Congress

_____/s/_____

Tim Ryan
Member of Congress

_____/s/_____

Donald M. Payne
Member of Congress