Docket Management Facility
United States Department of Transportation
1200 New Jersey Avenue SE
West Building Ground Floor, Room W12-140
Washington, DC 20590-0001

January 10, 2022

Re: Docket No. FHWA–2021–0022

To whom it may concern:

Thank you for the invitation to provide input on the new National Electric Vehicle Formula Program (EV Charging Program) and Charging and Fueling Infrastructure Program that USDOT will be administering pursuant to the recently passed Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58). If implemented well, these programs can help us make progress toward reducing greenhouse gas pollution and improve equity in transportation.

We've answered many of the questions in the request for information (RFI) below. In addition to these direct responses we would also submit some overarching suggestions on effective implementation of the IIJA's electric vehicle (EV) charging provisions:

- $7.5 billion (the total expenditure in both EV charging related programs) is not sufficient to transform America's EV charging infrastructure on its own. However, public perception of these programs' implementation will impact the nation's ability to advance clean transportation in the future. Accordingly, USDOT must be strategic in how it deploys funding by:
    - Leveraging additional local, state and private investment
    - Filling gaps that would not otherwise be filled by the free market including efforts to help lower income and other communities benefit from the program
    - Ensuring uptime, long-term economic viability and maintenance of stations
    - Seeking to maximize transition of internal combustion engine (ICE)-miles-driven to electric-miles-driven
    - Taking a multi-modal approach to create EV charging infrastructure that can support diverse types of vehicles (e.g. scooters, bikes, cars, trucks, and buses).
- Hold states accountable for developing effective plans that maximize greenhouse gas (GHG) and criteria pollution reduction and equity benefits, and ensure responsible investment

- Minimize non-EV fueling investments in the Charging and Fueling Infrastructure Program

National Electric Vehicle Formula Program

1. The distance between publicly available EV charging infrastructure;

The EV Charging Program should be focused on the goal of creating certainty for the traveling public and select fleet vehicles. Rather than simply measuring distance between charging stations, states should also consider the context and what types of charging are appropriate in each location. Direct-current fast chargers (DCFCs) may be important in key locations to build traveler confidence. Furthermore, a shorter minimum distance between chargers may be more appropriate in densely populated areas, while the acceptable distance traversing vast unpopulated areas could be greater, as long as maintenance and reliability are impeccable.

2. Connections to the electric grid, including electric distribution upgrades; vehicle-to-grid integration, including smart charge management or other protocols that can minimize impacts to the grid; alignment with electric distribution interconnection processes, and plans for the use of renewable energy sources to power charging and energy storage;

There are a number of ways EV charging infrastructure programs can integrate with the electric grid to optimize power usage, smooth demand, dampen peak electricity usage and take advantage of renewable energy when it is most available.

One of the easiest ways to support this goal is by making on-site electricity storage an eligible expense in both programs. Another is to encourage bi-directional charging which may be even more effective in the community grants program, which will serve charging stations where longer dwell times are more common. The Build Back Better Act has good language on this.

USDOT should, to the extent possible, require State DOTs to consult with the local utilities when developing EV infrastructure plans. A consortium of large utility companies recently announced plans to build out an EV infrastructure network that addresses similar corridors as this federal program. States' plans should be required to coordinate with utilities - who in turn must proactively reach out to customers of all sizes and engage in long- and short-term grid planning and customer needs - in order to leverage private sector efforts and promote sustainable business models. (This process should not be allowed to delay planning and installation of charging, nor should utilities be given de facto veto power.)

3. The proximity of existing off-highway travel centers, fuel retailers, and small businesses to EV charging infrastructure acquired or funded under the Program;

Electric highway charging infrastructure should be co-located with existing off-highway travel centers, economic and development business districts, and underserved (including disadvantaged and rural) communities wherever possible. Safe pedestrian infrastructure connected to community services and/or destinations must be provided in these locations so that travelers can securely and comfortably access services while their vehicles are charging. While existing fuel retailers may provide convenient locations for EV charging in many cases, they should not necessarily be prioritized as EV charging destinations.

4. The need for publicly available EV charging infrastructure in rural corridors and underserved or disadvantaged communities;

DOT should be aware that the charging needs for drivers in these 3 communities are different. Rural is not the same as underserved and not necessarily the same as disadvantaged. The vehicle classes and charging needs will vary.

USDOT should, to the extent possible, require state plans to discuss what steps they have taken to ensure that low-income and BIPOC communities are served by this program, or through other complementary efforts. At a minimum, FHWA should provide guidance and minimum requirements for engaging with historically underserved communities for input; if program restrictions allow, community members should be compensated for their participation in surveys, meetings, and other engagement activities. To the extent possible, state plans should fund and support programs such as local workforce development, targeted community outreach and investment, and integration of mobility services with charging in historically underserved and rural communities.

5. The long-term operation and maintenance of publicly available EV charging infrastructure to avoid stranded assets and protect the investment of public funds in that infrastructure;

Both programs in the infrastructure law require a 20% cost-share for industry - but accounting for operations and the operating allowance, the industry share is only 10%. At the end of the subsidized operating period, there may be little incentive for a private operator to maintain the asset. There are three strategies to address this split incentive. One is for states to incentivize infrastructure owners to take on a greater cost share of the capital investment or have reliability and performance metrics built into contracts so they have a greater stake in its future use. Second, state DOTs could award maintenance contracts that are in addition to the installation and operating allowance. Stranded assets

can also be avoided by open communication standards, such as Open Charge Point Protocol (OCPP).

Third, state DOTs can also prioritize locations with high projected utilization. While some stations installed in particularly remote locations to ensure charging coverage may need to have their maintenance subsidized, programs should be weighted toward promoting utilization (ie. shifting ICE miles to electric miles). USDOT should only accept state plans that address this issue effectively, ideally with performance-based and equity-based strategies. Payment options for charging should be easy and non-discriminatory to improve utilization. Property or station owners could also be incentivized to keep parking spots accessible to chargers free of non-EVs and prevent blockage of the station.

6. Existing private, national, State, local, Tribal, and territorial government EV charging infrastructure programs and incentives;

California's Low Carbon Fuel Standard (LCFS) program and New York's NYSERDA Clean Transportation Program include some thoughtful innovative and performance-based EV charging infrastructure policies and incentive programs that could be useful to draw from. It will be crucial for USDOT to be holistic in drawing from these examples and crafting performance based strategies and incentives to be equitable in application and implementation. Of course, these programs have raised legitimate concern about continued pollution in already burdened communities; as such, any future programs modeled on the New York and California examples must be designed with community input, and should not go forward without the approval of those most impacted by transportation pollution.

7. Fostering enhanced, coordinated, public-private or private investment in EV charging infrastructure;

Private installers of charging infrastructure should get credit for taking a higher level (than 20 percent) of the cost share. This will help the federal investment go further in areas where chargers are more economically viable today. Installers should also get credit for charging that fills gaps in historically underserved and rural communities.

In addition, coordination between state and industry representatives, as well as between state agencies, will be necessary to ensure that public funds are being effectively used to attract private capital. At least in the near-term, public funding will likely be critical where private investment is perceived as risky – i.e., rural and disadvantaged communities where EV uptake has been slower.

Encouraging installers to reach out to businesses, public facilities, and private property owners to find participants eager to host the stations and benefit from the location of the chargers will smooth installation and encourage utilization and maintenance.

8. Meeting current and anticipated market demands for EV charging infrastructure, including with regard to power levels and charging speed, and minimizing the time to charge current and anticipated vehicles;

Today, electric miles count for less than 0.5% of VMT in the United States. The technological solutions which propel the United Stated to 100% electrification will likely be different from those that helped build today's nascent EV market. We recommend that USDOT develop program guidelines that remain tech neutral and do not provide any certain preference to a given business model. Instead, USDOT should put the right incentives and performance metrics in place to help consumers and providers identify what works best, whether it be ultra-fast charging, battery swap, wireless charging or some other approach to slashing GHG emissions from driving. Our approach should consider long-term grid planning, deployment of distributed energy resources such as on-site solar and storage, managed charging, bidirectional charging, and streamlining interconnection timelines. There is also an opportunity to leverage funding for innovative startups to develop sustainable, accessible, and equitable solutions.

9. Any other factors, as determined by the Secretary.

The primary leverage point for accountability in the EV Charging Program is the Secretary's approval of state plans. USDOT must ensure that states develop effective performance-based plans that:

- Leverage additional local and private investment
- Fill gaps that would not otherwise be filled by the free market including serving historically excluded communities
- Ensure long-term economic viability of stations
- Maximize transition from ICE-miles-driven to electric-miles-driven
- Build in the flexibility to:
    - Address the need for different services in different contexts (such as fast chargers, battery swap or other services)
    - Allow for an adaptive and practical approach
- Maximize renewable energy integration

DOT should provide guidance to support states developing plans and only approve plans that live up to them.

Finally, the EV Charging Program should be viewed within the larger context of reducing GHG emissions from the transportation sector. EV investments which reduce VMT, increase transit use, and promote active transportation are particularly valuable. Examples include EV charging at transit "park and ride" facilities (thereby providing an incentive to use transit) and co-locating car, bus, and micromobility charging infrastructure for e-bikes and e-scooters (to reduce capital costs for all of them).

Charging and Fueling Infrastructure Program

(to provide discretionary grants for corridor and community charging)

10. Please provide examples of best practices relating to project development of EV charging infrastructure and hydrogen, propane, and natural gas fueling infrastructure at the State, Tribal, and local levels.

Again, we refer you to California's LCFS. In addition, important lessons can be drawn from utility programs that have been proliferating around the country, including significant investments in California. As stated before, project development must be done in conjunction with impacted communities and industry, and must be done with a good understanding of long-term grid impacts. Open standards should also be the norm.

11. What topics do you suggest that we address in guidance on project development of EV charging infrastructure and hydrogen, propane, and natural gas fueling infrastructure at the State, Tribal, and local levels to allow for the predictable deployment of that infrastructure?

- Strategies to ensure future maintenance of assets
- Prioritizing projects that will achieve maximum reductions in GHG and criteria pollution, especially in areas already overburdened by air pollution and related respiratory illness
- Adopting technology-neutral electrification strategies evaluated with the aim of maximizing reductions in GHG and criteria pollution.
- Adopting open and affordable payment options to use the chargers.
- Curb management - EV charging infrastructure should be planned so as not to preclude bus lanes, bike lanes, and ADA compliant pedestrian ways that are essential to reducing transportation-based GHG pollution, and should be planned with an eye toward encouraging multi-modal connections and travel choices.
- ADA compliant access to EV chargers and associated infrastructure for all users regardless of ability.

- Guidance and support for historically excluded frontline communities to plan for charging infrastructure, participate in decision making, and apply for funding.
- Guidance and support for disadvantaged jurisdictions to plan for community charging and get support from the program
- Ensuring that charging is managed, through rate design or other means, as a way to maximize renewable integration and keep costs down to the extent possible

12. Please provide any suggestions to inform the administration of competitive grants under the Charging and Fueling Infrastructure Program for corridor and community charging.

We suggest heavily weighting the following criteria for competitive grants:

- Leverage additional state, local and private investment
- Fill gaps that would not otherwise be filled by the free market including ensuring historically excluded communities and disadvantaged businesses benefit from the program.
- Facilitate high utilization (including ensuring convenience for EV drivers in terms of location, access, and payment) and long-term economic viability of stations (including aligning incentives for installers and host property owners).
- Maximize reduction in GHG pollution and criteria pollution per mile driven per federal dollar invested over the life of the asset. Investments in propane, natural gas and gray hydrogen fueling will not score well at this central criterion, which is why the Department should direct the lion's share of available funding to EV charging.
- Prioritize local and inclusive contracting and hiring as part of programs and contracts aimed at increasing economic development opportunities for underserved communities and reducing disparities caused by historical discrimination and underinvestment.

Thank you for the opportunity to comment.

Sincerely,

Transportation for America
10,000 Friends of Pennsylvania
Ample
Elders Climate Action
Elected Officials to Protect America
Environmental Defense Fund
Environmental Law & Policy Center

EVHybridNoire
Forth
GreenLatinos
League of Women Voters Pennsylvania
Madison Ares Bus Advocates
Mobilify Southwestern Pennsylvania
New Urban Mobility alliance (NUMO)
North American Bikeshare & Scootershare Association (NABSA)
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