ZETA | ZERO EMISSION TRANSPORTATION ASSOCIATION

January 28, 2022

Stephanie Pollack, Deputy Administrator
Federal Highway Administration
U.S. Department of Transportation
1200 New Jersey Ave. SE, W12-140
Washington, DC 20590-0001

Re: Response to Request for Information (RFI) number FHWA-2021-0022: Development of Guidance for Electric Vehicle Charging Infrastructure Deployment

Dear Ms. Pollack:

Please find the Zero Emission Transportation Association's (ZETA) response to the Department of Transportation (USDOT), FHWA-2021-0022: Development of Guidance for Electric Vehicle Charging Infrastructure Deployment. Responses to specific questions in the RFI are numbered in accordance with the solicitation.

ZETA is an industry-backed coalition of 65 member companies advocating for the shared goal of achieving 100% electric vehicle (EV) sales in the United States by 2030. Our diverse membership represents a broad swath of the EV sector and has a deep understanding of building out electric vehicle supply equipment (EVSE) across the United States. Manufacturing, assembling, installing, and maintaining EVSE will create thousands of good-paying American jobs. We thank the Biden-Harris Administration for boldly recommending substantial investments in EV charging infrastructure while considering state and local transportation planning needs.

Background:

On November 15, 2021, President Biden signed the Infrastructure and Investment Jobs Act (IIJA) into law. This bill includes grant and formula funding programs that can help the nation meet the President's goal of installing 500,000 public EV chargers across the country by 2030. The IIJA allocates $5 billion to establish the National EV Formula Program, which provides funds to states to create a national EV charger network. This program will use predetermined formulas based on the state's needs to determine charger placement in alternative fuel corridors. This interconnected charging network will upload maintenance data to ensure proper operation and accessibility. The IIJA also provides $2.5 billion over five years for the Charging and Fueling Infrastructure Program, a competitive grant program that will assist with the deployment of EV charging and alternative fuel infrastructure.

ZETA is pleased to offer the following recommendations relating to the guidance for electric vehicle charging infrastructure deployment.

1. The distance between publicly available EV charging infrastructure;

Under a conservative estimate, the International Council on Clean Transportation (ICCT) projects at least 3.6 million EVs on U.S. roads by 2025. However, only about one-fourth of the public chargers needed to support this trend are currently in place.[1] Furthermore, around 88% of these EVs are expected to be in the country's 100 most populous cities. Reducing the distance between chargers in more populated areas will limit queues and ensure greater access. Increasing access in urban areas might require more charging stations in a smaller radius, due to the number of potential EVs per port. New York City, for example, is home to roughly 1,950,000 vehicles—of which 14,000 are EVs—but has only 1,200 charging ports, resulting in longer charge times.[2,3] As EV deployment expands, so will the need for charging density. Thus, population size will likely play a central role in determining the correct number of chargers for an area. In addition, residents of urban areas often lack access to at-home charging, necessitating greater reliance on public chargers. Less densely populated areas may have larger distances between chargers.

To operationalize this, the most successful state charging programs use a quantifiable scoring rubric to weigh distance, population, EV density, environmental justice, and other factors. This ensures that the outcome is not only filling in spaces in a map, but also recognizes that other factors are important considerations for charger siting. North Carolina's Department of Environmental Quality (DEQ) developed the "gold standard" for scoring criteria in its Volkswagen Appendix D Fast Charging program; under this quantifiable scoring rubric, distance between chargers was weighed with cost effectiveness, traffic density, accessibility to amenities, and environmental justice.[4] The Ohio Environmental Protection Agency's (EPA) Fast Charging Grant Program also gives preference to applicants that are farther away from other chargers.[5]

Examining other use cases is an important consideration for charging station location. The heavy-duty vehicle segment has a larger gap in charger availability due to these vehicles' incompatibility with most station sizes or plug specifications. Beyond measuring the distance between stations, USDOT should consider the types of chargers available along travel corridors. To facilitate long-haul trips, direct current fast chargers (DCFCs) are necessary to efficiently charge the larger battery packs and move freight quickly across the country.

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

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[1] Nicholas, Michael, Dale Hall, and Nic Lutsey. "Quantifying the Electric Vehicle Charging Infrastructure Gap across U.S. Markets." icct. International Council on Clean Transportation, November 24, 2021. https://theicct.org/publication/quantifying-the-electric-vehicle-charging-infrastructure-gap-across-u-s-markets/.

[2] "Population - New York City Population." NYC Planning. NYC Department of City Planning. Accessed January 25, 2022. https://www1.nyc.gov/site/planning/planning-level/nyc-population/population-facts.page.

[3] Rivoli, Dan. "If Future of Cars Is Electric, NYC Remains in Dark Ages." Spectrum News NY1. Spectrum News, April 3, 2021. https://www.ny1.com/nyc/all-boroughs/transit/2021/04/03/new-york-city-electric-cars.

[4] "North Carolina Volkswagen Settlement Phase 1." NC DEQ. North Carolina Department of Environmental Quality, Air Quality Division, June 27, 2019. https://files.nc.gov/ncdeq/Air%20Quality/motor/grants/files/VW/North-Carolina-Volkswagen-Settlement-ZEV-DC-Fast-Charging-RFP-Phase-1-061719.pdf.

[5] "Diesel Mitigation Trust Fund (DMTF) DC Fast Charging Grant Program." Ohio EPA. Ohio EPA Office of Environmental Education, January 14, 2022. https://epa.ohio.gov/static/Portals/42/documents/DMTF/DMTF-EVSE-DCFC-RFA.pdf.

the grid; alignment with electric distribution interconnection processes, and plans for the use of renewable energy sources to power charging and energy storage;

Coordination between project developers, charging owners and operators, local permitting offices, and electric utilities prior to applying for federal grant funding will ensure the grid and other site logistics are economically and technologically feasible to house a charging station. Particularly, project developers should initiate early collaboration between project teams and utility companies to reduce interconnection delays. ZETA recommends encouraging project developers and utilities to engage early on and agree to timelines for submitting, reviewing, and approving interconnection applications. Such a requirement may help speed deployment and reduce costs of installation.

USDOT should ensure that grant funding is used to pay for EV charging infrastructure and related equipment. ZETA recommends that electrical equipment and control systems that are integral to the function and operations of the charging infrastructure be deemed eligible for funding under the grant program. Energy storage can, in some cases, be integral to the functioning and operation of charging infrastructure. On-site battery storage can help shave demand and act as a non-wires alternative to grid upgrades that do not impact a charger's reliability. USDOT and the Department of Energy (USDOE) should extend grant eligibility for the installation of energy storage at charging stations, but not mandate its use. This should be left to the discretion of the site host, as individual site needs might vary based on electricity demand, types of chargers, grid preparedness, and other factors.

Additionally, ZETA recommends USDOT encourage project developers to incorporate plans for future expanded charging capacity into their initial site preparation. Preemptively running conduit, increasing capacity, and installing stub-outs will improve the ease with which charging sites can be accommodated to EV growth.

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

When considering off-highway infrastructure, the Federal Highway Administration (FHWA) should take into account community needs, weight classes, and models when developing proximity requirements. ZETA is not aware of a comprehensive list of EVSE being produced, but the following are categories that, while not established industry standards, could be considered the most commercially-available chargers:

- AC Level 2 (L2): 7-19kW
- DC Fast: 50-150kW
- DC High-Power: 150-350kW

For light-duty passenger vehicles, L2 chargers are often suitable for longer dwell-time locations like public charging near residential, workplace, or municipal parking facilities. DCFCs are more appropriate for shorter dwell-time stops, including near interstate highways, grocery stores, downtown areas, and retail centers and other public locations. Medium- and heavy-duty vehicles typically require dedicated or private facilities in which the use of DCFC or L2 is determined by factors such as vehicle type and daily routes.

When considering the appropriate proximity of EVSE to off-highway travel centers, restrictive or arbitrary distance requirements could eliminate viable sites for chargers. ZETA recommends that FHWA should educate state DOTs to use a quantifiable, points-based scoring rubric, such as those in North Carolina and Ohio[6,7] that weigh proximity to amenities to encourage a positive experience for drivers and account for local conditions when awarding grant money to host sites. A scoring rubric should also take into account new off-highway amenities added during the installation of charging infrastructure, or shortly after, particularly in more rural areas with limited existing development.

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

Addressing the charging infrastructure needs of underserved communities is integral to successful EV deployment. It is important, however, that USDOT distinguishes the needs of drivers in both underserved and disadvantaged rural and urban communities. According to the Congressional Research Service, 2.9 million—71%—of the nation's 4.1 million miles of public access roads are in rural areas. Despite accounting for 30% of national vehicle miles traveled, rural America has been largely overlooked in the deployment of EV charging infrastructure.[8] Moreover, deploying EVSE in both underserved rural and urban areas will increase route connectivity and further reduce range anxiety.

ZETA recommends that USDOT issue guidance indicating that states should coordinate with utilities and local governments to ensure that charging infrastructure serves the needs of drivers in rural landscapes, including setting recommended investment targets for rural communities. As USDOT develops guidance, it should aim to address the unique challenges of deploying charging in rural communities to ensure those drivers in rural areas can also enjoy the benefits of transportation electrification. Specifically, USDOT can suggest utilizing the IIJA's authority to provide operations and maintenance support for rural chargers that may have low utilization and are not economically viable in the short term. This may be less necessary in more urban metropolitan areas where charger utilization is higher and service teams are closer by.

Likewise, USDOT should require that state transit agencies publicize the steps they have taken to ensure that Black, Indigenous, and People of Color (BIPOC) communities are served by EVSE buildout. In historically underserved urban communities, overexposure to major traffic corridors has yielded major health consequences. In 2020, a study by the Metropolitan Road Planning Council found 45% of Black residents and 50% of Latino residents live in the top 20% of areas most affected by roadside pollution. For this reason, USDOT should coordinate with state DOTs and transit planners to define "disadvantaged communities" using the California Public Utility Commission definition as an example.[9] USDOT should

[6] "North Carolina Volkswagen Settlement Phase 1." NC DEQ. North Carolina Department of Environmental Quality, Air Quality Division, June 27, 2019. https://files.nc.gov/ncdeq/Air%20Quality/motor/grants/files/VW/North-Carolina-Volkswagen-Settlement-ZEV-DC-Fast-Charging-RFP-Phase-1-061719.pdf.
[7] "Diesel Mitigation Trust Fund (DMTF) DC Fast Charging Grant Program." Ohio EPA. Ohio EPA Office of Environmental Education, January 14, 2022. https://epa.ohio.gov/static/Portals/42/documents/DMTF/DMTF-EVSE-DCFC-RFA.pdf.
[8] "Rural Highways." CRS Reports. Congressional Research Service, July 5, 2018. https://crsreports.congress.gov/product/pdf/R/R45250/4.
[9] "Disadvantaged Communities." CA.GOV. California Public Utilities Commission. Accessed January 25, 2022. https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/disadvantaged-communities#:~:text=Disadvantaged%20communities%20refers%20to%20the,of%20asthma%20and%20heart%20disease.

extend flexibility with regard to definitions of disadvantaged communities to accommodate a range of need-based scenarios.

Furthermore, ZETA suggests that USDOT dedicate funding to conduct targeted community outreach in these areas. This will ensure strategic placement of public charging stations within close proximity of multi-unit dwellings (MUDs) that lack adequate space or resources to host charging infrastructure. Expanded charging for these residents will also ensure that rideshare drivers, many of whom live in MUDs, will be able to transition to electric vehicles and deliver substantial public benefits.[10] Specifically, electrification of Transportation Network Company (TNCs) vehicles and taxis presents an opportunity for USDOT's investments in EVSE to have an outsized impact on emissions reduction while exposing a broad range of consumers to the benefits of this technology. USDOT should provide guidance to States and local authorities to encourage funding recipients to collaborate with TNCs and fleet operators to install EV charging infrastructure in areas that will help accelerate their transition to electric vehicles, while also providing charging options to the surrounding communities.

To standardize charger siting in disadvantaged communities, ZETA recommends USDOT and state DOTs integrate EPA's EJ Screen, or state approved definitions and toolkits, into scoring rubrics like those in North Carolina,[11] Pennsylvania,[12] and Maryland,[13] which prioritize equity. Doing so will promote charger deployment in underserved areas.

Overall, ZETA recommends that USDOT encourage state transit agencies to address important issues such as local workforce development, targeted investment percentages, and integration of EV mobility services in historically underserved and rural communities. Expanded charging locations in underserved communities present employment opportunities. Workforce development plans may include funding for programs that bolster the training and capability of the local workforce to install and service EVSE. Skilled tradespeople, including electricians, play a key role in installation and maintenance of EV chargers, but their work alone is not sufficient. EV chargers include software and mechanical components that require specialized knowledge to service, some of which can be diagnosed and fixed remotely, depending on the make and model of the EVSE. As such, workforce development efforts should focus on creating opportunities for individuals interested in entering trade careers, as well careers in clean transportation that do not require trade licenses or several years of industry experience, since those requirements can be a barrier to entry. USDOE and DOT should work with State Workforce Development Agencies to create new industry opportunities, while also leveraging existing specialized training programs from each charging equipment OEM and charging networks.

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[10] Jenn, Alan. "Emissions Benefits of Electric Vehicles in Uber and Lyft Ride-Hailing Services." *Nature Energy* 5, no. 7 (2020): 520–25. https://doi.org/10.1038/s41560-020-0632-7.

[11] "North Carolina Volkswagen Settlement Phase 1." NC DEQ. North Carolina Department of Environmental Quality, Air Quality Division, June 27, 2019. https://files.nc.gov/ncdeq/Air%20Quality/motor/grants/files/VW/North-Carolina-Volkswagen-Settlement-ZEV-DC-Fast-Charging-RFP-Phase-1-061719.pdf.

[12] "DC Fast Charging and Hydrogen Fueling Grant Program." Department of Environmental Protection. Pennsylvania Department of Environmental Protection, 2021. https://crawler.dep.state.pa.us/Air/Volkswagen/DCFCH2ProgramGuidelines.pdf.

[13] "Guidelines for Maryland Electric Corridors Grant Program." Maryland Department of the Environment. Maryland Department of the Environment. Accessed January 25, 2022. https://mde.maryland.gov/programs/Air/MobileSources/SiteAssets/Pages/MarylandVolkswagenMitigationPlan/Electric%20Corridors%20Grant%20Program%20Framework%20Round%202.pdf.

USDOT efforts to improve the equitability of EVSE deployment should focus on removing barriers to entry for local workforces, not adding restrictive requirements. Given labor market dynamics and the rapid increase in EVSE deployment, ZETA supports a variety of training programs for local workforces. These training programs require flexibility to be in compliance with state and local permitting authorities and ensure employment accessibility.

FHWA should provide guidance and minimum requirements for engaging with underserved communities for input. If program restrictions allow, community members should be compensated for their participation in surveys, meetings, and other engagement activities.

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;

An important consideration for all stakeholders is charging station reliability. Even with extensive station buildout, charger operability is critical to increasing consumer confidence in the technology. At this early stage in the EV charging market where technology and business models are still evolving, we encourage USDOT and USDOE to work collaboratively with industry and utility partners to define "reliability" at a technical level, define metrics for measuring "uptime" and reliability, and develop a standardized uptime reporting formula. This will enable USDOT to collect meaningful uptime data to inform ongoing administration of this program and future programs.

Operators and owners should be required to submit well-developed operations and maintenance plans that demonstrate the ability to maintain reliable operations of their chargers, including ability to service chargers within a reasonable timeframe. Maintenance, operations, and service plans should be set up for the useful life of the charger and should include close coordination with charging manufacturers.

A well-developed operations and maintenance model could include a number of features including, but not limited to the following. These features could be performed in-house by the owner or operator or via contract with a third party provider or partner.

- Scheduled preventive maintenance
- 24/7/365 service center to receive repair requests
- 24/7/365 connectivity and monitoring of the operations of each charger
- Service ticketing and procedure to ensure service and operational issues are addressed in a reasonable timeframe
- Service level agreements backed by charging manufacturers
- Sufficient technicians trained to work on the make and model of each charger they operate in each region that they operate
- Detailed documentation and procedures to troubleshoot and repair chargers

ZETA recommends FHWA work with industry to develop performance-based reliability metrics in addition to metrics quantifying the volume of EV chargers deployed; otherwise, FHWA could receive inaccurate or inconsistent information that undermines its analysis of infrastructure reliability. Furthermore, ZETA recommends uptime be reported for the useful life of the charger. EV chargers are

most reliable when they are first deployed, but eventually wear down through use and exposure to the elements.

When examining equitable EVSE placement, uptime is an important metric. Monitoring for disparities in access to reliable stations between underserved communities and other regions is critical to identifying if there are additional underlying equity issues with regards to station deployment. ZETA recommends that USDOT distinguish availability data based on site, rather than the individual charger. If an individual charger is not operating, drivers may still determine that the site is available and open with a certain number of functioning chargers.

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

While ZETA has encouraged its member companies to list existing programs independently, we encourage USDOT and state DOTs to draw on learnings from existing EV infrastructure programs like those funded by Appendix D of the Volkswagen Settlement, as well as state utility transportation electrification programs. State DOTs should coordinate and collaborate with their counterparts who administer these programs (typically, state energy and environment offices in coordination with public utility commissions) to speed deployment and incorporate lessons from these existing programs. An example of exemplary coordination is Colorado, where the Colorado Department of Transportation and Energy Office administer EVSE programs jointly through memoranda of understanding.[14]

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

Robust private deployment and long-term operation of EVSE will catalyze the development of a publicly-accessible, nationwide charging network. Relatedly, public sector investment is critical to meeting the goals of the National Electric Vehicle Formula Program. In both the upcoming guidance and Notices of Funding Opportunity, ZETA urges FHWA to clarify that final ownership over the funded EVSE assets falls to the non-governmental entities involved.

IIJA's Sec.11401 grant program requires that non-governmental partners provide the 20% non-federal cost share associated with the grants, and the National Electric Vehicle Formula Program makes this non-governmental cost share optional. In both cases, ZETA recommends that FHWA clarify that non-governmental partners who provide the 20% cost share should have the option to own the resulting infrastructure. This ownership model would ensure that companies are invested long-term in the maintenance and operability of charging sites. Although state DOTs should remain closely committed partners during the initial five-year period of a project's life, sole ownership should be able to fall to non-governmental entities wherever they provide non-federal, matching funds.

Additionally, ZETA recommends that FHWA clarify that the Sec.11401 grant program and the National Electric Vehicle Formula Program funds may be used for charging stations that include both public EVSE

[14] "Colorado Energy Office: EV Fast Charging Corridors Grant Program." Alternative Fuels Data Center. U.S. Department of Energy, June 3, 2019. https://afdc.energy.gov/case/3083.

and infrastructure that is reserved for commercial and municipal fleets. This hybrid approach would provide states and localities with flexibility to maximize the value of federally-funded infrastructure within their communities.

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;

ZETA has encouraged its member companies to respond to this question independently.

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

Electric vehicle service providers (EVSPs) operate under a variety of business models, including proprietary software, resulting in varying price structures and service offerings. ZETA recommends investing in network interoperability through roaming protocols and agreements. Below are ZETA's recommendations to improve the EV charging user experience:

- As the EVSE market evolves, the program must remain flexible within its design to enable industry and utility partners to maintain a role in determining pathways to reach new or updated objectives.

- Ensure that data reporting requirements do not add a cost burden to host sites. We encourage USDOT to aggregate data for comprehensive reporting through specific periods rather than individual session levels.

- Encourage interoperability to prevent stranded assets of EV deployment and maintenance.[15]

- Instead of mandating specific payment technologies, require chargers to be accessible to multiple payment options. This will ensure convenient access for drivers and allow charging companies to respond to technological advances that make payments increasingly secure, reliable, and cost-effective.

- Adopt a definition for "networked" charging**.** In order to satisfy IIJA's requirements to collect meaningful data, understand real-time availability of charging stations, and maximize station reliability, we encourage USDOT to adopt the following definition for "networked," which is used by California's Energy Commission: a charger connected to a backend network operations center, which at a minimum enables remote diagnostics, remote start, and usage data collection.

USDOT and state DOTs should also adopt best practices from existing EV charging grant programs, including:

- Hold multiple program rounds per year on a predictable schedule, which aligns public programs with private charger deployment. It also enables program administrators to make adjustments

[15] Ibid.

based on learnings in previous rounds. This is done in Colorado,[16] Pennsylvania,[17] and Maryland.[18]

- State DOTs should evaluate applications with transparent, points-based scoring rubrics. This is more effective than dictating specific locations or charger sites, and helps applicants craft proposals to the priorities of program administrators. North Carolina's rubric should be followed as a best practice.

- State programs in Ohio,[19] Florida,[20] California,[21] and Texas[22] allow applicants to build chargers at their own risk once the application window opens. Replicating this practice can avoid unnecessary delays that can slow deployment by up to 12 months.

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.

ZETA has encouraged its member companies to respond to this question independently.

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 the future maintenance of assets:

- Ensure the future maintenance of assets by requiring EV charger operation and maintenance agreements.

- Prioritize projects that will achieve maximum reductions in greenhouse gas (GHG) emissions and criteria pollution, especially in areas already overburdened by air pollution and related respiratory illness by using the EPA EJ Screen.

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[16] Howell, Misty. "Charge Ahead Colorado." CAF. Clean Air Fleets, January 24, 2022. http://cleanairfleets.org/programs/charge-ahead-%20colorado.http://cleanairfleets.org/programs/charge-ahead-%20colorado

[17] "Driving Pa Forward." Driving PA Forward. Pennsylvania Department of Environmental Protection, January 19, 2022. https://gis.dep.pa.gov/DrivingPAForward/.

[18] "Guidelines for Maryland Electric Corridors Grant Program." Maryland Department of the Environment. Maryland Department of the Environment. Accessed January 25, 2022. https://mde.maryland.gov/programs/Air/MobileSources/SiteAssets/Pages/MarylandVolkswagenMitigationPlan/Electric%20Corridors%20Grant%20Program%20Framework%20Round%202.pdf.

[19] "Diesel Mitigation Trust Fund (DMTF) DC Fast Charging Grant Program." Ohio EPA. Ohio EPA Office of Environmental Education, January 14, 2022. https://epa.ohio.gov/static/Portals/42/documents/DMTF/DMTF-EVSE-DCFC-RFA.pdf.

[20] "Request for Application (RFA) for EVCI Phase 2." Florida Department of Environmental Protection. Florida Department of Environmental Protection: Division of Air Resource Management. Accessed January 25, 2022. https://floridadep.gov/file/23889/download?token=kn5auFjA.

[21] "Building EV Infrastructure." CALeVIP. California Energy Commission. Accessed January 25, 2022. https://calevip.org/.

[22] "DC Fast Charge: Grants for Light-Duty Electric and Hydrogen Supply Equipment." Texas Commission on Environmental Quality. Texas Commission on Environmental Quality. Accessed January 25, 2022. https://www.tceq.texas.gov/agency/trust/dcfch.

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

As an industry coalition that brings together different business models, products, and services, ZETA recognizes that competitive grants must be site-specific. ZETA recommends the following best practices to further inform USDOT about future guidance for the Charging and Fueling Infrastructure Program:

- Distinguish grant solicitations between DCFC and L2 chargers. The type of EVSE should remain flexible given the needs of a site location. This will vary according to the dwell time of the location.

- Prioritize funding for underserved rural or urban areas for the purpose of economic development and aggregate air quality and health improvements.

- Due to the varying business models within the EV charging market, provide flexibility in charger ownership. This will allow service providers to operate stations in one area while site hosts operate chargers in another location.

- Adopt a definition for "networked" charging. In order to satisfy IIJA's requirements to collect meaningful data, understand real-time availability of charging stations, and maximize station reliability, we encourage USDOT to adopt the following definition for "networked," which is used by California's Energy Commission: a charger connected to a backend network operations center, which at a minimum enables remote diagnostics, remote start, and usage data collection.

- For efficient evaluation of similar responses to solicitations made under the Sec. 11401 grant program, FHWA should provide as much detail as possible regarding preferences related to the site (e.g., on-site services, access to and availability of the infrastructure), hardware (e.g., number and type of chargers or fuel dispensers), and use cases as possible.

Conclusion:

ZETA and its members extend their gratitude to USDOT for the opportunity to provide feedback on this issue. We also call on USDOT to prioritize ubiquity when shaping domestic charging networks while providing applicants with flexibility, transparency, and specificity in grant processes. State DOTs should pay particular attention to engagement with BIPOC communities in high traffic corridors, rural vehicle users, and other historically underserved drivers when developing charging infrastructure projects. A reliable, equitable charging network is a prerequisite for the level of EV adoption needed to meaningfully reduce GHG emissions, improve public health, and bring good-paying jobs to local economies.