



ZERO EMISSION
TRANSPORTATION
ASSOCIATION

August 19, 2022

Stephanie Pollack, Deputy Administrator
Federal Highway Administration (FHWA)
U.S. Department of
Transportation (DOT)
1200 Pennsylvania Avenue NW, 1101A
Washington, DC 20004

Re: Response to Request for Notice of Proposed Rulemaking No. FHWA-2021-0008: National Electric Vehicle Infrastructure Formula Program

SUBMITTED VIA: [https:// www.regulations.gov](https://www.regulations.gov)
Docket No. FHWA-2021-0008
RIN: 2125-AG10

The Zero Emission Transportation Association (ZETA) is a federal coalition advocating for 100% electric vehicle (EV) sales by 2030. We are dedicated to advancing policies that drive transportation electrification, which will create millions of good-paying jobs, secure American global EV manufacturing leadership, dramatically improve public health, and significantly reduce carbon pollution.

Please find ZETA's response to the Federal Highway Administration (FHWA's) Notice of Proposed Rulemaking on the National Electric Vehicle Infrastructure (NEVI) Formula Program. We thank the U.S. Department of Transportation (DOT) and the Joint Office of Energy and Transportation (Joint Office) for their leadership in deploying a widespread, equitable charging network.

Background:

The Infrastructure and Investment Jobs Act (IIJA) or the Bipartisan Infrastructure Law (BIL) includes grant and formula funding programs to help the nation meet President Biden's goal of installing 500,000 public EV chargers across the country by 2030. The IIJA allocates \$5 billion to establish the NEVI 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. In addition, this interconnected charging network will upload maintenance data to ensure proper operation and accessibility.

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

§ 680.106(d) Charging Stations

Under § 680.106(b), FHWA proposes requiring Direct Current Fast Chargers (DCFC). As a result, the Agency proposes charging stations have at least four charging network-connected DCFC ports capable of charging at least four EVs simultaneously. We believe that the industry can meet this requirement. ZETA also agrees with the proposed requirement that each DCFC port offer charging of at least 150 kilowatts (kW) simultaneously. In the interest of upholding an equitable EVSE rollout, however, we do not advise a mandate of 350kW chargers. Requiring a higher power level beyond 150kW would raise concerns for rural, western, and tribal lands that are not currently able to reach that standard. The cost of power expansion could be overburdensome for areas where grid modifications have yet to be made.

§ 680.106(f) Payment Methods

ZETA supports FHWA's minimum standard for the secure payment methods that stations must provide. We commend FHWA on the draft standards that make charging accessible to individuals with disabilities and that require multiple language offerings. At a minimum, charging stations should include a payment system that utilizes contactless payment methods. Contactless payment provides an opportunity for communities to integrate multiple transit benefits into a single payment system.

ZETA supports allowing chargers to remain 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. For individuals that use alternative financial services (AFS) such as check-cashing outlets, payday lenders, or third payment platforms, there is potential to expand options for the use of non-traditional banking methods.

§ 680.106(h) Safety and Security

Under § 680.106(h), ZETA commends FHWA for incorporating safety requirements into its minimum standards. At a minimum, we support providing adequate lighting at charging sites. Lighting is important for accessibility, as it helps guide users to an EV charger and helps with the charger's operation. Site location selection in highly visible areas is also a critical safety measure. We recommend further coordination with State DOTs to site location to minimize safety risks.

§ 680.106(i) Five-Year Timeframe

ZETA supports the five-year time frame outlined in § 680.106(i) to require States to maintain EV charging infrastructure in compliance with the proposed regulation. However, we would like to draw FHWA's attention to the portion of the section that states, "at the conclusion of the 5-year required maintenance period, States can choose to retire the infrastructure that has reached the end of its useful life and should consider upgrading or replacing the electric vehicle supply equipment (EVSE) if necessary."

We encourage FHWA to require that States ask grant applicants to present a plan for how they intend to ensure the infrastructure remains reliable beyond the five years of federal interest and contracting. ZETA recommends States require electric vehicle service provider (EVSP) applicants to ensure that stations are operable for the full lifecycle of the charger (7-10 years). If the EVSP fails, ownership could be transferred to another EVSP to prevent loss of financial investment and stranded assets. Furthermore, ZETA encourages FHWA to clarify that the federal interest ends at the conclusion of this five-year timeframe and that the NEVI minimum standards and other Title 23 requirements are no longer applicable unless additional federal funding is applied to the charger. ZETA also supports a proposal that States continue maintaining functioning EVSE after five years.

§ 680.106(j) Equipment Installation, Operation, and Maintenance

It is important to ensure flexibility when implementing workforce certification standards, particularly related to the installation, maintenance, and operation of EV charging equipment. Currently, there are only two avenues for certifying approved qualified electricians. The first is through a registered apprenticeship program approved by the Department of Labor in consultation with the Department of Transportation; the second is the Electric Vehicle Infrastructure Training Program (EVITP). We believe that only having two pathways may limit entry to the broader EVSE workforce, which could delay the efficient implementation of the NEVI Formula Program. In addition, EVITP is a program dedicated to installation and has yet to clarify a pathway to sufficiently scaling the number of certified skilled labor required to meet the NEVI goals and serve EVSE installation nationwide. Until sufficient scale is demonstrated through the two existing pathways, ZETA suggests that FHWA amend the proposed standard so that any certified electrician with demonstrable experience installing electrical equipment of at least 150kW be considered a "qualified electrician" under the definition outlined in § 680.106.

ZETA recognizes EVSE operations and maintenance (O&M) technicians rely on a specialized skill set to ensure charging equipment and software is operational and online. O&M's jurisdiction is maintaining hardware, firmware, and software, which is outside the scope of a skilled electrician. In light of this, the workforce requirements of O&M technicians should be separated from those required for installation. Currently, EVSE technicians hired internally by

charging companies, third-party maintenance companies, or utilities receive standard Lock Out Tag Out (LOTO), Occupational Safety and Health Administration, and National Fire Protection Association trainings for fire and electrical safety awareness. Through these trainings, technicians gain the ability to perform incidental low-risk electrical work, which involves shutting off and isolating power from the breaker box to the charging equipment to commence O&M work.

The nature of work needed to maintain and operate charging stations is outside the scope of a skilled electrician. Operations and maintenance should be completed by EVSE technicians who understand the hardware and software issues that arise during charger downtime. Therefore, requiring a skilled, certified electrician for such work would likely be an inefficient use of labor and may present barriers to workforce entry. Allowing O&M to be taken on by a workforce separate from “qualified electricians” will ensure that the upkeep of charging stations is not restricted by limited labor availability.

Widespread EVSE deployment presents an opportunity to bolster employment within the EV industry. The different EVSE installation, maintenance, and operations work calls for a variety of skill sets. In turn, this presents a chance to enhance equity and job accessibility. To ensure that a diverse array of communities benefit from EV deployment, ZETA encourages FHWA to remain neutral and flexible on training pathways to EVSE maintenance and operation. These pathways should be accessible to those entering the workforce and those transitioning from other industries. We encourage FHWA, DOT, and States to strongly consider partnerships with technical colleges and organizations, workforce development agencies, and community-based organizations to create a pathway for education, training, testing, and certifying skillsets under the jurisdiction of operations and maintenance. We are confident that these alternative options will allow for a more diverse and highly trained EVSE workforce.

§ 680.106(m) Income

The proposed standards § 680.106 states, “for purposes of program income or revenue earned from the operation of an EV charging station, the State DOT should ensure that all revenues received from the operation of the EV charging facility are used only for a reasonable return on investment of any private person financing the EV charging station project, Any costs necessary for the improvement and proper operation and maintenance of the EV charging station, including reconstruction, resurfacing, restoration, and rehabilitation.”

We do not believe that State DOTs are the appropriate entity to determine a reasonable rate of return for infrastructure. Rather, State DOTs should develop a formulaic approach based on prevailing market economics for charging infrastructure hardware, software, electricity, and ongoing services. We encourage FHWA to provide clarity that the reasonable rate of return only applies for the five-year useful life of the charger, not in perpetuity outside those five years.

ZETA encourages FHWA to provide clarity on this topic. The current requirement may invite price regulation for charging stations. This is inappropriate, as these are discreet retail businesses that are best equipped to set prices for charging and compete in the private market.

§ 680.108 Interoperability & ISO 15118

To create a seamless consumer experience, interoperability remains a key component of the NEVI program. ISO 15118 provides a global industry standard for EV-to-charger communication and supports vehicles' acceptance of "Plug&Charge" payments and emerging technologies such as vehicle-to-grid (V2G) capabilities. Although ISO 15118 does not conflict with requirements for secure and accessible payment methods, the code should only be recommended for EVSE that is hardware compatible with the implementation of ISO 15118. At this time, EVSE should not be required to utilize a standardized communication protocol if another communication protocol is preferred.

ZETA applauds FHWA's intention to enable software-hardware interoperability by requiring companies to implement Open Charge Point Protocol (OCPP). Requiring interoperability will promote consumer protection, innovation, and competition within the market by giving site hosts more charging vendor options. However, OCPP version 2.0.1 is still relatively new; charging companies need time to implement it fully. Given the timing of the first-round program funding release in several States, ZETA encourages FHWA to allow for a short-term transition period between versions 1.6J and 2.0.1. Additionally, FHWA should allow for 1.6J or higher during this transition period. If FHWA does not allow for a transition period, it risks locking out vendors from the first year of funding, thus reducing competition and innovation for state program funds.

§ 680.112 Data Collection and Privacy

ZETA urges FHWA to reassess the requirements outlined in the NPRM § 680.112, which describe the extensive data points EVSE owners and operators must collect throughout the year. Under § 680.112(b), which calls for collecting 44 data points—including maintenance and repair- of particular concern to our members.

The cost of maintenance and repair should be inconsequential so long as charging stations meet their required uptime targets. The proposed standards assure that the Joint Office will create data portals and reporting templates to assist State DOTs in the collection and facilitation of data. However, our members have clarified that the requested data is not easily accessible, sometimes commercially sensitive, and, in many cases, lacks an automated transfer process. In addition, requiring this data would be costly to EVSPs, as this is a new protocol within the industry. While we support strong commitments to transparency and reliability, we understand that mandating

data collection by a third-party aggregator can be detrimental to competitiveness, costly for charging companies, and potentially overburdensome for State DOTs. Allowing for a third party to access the requested data via an open API may hinder competitiveness in the industry and create unfair business practices to draw customers to company specific mobile apps rather than a single point of reference for drivers.

Protecting business-sensitive data is of the utmost importance to our coalition partners. In its current form, the proposed standard is not in line with best practices, and this is particularly true of the requirement to share costs of chargers and real estate acquisitions. In the interest of competitiveness, ZETA urges that data be aggregated and anonymized in any reporting. We urge FHWA to clarify how it will use the data collected from EVSPs and explain the benefit of reporting with any specific frequency. Our membership recommends that FHWA align the data reporting standards with those of the California Air Resource Board's annual EVSE Standards or AFDC and that reporting be focused at a more aggregated level (i.e., at the level of a station rather than at the level of an individual session).

Grant recipients should be required to report the information necessary for compliance with the BIL but should not have to provide additional cost details. ZETA recommends that FHWA revise its guidance to require grant applicants to provide annual data submissions rather than quarterly. Quarterly reporting will prove to be a burdensome responsibility for State DOTs, especially considering the broad scope of data requested by the proposed standards. Additionally, some data reporting requirements are duplicative, as the Alternative Fuels Data Center collects many of the data requested by FHWA from charging providers.

§ 680.116 Revenue

With regards to § 680.116 (a.3) on the communication of price, ZETA encourages FHWA to allow EVSPs to transparently administer additional fees on top of the per-kWh price of electricity. Allowing for rate design flexibility will grant station owners and operators the ability to generate the revenue for high-level, long-term maintenance and creativity for providing additional services. Additional fees for the service and maintenance of charging stations make ownership financially viable and support a growing, competitive private market. ZETA recommends that price structure, including idling, service, any other fees, and the baseline price, be clearly communicated before the charging session begins. These fees should be displayed when the driver arrives and interacts with the charger to authenticate the payment.

Finally, § 680.116 (a.2) states that the “price of charging displayed on the chargers and communicated via the charging network must be the real-time price (i.e., the price at that moment in time). The price at the start of the session cannot change during the session.” Under this consideration, ZETA supports allowing time-of-use (TOU) rate structure in the NEVI

Formula Program. We note that these prices may not change for the driver mid-session and must be calculated well in advance to ensure price transparency.

§ 680.116(b) Reliability and Uptime

ZETA firmly supports the inclusion of robust reliability and uptime standards in the NEVI program to ensure a high-functioning national charging network. We encourage FHWA to look more closely at the requirements outlined in § 680.116(b). Site redundancy should be considered as a viable pathway to achieving 97% uptime. At locations with a high volume or large number of charging ports, per-port uptime may not be as critical to ensure a positive consumer experience. We encourage FHWA to consider setting a threshold: if there are more chargers at the site than the threshold set by FHWA, then those additional ports may be allowed to meet a lower uptime requirement, as set by FHWA. Contact information for service and maintenance should be available to allow site notifications for outages and repair needs.

Relatedly, ZETA recommends the NEVI standards require a minimum of four ports per station to ensure the reliability of charging sites when a port is out of service. Site composition of at least four charging points is important for shaping an equitable and reliable network. In addition, it is important to ensure that priority communities have access to charging stations, similar to more densely populated areas. Finally, achieving 97% uptime will require a well-developed and well-resourced maintenance and operations framework. We encourage FHWA to require that operators submit detailed plans that demonstrate their capacity to maintain reliability.

Finally, ZETA suggests FHWA consider vandalism (i.e., cut cables and cracked screens) as an exception to the proposed uptime requirements if sufficient proof of incident can be provided. Failing to make any kind of allowance for this could create a perverse incentive for charging providers to avoid areas with higher rates of vandalism and impact equitable access. With this recommendation, we ask that FHWA set an expectation for station owners to address the repair within a reasonable period of time (in coordination with the respective State DOT plans and allowing for flexibility under such circumstances).

Other:

Medium and Heavy Duty Accommodation

The National Electric Vehicle Infrastructure (NEVI) Program minimum standards are designed to address a network of light-duty vehicle chargers open to the general public along Alternative Fueling Corridors (AFC). However, the proposed minimum standards explicitly extend most of these requirements to other Title 23 funded programs. As written, the standards would pose unintended barriers to the efficient deployment of much-needed EV charging projects and programs, especially those that support medium- and heavy-duty vehicles (MHDVs) that benefit from depot charging. This would also create unintended negative impacts on the ability of States,

metropolitan planning organizations (MPOs), and other project sponsors to creatively deploy funding from other Title 23 programs, namely the Congestion Mitigation and Air Quality (CMAQ) program, Surface Transportation Block Grant (STBG) Program, and the Carbon Reduction Program, among others, where States have used rebates and vouchers in the past to advance the electrification of trucks and other critical fleets such as rideshare vehicles and taxis.

The proposed minimum standard states that, “except where noted, these regulations apply to all NEVI Formula Program projects as well as projects for the construction of publicly accessible EV chargers that are funded with funds made available under Title 23, United States Code.” Our concern is that the use of the term “publicly accessible” would capture commercial electric vehicle charging depots, and apply requirements that are designed for light duty vehicle charging infrastructure to the general public. To address this concern, we propose that FHWA modify the term “publicly accessible” when applying the Minimum Standards to EV chargers funded with funds made available under Title 23, United States Code to reference only chargers that are “open to the public.”

Alternative Fuel Corridor Build-out

Based on the analysis of multiple State DOTs, it will be feasible for some States to complete the build-out of their alternative fuel corridors in the first year of the NEVI program. Therefore, in order to ensure that community fast charging can be developed in tandem with alternative fuels corridors, FHWA should clarify that a corridor can be certified as fully built-out once funds for the build-out of stations every 50 miles have been obligated. If another standard, such as sites being fully operational, is adopted, it will significantly delay future rounds of the program—directly contradicting any public purpose.

Charging grant programs regularly see the fallout of sites from grant award to operation because applicants find build-out is more difficult than expected or a site becomes unsuitable after award. It may not be possible to award a site again until after the 12-24 months post-award completion deadline. Therefore, if all stations along a corridor must be operational and there is attrition, non-corridor charging could be delayed for 2-4 years when the corridor is nearly complete. We believe this provision is intended to direct emphasis and effort towards the initial completion of a “backbone” corridor charging network. This purpose is accomplished by directing initial funding only to these designated corridors, but withholding community charging development until the construction completion date of these systems serves no discernible public purpose.

It is our experience that community fast charging is used significantly more than corridor charging, and we believe that this indicates it is similarly critical to EV adoption. In addition, by allowing certification when funds are obligated, States can serve new areas faster and easily backfill a handful of locations with new awards instead of holding up progress for years.

Conclusion:

ZETA thanks FHWA and the Joint Office for the opportunity to comment on the NEVI Formula Program's proposed minimum standards. We commend FHWA for its thoughtful draft—notably its charging requirements, commitment to uptime and reliability, and attention to accessibility. However, a domestic charging network's capacity to serve American drivers for years will depend on a comprehensive, informed deployment strategy. ZETA is committed to helping shape an electric transportation system that reflects the varying needs of communities across the country. Incorporating equity and accessibility into host site design, improving workforce requirements, and refining uptime and reliability standards will determine this program's success. We are confident in FHWA and the Joint Office's ability to use our recommendations to maximize the use of program funding and accelerate EV adoption.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'JB', with a stylized flourish extending from the end.

Joseph Britton
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