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## **Electrify America Comment on NEVI Pre-Solicitation Workshops**

Please find attached comment from Electrify America on the NEVI Pre-Solicitation Workshops

*Additional submitted attachment is included below.*



## **Electrify America Comment on National Electric Vehicle Infrastructure (NEVI) Funding Program Pre-Solicitation Workshops**

September 28, 2022

Electrify America appreciates the opportunity to comment on California's pre-solicitation workshops for the NEVI program. Electrify America, LLC, operates the nation's largest open network of DC fast chargers for electric vehicles, with over 3,400 chargers at 789 locations nationally, and over 1,000 chargers at 240 locations in California.

### Overall Program Structure & Approach

Electrify America generally supports the corridor grouping approach outlined by California, which will bucket together sites along travel corridors to provide NEVI-compliant minimum coverage along the entire route. Offering sites in groups could help to make certain sites more attractive by combining locations with lower and higher expected near-term utilization into a single project. However, some of the groups are comprised of predominantly lower-traffic routes or areas with below-average EV adoption that may have lower near-term utilization, including some groups with the higher 50% match requirement. Additionally, California proposes to build out very large numbers of chargers along these routes, using RoadTrip results that project demand for 2030.

As economic viability for DC fast charging stations is largely determined by the balance between revenues from customer payments and O&M costs primarily attributable to electric utility bills, installing a greater density of chargers along lower-traffic routes than is warranted by near-term charging demand could potentially lead to projects with difficult economics, particularly at the higher match shares envisioned for some projects. Electrify America encourages California to reframe charger requirements in terms of total kW of charging power, allowing vendors to meet requirements with a lesser number of 350 kW chargers rather than a greater number of 150 kW chargers while maintaining charging power and vehicle throughput along these routes.

Regarding California's request for input regarding how many corridor groups are made available in each funding round, Electrify America recommends that California make more groups available for funding than it intends to eventually award in the funding round, to recognize that the nature of the group structure will require vendors to put together complex projects involving numerous properties and some groups may not have a viable project ready on the timeline of the RFP. Some flexibility in the offering of groups will allow EVSPs to prioritize projects where they can offer projects with the best sites and highest readiness for deployment.

### Technical Standards

The proposed federal minimum standards, as well as those outlined in the CEC workshop deck, reference OCPP 2.0.1 as being required. Electrify America notes that OCPP largely handles session management and payment functions of the charger but is not sufficient to support all charger operations – particularly those



related to remote diagnostics, system management and charger reliability. Electrify America has developed an implementation of OCPP 1.6 with significant extensions for diagnostics and management capabilities, and we have submitted comments on the NPRM urging flexibility in the precise version of OCPP required in charging hardware. The hardware would still have interoperability features and could be supported with a default OCPP-compliant application to ensure that the charger could be operated by another provider if necessary. Electrify America recommends that California also provide flexibility in using an OCPP 1.6-based system if permitted under the final minimum standards.

Regarding ISO 15118 compliance, we note that the proposed minimum standards state that “charging stations must provide for secure payment methods... which at a minimum shall include... Plug and Charge payment capabilities using the ISO 15118 standard.”<sup>1</sup> By contrast, California’s workshop deck suggests that chargers must be “ISO-15118 hardware ready.” Electrify America encourages California to align with the proposed minimum standards in requiring that Plug and Charge via ISO 15118 is a supported payment type from the time of equipment commissioning, rather than a hardware capability that may not be fully implemented.

### Equipment Requirements & Charging Speed

Electrify America supports the requirement that dispensers must be capable of at least 350 amps to ensure that chargers are able to support charging speeds of 150 kW across vehicle models, including those that rely on a 400-volt architecture. Electrify America also supports the requirement of sizing conduit to 350 kW per dispenser, recognizing that vehicle ranges, battery capacities, and charging speeds continue to increase, and future-proofing stations to allow upgrades to dedicated 350 kW charging is an important strategy to ensuring that stations will continue to efficiently serve vehicle charging demand.

Providing 350 kW charging capability from the outset of station construction is a best practice, and a position that is strongly supported by automakers as necessary to support highway corridor travel.<sup>2,3</sup> The Alliance for Automotive Innovation reiterated the need for 350 kW charging in recent comments on the proposed minimum standards notice of proposed rulemaking (NPRM), stating that: “Federally and state-funded DC fast chargers on corridors and at transit hubs must be capable of charging at a rate of 350 kW and 800 volts. It is imperative that customers have a convenient refueling experience. As more and more electric vehicles come to market with larger batteries, charging speed is going to become increasingly important.”<sup>4</sup> Research from Atlas Public Policy suggests that deploying higher-power charging is also more cost-effective due to increased throughput of sites, finding that installing overall public charging investment necessary over the next

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<sup>1</sup> See *National Electric Vehicle Infrastructure Program Notice of Proposed Rulemaking*, §680.106(f)(1)

<sup>2</sup> Alliance for Automotive Innovation (2021). “Recommended Attributes for EV Charging Stations.” Available at: <https://www.autosinnovate.org/about/advocacy/Recommended%20Attributes%20for%20EV%20Charging%20Stations%2009DEC2021.pdf>

<sup>3</sup> Joint Automakers (2021). “OEM Letter to Sec. Buttigieg.” Available at: <https://www.regulations.gov/comment/FHWA-2021-0022-0036>

<sup>4</sup> Alliance for Automotive Innovation (2022). “Comments on U.S. Department of Transportation Federal Highway Administration’s Notice of Proposed Rulemaking on the National Electric Vehicle Infrastructure Formula Program,” p. 8. Available at: <https://www.regulations.gov/comment/FHWA-2022-0008-0264>



decade to support 100% passenger electric vehicle sales by 2035 is reduced by 25% when deploying 350 kW instead of 150 kW charging.<sup>5</sup>

While not all chargers at a site necessarily need dedicated 350 kW capability from the outset, a wide range of EV models in both the luxury and volume segments already support significantly faster charging speeds than the NEVI minimum of 150 kW,<sup>6</sup> and ensuring that sites include some chargers capable of fully meeting these vehicles' charging demand will improve station throughput and customer charging experience.

### Reliability

Charger reliability is critical to the success of the NEVI Program, and Electrify America supports the requirement that vendors provide a five-year operations and maintenance (O&M) plan as part of a responsive application. In particular, we note that capabilities to support reliability, such as 24/7 network monitoring and technical/diagnostic support, vehicle interoperability testing, technician training programs, fielding fleets of test drivers, domestic warehousing of repair parts, and other strategies are critical to ensuring that the support system is in place to effectively maintain a reliable network of chargers. As uptime alone is not a reliable measure of charging success, we encourage California to specifically gauge reliability capabilities in the context of evaluating the five-year O&M plan. Within the context of uptime reporting, we support a site-level uptime metric that acknowledges the role of equipment redundancy in ensuring that drivers can successfully obtain a charge.

### Eligible Project Costs

Electrify America supports the restriction of eligible project costs to deployment of DC fast chargers with CCS ports. We submitted comment earlier this year on CEC's draft ZEV Investment Plan, strongly agreeing with the statement that "[a]dapting to market trends will mean phasing out public support for chargers with CHAdeMO connectors and improving on the consumer experience, focusing on charging speeds and costs to drivers." As all new EV models will be expected to support the CCS fast charging standard moving forward, or will allow CCS charging via an adapter, focusing on building out the CCS charging network is the most efficient use of state resources, and will assist EV charging providers in focusing on creating the fastest and most reliable charging experience to drivers. While we also support the inclusion of photovoltaic solar panels in eligible project costs, we encourage California to explicitly clarify its preference for this technology and how it will be scored against other project metrics such as cost. While Electrify America has installed stations in California that include integrated solar generation, this technology comes at significantly increased capital

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<sup>5</sup> Atlas Public Policy (2021). "U.S. Passenger Vehicle Electrification Infrastructure Assessment: Executive Summary." Available at: [https://atlaspolicy.com/wp-content/uploads/2021/04/US\\_Electrification\\_Infrastructure\\_Assessment\\_Exec-Summary.pdf](https://atlaspolicy.com/wp-content/uploads/2021/04/US_Electrification_Infrastructure_Assessment_Exec-Summary.pdf)

<sup>6</sup> In the past six model years, the average charging speed of new EV models has increased four-fold, from approximately 50 kW to 200 kW, and the trend is accelerating. In the volume segment, Kia and Hyundai have introduced ultra-fast charging capable vehicles. Support for ultra-fast charging represents increased access, improved customer experience and adoption, and future-proofing California's EV charging network.



cost, and vendors will benefit from understanding exactly how the state will score different project elements in designing proposals that best meet California's objectives.

### Scoring Criteria

Electrify America requests additional clarification on the specific scoring of categories outlined on slide 42 of the Session 1 workshop presentation, and particularly the evaluation of Project Benefits, which is assigned a large share of overall points. We also recommend that the scoring rubric explicitly evaluate capabilities to support reliability, as discussed previously. Additionally, we note that cost is a very high overall share of points relative to other categories, and could potentially outweigh critical site considerations such as location (including lighting, safety, and driver amenities), team qualifications, and the ability of the respondent to support the reliability goals of the program. We encourage California to ensure that the scoring rubric takes cost under appropriate consideration without sacrificing key elements of successful charging site design and reliable operation.

### Project Readiness

Finally, regarding project readiness, we note that on Slide 29 of the Session 1 workshop presentation, California proposes to require preliminary site designs, a utility letter, and a site host letter as evidence of project readiness. In comments previously submitted on CEC's draft ZEV Investment Plan, we observed that California's recent EV charging infrastructure programs, which have similar project readiness requirements, are oversubscribed, and only 950 DCFC were installed with another 5,711 stations "planned" according to California's 2021 Clean Transportation Program Funding Plan.<sup>7</sup> We observed that from the perspective of a charging station developer, it is premature to determine if an EV charging station is likely to be developed before legal site control, a building permit, a final utility design, and financing have been secured. We noted that the Commission could ensure more charging stations that received funding would be built by adopting stronger project readiness program design requirements, such as providing post-construction rebates available only after sites are completed, or requiring applicants to provide additional indications of project readiness, demonstrating access to the site through contract or deed, obtainment of necessary permits, and/or finalization of new utility service design. These design elements would help to discourage speculation and promote projects at an advanced stage of readiness that have the greatest likelihood of successful deployment.

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<sup>7</sup> Electrify America (2022). "Comments on the Draft Zero-Emission Vehicle Infrastructure Plan," p. 5.



## Conclusion

Electrify America appreciates the opportunity to provide feedback on the National Electric Vehicle Infrastructure Program Pre-Solicitation Joint Workshops, and looks forward to continuing to support the State of California in achieving its electric vehicle goals.

Sincerely,

/s/

Andrew Dick  
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