

*Comment Received From: Electrify America, LLC
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Comment from Electrify America on Draft NEVI Plan

To Whom It May Concern:

Please find attached draft comment from Electrify America, LLC, on California's draft NEVI plan.

Additional submitted attachment is included below.



Electrify America Comment on Draft California Deployment Plan for the NEVI Program June 24, 2022

Electrify America appreciates the opportunity to comment on the draft California Deployment Plan for the NEVI Program. Electrify America operates the nation’s largest network of DC fast chargers for electric vehicles (EVs), with 3,338 ultra-fast chargers at 773 locations nationwide. We have a significant footprint in California, with 991 ultra-fast chargers open to the public at 232 locations in the state.

Recommendation 1: Prioritize 350 kW Charging Along Interstate Corridors

The CEC presentation deck for the NEVI plan requests feedback on requirements for 350 kW power levels. Electrify America would like to emphasize the importance of ultra-fast 350 kW charging for highway corridor travel in particular, and recommends that California prioritize deployment of at least one 350 kW charger at each charging location along interstates.

350 kW charging is already commercially available on the Lucid Air, and has been announced for other upcoming vehicles, such as the GMC Hummer EV¹ and the Chevrolet Silverado EV.² Additionally, several other vehicles are already on the market that support significantly faster charging speeds than the 150 kW minimum required under the program, with manufacturers including Hyundai, Kia, Audi, Porsche, Rivian, BMW, and Mercedes-Benz offering 2022 model year vehicles with 200 kW or greater of charging power. These vehicles cannot charge at their full capacity with 150 kW charging, leading to poor driver experience and additional travel time lost to refueling.

We encourage California to consider the gold standard set by the State of Oregon with its “Oregon Quad Pod” charging station design, which includes a minimum of one 350 kW charger and three 150 kW chargers at the outset, with future-proofed design to allow upgrading to additional 350 kW chargers in the future.³ Adopting a similar station design would ensure that California meets the charging demand from vehicles coming to market this year and into the future, allowing the network to be used and useful for years to come.

The trend in vehicle technology is clear – with average charging power of new EV models roughly quadrupling from approximately 50 to 200 kW between model years 2016 and 2022. Vehicles are getting faster across market segments and manufacturers, including international and domestic, start-up and legacy, and luxury and volume manufacturers. California should set a standard of at least one 350 kW charger per highway corridor location in order to meet the current and future demand for the fastest levels of charging.

Recommendation 2: Consider Capabilities to Ensure Reliability

Charger reliability is crucial to a successful NEVI program, ensuring that drivers can receive a charge when they need one and inspiring confidence to take long trips by EV. The draft California plan notes the importance of

¹ <https://media.gmc.com/media/us/en/gmc/vehicles/hummer-ev-pickup/2022.html>

² <https://electrek.co/2022/04/26/chevy-showcases-new-cab-options-for-silverado-ev-in-just-released-video/>

³ <https://www.oregon.gov/odot/climate/Pages/NEVI.aspx>



reliability to NEVI success in numerous places, and states that the CEC intends to develop and publish reliability standards applicable to the program. Electrify America also participated in the March 11 stakeholder workshop on reliability standards for EV charging stations.

Electrify America notes that much of the discussion on reliability has centered on the concept of uptime, and how it should be calculated. However, uptime is only one metric related to charging station operations and is not necessarily a good predictor of whether vehicles will be able to successfully charge at a charging station. A charging station may report that it is “up” – powered on, with charger software running, connected to the backend, and sending periodic heartbeat signals to the network to indicate its available status – but it may still not be able to successfully charge vehicles that arrive due to vehicle interoperability issues, physical problems with the connector, or other issues. Therefore, a more comprehensive approach to station reliability that focuses on charging provider capabilities is necessary to ensure not just that chargers are online, but that they are capable of successfully dispensing electricity when drivers need it.

Electrify America has found that operational capabilities are critical predictors of station reliability, and encourages California to further develop its approach to assessing station operators’ ability to keep stations running in good working order, as well as ensuring that charging sessions are successful. In our own operations, we have developed several specific capabilities that help to maximize network reliability, including 24/7 technical and diagnostic monitoring of the network, vehicle/charger interoperability testing, nine teams of charging station testers who visit and test every station six times per year, , and a comprehensive parts inventory to minimize timeframes for physical charger repairs. We encourage California to explicitly include requirements for reliability capabilities, or to include assessment of reliability capabilities in scoring criteria, to ensure that respondents to the California program will be prepared to meet stringent reliability targets.

Recommendation 3: Require Only the Non-Proprietary CCS Charging Standard at NEVI-Funded Sites

Both California’s draft plan and presentation deck note that the NEVI plan sets a minimum of four CCS chargers per site, as opposed to previous “corridor-ready” definitions and California grant programs that have required CHAdeMO chargers as well. Electrify America respectfully encourages California to maintain that only CCS chargers will be required for stations under the NEVI program.

CEC’s own Draft ZEV Investment Plan recognizes the rationale for phasing out CHAdeMO support, concluding: “The population of vehicles in California capable of using CHAdeMO chargers is declining, while the number of CHAdeMO chargers has continued to rise. The ratio of chargers to vehicles is higher for CHAdeMO than for CCS and Tesla. There may be specific cases where CHAdeMO-equipped vehicles in the used vehicle market require public support for additional CHAdeMO chargers, but the vehicle market is clearly moving away from this standard. Nissan, which has produced the most CHAdeMO-equipped vehicles (the LEAF), has announced its latest electric crossover will be equipped with a CCS inlet.¹⁰⁴ CARB staff has proposed to require light-duty vehicles with fast charging capability sold in California to be compatible with the CCS connector, beginning



with model year 2026.”⁴ Electrify America agrees with this assessment, as well as the conclusion of the AB 2127 report that the movement to a single connector type will reduce network costs and maximize convenience.

Electrify America closely monitors the use of CHAdeMO versus CCS charging on its network, and has found that the percentage of charging delivered via this standard at our California stations has fallen in every reporting period. In our 2021 Annual Report to the California Air Resources Board (CARB), Electrify America noted that CHAdeMO charging delivered only 3% of the total energy supplied to EVs during that year, down from 6% in 2020. In our 2022 Q1 Report, we noted that this percentage had continued to fall – decreasing from 3.4% during 2021 to 2.3% in Q1 2022.⁵ This trend demonstrates the declining need for CHAdeMO charging and suggests that a build-out of CCS chargers is the best means to meet future EV charging needs.

Recommendation 4: Recognize Permit Streamlining in Station Prioritization

Page 36 of the draft California NEVI plan indicates that permit streamlining will be taken into consideration in establishing NEVI priorities, as “sites within jurisdictions that have implemented permit streamlining for EV stations... will offer efficiency and time savings.” Electrify America strongly supports this inclusion in the draft NEVI plan, in addition to other state efforts to bring jurisdictions into compliance with AB 1236 and AB 970 to reduce permitting timeframes and soft costs associated with EV charger deployment.

In Electrify America’s Q1 2022 report to CARB, we reported that California stations take 23% longer to permit and cost 46% more to build, on average, compared to stations in the rest of the United States. California’s two major pieces of permitting legislation are critical to reducing these barriers to deployment, and including consideration of permitting practices in the NEVI plan will provide California jurisdictions with additional incentive to come into compliance with these important measures, while encouraging an efficient buildout of charging infrastructure.

Recommendation 5: Design Program to Discourage Speculation

It is critical under the NEVI program to ensure that California chooses EV charging providers with the experience and capability to deliver high-quality, reliable charging stations, and that charging providers have the site host relationships to actually build the sites and bring the projects to completion. In some previous EV charging incentive programs in California, funds have been quickly reserved for projects that are not built in a timely fashion, or aren’t built at all, locking up funds that could otherwise be used for real projects that can be deployed efficiently.

California should structure NEVI program solicitations to reflect lessons learned from these previous programs, requiring that EV charging providers demonstrate progress towards station completion in order to receive

⁴ California Energy Commission, 2022. “Draft Zero-Emission Vehicle Infrastructure Plan (ZIP),” p. 47. Available at: <https://www.energy.ca.gov/sites/default/files/2022-04/CEC-600-2022-054.pdf>

⁵ Electrify America, 2022. “2022 Q1 Report to California Air Resources Board,” p. 8. Available at: <https://media.electrifyamerica.com/en-us/releases/187>



grant payments, preventing funds from being allocated to projects that will not be built. California could accomplish this by offering incentives in the form of post-construction rebates, provided only when a station is commissioned. Alternatively, California could commit funds to projects only when the applicant demonstrates site control (by lease or deed), the submission of a building permit, final utility design, and/or demonstration of sufficient capital to complete the project. Finally, Electrify America recommends that California establish a transparent scorecard for award selections that includes an evaluation of whether charging providers are likely to successfully deploy stations and keep them in good working order for the program period.

Conclusion

Electrify America has made a strong commitment to ultra-fast, reliable, and non-proprietary charging in the State of California, including a substantial investment in ultra-fast corridor charging. Carefully designed, the NEVI program has the potential to greatly increase the ultra-fast charging available to California drivers and support the continued transition to zero-emission vehicles in the state. Electrify America appreciates the opportunity to comment on California's draft NEVI plan, and offers itself as a resource to state officials as the state plans its deployments under the program. Please do not hesitate to reach out with questions or concerns regarding these comments or program design.