



Building a National Electric Vehicle Charging Infrastructure Network: Regional EV Meetings Key Themes, Takeaways, and Recommendations from the States

Summary

The National Association of State Energy Officials (NASEO) and the American Association of State Highway and Transportation Officials (AASHTO), in partnership with the U.S. Joint Office of Energy and Transportation, convened leaders from State Departments of Transportation (DOT), State Energy Offices, and other key partners for six, in-person regional workshops to coordinate on National Electric Vehicle Infrastructure (NEVI) program planning and implementation. The regional meetings provided an opportunity for states to explore NEVI implementation challenges, technical assistance needs, priorities for states' infrastructure buildout in the coming year, and best practices in implementing state-led electric vehicle (EV) charging programs, as well as afforded states the chance to build relationships with peers and partners within their region. Key themes and technical assistance needs identified by the states during the six regional meetings include the following:

- **Engaging stakeholders:** States with experience implementing EV charging programs emphasized the importance of engaging a broad range of stakeholders such as electric utilities (consumer and investor-owned), community groups, Clean Cities Coalitions, disadvantaged communities, metropolitan planning organizations, and other state agencies for the planning and implementation of EV programs.
- **Managing underutilized EV charging stations:** Many states are grappling with how to manage and maintain underutilized EV charging assets, particularly in rural or remote areas.
- **Uptime requirements:** States have questions regarding how to monitor and enforce uptime requirements under the NEVI program, as well as how sites will manage vandalism and theft of EV charging equipment.
- **Supply chain constraints:** Many states noted supply chain constraints with both utility infrastructure and EV charging equipment is a major impediment to the swift deployment of NEVI stations.
- **Federal Build America, Buy American Requirements:** Adhering to federal Build America, Buy American requirements could cause additional delays in the deployment of EV infrastructure.
- **Internal staffing:** Many State Energy Offices and State DOTs, like their federal counterparts, have limited internal staffing to manage NEVI and other federal and state programs.
- **Workforce development challenges:** External workforce development challenges in the EV sector (such as a shortage of qualified EV station installers, electricians with EV certifications, and utility workers) were mentioned during every regional meeting, as well as the states' role in supporting state-wide workforce development initiatives.
- **Engaging utilities:** State-utility engagement is valuable in strategically planning for EV charging infrastructure. Engaging with regulated and unregulated electric utilities early and often is a key way to identify sites as well as determine the infrastructure upgrades required to deliver power to sites.



- **Capacity data:** Some states communicated challenges in obtaining hosting capacity data or a high-level site analysis from utilities to determine eligible sites for EV charging stations.
- **Justice 40 requirements:** States have questions on how to best incorporate federal Justice 40 requirements in their NEVI program and how to best engage disadvantaged communities in the NEVI planning and implementation process.

Deeper Dive: Key Themes and Technical Assistance Needs

All six regional meetings featured discussions from states on lessons learned from previous EV infrastructure projects that could be applied to NEVI and future state-led EV programs. Among the many lessons learned, **engaging with a broad range of stakeholders** including utilities, community groups, Clean Cities Coalitions, Disadvantaged Communities (DACs), metropolitan planning organizations, and other state agencies were mentioned by states as a critical component of strategic and equitable EV infrastructure planning. Stakeholder engagement strategies identified included hosting public meetings in communities as well as submitting a Request for Information to solicit feedback from the EV industry, potential site hosts, community groups, municipalities, utilities, and other key partners.

A challenge many states experienced through previous state-funded EV infrastructure programs was the **management of EV charging assets** due to underutilized charging sites. Several states noted a few examples of charging stations that were shut down at the end of their respective programs due to underutilization. States expressed concerns that, without a viable business model, NEVI-funded stations in rural or remote areas may be underutilized and abandoned when NEVI funding expires.

Operation and maintenance were brought up as areas of concern from former EV projects as well as how states will handle operation and maintenance needs through the NEVI program – and in particular, how states will ensure sites adhere to **uptime requirements**. A few states cited examples of vandalism of EV chargers that resulted in thousands of dollars of damage. One state’s solution to this problem is including language in their contracts that encourage award recipients to purchase insurance to cover unforeseeable damages. States also expressed concern in differentiating between vandalism and theft as there were a few instances of theft of valuable components of charging equipment. Additional guidance on how to distinguish between theft and vandalism as it pertains to uptime, as well as models or guidance on ways that states can ensure uptime compliance would be helpful as states finalize contracts and procurement documents.

Supply chain constraints with EV charging equipment as well as utility infrastructure like transformers and switchgear were mentioned in every regional meeting as a potential obstacle to efficient NEVI deployment. Many utilities quoted a 12-24-month backlog on transformer delivery which will be critical to deliver power to many NEVI stations. In addition to existing supply chain constraints, states noted the **Build America, Buy America requirements**¹ could cause additional delays on acquiring EV charging equipment and grid infrastructure that adhere to the requirements. There were also questions

¹ [“Build America, Buy America Act](#), Infrastructure Investments and Jobs Act”, Section 70921, November 2021



related to the Buy America waiver for EV chargers², as well as uncertainty among states regarding the certification of Buy America requirements and whether the project awardee or the State DOT would be responsible for determining Buy America compliance. States had questions on how awardees could verify the legitimacy of manufacturers' adherence to Buy America standards. A list of Buy America compliant manufacturers and EV Service Providers were noted as a tool that could help states ensure applicants are adhering to the Buy America requirements for NEVI-funded projects.

The topic of **internal staffing and administrative needs** was discussed in all six regional meetings. Most states communicated that their agencies, like their federal counterparts, were understaffed, with roughly one to two full-time employees (sometimes fewer) working on the NEVI program, in addition to other program responsibilities. Some State DOTs are leveraging staff in State Energy Offices to implement the NEVI program, and others are working with their Clean Cities Coalitions or outside consultants. In addition to NEVI, some staff are balancing the NEVI program with other federal programs such as Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) program, Diesel Emissions Reduction Act (DERA) program, and additional Infrastructure Investments and Jobs Act (IIJA) programs. Some states, like the federal government and private sector, have experienced higher levels of attrition in recent years and have not had the capacity to backfill positions. Many states hired consultants to assist with NEVI plans, Requests for Proposals, Requests for Applications, Requests for Information, and mapping tools, and will most likely continue to work with consultants on NEVI implementation.

External **workforce development challenges** within the EV industry were discussed in every region. State agencies have varying levels of involvement in workforce development programs ranging from highly funded, robust efforts, to states beginning to address the workforce challenges in the EV sector. Equity was a central theme in the workforce development discussions with many states providing additional funding or incentives for businesses to hire and train individuals from DACs in their workforce development initiatives. Among the states not heavily involved in workforce development, there was interest in partnering with organizations or other state agencies to help develop workforce programs. Many states noted that they intend to use a portion of NEVI funds to support workforce development but communicated uncertainty regarding the limitations of NEVI funding. Some states also expressed concern regarding the EV Infrastructure Training Program (EVITP) and the certified electrician requirement for NEVI installation and maintenance as there are existing electrician shortages as well as shortages of EVITP offerings within their states.

A key theme in the discussions across all regions was the need to **communicate early and often with utilities** during EV infrastructure planning and deployment. During the discussions with regional utilities many states noted **challenges in accessing hosting capacity data** as well as obtaining a site analysis from their utilities. While many utilities are unable to provide specific hosting capacity data to states, some utilities can give states or EV infrastructure applicants a high-level assessment of sites that have excess capacity as well as sites that do not have excess capacity or would require significant upgrades. States communicated that the high-level assessment can be helpful in site selection, while other states mentioned some utilities were unable to provide any site analysis on hosting capacity. One utility

² ["Waiver of Buy America Requirements for Electric Vehicle Chargers"](#), Federal Highway Administration, February 2023



mentioned that sharing hosting capacity data with EV charging applicants could be ineffective as many charging stations take multiple years to build and the excess capacity could be utilized by another infrastructure project. Several utilities also noted internal staffing shortages, which may result in delayed processing of site evaluation requests. If states require site evaluations from applicants or grantees, utilities recommended that adequate time should be built into the application and proposal process to accommodate potential site evaluation delays. In the utility discussions it was evident that states need timely access to reliable data when planning for NEVI and future large scale EV infrastructure projects.

During the conversations with rural electric cooperatives, concerns were raised regarding cross-subsidization. Several cooperatives flagged that they were concerned about cooperative members who do not drive EVs subsidizing charging for EV drivers. Some rural cooperative representatives were also concerned about the potential increased power generation resulting from a rise in EV drivers within their service territory, and how increased generation may impact cooperative members' electric bills.

Resilience and EV charging station coordination along evacuation routes was discussed at some of the meetings. States noted that EV chargers in flood-prone areas may need to be elevated, and that additional resilience measures may need to be taken for certain states. The Southeast states also discussed the continued need for coordination across borders on EV charger placement along evacuation routes.

States raised a number of questions about **ways that NEVI-funded projects can meet Justice40 requirements**. In several regions, questions were raised about what federal maps were most appropriate to use for NEVI station planning (e.g., Joint Office map, White House map). Many states mentioned that engaging with tribal nations has been a large part of their NEVI outreach strategy. States communicated that additional guidance or best practices in targeting Justice 40 communities would be helpful. Another state noted they are grappling with how to incorporate Justice 40 requirements in their Requests for Proposals. Guidance on how applicants can incorporate Justice 40 in their proposals or applications would be helpful in ensuring applicants meet Justice 40 requirements.

Recommendations and Next Steps

The regional meetings provided states an excellent opportunity to engage in productive and forthright discussions with neighboring states and counterparts in other agencies. Meeting in-person promoted frank dialogue and resulted in stronger connections being forged between states, and between state and federal partners. With the release of the Final Minimum Standards for NEVI, states are preparing to release their procurement documents in the coming months. The discussions among states experiencing similar challenges as well as states sharing lessons learned from previous projects enhanced the level of multi-state and cross-agency collaboration on EV infrastructure planning and implementation. Three regions completed a questionnaire sharing their thoughts and takeaways from the meetings, and all questionnaire respondents said they would recommend this meeting to a colleague. During the next phase of NEVI planning it will be critical to continue the dialogue among state agencies, utilities, EVSPs, and other key partners both virtually and at future in-person workshops. Some key recommendations and next steps include the following:



- Explore and pilot business models for NEVI-funded EV charging stations in rural and remote areas and options for states on supporting EV chargers in areas where a business model does not exist.
- Obtain from the Federal Government guidelines on the Build America, Buy America waiver process and a list of Build America, Buy America-compliant EVSE manufacturers.
- Launch a strike team of public and private sector stakeholders to identify challenges and solutions to uptime compliance (this may result in action items for the private sector to ensure uptime compliance; guidance to states to monitor and enforce uptime requirements; models of successful uptime compliance; templates for data reporting; etc.).
- Develop recommendations on how states can best engage with disadvantaged communities as well as guidance on how to incorporate Justice 40 benefits in scoring criteria for NEVI applications.
- Support analysis of resilience considerations for EV charging installations (e.g., elevating EV chargers located in floodplains), as well as cross-border coordination on EV infrastructure placement along evacuation routes.
- Provide analysis of the implications of electric transformer availability on the timeline of NEVI deployment.
- Continue in-person state-state peer exchange, state-federal coordination, engagement with utilities and the private sector as NEVI implementation advances and additional EV programs are released.

NASEO and AASHTO will continue to support the states as they develop and implement the NEVI program and other EV infrastructure initiatives. For questions, please contact Delaney Dixon, Clean Transportation Program Manager at NASEO (ddixon@naseo.org).