

DOT Funding Guidance Highlights EV Charging Opportunities

By **Levi McAllister** (February 18, 2022, 6:08 PM EST)

As anyone in the electric vehicle sector is aware, network charging infrastructure is a threshold issue to be addressed in order to get more EVs on the roads in U.S. markets.

Range anxiety, exacerbated by what many potential consumers view as inadequate EV charging opportunities throughout the U.S., is considered to be an obstacle to the Biden administration's stated goal of achieving 50% zero-emission vehicles by 2030.



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The Infrastructure Investment and Jobs Act that Congress passed, and the president signed, in November 2021 sought to provide some solution, through the authorization of \$7.5 billion in programs designed to encourage the development of a national network of EV charging stations.

On Feb. 10, the U.S. Department of Transportation took the first step necessary to convert a congressional authorization into operational charging stations, by issuing detailed guidance providing clarity to all EV market sector participants in how and when funding will be made available.

As the DOT's guidance makes clear, there are tremendous opportunities for a number of different types of entities — not just charge point operators — to access federal funding for the purposes of developing projects that will further the administration's national network charging goals.

Background

The Infrastructure Act's authorization of \$7.5 billion in EV-related funding is intended to help establish a national network of 500,000 EV chargers. However, the funding authorization is allocated across two different EV charging programs: (1) the National Electric Vehicle Infrastructure Formula Program, or NEVI; and (2) the Charging and Fueling Infrastructure Program.

Under the NEVI, the Infrastructure Act allocates \$5 billion over the course of five years to a formula-based funding program, through which states can access a predetermined portion of funding to create EV charging stations in designated areas. Each state's portion of funding is determined and distributed via the predetermined formula, and is based on various factors, such as the population of the state.

As envisioned in the Infrastructure Act, states are permitted to use the funds through the award of

grants to further acquisition, installation, operation, maintenance and data sharing related to EV infrastructure. For each project that receives grant funding, the funding can equate to 80% of the project's costs; the private sector funding recipient must pay at least 20% of the project's costs.

In addition, the EV infrastructure for which the funds are related must be installed in designated alternative fueling corridors, which are established by the DOT's Federal Highway Administration. The Infrastructure Act utilized a designated location mechanism for funding access, in order to help ensure that funds are being used in a way to promote a national network of chargers, rather than being deployed for chargers that are concentrated in certain areas, such as only in urban locations.

Under the Charging and Fueling Infrastructure Program, the Infrastructure Act allocated \$2.5 billion over five years to a competitive grant program that is also intended to encourage the installation and operation of publicly available alternative fuel sources in designated alternative fuel corridors or other areas accessible to alternative fuel transportation vehicles. Fuel resource types that are eligible for funding under this program include EV charging, hydrogen, propane and natural gas.

Unlike the formula-based funding mechanism discussed above, this program has a competitive grant structure through which the secretary of transportation is authorized to award grants to states, local governments and other public entities. In turn, those funding recipients will contract with private entities for the acquisition and installation of project infrastructure.

DOT Guidance

The DOT's Feb. 10 guidance relates entirely to the NEVI program, and the way in which the \$5 billion in federal formula funds can and will be distributed to facilitate the program's success.

Under the NEVI program, federal funds are distributed to states at the predetermined amount, and, in turn, states may deploy those funds to grant recipients that are developing and operating eligible projects. As noted, the amount that each project recipient may receive cannot exceed 80% of the project's costs.

EV Infrastructure Deployment Plans

The administration of the federal funds begins with an EV infrastructure deployment plan. The guidance explains that each state is required to develop and submit a plan to the FHA for review and approval before any NEVI funding will be made available to the state.

All states must submit a plan no later than Aug. 1, and the FHA is obligated to approve eligible plans by Sept. 30. Plans will be reviewed on a rolling basis. Until a plan is approved, a state is not permitted to apportion any funding allocated to that state under the application of the NEVI formula.

The guidance also clarifies that if a state either fails to submit a plan by the deadline, or if a state fails to carry out its plan, the FHA may redirect that state's funding to local jurisdictions within the state for eligible projects on a competitive basis.

The guidance further provides specific information that each plan shall address, on issues including overall vision and goals; the extent to which the plan reflects public engagement; overall strategy for installations in designated corridors; and approximate locations of planned charging infrastructure.

Funding Requirements

In order to qualify for grant funding under NEVI, a project must be located along a designated alternative fuel corridor. To that end, the Feb. 10 guidance recommends that states prioritize project investments along the interstate highway system; a state may also nominate additional corridors for designation by the FHA.

In the event that a state determines that all designated alternative fuel corridors are fully built out for EV charging infrastructure, that state may request certification by the FHA, and — only after receipt of such certification — may use funding on other public roads or publicly accessible locations.

Funding distributed under NEVI must be used only for projects that are directly related to the charging of a vehicle, and only to support infrastructure that is open to the general public. Importantly, however, this provision is not limited only to charge point operators or the chargers themselves.

Instead, the guidance notably makes clear that renewable energy generation and adjacent-sited storage would qualify for funding, if it leads to lower construction and operating costs for the EV infrastructure. As such, renewable and storage developers are potential funding recipients, if and when they elect to pair their projects with EV charging assets.

Eligible Projects

Eligible projects are not limited to new charging station installations, although those are certainly within the funding's purview. Eligible projects also include upgrades to existing charging stations — and, as noted above, onsite distributed energy resources such as self-supply solar and adjacently-sited battery storage.

The guidance contemplates that eligible projects in each state's plan shall be no further than one mile from interstate exits or highway intersections along designated corridors. Further, new charging infrastructure should be located no more than 50 miles from planned or existing stations along designated corridors.

Contemplated projects should provide power for EV charging regardless of time of day or time of year, in a way that mitigates adverse impacts to the grid, maintains cost of charging at a reasonable level and minimizes demand charges or other fixed utility fees.

Takeaways and Implications

The DOT's issuance of this guidance is a significant action that is necessary in order to turn on the spigot for at least \$5 billion of the \$7.5 billion in federal funds allocated to EV charging in the Infrastructure Act.

For the last several months, EV sector market participants have eagerly anticipated how the Infrastructure Act's EV funding authorizations would be deployed. As a result of the guidance, EV sector market participants, state policymakers and state regulators have insight into the factors and criteria that the federal government deems critical for purposes of funding eligibility.

Although there are many nuances embedded in the DOT's guidance, three primary takeaways are immediately evident.

First, the administration is committed to an aggressive timeline in disbursement of EV funding opportunities, in order to promote its policy initiative to create a national EV charging network. The guidance imposes a relatively aggressive timeline on state policymakers and DOT authorities to draft comprehensive EV infrastructure deployment plans and submit them for federal DOT review and approval.

Likewise, the guidance's Sept. 30 deadline for federal DOT approval of state plans reflects the administration's commitment to release funds quickly — but only for purposes that meet its vision for a national charging network.

Of course, the aggressive nature of the timeline is also reflected in the DOT's disclosure that it will review plans on a rolling basis, thereby creating a mechanism for more immediate release of funding for states that submit a compliant plan sooner than the required August deadline. \$1 billion of the total funding is authorized for fiscal year 2022.

Second, the guidance's interpretation of "directly related" provides significant funding opportunities for renewable energy and battery storage developers, among others. Prior to the DOT's guidance, the extent to which EV-related funding might be available for purposes other than developing an EV charger was a bit of open question.

The guidance directly addresses that question by stating in multiple instances that solar arrays and energy storage assets will be considered directly related to the charging of a vehicle and, therefore, eligible for funding of 80% of their costs, if they lead to lower overall construction and operating costs of associated charging stations.

Moreover, the guidance requires state plans to consider the inclusion of these resources, and other distributed renewable energy resources, when developing a proposed network within the state. And states are directed to work with applicable permitting agencies to streamline permitting processes for infrastructure installation — including for charging-sited solar and storage — in order to support operation within six months of procurement.

Third, the guidance also reflects the administration's recognition that some state policymakers may be more supportive or prepared to encourage EV deployment than others. As noted, the guidance contains a mechanism that permits the FHA to withhold or withdraw state-allocated funding, if a state either fails to submit a plan by the Aug. 1 deadline or fails to carry out its plan.

In that instance, funding would be redirected to local jurisdictions within that same state on a competitive basis for eligible projects. This mechanism reflects a careful balance between policymakers that might not be entirely supportive of EV deployment and the administration's goal of creating a national network of charging stations.

Outstanding Issues and Challenges

Notwithstanding the administration's commitment and the DOT's guidance, market participants — automakers, utilities and charge point operators, or CPOs — must successfully confront numerous issues to convert aspiration to reality on a wide-scale basis. Among the challenges are the following.

Establishing a Financially Viable Charging Network

Models premised on direct retail energy sales by CPOs to EV owners, charging as a service, advertisement-based network charging and subscription services are all commonly tested examples in U.S. markets. At its core, however, a network charging business model must consider three threshold issues.

First, potential CPOs must account for potential regulatory implications of a proposed business model, such as a model where the CPO makes a direct retail sale of energy to a charging customer. Although the current regulatory landscape has determined that making direct sales of energy to retail customers does not trigger regulatory oversight in many states if the seller is a CPO, only about half of U.S. state regulators have confronted the issue.

Second, potential nonutility CPOs must consider how to recover capital costs in addition to generating a profit margin. Third, utility CPOs must consider whether, and how, to successfully include charging infrastructure costs in a state regulator-approved rate base.

These issues must be addressed in order to facilitate widespread network charging development, and alleviate any range anxiety that presently exists among potential EV customers.

Developing Comprehensive Site Host Agreements

In many or most instances where the CPO will install chargers paid for by the federal funding appropriated in the Infrastructure Act, the CPO will not own the land on which it installs charging infrastructure. Enter the site host agreement between the CPO and the landowner or site host.

Unlike a standard lease or easement-type arrangement, a site host agreement governing EV network charging infrastructure must address numerous issues unique to EV infrastructure — and do so in a way that protects both parties to the agreement.

For example, site host agreements should consider: exclusivity in installation; operation and maintenance responsibilities; revenue sharing and/or leasing payments; ownership of infrastructure post-termination; and indemnification and insurance.

Diversifying an EV Use Case

One advantage that many perceive to EV deployment is that an EV serves functions beyond transportation. Already, technology is being deployed to accommodate bidirectional charging, and, in turn, facilitate vehicle-to-grid, or V2G, capability.

However, V2G operations necessitate an energy services function, if and when V2G occurs in a nonresidential circumstance, such as on a fleet basis. In those instances, the EV owner and the CPO or energy manager must consider various issues to effectively monetize the V2G capability of the EV and the bidirectional charger.

Such issues include, for example, whether and when to utilize chargers to provide grid services through wholesale energy or ancillary services markets, and battery usage/route optimization order to support longer operational battery life through optimal charging practices, if vehicle batteries will continue to be charged and discharged during downtime to support grid services.

Next Steps

The DOT's Feb. 10 guidance is just a first step, albeit an important one. Under the Infrastructure Act, the secretary of transportation and the secretary of energy are required to also develop minimum standards and requirements applicable to EV chargers within 180 days of the Infrastructure Act's enactment.

Consistent with that requirement, industry stakeholders anticipate the issuance of those standards in early to mid-May. Those standards will be of particular interest to entities interested in pursuing funding opportunities available under this guidance and the Infrastructure Act, because those standards will be applicable to projects that are eligible for cost funding.

Given the growth in EV deployment in recent years, the enactment of the Infrastructure Act, the issuance of this guidance and the anticipated issuance of standards in May, 2022 is already shaping up to be a tremendous year for EV deployments in U.S. markets.

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