How utilities can support EV charging infrastructure through the Infrastructure Investment and Jobs Act

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Key takeaways

- Work with your state department of transportation (DOT) to provide input on the state's EV infrastructure deployment plan.
- Communicate and work with other state organizations to apply for grant funding. These partnerships will make your resources and impact go further.
- Understand the rules and requirements that come with grant funding. And make sure your organization has the capacity and commitment to meet them.
- Establish decision-support criteria that you and your partners can use to evaluate whether a project is the right fit for a funding opportunity.
- Define what success means for your project and how it will impact disadvantaged customer groups. Create a plan for how you'll measure both impacts.

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The 2021 Infrastructure Investment and Jobs Act (IIJA)—also known as President Biden's infrastructure

bill—provides substantial funding for states to develop a nationwide network of EV charging infrastructure. And through the Surface Transportation Reauthorization Act of 2021, utilities can work with other organizations to apply for funding and carry out transportation electrification projects.

But you need to make sure you're ready to take on the work of administering and implementing these funds before you apply.

Here we explain how the grant funding works, how to partner with other groups, and how to choose the right projects to fund.

How can utilities get funding for EV infrastructure projects?

You should first work with state agencies to inform your state's EV infrastructure deployment plans that are due on August 1, 2022. Once the Joint Office of Energy and Transportation approves plans on September 30, the government will start distributing money to states.

You can then work with other organizations to apply for most EV charging infrastructure funding opportunities through your state's DOT. You can help local organizations strengthen their proposals by engaging in the grant proposal process. Giving these organizations a little bit of extra time, resources, and expertise can go a long way.

Apply for federal funding directly or through the state

You can apply for federal funding directly for certain projects. For example, you may apply to the US Environmental Protection Agency (EPA) in partnership with local school districts to fund electric school buses.

Read our detailed IIJA analysis

Fill out this form to download our section-by-section analysis of the IIJA to help you apply for federal EV infrastructure funding and start building your transportation electrification plan.

But for rolling out publicly accessible EV charging infrastructure, the IIJA funding will mostly flow through state DOT offices. The DOT offices are working on developing state transportation electrification plans that outline how they'll spend the funding. And IIJA directs states to involve utilities in this process.

Coordinate with other agencies to avoid duplicating efforts

Make sure you're aware of how other agencies might be applying for EV charging infrastructure funding and how that impacts your transportation electrification planning. This can help you prepare to supply power to new EV charging infrastructure before it's in the ground. And if another organization is investing heavily in one area, this could free up resources for you to allocate to a different opportunity.

Partner with other organizations on grant proposals

You'll likely want to partner with local and state entities on direct solicitations for funding. Even if you're not the primary applicant, your involvement can strengthen a proposal. And you can support customer groups in their applications for funding. For example, you can partner with school districts in your service territory that want to apply for EPA funding for school buses.

The US DOT provides guidance on potential Partnership Opportunities for EV Infrastructure on its website. For example, partnering with site hosts, like local businesses or tourist destinations, can provide the dedicated space you need for new infrastructure.

For more insights into partnering with the right stakeholders and organizations, read the E Source blog post How utilities can collaborate with local organizations to achieve equitable programs.

Mix federal funding with state funding

Some states also have funding for their own separate transportation programs that utilities can apply for on their own or to support other partners. For example, the California 2021 Budget Act included $3.9 billion for zero-emissions vehicles (ZEVs) through 2023–2024. And the California 2022–2023 budget's Zero-Emission Vehicle Package includes another $6.1 billion in funding for ZEVs over five years.

The California State Transportation Agency published its own High-level IIJA Analysis (PDF) in 2021. The document explains the federal funding distribution and how it will affect California's deployment of its EV charging infrastructure.

How the IIJA funds EV charging infrastructure

According to the Federal Highway Administration's (FHWA's) Program Guidance (PDF), the IIJA distributes $7.5 billion to states to develop a national network of EV charging infrastructure. The government allocates funding annually for five years (**figure 1**). The program splits EV funds into two buckets:

1. $5 billion for the National Electric Vehicle Infrastructure (NEVI) Formula Program
2. $2.5 billion for the Discretionary Grant Program for Charging and Fueling Infrastructure

Figure 1: How EV charging funds flow to states and communities

States receive funding through the NEVI Formula Program. Communities can access funds through the Discretionary Grant Program.

NEVI Formula Program

The federal government distributes NEVI Formula Program funds to states each year. According to the FHWA's Program Guidance, the IIJA requires each state to submit an EV infrastructure deployment plan before it can receive the funds. The plan should explain how the state will use its federal funding.

The NEVI Formula Program gives each state “a share of program funding equal to the state’s share of the combined amount that the Federal Highway Administration distributes in Federal-aid highway appointments and Puerto Rico Highway Program funding.”

States will receive $615 million in funding in fiscal year 2022 and $915 million for each of the next four years. The IIJA sets aside extra funding in fiscal year 2022 to develop the Joint Office of Energy and Transportation.

Discretionary Grant Program

The Discretionary Grant Program funding includes two $1.25 billion programs to support EV charger development. The first is the Corridor Charging Grant Program for EV charging infrastructure in alternative fuel corridors (AFCs). The second is the Community Charging Grant Program to provide EV charging infrastructure in communities.

What are AFCs?

According to the US Department of Energy’s Alternative Fuels Data Center, AFCs are “a national network of plug-in EV charging and hydrogen, propane, and natural gas fueling infrastructure along national highway system corridors.”

State and local officials sent nominations for AFC locations to the FHWA. The FHWA accepted nominations through May 2022. AFCs that states use for EVs receive separate funding through the NEVI Formula Program.

The IIJA directs states to use the Community Charging Grant Program funds to install infrastructure in locations on public roads, schools, parks, and in publicly accessible parking facilities. The government will prioritize grants for:

- Rural areas
- Low- and moderate-income neighborhoods
- Communities with low ratios of private parking
- Communities with high ratios of multiunit dwellings

Understanding the state plan requirements

The IIJA requires states to submit their plans to the Joint Office of Energy and Transportation by August 1, 2022. The FHWA will approve plans by September 30, 2022. On its website, the Joint Office of Energy and Transportation offers technical assistance, data, and tools to help states develop their plans. It also provides a State Plan Template (DOCX) for states to use as they develop their own plans.

Here we highlight five key sections of the plan.

Where you can build EV charging infrastructure

Once approved, states can start accepting RFPs and spending money on EV charging infrastructure. And they can use their funding to reimburse the staffing and resources used to develop the plan.

States can use funding to build EV charging infrastructure only in AFCs on the Interstate Highway System. If all of the AFCs have enough EV charging infrastructure, the state can use funding to add infrastructure to any public road. The IIJA also explains that funding can support infrastructure that's open to:

- The general public
- "Authorized commercial motor vehicle operators from more than one company"

Funding rules and requirements

The NEVI Formula Program funds up to 80% of projects through the federal cost-share. States can use other private or state funds to pay the other share of the project cost. States can contract with other private organizations. They can also combine NEVI Formula Program funds with other state or federal DOT funding. But the total cost-share can't exceed 80%.

Eligible applicants

According to the FHWA, the following public entities can apply for grant funding:

- "A state or political subdivision of a state
- A metropolitan planning organization
- A unit of local government
- A special purpose district or public authority with a transportation function, including a port authority, an Indian tribe, and a territory of the US
- An authority entity, agency, or instrumentality of, or an entity owned by, one or more of the preceding eligible entities
- A group of the preceding eligible entities"

Siting and maintaining EV charging equipment

The IIJA requires that states install EV charging infrastructure no more than 50 miles apart. States also need to include a map of the corridors where they plan to install or upgrade EV charging infrastructure. Each state plan should explain how the state will "coordinate and connect regionally with other states and adjoining networks."

States should also say who's responsible for the installation, maintenance, and ownership of the EV charging infrastructure. Each should develop an asset management plan for EV chargers that includes information on how to size, site, install, maintain, and repair EV charging infrastructure.

Read and download the E Source white paper Building your EV charger asset management plan for more details on what your plan should include.

Equity considerations

The IIJA directs states to engage with “rural, underserved, and disadvantaged communities” when developing each plan. The IIJA also requires states to explain how their projects will target “at least 40% of the benefits toward disadvantaged communities.” States need to show they plan to site new EV infrastructure that will be accessible for these communities.

States also need to explain how they’ll train workers who install and maintain EV charging infrastructure and how they’ll “grow and diversify their local workforce.” This is an opportunity for you to work with your state to develop training programs through your existing contractor network. Consider working with contractors and installers that already work in or hire from disadvantaged communities.

How to choose which transportation electrification projects to fund

When your programs struggle to get adequate budgets, it can be tempting to apply for any available funding opportunity. But grant funding isn’t free; each fund comes with goals and expectations for how an organization uses the money.

Understand the requirements

Before applying, you should understand the requirements that come with any funding opportunity. These can include things like reporting requirements, fund matching, or more staffing. Deciding which programs to *not* fund with external grants is just as important as deciding which to fund.

Consider how many hours of work you’ll need to devote to meeting reporting requirements. And if you don’t have the staff capacity needed to support a grant, you won’t be able to fully implement the project.

Take ownership of the project

Utilities often partner with outside groups, like trade allies or community organizations, when applying for external funding. It can be tempting to lean on your partner organizations to make all the decisions, especially if you have few or no paid staff to support new initiatives. But you should be actively involved with every step of the decision-making process to get the most out of your investment.

Choose criteria to evaluate projects

Avoid rushing to apply for funding for any new program just because the time line is tight. Work with your partner organizations to pick the criteria you’ll use to choose which projects to fund. You can also start by using this three-step process to evaluate if a program is the right fit for grant funding:

Is the program ready for funding? There are two characteristics of project readiness that you should consider when picking new investments: technical and market. Consider the following questions before applying:

- *Technical:* Have you conducted a field demonstration or pilot program?
- *Technical:* Is the technology ready to enter the market?
- *Market:* Is the market ready to adopt the technology?
- *Market:* Are there any existing products that already meet the market's needs?

Avoid launching a product or program that you haven't tested. When going after grant funding for a new initiative, it's important to show you have previous experience that you can build on.

What are the risks? Make sure you understand the risk of investing and the risk of doing nothing. The markets for new technologies and programs often lack clear standards. And if you haven't fully tested these new solutions, you could lose your return on investment.

Plan for these risks and failures. Try to estimate the probability that something goes wrong by asking:

- What are the consequences?
- Can you manage the risks even if they're high?
- Can you create a contingency plan for each scenario?
- Are there technical standards from a pilot or field demonstration that you can use?
- Does the state regulatory environment support or protect your taking risks?

Is the program relevant for your utility? Before applying for funds, consider how relevant the project will be for your organization:

- Does the project align well with your goals?
- Do you have the skills and prior experience to successfully complete this project?
- Will the project have a positive impact on your brand or reputation?

A product or program that scores high in readiness and low in risk is more likely to be highly relevant for your utility. But this will vary by organization.

Keep improving your proposal

Don't move forward with an opportunity if you don't feel confident after this process. Consider the factors you could change to make the project a better candidate for funding. This might involve rewriting your proposal, finding new project partners, or increasing your organization's commitment.

Going through multiple iterations of this process can take time. But you can avoid failed projects or investments by resolving these issues early. Because pursuing a project that isn't a good fit can lead to more than just a stranded investment. It can also hurt your reputation, staff morale, customer satisfaction, and partner relationships.

How to design a successful transportation electrification project

Before you start a new program, make sure you define what success looks like and how you'll measure it. Focus on understanding the needs of priority customers and how the program will serve them. And take the time to choose the right program partner and set clear expectations for your relationship.

Use the right metrics

Most utilities don't yet have clearly defined performance metrics for transportation electrification initiatives. And these metrics will be more complicated and difficult to measure. Consider starting with the following metrics as you design your programs and proposals:

- Does this investment improve access to benefits for customers, particularly those in priority groups? How can you measure access to these benefits and whether it's improving?
- Improving local air quality is an important outcome of transportation electrification. How does your project improve health outcomes for customers? How will you measure and track the health benefits?
- Broader climate initiatives often drive your transportation electrification projects. Track and report climate benefits as part of evaluating your program performance.
- Reducing use of foreign oil by increasing access to domestic energy resources helps improve energy security and resiliency. Track how your transportation electrification programs might be reducing oil usage by adding distributed resources.
- Will your project or program help lower energy costs for customers? Do these lower costs persist over time? Can you run the program on a larger scale?

Serve priority customers

The IIJA directs states to prioritize EV charging infrastructure investments for low- and moderate-income customers, disadvantaged communities, and Indigenous nations. To understand how you can incorporate equity into your programs, start by reviewing our approach to energy equity.

Before you launch your program, define equity and how you'll measure it. And engage with community stakeholders to understand their needs (**figure 2**). Watch the recorded E Source webinar Defining equity to inform your utility's energy equity strategy to learn more about planning for energy equity.

Figure 2: The E Source energy equity framework

Use the E Source energy equity framework to make sure you're serving priority customers in your transportation electrification initiatives.

It helps to understand the your existing relationships with priority customer groups before trying to secure funds for a new product or service. Consider asking the following questions:

- How are you serving these customers currently? How do you engage with them?
- Do you understand their existing needs and behaviors?
- Do your project goals match the community's needs?
- Are customers ready to use new infrastructure and other investments?

Choose the right partnerships

Consider these guidelines as you explore potential partnership opportunities.

Overcommunicate. Communicating openly, early, and often is the best way to avoid issues or unspoken

assumptions. If you're thinking about partnering with an outside organization, reach out as early in the process as possible. This will give you enough time to create a working relationship before you start talking about deadlines.

Set a schedule. Set a clear timeline for the proposal and communicate expectations clearly and consistently. This will help make sure that both organizations set aside the capacity and resources they need for the project. Create a regular meeting schedule that includes the right people at both organizations.

Set clear expectations. Creating clear roles and responsibilities—and sticking to those plans—is critical to maintaining mutually beneficial partnerships. If your expectations are poorly defined, it can create confusion or problems that strain the partnership.

Hold each other accountable. Look for partners that have a history of successfully working with other organizations. Consider interviewing previous partners or the grant organizations they worked with. Most organizations already have their own internal processes for accountability. But you'll need to work together to set new standards of accountability that work for both organizations.

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