



Joint Office of
**Energy and
Transportation**

Public EV Charging Playbook

9/19/2024

driveelectric.gov

Programs Supported by the Joint Office



National Electric Vehicle Infrastructure (NEVI) Formula Program (U.S. DOT)
\$5 billion for states to build a national EV charging network along corridors, including **\$148 million** awarded to repair and replace non-operational chargers.



Charging & Fueling Infrastructure Discretionary Grant Program (U.S. DOT)
\$2.5 billion for communities to build EV charging, as well as hydrogen, natural gas, and propane fueling infrastructure



Low-No Emissions Grants Program for Transit (U.S. DOT)
\$5.6 billion for transit agencies to deploy low- and no-emission transit buses



Clean School Bus Program (U.S. EPA)
\$5 billion in support of electric school bus deployments



Ride & Drive Funding Opportunity (Joint Office)
\$46.5 million to enhance charging resiliency and performance and enhance equitable access



Communities Taking Charge Funding Opportunity (Joint Office)
\$54 million to expand community e-mobility access

Webinars

Reports and Toolkits

Help Sheets and Checklists



[Webinar: Zero-Emission Bus Resources](#)

March 14, 2024

This webinar covered available resources from the Joint Office for school districts and transit agencies making the transition to zero-emission buses.



[Webinar: Workforce Development Tools and Resources](#)

March 5, 2024

This webinar focused on workforce training programs, job creation, and local and economic hiring preferences in the transition to electrified transportation.



[Webinar: Curbside EV Charging Strategies](#)

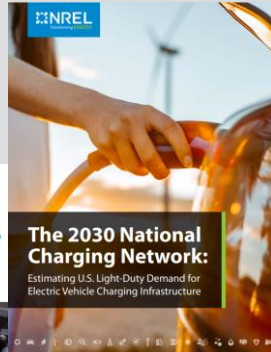
Feb. 27, 2024

Best practices, challenges, and strategies for effectively planning, deploying, and operating curbside electric vehicle (EV) charging projects.



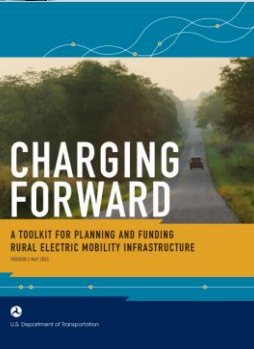
National Electric Vehicle Infrastructure Formula Program

ANNUAL REPORT | Plan Year 2022-2023



The 2030 National Charging Network:

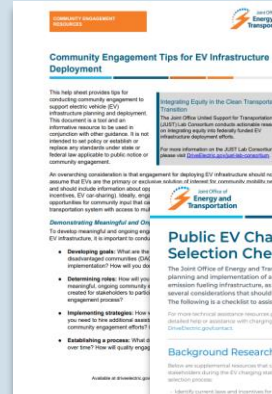
Estimating U.S. Light-Duty Demand for Electric Vehicle Charging Infrastructure



CHARGING FORWARD

A TOOLKIT FOR PLANNING AND FUNDING RURAL ELECTRIC MOBILITY INFRASTRUCTURE

U.S. Department of Transportation



Community Engagement Tips for EV Infrastructure Deployment

This help sheet provides tips for community engagement to support electric vehicle (EV) infrastructure planning and deployment. The document is a list of information resources to be used in conjunction with other guidance. It is not intended to set policy or establish or replace any standards under state or federal law applicable to public notice or community engagement.

An overarching consideration is that engagement for applying EV infrastructure should not assume that EVs are the primary or exclusive means of vehicle of interest for most individuals, and should include information about key incentives, EV car-sharing, locally owned opportunities for community input for EV transportation system with access to real-time data, and other EV infrastructure.

- 4. **Developing goals:** What are the development objectives (DO) engagement? How will you do it?
- 5. **Determining roles:** How will you manage? Engaging community centers for stakeholders to provide engagement support?
- 6. **Implementing strategies:** How will you use? How will you manage? Engaging community centers for stakeholders to provide engagement support?
- 7. **Establishing a process:** What is your level? How will you manage?



Technical Assistance 101 - How Can the Joint Office Support You?

The Joint Office of Energy and Transportation (JOET Office), in partnership with the Federal Highway Administration, Federal Transit Administration (FTA), and Environmental Protection Agency (EPA), offers free technical assistance (TA) on the planning, deployment, operation, and maintenance of a national network of electric vehicle (EV) charging, zero-emission building infrastructure, and zero-emission transit and school buses. TA is available to states, communities, tribal nations, school districts, and transit agencies.

This is a problem-solving help sheet for planning for electric vehicle (EV) charging projects, under the national network of electric vehicle (EV) charging and EV charging infrastructure (EVCI) Deployment Case Program.

What is Technical Assistance? This is a problem-solving help sheet for planning for electric vehicle (EV) charging projects, under the national network of electric vehicle (EV) charging and EV charging infrastructure (EVCI) Deployment Case Program.



Public EV Charging Station Site Selection Checklist

The Joint Office of Energy and Transportation (JOET Office) provides technical assistance on planning and implementation of a national network of electric vehicle (EV) charging and zero-emission building infrastructure, as well as zero-emission transit and school buses. There are several considerations that should be addressed when selecting a site for EV charging stations. The following is a checklist to assist with site selection for publicly available EV charging stations.

Background Research for EV Charging Station Site Selection

Before an engagement process can begin, stakeholders should conduct background research on the EV charging station site selection process.

- Identify current laws and regulations for the project location. Consider whether the regulations and funding have any selection or location requirements.
- Use the Alternative Fuels Data Center (AFDC) associated resources, database to identify current regulations, laws, and regulations.
- Use the Joint Office report to identify utility programs and incentives by region.
- Consider your project location relative to a Charge Station location for further background research on the project location.
- Estimate the number of EV charging stations needed in the region. Consider other current EV charging (EVCI) laws and incentives.
- Identify local, regional, and state National Electric Vehicle Infrastructure (NEVI) Formula Program. EV charging projects are eligible for a major site, including, etc. for information on the EV charging station location (if available).

- Identify the site location to be used for the project. Consider whether the site is suitable for the NEVI Formula Program, standards and requirements for EV charging stations, and the number of charging ports, connector type, power levels, availability of payment methods, network connectivity, and other requirements.
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WE PROVIDE

Technical Assistance

Contact Us



JOCommunityTA
@nrel.gov

- Specialized assistance for **communities**.
- Come to us with your questions, and we'll connect you with the right resources.
- **Concierge service** (phone, email, web form) to efficiently route technical assistance requests.
- Technical assistance support team has **50 staff members across 10 organizations**.

Joint Office Concierge DriveElectric.gov/Contact



Concierge Service Contact Methods: 833-600-2751 | JOCommunityTA@nrel.gov | driveelectric.gov/contact/

How can we help?



Infrastructure siting needs and support



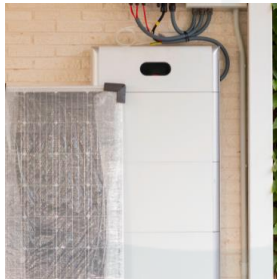
Planning for EV charging deployment



Training and workforce development



Community and stakeholder engagement



Battery energy storage solutions

PARTNERING WITH
**YOUR COMMUNITY
FOR A CLEAN
TRANSPORTATION
FUTURE**



The Joint Office of Energy and Transportation (Joint Office) helps communities across the United States advance the development of a zero-emission fueling network that is convenient, affordable, reliable, equitable, and safe.
[DRIVEELECTRIC.GOV/COMMUNITIES](https://driveelectric.gov/communities)



JOCommunityTA@nrel.gov



Power needs analysis and working with the utility

Public Electric
Vehicle Charging
Infrastructure
Playbook

Get started



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[INTRODUCTION](#)

[PLANNING](#)

[ENGAGEMENT](#)

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[REGULATIONS](#)

[PROCUREMENT](#)

[REVENUE](#)

Public EV Charging Playbook

driveelectric.gov/ev-infrastructure-playbook

driveelectric.gov

What are the origins of the Playbook?



C2C: Clean Energy to Communities

U.S. DEPARTMENT OF ENERGY

EV Cohort 2: Planning and Funding for Public EV Infrastructure Deployment

This planning-focused peer-learning cohort brings together participating local governments with Clean Cities coalitions to lay the groundwork for community-wide EV infrastructure planning and understand options for funding EV infrastructure deployment.



www.nrel.gov/c2c

Cohort Structure

Workshop Topics

1. The Role of Local Government in Accelerating EV Charging Infrastructure Deployment
2. Funding for EV Charging Infrastructure
3. Equitable Deployment
4. Local Municipal Codes
5. Contracting with EV Charging Providers and Setting Fee Structures
6. Peer Showcase with Consulting and Coaching



Clean Cities and Communities coalitions provided additional capacity and collaboration to cohort participants and conducted activities on their behalf to create meaningful outcomes and groundwork for their EV plans.

PUBLIC EV CHARGING INFRASTRUCTURE PLAYBOOK

- ❑ Interactive web-based resource to help communities plan and build public EV infrastructure.
- ❑ **Eight modules** with guiding questions, videos, worksheets, and library of additional resources.
- ❑ For use by any community wanting to plan and build EV infrastructure.

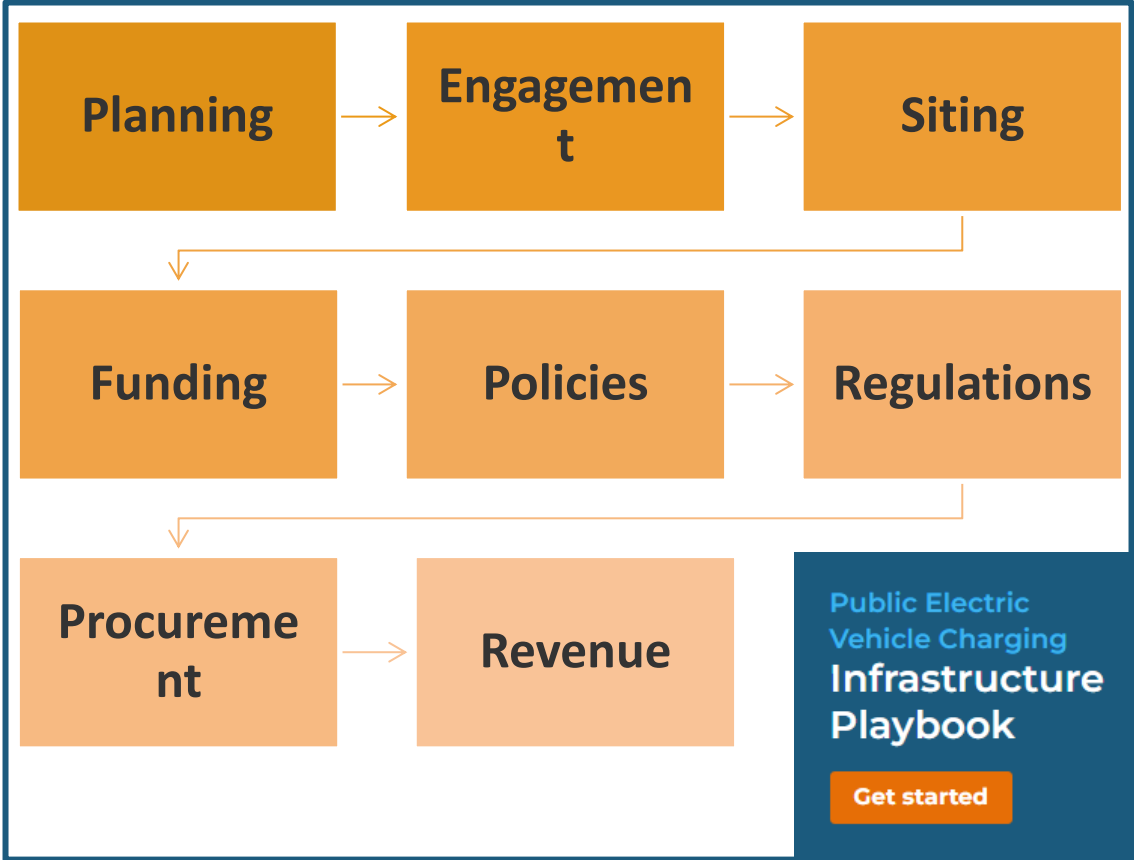
Visit [Driveelectric.gov/ev-infrastructure-playbook](https://driveelectric.gov/ev-infrastructure-playbook)

The screenshot shows the website's navigation menu with options: INTRODUCTION, PLANNING, ENGAGEMENT, SITING, FUNDING, POLICIES, REGULATIONS, PROCUREMENT, and REVENUE. The main content area displays three modules:

- Module 2 – Engagement**: This module provides resources on how to effectively engage community members and stakeholders around EV infrastructure plans in your community. Input from community members and stakeholders should inform where and how EV chargers are installed. Appropriately identifying, approaching, and building relationships and creating dialogue with these partners will strengthen your plans. (55 / 19)
- Module 3 – Deployment Strategies and Site Identification**: This module provides resources to guide the determination of how and where to deploy EV charging infrastructure. These resources can be used to develop strategies for EV infrastructure build-out on both public and private property. A preliminary site assessment spreadsheet will help outline the process for identifying gaps and potential sites for new chargers.
- Module 4 – Costs and Funding**: This module provides resources to help determine potential costs and identify available funding sources. These resources can help you provide considerations to prepare for future funding opportunities.

Navigation tabs for each module include: Activities, Videos, and Additional Resources. The 'Additional Resources' tab is active for Module 4, showing a filter for 'Funding' (checked) and 'Crants' (checked). A list item is visible: 'Federal Funding Opportunities for Electric Vehicle Charging' from the U.S. Department of Transportation, categorized as 'Funding'. A 'Get started' button is located in the bottom right corner of the interface.

Eight Modules for Community EV Readiness Planning



Example Module

Module 1: Developing EV Infrastructure Plans

Activities

- ✓ Guiding questions for EV infrastructure planning
- ✓ EV readiness plan template
- ✓ Guidance for conducting a baseline assessment
- ✓ Planning process and timeline template

Videos

- ✓ City of Alexandria, VA – EV Planning Overview
- ✓ Charge Montgomery – Community EV Charging Infrastructure Plan
- ✓ Virginia Beach, VA – EV Community Charging Plan

Additional Resources

- ✓ Downloadable list of real examples of EV Infrastructure plans
- ✓ 7+ EV planning resources and tools from JO, DOT, Electrification Coalition, NREL

Module Activities

☐ Guiding questions

☐ Worksheets

☐ Templates

☐ Guidance

Module 4 – Costs and Funding

This module provides resources to help determine potential costs of proposed EV charging infrastructure, as well as how to identify available funding sources. These resources can help you navigate infrastructure ownership questions, as well as provide considerations to prepare for future funding opportunities to support infrastructure build-out.

Activities

Videos

Additional Resources

Activities

- Download the [guiding questions for EV infrastructure costs and funding](#) to better understand potential costs of proposed EV charging infrastructure, available funding sources, and how to prepare for funding opportunities and ask yourself questions such as:
 - What type of charging equipment (i.e., Level 2, DC fast charger) are you considering, and how many of each do you plan to install?
 - What are the key deadlines and requirements associated with each of those funding opportunities? If requirements are not yet released, are there past cycles of those opportunities that you could use as an example to help you prepare early?
 - Are there any cost-share requirements for any funding opportunity you are considering? If so, what local cost-share options might be available to you?

Module Videos



Community Charging Models

Presented by: Sarah Cardinali, NREL



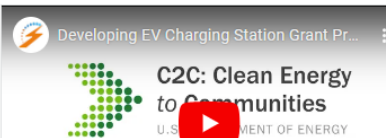
Strategies for Grid-Friendly EV Charger Siting

Presented by: Joseph Womble, WRI



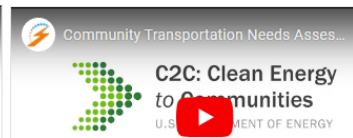
Electric Vehicle Charging Solutions for Multi-Family Housing Market Scan

Presented by: Alexander Epstein, PhD; US DOT Volpe Center



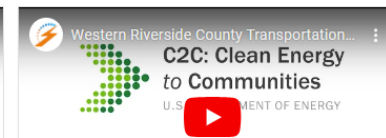
Developing EV Charging Station Grant Proposals

Presented by: Alicia Cox



Community Transportation Needs Assessment

Presented by: Sarah Stalcup-Jones and Cassandre Torres, Virginia Clean Cities



Western Riverside County Transportation Needs Assessment

Presented by: Taylor York, Western Riverside County Clean Cities Coalition



Alternative Fueling Station Locator

Presented by: Abby Brown, NREL



Engaging with Your Utility on EVSE Deployment

Presented by: Gregg Kresge

Public Electric
Vehicle Charging
Infrastructure
Playbook

Get started

Module Additional Resources

Module 3 – Deployment Strategies and Site Identification

This module provides resources to guide the determination of how and where to deploy EV charging infrastructure. These resources can be used to develop strategies for EV infrastructure build-out on both public and private property. A preliminary site assessment spreadsheet will help outline the process for identifying gaps and potential sites for new chargers.

Activities

Videos

Additional Resources

Additional Resources

- All Categories
- Retail Site Hosts
- Grid-friendly Sites
- Tools
- Workplace Charging
- Siting Case Study
- Multifamily Housing
- Mobility Hubs
- Accessible Site Design
- Siting Guidance
- Equity
- Curbside Charging

[Workplace Charging for Electric Vehicles](#)

Source: Alternative Fuels Data Center

Category: Workplace Charging

Provides resources to help communities evaluate, plan for, install, and manage workplace charging and engage employees around workplace charging.



Playbook Demo

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National Renewable Energy Laboratory & Joint Office of Energy and Transportation



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