

Planning and Funding for Electric Vehicle Infrastructure Deployment

Cohort Summary July 2023 45938110; by Erik Nelsen, NREL 64276; I\$tock, 137234803

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Cohort Participants

- Alexandria, Virginia
- Bozeman, Montana
- Broward County, Florida
- Centre County, Pennsylvania
- Frontier Metropolitan Planning Organization, Arkansas
- Greater Portland Council of Governments, Maine
- Keene, New Hampshire

- Lincoln, Nebraska
- Loveland/Larimer County, Colorado
- Milwaukee County, Wisconsin
- Montgomery County, Maryland
- New Haven, Connecticut
- Olympia, Washington
- Sedona, Arizona
- Whatcom County, Washington

Local governments have multiple strategies available to help them prepare for transportation electrification.



There are various federal funding opportunities out there, CFI and beyond!



https://www.transportation.gov/rural/ev/toolkit/evinfrastructure-funding-and-financing/federal-fundingprograms

https://www.transportation.gov/urban-e-mobility-toolkit/emobility-infrastructure-funding-and-financing/funding-tabledataset Community engagement to understand local context, challenges, and priorities is the first step to overcoming barriers to access

Seattle City Light

• Municipal utility launched community-wide survey to ask residents where they wanted EV chargers

<u>Watts Rising</u>

• Neighborhood plan for community-led infrastructure development addresses multiple community needs at once and includes 10 electric buses, electric vanpool and carshare, plus solar, trees, bike paths, affordable housing, and more

Contra Costa EV Readiness Blueprint

• Community engagement materials, presentations, toolkits, and best practices for the plan are all available online

Portland Equity Toolkit

• Guiding questions and activities for applying an equity lens to local government decision making

Clear municipal codes and processes can streamline EV charging station installation

Building Codes

 EV-ready building codes can require new developments or major renovations to incorporate EV chargers

Zoning Codes

 Zoning codes should include specific definitions and uses for various levels of EV chargers to clarify where chargers are permitted

Permitting Processes

 Permitting processes should incorporate best practices to reduce the time it takes to permit and install charging stations

Parking Codes

 Parking codes should clarify station design guidelines and set guidelines (parking time, vehicle type) for usage of stationinstalled spaces

Tips to improve procurement of EV charging stations

Project scope can be written as guidelines rather than requirements if you don't intend to own the infrastructure. Third party EVSE providers will likely want to make decisions around which sites, technology, and configuration would provide the optimal return on their investment.

Local governments can provide a list of installation sites and request installation cost for each site. Vendors are more likely to choose sites that have lower cost of installation and higher expected utilization.

It is a good idea to include a map, construction drawings, and/or photos of the proposed EVSE installation site as an appendix to the RFP. You can also add available information about things like transformer capacity and voltage.

Local governments should be clear with any expectations of a low/no-cost proposal as well as how the budget will be evaluated.

Local governments should provide any information on funding sources (and any associated requirements, such as NEVI compliance for projects using federal dollars). They should also specify if they have preferences related to revenue sharing and consider whether to charge providers for use of public land.

Local governments can specify how they prefer technical and maintenance issues to be resolved, who will be responsible for resolving them, and timelines for repair. These may impact cost and may be a separate contract.

Effective fee structures can help recuperate installation and operations costs

Electricity Rate		Equipm Installat	Equipment and Installation Costs		Operations and Maintenance Costs			
 May fluctuate May be under an EV-specific rate 		• Amortize length of usage	 Amortized over length of station usage 		 Maintenance (labor and parts) Projected staff time 			
	• Should be included; often on annual basis		Estimate		d Usage	Demar	Demand Charges	
			 Can signification Can signification Impact of the structure 	 Can significantly impact the planned fee structure 		• Can be significan for DCFC		

Possible Next Steps

Potential next steps for your community

- Engage with residents to understand their priorities and interests
- Engage with COGs and regional MPOS to understand your region's approach(es) to planning
- Create a formal EV plan to address existing barriers to readiness in your region or jurisdiction
- Create a stakeholder working group to inform plan development and socialize results of the planning process
- Educate stakeholders and private entities on available charging solutions, costs, and incentives