



Workplace charging may be co-located with fleet EVSE or installed simultaneously to achieve cost savings. Here, an electric vehicle is plugged into a charging station in the NREL parking garage. Photo by Dennis Schroeder, NREL 26669.

Supporting Electric Vehicle Supply Equipment Deployment

Tiger Teams Offer Project Assistance for Federal Fleets

The U.S. Department of Energy (DOE) Federal Energy Management Program (FEMP) helps federal agencies electrify their fleets and support the deployment of charging infrastructure. To assist agencies with the transition to zero-emission vehicles (ZEVs), including battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs), FEMP offers technical guidance on electric vehicle supply equipment (EVSE) installations and site-specific planning through on-site and virtual EVSE Tiger Teams.

What Are EVSE Tiger Teams?

EVSE Tiger Teams include National Renewable Energy Laboratory engineers and ZEV experts who can help agency fleet managers minimize EVSE installation costs, plan for future vehicle and charging needs, and efficiently meet multiple objectives. The Tiger Teams conduct site assessments virtually or in-person after reviewing vehicle acquisition plans, provide technical input, and offer ongoing support for ZEV and EVSE deployment.

Start Your EVSE Project

To optimize Tiger Team efficiency, agency fleet managers should [1] identify the types of ZEVs they would like to acquire, [2] identify potential EVSE locations, and [3] determine if EVSE will only support federal vehicles or privately owned vehicles (POVs) as well. FEMP and GSA have resources to support these actions.

1. Identify ZEV Opportunities.

Before identifying infrastructure needs, a fleet must determine its near- and long-term fleet electrification opportunities. Planning for immediate acquisition opportunities and potential future ZEV acquisitions can minimize construction costs in the long term. The Zero-emission vehicle Planning and Charging (ZPAC) Tool and the FleetDASH AFV Screening Tool can help agencies develop acquisition plans.

2. Identify EVSE Sites.

Tiger Teams can provide more detailed analysis and recommendations after the fleet manager has reviewed prospective EVSE locations. The primary parking location for the replaced vehicle is a good starting point, but many facilities offer several options. Available power input is an important factor in this determination. Fleets can streamline

their efforts by working with facility managers, installation planners, and local utilities. **Tiger Teams can work with local utilities to inform service upgrade needs and identify funding or other programmatic support.** Similarly, vehicle charging considerations vary for each application. AC Level 2 EVSE is generally required for light-duty BEVs,

Learn More About Technical Assistance from FEMP

FEMP helps federal agencies implement and manage sustainable and energy-efficient alternative-fuel fleets. Contact Sonya Smith-Pickel at federal_fleets@ee.doe.gov to learn more about working with FEMP and an NREL EVSE Tiger Team.



Electric vehicle supply equipment ready for installation. Photo by Dennis Schroeder, NREL 56670.

while AC Level 1 charging may be the most affordable solution for PHEVs, as well as some low-mileage BEVs. The Federal Fleet EVSE Planning Form helps to identify and communicate these EVSE opportunities at the site level.

3. Determine EVSE Usage.

Federal sites need to determine if the EVSE will be for federal vehicle use only, or if the charging stations will serve some mix of federal vehicle, federal employees, or the public. Federal agencies are authorized to offer workplace charging to POVs to

promote sustainable commuting practices. Workplace charging may be co-located with fleet EVSE or installed simultaneously to achieve cost savings. The expected EVSE usage will determine the cost to charge as well as EVSE siting limitations.

Goals and Outcomes of EVSE Site Assessments

EVSE Tiger Teams promote partnerships between the FEMP Fleet team and federal agencies to strengthen overall fleet

electrification efforts. These two-way partnerships provide guidance to FEMP to further inform the development of documents, support tool development, and highlight best practices to help the entire federal government plan for fleet electrification.

Review the fleet electrification checklist and EVSE Planning Form at energy.gov/eere/femp/electric-vehicles-federal-fleets. Contact federal_fleets@ee.doe.gov to request Tiger Team support. ■

Federal Fleet Planning Resources

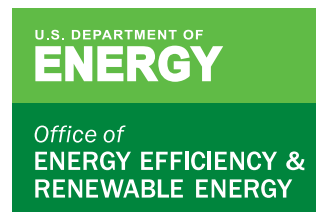
Need help with the fleet electrification process? FEMP's trainings, tools, planning forms, and guides assist federal agencies with planning for ZEV acquisitions and EVSE deployment.

Watch the ZPAC Tool tutorials: youtube.com/playlist?list=PLmIn8Hncs7bFqZGrxcJi8YphGloJS8VFI

Identify ZEV opportunities with the FleetDASH Alternative Fuel Vehicle Screening Tool: federalfleets.energy.gov/FleetDASH/

Gather your site data with the Federal Fleet EVSE Planning Form: energy.gov/sites/default/files/2021-10/evse-installation-planning-form.xlsx

Review the FEMP Federal Workplace Charging Program Guide: energy.gov/eere/femp/downloads/federal-workplace-charging-program-guide.



For more information, visit: energy.gov/eere/femp

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