

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 decarbonize their operations and electrify fleets. 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 partnerships with the National Renewable Energy Laboratory's (NREL's) EVSE Tiger Teams.

What Are EVSE Tiger Teams?

NREL's EVSE Tiger Teams help agencies overcome fleet electrification obstacles with ZEV acquisition and EVSE deployment planning through data-informed recommendations and industry standards. Tiger Teams include electrical 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 teams conduct site assessments, review assumptions, provide technical input, and offer ongoing support for ZEV and EVSE deployment.

Start Your EVSE Project

Before calling in a Tiger Team, agency fleet managers should identify the types of ZEVs they would like to acquire,



Figure 1. 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.

identify potential EVSE locations, and conduct workplace charging assessments. These steps will help guide fleet managers through the planning process and optimize Tiger Team efficiency.

1. ZEV Acquisition Planning

Before identifying infrastructure needs, a fleet must determine its near- and long-term fleet electrification scope. Planning for immediate acquisition opportunities and potential future ZEV acquisitions can minimize construction costs in the long term. ZEV battery range and charging speed vary by model, therefore special consideration should be made to identify vehicle use cases with specific ZEV model opportunities. Similarly, vehicle charging considerations vary for each application. AC Level 2 EVSE is generally required for light-duty BEVs, while AC Level 1 charging may be the most affordable solution for PHEVs, as well as some low-mileage BEVs.

2. EVSE Site Identification

Tiger Teams can provide more detailed analysis and better recommendations after the fleet manager has begun surveying prospective 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. Many local utilities offer funding or other programmatic support for EVSE.

3. Employee workplace charging.

Federal agencies are authorized to offer workplace charging to promote sustainable commuting practices. Workplace charging may be co-located with fleet EVSE or installed simultaneously to achieve cost savings.

Review the fleet electrification checklist and EVSE Planning spreadsheet at energy.gov/eere/femp/electric-vehicles-federal-fleets. Send your planning spreadsheet to federal_fleets@ee.doe.gov prior to scheduling a Tiger Team visit. ■

Learn More About Technical Assistance from FEMP

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