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Federal Workplace Charging Program Guide

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Authors

The authors of this report are:

- Jesse Bennett, National Renewable Energy Laboratory (NREL)
- Cabell Hodge, NREL
- Emily Kotz, NREL.

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- FedWay Consulting: Matt Bianco.

Contributors

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List of Acronyms

ACH	Automated Clearing House
AFDC	Alternative Fuels Data Cener
BEV	battery electric vehicle
CEQ	White House Council on Environmental Quality
CaaS	charging-as-a-service
DC	direct current
DOE	U.S. Department of Energy
EV	electric vehicle
EVSE	electric vehicle supply equipment
FAST	Federal Automotive Statistical Tool
FAST Act	Fixing America's Surface Transportation Act
FedRAMP	Federal Risk and Authorization Management Program
FEMP	Federal Energy Management Program
GSA	U.S. General Services Administration
NREL	National Renewable Energy Laboratory
PHEV	plug-in hybrid electric vehicle
POV	privately owned vehicle

Executive Summary

The 2015 Fixing America's Surface Transportation (FAST) Act authorizes the installation, operation, and maintenance of electric vehicle supply equipment (EVSE) for the purpose of recharging employees' privately owned vehicles (POVs) under the custody or control of the General Services Administration (GSA) or a federal agency. It requires the collection of fees to recover the costs of installing, operating, and maintaining this equipment and imposes reporting requirements. This program guide reviews those requirements, excerpts the relevant language in Appendix A, and describes when and how fees may be required to cover costs of electricity, network costs, EVSE units, and installations in various scenarios.

This program guide is designed to support federal agencies developing and refining workplace charging programs for employee POVs. While it provides guidance and best practices, it does not replace agencywide policies or agency-specific legal counsel. This document contains a roadmap for agency workplace charging programs and defines roles and responsibilities. For example, it recommends that each agency establish a national project leader, regional coordinator(s) if appropriate, and facility coordinators at each location where EVSE is provided for POV use. Identifying people for these roles may help ensure a uniform approach and compliance with the relevant requirements.

This guide explains how to determine the number of POVs likely to charge at a given site and contains a sample employee survey in Appendix B. It reviews EVSE planning, including unit selection and acquisition, charger location(s), accounting for available power capacity, using existing infrastructure, and funding an incentive program.

This guide also discusses the costs associated with EVSE acquisition, installation, and network management. These costs inform the subsequently provided information, which describes how to amortize costs to determine appropriate fees for each charging session. Appendix C contains calculations that can be used to determine session fees for any Federal facility. The final two sections of this guide address aspects of ongoing program management that the facility coordinator should consider and the reporting requirements.

The insights in this guide are applicable to all agency-owned and GSA-leased buildings or facilities offering the use of EVSE or a 120-volt receptacle for the purpose of recharging an employee's POV. However, the FAST Act requirements typically do not apply to any building or facility operated and maintained by a third-party vendor offering the use of EVSE as part of a commercial building lease unless the agency is managing the station and/or energy on behalf of the building and collecting POV fees.

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1 Introduction

This document is intended to serve as a program guide that federal agencies can use to develop their internal program documents for employee workplace charging and assist agencies with successful implementation at their respective facilities. Developed by the Department of Energy (DOE) Federal Energy Management Program (FEMP) and National Renewable Energy Laboratory (NREL), this guide offers suggested language that agencies may incorporate into their own program documents to explain requirements for charging privately owned vehicles (POVs) on government-owned or leased property. This guide offers details for agency facility managers, transportation personnel, employees, and vendors regarding the charging of electric vehicles (EVs) owned by employees and personnel at government-owned and leased buildings.

1.1 Background

The 2015 Fixing America's Surface Transportation Act (FAST Act)[1] authorizes the U.S. General Services Administration (GSA) and other Federal agencies to install, operate, and maintain electric vehicle supply equipment (EVSE) for POVs in parking areas under the custody, control, or administrative jurisdiction of GSA or the federal agency, and requires the collection of fees to recover the costs of installing, operating, and maintaining this EVSE. The relevant language from Section 1413 42 § 151 42 U.S. Code § 6364 is provided in its entirety in Appendix A.

The requirements associated with Federal agencies providing charging at publicly accessible sites are detailed in this document. This document also describes when and how fees may be imposed to recover costs of electricity, as well as costs associated with EVSE units and their installations in various scenarios.

1.2 Applicability

This guide offers insights applicable to all federal agency-owned and GSA-leased buildings or facilities offering the use of EV charging for the purpose of recharging a POV. All employees who work at applicable facilities may be authorized by agency policies to use EVSE to charge their POVs. Although such policies may apply to any building or facility operated and maintained by a commercial lessor offering the use of EVSE as part of a lease, they typically do not. Under the FAST Act, Federal agencies may designate responsibility for operating a workplace charging program to a third-party vendor at any type of facility.

EV charging infrastructure is commonly categorized into three types: Level 1, Level 2, and direct current (DC) fast charging. Level 1 charging provides the slowest charging

[1] Public Law 114-94, Fixing America's Surface Transportation (FAST) Act. Dec. 4, 2016. Sec. 1413 § 151: National electric vehicle charging and hydrogen, propane, and natural gas fueling corridors. 42 U.S. Code § 6364: Operation of battery recharging stations in parking areas used by Federal employees (full text in Appendix A).

rate, making it suitable for longer-duration charging. Level 2 offers faster charging, balancing speed and cost, making it often ideal for workplace and fleet charging. DC fast charging is the fastest option, but it is typically not used for workplace charging due to its higher cost and shorter charge times that are not aligned with the typical employee parking duration at workplaces. This guide focuses on considerations for Level 1 and Level 2 charging, since they are the most practical and cost-effective options for a workplace charging program.

Level 1 charging typically utilizes a 120-V receptacle and the EV's portable Level 1 cord set to charge the vehicle. Agencies should check with the building manager to confirm what types of charging equipment and access are permitted at their building and/or parking location. For example, GSA's Facilities Standards for the Public Buildings Service (P100) (GSA 2025a) follows the National Electric Code, which does permit charging using a receptacle or wall outlet as long as it is on its own dedicated breaker.

2 Model Program Guide

This model program guide addresses seven topics relating to the planning and execution of a workplace charging program:

1. Roles and Responsibilities
2. Employee Survey
3. EVSE Planning, Acquisition, and Installation
4. Installation Costs/Fee Structure
5. Fee Collection
6. Program Management
7. Reporting.

Figure 1 illustrates the overall program steps outlined in this guide. In addition, Appendix B contains a survey template that regional coordinators may provide to employees to assess interest in EVSE, and Appendix C outlines the calculations necessary to determine the fees that will appropriately recoup installation, operation, and maintenance costs to ensure the program is operated at a no-cost basis to the Federal government.

Figure 1. Workplace charging program roadmap

Illustration by Anthony Castellano, NREL

2.1 Roles and Responsibilities

Successful implementation of a workplace charging program requires that multiple organizations engage in a coordinated effort. It is recommended that the key responsibilities in this effort be managed for each agency between a national-level leader and a designated coordinator at each facility. In large organizations, regional coordinators may be required to assist in managing a larger number of studies, projects, and reporting. Figure 2 outlines the interplay between the different responsibilities and actors in the absence of a regional coordinator.

Figure 2. Workplace charging program workflow

Illustration by Anthony Castellano, NREL

2.1.1 National Project Leader

Each agency should assign an agency lead or a national project leader who is responsible for developing and updating agency workplace charging guidance, monitoring installation progress, troubleshooting concerns in consultation with regional or local coordinators, and providing EVSE installation data for reporting in the Federal Automotive Statistical Tool (FAST).

2.1.2 Regional Coordinator (Optional)

Agency structure and size will determine whether regional coordinators are necessary to serve as intermediaries between the national project leader and each facility coordinator. A regional coordinator will report on the workplace charging program's effectiveness by reporting the data necessary for the FAST Act, in compliance with all Federal and agency requirements.

2.1.3 Facility Coordinator

Facility coordinators will gather demand for workplace charging via a survey and determine the number of necessary EVSE units and installation locations. The individual will monitor the construction process and determine payment amounts and fee collection. The facility coordinator will report on the workplace charging program's effectiveness by reporting the data necessary for the FAST Act, in compliance with all Federal and agency requirements.

The director or leader at each proposed facility should designate a workplace charging facility coordinator to serve as the program manager. Facility managers and sustainability coordinators are commonly assigned this duty, although other staff may be equally capable, if interested.

The primary objective of the national project leader and facility coordinator is to launch a successful program that serves the needs of users and complies with the FAST Act (excerpted in Appendix A) and specific agency requirements.

2.2 Employee Survey

To deploy a workplace charging program, the facility coordinator needs to understand the demand for employee charging at the facility. The facility coordinator should begin the planning process by assessing the need for EVSE for personal use through an employee survey. The survey's results will inform the number of EVSE units required to serve the expected employee demand. The sample employee survey in Appendix B includes suggested questions to determine employee charging needs, and the equations in Appendix C outline how to estimate employee energy needs and charge fees.

The employee survey's results will inform the number of EVSE units required to serve the expected employee demand.

2.3 EVSE Planning, Acquisition, and Installation

To meet the energy needs as determined from survey responses, the facility coordinator should install the appropriate number and types of EVSE units (Level 1 or Level 2) to serve the demand. This information can be ascertained from the employee survey results (see sample survey in Appendix B), which should help identify how many miles the employees may reasonably want to add to their vehicles when charging and how many employees have or are planning to purchase an EV to use the workplace EVSE. As summarized in Table 1, Level 2 EVSE units provide approximately 25 miles of range per hour, and Level 1 units provide up to 5 miles of range per hour (or ~40 miles of range in an 8-hour workday).

Level 1 charging typically utilizes a 120-V receptacle and the EV's portable Level 1 cord set to charge the vehicle. The shorter recharge times associated with Level 2 units can allow for multiple charging sessions per day and add approximately 100 miles of range in a 4-hour charging session. While under most circumstances, facility coordinators may assume each Level 1 unit can serve one employee, a Level 2 unit could serve two or

more employees if it is reasonable for employees to move their vehicle midday. In the event one EVSE unit must serve multiple charge sessions each day, a reservation system and/or idle fees can be used to optimize EVSE use.

Table 1. Estimated Vehicle Charging Rates

EVSE	Power Rating	Approximate Charging Rate	Sessions per Day
Level 1	1.4 kW	5 mi/h	1
Level 2	6.7 kW	25 mi/h	1–2

Based on a review of 150,000 workplace charging sessions from five Federal campuses, NREL found the average energy consumption per vehicle charging session was 15 kWh. Charging a battery 15 kWh takes approximately 11 hours using a 120-V outlet for Level 1 charging and approximately 2 hours using a standard Level 2 unit. This analysis is summarized in Table 2, and the associated calculations are listed in Appendix C under Equation 2.

Table 2. Vehicle Charge Session Duration

EVSE	Energy Required	Power Rating	Charging Time
Level 1	15 kWh	1.4 kW	10.7 h
Level 2	15 kWh	6.7 kW	2.2 h

Example

Consider a facility with 12 EV-driving employees that are on-site each day. Six of the vehicles are battery electric vehicles (BEVs), meaning all-electric, and six of the vehicles are plug-in hybrid electric vehicles (PHEVs). A simple installation solution would be to assign 12 parking spaces for EV charging and provide a 120-V receptacle for each. This will require the smallest infrastructure investment to the facility. Each employee will be able to plug their vehicle into a nearby receptacle and add up to 40 miles of range within a standard 8-hour workday. Note that according to the Federal Highway Administration National Household Travel Survey (U.S. Department of Transportation Federal Highway Administration 2022), personal vehicles in the United States travel 40 miles per day on average.

However, if the facility can only spare six parking spaces for EV charging or is pursuing a networked EVSE solution with payment collection capabilities, then Level 2 units may be preferable. The faster charging rate of Level 2 units will enable the 12 employees to use the six units if they each occupy the parking space for half of the workday. This faster recharge time creates the opportunity for a second employee to use the charger in the afternoon, if it is feasible to ask the first employee to move their vehicle at midday

or to incentivize employees to move their vehicle using idling fees. The higher charging rate of the Level 2 unit will add approximately 100 miles of range in 4 hours.

Alternatively, a site could also evaluate its charging needs based on the types of EVs employees are driving (BEVs or PHEVs). An employee with a BEV has a longer all-electric range compared to an employee with a PHEV. To maximize e-miles driven, an employee with a PHEV may want to charge their vehicle each day, whereas an employee with a BEV may only need to charge two or three times a week.

While not accounted for in this example, for locations where employees have a hybrid work schedule, it will be important to factor how frequently the staff are on campus into the calculations for number of workplace charging ports needed. Similarly, workday charging demand may not be equal for each day of the week. For example, the demand for workplace chargers may be higher on certain days if some of the employees responding to the employee survey indicate they telework a portion of the week. All these factors will be important to consider when estimating the utilization of the workplace charging stations.

2.3.1 Accessibility

When planning for workplace charging, also consider if/where accessible EVSE is needed. Per the DOE Alternative Fuels Data Center (AFDC), key considerations for accessible EVSE spaces include ensuring adequate space for exiting and entering the vehicle, unobstructed access to the charging station, free movement around the charging station and connection point on the vehicle, clear paths and proximity to building entrances, and appropriate signage (DOE AFDC 2025a). The user interface and payment system, or information and communication technology, must also meet Section 508 of the Rehabilitation Act if the EVSE is developed, procured, maintained or used by the Federal government.

The U.S. Access Board (2023) has developed a technical assistance document, Design Recommendations for Accessible Electric Vehicle Charging Stations, which provides additional information and recommendations for designing accessible EVSE. State and local codes may have specific requirements related to the design, marking, and signage for EVSE spaces that comply with the American Disabilities Act and/or the minimum number of accessible charging ports that must be provided.

2.3.2 Location

There are several key construction activities that can increase EVSE installation costs. For example, trenching required to run wiring from the electric service panel to the EVSE can be as high as $150/ft if trenching through hardscape; therefore, to reduce the amount of trenching needed, it is strongly recommended that facility coordinators plan EV parking as close as possible to the nearest electric service panel. This will limit the overall trenching cost.

2.3.3 Unit Selection

For most applications of workplace charging, Level 2 units are the most practical because they provide an ideal charge rate for POV charging during the workday. That said, their unit and installation costs are higher compared to Level 1 chargers. To offset costs, dual-port Level 2 chargers—units with two charging ports—can be more economical due to their lower infrastructure costs. Alternatively, in some cases, single-port wall-mount units are the most economical option, because they typically cost less per unit relative to Level 2 pedestal units and may not require any trenching.

Level 2 units can include network connectivity options, which may increase unit costs but also offer features to simplify reporting and transaction processing. It is important to address cybersecurity concerns associated with EVSE through the procurement process and by taking other precautions, as explained in Vehicle Cybersecurity Threats and Mitigation Approaches (Hodge et. al. 2019). EVSE network cloud services with Federal Risk and Authorization Management Program (FedRAMP) authorization have undergone a thorough security assessment for cloud computing products and services through GSA. FedRAMP is a governmentwide program designed to standardize security and risk assessments for cloud technologies across Federal agencies. Agencies should refer to their policies to determine whether FedRAMP authorization is required for software. Agencies can refer to the FedRAMP marketplace for a current list of all FedRAMP-authorized solutions.

2.3.4 Electrical Capacity

The facility coordinator should consult with an electrician or engineer to determine electrical capacity readily available at the facility. In assessing the available electrical capacity at the facility, the coordinator will confront decisions regarding whether upgrades to electric panels and transformers, among other equipment, may be necessary. They may determine, for example, that there is insufficient space or electrical capacity in nearby service panels to support the EVSE units desired. If so, a new or expanded service panel may need to be deployed, either in the electrical room or near a transformer. The transformer may need to be upgraded as well.

Level 2 EVSE ports are commonly rated at 30 or 32 Amps (A) and operate on single-phase 208- or 240-V power. Receptacles for Level 1 charging are typically rated at 12 or 16 A and operate on 120-V power. EVSE is considered a continuous load for the purposes of the National Electrical Code and therefore requires 125% overcurrent protection. A standard 32-A Level 2 port will require a 40-A circuit breaker. Certain dual-port EVSE units can share the electrical capacity from a single circuit breaker. If two vehicles are charging at the same time—one on each port—a power share hardware kit can split one 40-A circuit to minimize electrical infrastructure costs with minimal impact on vehicle charging. This allows a dual-port EVSE unit to supply the full EVSE power to one vehicle or to split the power between two. When power-sharing, because the EVSE unit delivers less power to the EV, it does require longer charging times.

> A standard 32-A Level 2 charging port will require a 40-A circuit breaker.

2.3.5 Charging as a Service

Charging-as-a-service (CaaS) offers a subscription-based model covering hardware, installation (in some cases), operation, data plan, and/or maintenance. The monthly or annual subscription fee removes up-front costs for acquiring and deploying EVSE, helping agencies avoid charger obsolescence while reducing management efforts. Providers typically assist with selecting the number and types of EV chargers, managing the acquisition and installation of the EVSE, activating the stations on the network, and supporting the site with operating the charging stations.

The agency generally pays a subscription fee on a monthly or annual basis to cover the costs of the charging stations and a premium to the provider; in some cases, the arrangement may include costs for the electricity service. This business model often benefits the agency because the initial acquisition and installation costs are spread out over multiple years. Additionally, a subscription model allows for EVSE expenses to be predictable and lowers the risks and challenges in contracting for EVSE.

The cost to upgrade the on-site electrical equipment, such as the service panel or transformer and trenching required to run conduit, may not be included in the CaaS subscription model. For sites considering a CaaS business model, it will be important to confirm with the contractor exactly what is covered as part of the subscription fee.

2.3.6 Incentive Programs

Utilities, states, and private enterprises offer grants for the installation of EVSE. Project leaders and coordinators should check the AFDC Laws and Incentives Database and the AFDC U-Finder for more information about local incentives that may be available (DOE AFDC 2025b; DOE AFDC 2025c). Clean Cities and Communities Directors and coalition staff are also available for local support and questions about Federal eligibility for specific grant programs. (DOE Clean Cities and Communities 2025).

2.4 Installation Costs/Fee Structure

To provide this charging service on a no-cost basis to the government, per the FAST Act, it is necessary to collect fees from POV charging at government-owned EVSE, which may include electricity costs, unit and installation costs, network fees, maintenance costs, and transaction fees. Some agencies might employ the support of third-party network providers to oversee or manage these transactions and collect fees, which could also include a third party installing and operating the EVSE. In these instances, fees charged to users should also cover the network and transaction fees, and any other fees associated with operating the charging stations.

FEMP developed the Federal Workplace Charging Fee Calculator, which allows users to enter their program costs for a more customized fee structure. This calculator includes inputs such as electricity rates, network fees, and installation costs to determine the fee they should assign each user per charging session or kilowatt-hour. The calculator implements the material

> Use the Federal Workplace Charging Fee Calculator to estimate a customized fee.

explained below. There are also a few exceptions where certain costs are not required to be recovered from the POV charging fee. Those situations are also outlined below.

2.4.1 Charging Fee Exceptions

Although all POV access to agency-owned EVSE must be provided on a no-cost basis to the Federal government, section 4 of 42 USC §6364 details a few exceptions regarding unit and installation costs. Agencies are not required to include the unit and installation costs in the charging fee structure if the units were installed prior to December 4, 2015, or if the primary use for the EVSE units is to charge fleet vehicles with only incidental POV use.

2.4.1.1 Alternative to New Unit Installation

If an EVSE unit was installed prior to December 4, 2015, then per 42 U.S.C. §6364, the unit and installation costs do not need to be included in the charge fee calculations. Alternatively, parking lots may have existing 120-V electrical receptacles that can be used in combination with the vehicle's portable Level 1 cord set to connect the employee vehicle to the charger. In these cases, the most cost-effective option for the employee is to use the employee's Level 1 cord set to charge the EV. For this scenario in which existing receptacles are used, employees will need to reimburse the facility for the cost of electricity but not the cost of the unit or installation per 42 U.S.C. §6364.

2.4.1.2 EVSE Installed to Support Fleet Charging

If an agency has installed or plans to install EV charging stations primarily for fleet vehicles, it may also accommodate incidental POV charging during certain hours or at designated chargers if capacity permits. (Office of Federal Sustainability Council on Environmental Quality 2016a). In such cases, the charging fee for POVs should include the cost of electricity but not the cost of the unit or installation, per 42 U.S.C. §6364. If networked EVSE is required for the workplace charging program but not for fleet needs, the charging fee should also cover network fees.

The total number of EVSE units installed should be based on the fleet vehicle charging demand. For any EVSE units installed specifically for POV use, the charging fee should include all costs related to installing, maintaining, and operating the charging station, as discussed in more detail in the following sections.

2.4.2 Electricity Costs

Under most POV charging scenarios, installed EVSE will supply POVs with electricity that the agency purchases. Pursuant to the FAST Act, recouping this cost of electricity is a requirement for all workplace charging programs as a component of the fee structure. The Facility Coordinator should reach out to the facility's Energy Manager (or whomever is responsible for reviewing/paying the electricity invoices for the facility) to better understand the electricity costs for the site. Use the blended electricity rate (which is the total cost for electricity divided by the kilowatt-hours dispensed during the billing period) to determine an electricity rate for reimbursement.

If the facility electricity rate is unknown, the U.S. Energy Information Administration publishes the average state electricity price (cents/kWh) for residential, commercial, and industrial land use types. Refer to their data to estimate the electricity costs for the facility (U.S. Energy Information Administration 2025).

The amount of electricity dispensed to the POV for each charging event may be estimated or metered.

2.4.2.1 Estimated

The simplest and most affordable EVSE units are those without metering capabilities or a network connection. When installing these simple chargers, it is necessary to estimate the energy that will be provided during each charge session and the price of that energy. From the example in Section 2.3.1 of a charging session that dispenses 15 kWh to a POV, the electricity portion of the session fee is estimated to be $1.90 based on an electricity rate of $0.1268/kWh (Table 3). This is shown in Equation 3 in Appendix C.

Table 3. Estimated Electricity Cost per Charging Session

Energy Required per Session	Electricity Rate[a]	Electricity Session Fee
15 kWh	$0.127/kWh	$1.90
[a] Electricity rate based on the national average for 2023.		

2.4.2.2 Metered

Alternatively, networked EVSE units directly measure the amount of energy used per session via an internal electricity meter. In this scenario, rather than the facility coordinator estimating the energy consumed, the EVSE would provide exact kilowatt-hours dispensed for each charging session to the user.

In many cases, agencies employ a third-party EVSE provider to oversee and manage the transaction processing for each charge session. In addition to the network connection fees, EVSE providers often impose a separate transaction fee.

2.4.2.3 Demand Charges

Demand charges, which are typically based on the highest 15-minute power demand in a month, can significantly increase the cost of charging EVs. Facility coordinators should consider strategies to avoid high demand charges, such as EVSE units that can curtail charging at periods when the facility is operating at peak demand, as in Figure 3. For more information, visit the FEMP Managed EV Charging for Federal Fleets web page (DOE FEMP 2025b).

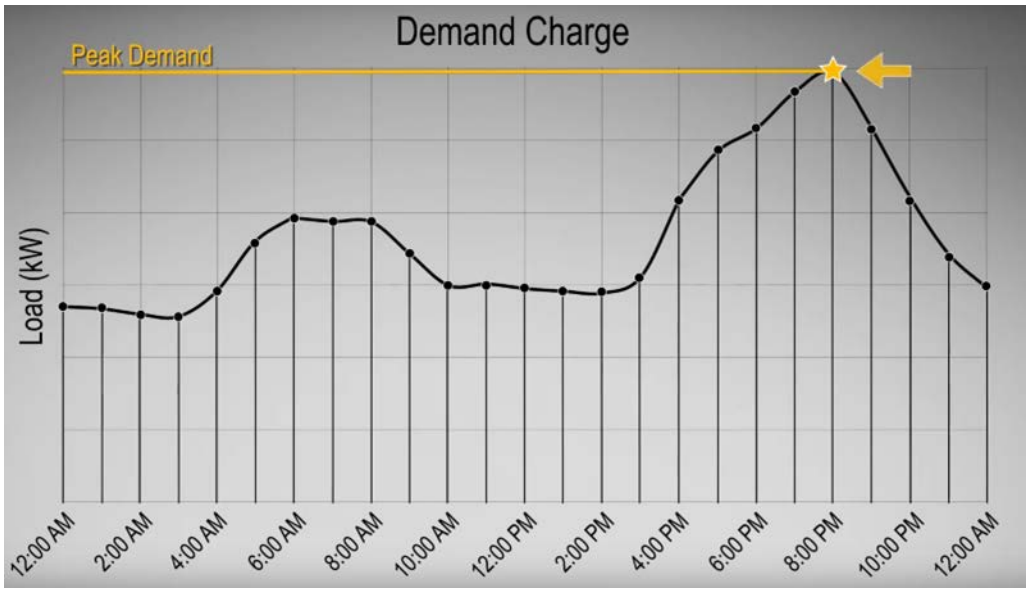

Figure 3. Peak demand illustration

Source: "Federal Fleet Training: Electric Vehicle Financial Consideration"

2.4.3 Network Connection Costs

Smart chargers rely on network connections to provide data on vehicle energy consumption via cellular network, collect payment from users, restrict access, set fees, and/or complete other tasks. This cellular connection does not require direct connection to any government system. These smart chargers may increase the cost of the unit and require internet connectivity that entails an additional network fee (usually $200–$400 per year per port), which also must be recouped. If the EVSE incurs such monthly or annual network fees, a portion of the fee for POV use must also account for these expenses. As detailed below, this annual network fee may be distributed across each charging session by assuming a standard 250 workdays in a year.

> [S]mart chargers may increase the cost of the unit and require internet connectivity that entails an additional network.

Network connections are less common with Level 1 EVSE chargers. The network fee does not apply to basic EVSE units without network connections or to 120-V receptacles where employees bring their own charge cord and are charged based on estimated energy use.

For some workplace charging programs, it may be reasonable to assume that each Level 2 EVSE port will be used once or twice each workday. Using Equation 4 in Appendix C for the example in Section 2.3.1 and assuming the Level 2 chargers will be used on average 1.5 times each workday with an annual network fee of $300 per port, approximately $0.80/session or $0.053/kWh would be needed for the network portion of the charging fee (see Table 4).

Table 4. Example Network Connection Fee

EVSE	Annual Network Fee per Port	Sessions per Year	Network Fee per Port per Session	Network fee per kWh
120-V Receptacle	-	250	-	-
Networked Level 2	$300	375	$0.80	$0.053

2.4.4 Unit and Installation Costs

For EVSE installed to meet POV demand, the EVSE unit and installation costs must be distributed based on an assumed number of sessions per month; however, unlike the annual structure of the network contracts, the cost of the unit and installation should be amortized over the life of the system. This amortization period is estimated to be 7 to 10 years for the EVSE unit, while the electric infrastructure should last longer and may be amortized over a 40-year period. (Office of Federal Sustainability Council on Environmental Quality 2016b).

2.4.4.1 Unit Costs

EVSE unit costs vary based on their charging level and control features. Approximate costs, obtained from GSA, are amortized over 10 years. The following unit costs are calculated from Equation 5 in Appendix C and summarized in Table 5 for the example where the average energy requested per session is 15 kWh, and Level 1 charging ports are used on average once each workday, and Level 2 charging ports are used on average 1.5 times each workday.

- **Level 1 receptacles** should be commercial-grade and weather-resistant (if applicable), with ground-fault circuit interrupters. Although they do not provide a direct connection to EVs, they are ideal for providing a connection to the employee's standard portable Level 1 EVSE. Level 1 receptacles typically cost around $100, which correspond to a unit fee of $0.04/session or $0.003/kWh.
- **Fixed wall-mount single-port Level 1 units** provide an easier connection for users and may be preferred. The additional infrastructure eliminates the need for users to bring their own charging cord set but are more costly than a basic receptacle. These units typically cost around $1,100, which corresponds to a unit fee of $0.44/session or $0.029/kWh.
- **Simple (non-networked) wall-mount single-port Level 2 EVSE units** provide approximately four times as much power as a Level 1 unit. These units typically cost around $2,000, which corresponds to a unit fee of $0.53/session or $0.036/kWh.
- **Simple (non-networked) pedestal dual-port Level 2 EVSE units** can be installed in the middle of a parking lot, unlike wall-mount units. These dual-port

units also provide two separate EVSE ports. They cost approximately $3,700/unit, the cost corresponds to a unit fee of $0.49/session or $0.033/kWh.

- **Networked pedestal or wall-mount dual-port Level 2 EVSE units** can collect payment from employees and provide data on utilization. They are more expensive than basic dual-port units. Their approximate unit cost is $5,200, which corresponds to $0.69/session or $0.046/kWh.

Table 5. Example EVSE Unit Costs

EVSE	Total Unit Cost	Amortization Period	Sessions per Year	Unit Fee per Session	Unit fee per kWh
120-V Receptacle	$100	10 yrs	250	$0.04	$0.003
Level 1 Wall-mount	$1,100	10 yrs	250	$0.44	$0.029
Level 2 Wall-mount	$2,000	10 yrs	375	$0.53	$0.036
Level 2 Pedestal (Dual Port)	$3,700	10 yrs	750	$0.49	$0.033
Networked Level 2 (Dual Port)	$5,200	10 yrs	750	$0.69	$0.046

If a facility wants to purchase a warranty beyond the first year that typically comes with the purchase of the EVSE unit, those additional warranty costs should be accounted for as well.

2.4.4.2 Installation Costs

Installation costs are highly variable based on the facility and the placement of the charger. Nearly all installations will require new circuit breakers, conduit, and wiring at a minimum; however, the variation in trenching needs from site-to-site result in a wide range of potential installation costs on a per-port basis. Some locations can be retrofitted with a conduit pathway during a retrofit, remodel, or construction of a new parking garage or facility.

One method to estimate the installation costs for the EVSE project is to use the Electric Vehicle Infrastructure-Locally Optimized Charging Assessment Tool and Estimator (EVI-LOCATE) tool. EVI-LOCATE helps users determine where to locate charging stations and electrical equipment, calculates optimal wiring runs and assesses electrical capacity of equipment, and estimates project costs based on local labor and materials rate (NREL 2025).

The calculations in Table 6 are an approximation, illustrating potential fees; however, facility coordinators should determine actual installation costs and then determine the installation fee per charging session, using Equation 6 in Appendix C.

Table 6. Example EVSE Installation Fees

EVSE	Installation Cost per Port	Amortization Period	Sessions per Year	Installation Fee	Installation Fee per kWh
120-V Receptacle	$500	40 years	250	$0.05	$0.003
Networked Level 2	$3,000	40 years	375	$0.20	$0.013

2.4.5 Maintenance Costs

In addition to the costs discussed above, an EVSE project may incur maintenance costs. Maintenance plans can cover costs for parts and labor to the EVSE unit, remote technical support, and on-site repairs when needed. Alternatively, facilities can repair and pay for EVSE unit maintenance as needed.

Programming issues typically require consultation with the EVSE vendor or station provider. Physical damage may require support from an electrician and other maintenance staff, or it may require removing and replacing the EVSE unit. The calculations in Table 7 are an approximation, illustrating potential maintenance costs. Facility coordinators should determine actual maintenance costs (if using a maintenance contract) or estimate maintenance costs and then determine the cost per charging session, using Equation 7 in Appendix C.

Table 7. Example Maintenance Costs

EVSE	Annual Maintenance Costs	Sessions per Year	Maintenance per Session	Maintenance per kWh
120-V Receptacle	-	250	-	-
Networked Level 2	$200	375	$0.53	$0.036

2.4.6 Total Fee

Depending on each facility's specific scenario, the total session fee that should be charged to an employee will vary. Based on the various expenses, the fee should be calculated as the sum of each of the expenses highlighted above. The equation below summarizes this approach, and Table 8 provides a summary of each scenario for the example from Section 2.3.1. The Federal Workplace Charging Fee Calculator allows facility coordinators to calculate the appropriate fee for POVs at their location.

If using a third-party vendor to collect payment, there may be a credit card transaction fee that is also assessed to the user session fee.

$$Total\ Fee = Electricity\ Fee + Network\ Fee + Unit\ Fee + Installation\ Fee + Maintenance\ Fee\ + Transaction\ Fee$$

Table 8. Example Fee Structure

EVSE	Electricity Fee	Network Fee	Unit Fee	Installation Fee	Maintenance Costs	Transaction Fee (10%)	Total Fee
Session Fee							
120-V Receptacle	$1.902	-	$0.040	$0.050	-	-	$1.99
Networked Level 2	$1.902	$0.800	$0.693	$0.200	$0.533	$0.413	$4.54
kWh Rate Fee							
120-V Receptacle	$0.127	-	$0.003	$0.003	-	-	$0.13
Networked Level 2	$0.127	$0.053	$0.046	$0.013	$0.036	$0.028	$0.30

2.4.7 Adjustments

The facility coordinator should track the costs to operate and maintain the EVSE units for POV charging and compare them to the revenue from POV users. The user fee for charging POVs should be reviewed and adjusted as needed to ensure the facility is recovering all costs associated with installing, operating, and maintaining the EVSE units.

2.5 Fee Collection

Fees an agency collects for workplace charging of employee POVs must be deposited monthly in the agency's respective appropriations account with the U.S. Department of the Treasury, and those fees must be reimbursed to the agency's appropriations account for the operation of the building per 42 U.S.C. § 6364(2)(B). Facilities may work with their accounting departments, the U.S. Department of the Treasury, and charging service providers to collect session fees. Funds from each element of the fee structure, such as electricity and installation costs, may be allotted separately to different departments. The most common of these fee collection methods are detailed below.

2.5.1 Third-Party Vendor

Using a third-party charging station network to collect charging fees is the most common method. This method can be the easiest to navigate, as many station vendors, manufacturers, and network providers will work with agencies to manage payments

within their systems and have vast experience doing so. The vendor may charge a fee for their services.

Networked EV charging stations can collect charging fees electronically from users based on utilization, e.g., $/kWh or $/hour, allowing the site to base the fee on how much energy was dispensed to the POV or how long the POV charges. Alternatively, a third-party vendor could also allow the station manager to collect a flat-rate fee manually using a parking kiosk or a parking operator. That money is then set aside with the third-party vendor, and a remittance check is sent to the agency, either using a physical check (referred to as the lockbox method) or through a wire transfer/Automated Clearing House (ACH) payment on a periodic basis, as determined through the contract with the vendor. The station manager can set the price they want

Refer to Appendix D for the typical steps to set up either the lockbox method or a wire transfer/Automated Clearing House (ACH) payment.

2.5.2 Employees Submit Payment Via Pay.gov

The U.S. Department of the Treasury can arrange this reimbursement process using a pay.gov account. This method is ideal if an agency is looking for a method where the employees pay directly into a treasury account. Generally, this is a monthly fee that each employee pays to access the workplace charging and is not based on the number of charging sessions the employee completes. Agencies can customize a payment system through this Treasury-managed e-billing service that will send a monthly bill to employees, allow them to pay the bill online, and deposit the money in the treasury, from which it can be applied directly to the facilities hosting workplace charging stations. Agencies can establish a web-based collection system using either a general form or unique bill issued for each employee.

For this method, the employee submits payment with debit, credit, or digital wallet using either Pay.gov's Forms Service for one-time payments or eBilling service for recurring biweekly/monthly/annual billing payments. Collected funds are deposited directly into the Agency Location Code appropriations account for the operations of the building where the charging station is located.

For agencies planning to use Pay.gov, they recommend that early in the process the facility coordinator or national project leader reach out to Pay.gov's implementation team at Pay.Gov@fiscal.treasury.gov to talk through the project and discuss the best way to set the account up in the system to ensure that the funds are deposited in the right location. It may also be helpful to involve the Office of General Counsel to confirm that the proposed method to collect fees complies with agency requirements.

2.5.3 Payroll Deduction

As an alternative to using Pay.gov, agencies may withdraw the fee from an employee's payroll as a post-tax deduction and then deposit the money into a treasury account. The facility coordinator or national project leader should work with their human resources department to implement this approach.

2.6 Program Management

A facility coordinator should monitor the EVSE stations and address issues as they arise. For networked stations, this includes ensuring the stations are operational by tracking the station uptime and reviewing monthly utilization reports from the network provider. These reports offer valuable insights into users' charging behavior, which can help in developing a POV EV charging policy. Additionally, tracking users' energy needs, charging times, and nonactive charging periods can help inform future EVSE needs or how to optimize the existing EVSE infrastructure. Additionally, the facility coordinator must renew the network plans, which are typically available as annual or multiyear packages.

2.6.1 Access

Each EVSE unit should have a clear access policy that may include employee POVs, fleet vehicles, and public access. In some cases, fleet EVSE may only be available for POV charging at certain hours (e.g., 9 a.m.–4 p.m.) and reserved for government-owned EVs the rest of the time. In addition, signage helps users and nonusers identify where EV drivers should park and where non-EV drivers are not permitted to park. The signage and access limitation guidelines can restrict charging at certain times and promote the workplace charging program.

2.6.2 Oversubscription

Oversubscription occurs when there are insufficient EVSE units to serve the number of EVs that seek charging. The facility coordinator can address oversubscription by creating a waitlist, limiting EVSE access to three days per week for each vehicle, requiring EV owners to stop charging at noon to allow others to use the units, or implementing another system. The facility coordinator may create an email listserv, work with their third-party vendor (if applicable), or use another communication system to institute a waitlist and notify when charging is complete at specific EVSE units. The facility coordinator should notify the national project leader if existing EVSE units are oversubscribed.

2.7 Reporting

All Federal agencies must provide data for EVSE installations at their facilities for workplace or fleet charging to the FAST Annual Fueling Center and EVSE Inventory submission (FAST 2025). GSA uses these submissions to report to Congress on the number of EVSE units at Federal agencies each fiscal year per 42 U.S.C. §6364(5).

The Annual Fueling Center and EVSE Inventory Submission includes the inventory of all agency-activated EVSE. The data submitted includes the location of the EVSE unit, number and type of EVSE connectors, kilowatt-hours dispensed the previous fiscal year, charging fee (if applicable), and installation costs. This submission should address EVSE for POVs, fleet vehicles, and/or the public at large.

For more information on how to track the electricity use at EVSE units to meet reporting requirements, refer to Best Practices for Federal Facility Measurement and Reporting Electricity from Electric Vehicle Supply Equipment. (DOE FEMP 2025c).

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Appendix A. 42 U.S.C. §6364. Operation of battery recharging stations in parking areas used by Federal employees

(1) Authorization

(A) In general

The Administrator of General Services may install, construct, operate, and maintain on a reimbursable basis a battery recharging station (or allow, on a reimbursable basis, the use of a 120-volt electrical receptacle for battery recharging) in a parking area that is in the custody, control, or administrative jurisdiction of the General Services Administration for the use of only privately owned vehicles of employees of the General Services Administration, tenant Federal agencies, and others who are authorized to park in such area to the extent such use by only privately owned vehicles does not interfere with or impede access to the equipment by Federal fleet vehicles.

(B) Areas under other Federal agencies

The Administrator of General Services (on the request of a federal agency) or the head of a federal agency may install, construct, operate, and maintain on a reimbursable basis a battery recharging station (or allow, on a reimbursable basis, the use of a 120-volt electrical receptacle for battery recharging) in a parking area that is in the custody, control, or administrative jurisdiction of the requesting federal agency, to the extent such use by only privately owned vehicles does not interfere with or impede access to the equipment by Federal fleet vehicles.

(C) Use of vendors

The Administrator of General Services, with respect to subparagraph (A) or (B), or the head of a federal agency, with respect to subparagraph (B), may carry out such subparagraph through a contract with a vendor, under such terms and conditions (including terms relating to the allocation between the federal agency and the vendor of the costs of carrying out the contract) as the Administrator or the head of the federal agency, as the case may be, and the vendor may agree to.

(2) Imposition of fees to cover costs

(A) Fees

The Administrator of General Services or the head of the federal agency under paragraph (1)(B) shall charge fees to the individuals who use the battery

recharging station in such amount as is necessary to ensure that the respective agency recovers all the costs such agency incurs in installing, constructing, operating, and maintaining the station.

(B) Deposit and availability of fees

Any fees collected by the Administrator of General Services or the federal agency, as the case may be, under this paragraph shall be-

(i) deposited monthly in the Treasury to the credit of the respective agency's appropriations account for the operations of the building where the battery recharging station is located; and

(ii) available for obligation without further appropriation during-

(I) the fiscal year collected; and

(II) the fiscal year following the fiscal year collected.

(3) No effect on existing programs for House and Senate

Nothing in this subsection affects the installation, construction, operation, or maintenance of battery recharging stations by the Architect of the Capitol-

(A) under section 2171 of title 2, relating to employees of the House of Representatives and individuals authorized to park in any parking area under the jurisdiction of the House of Representatives on the Capitol Grounds; or

(B) under section 2170 of title 2, relating to employees of the Senate and individuals authorized to park in any parking area under the jurisdiction of the Senate on the Capitol Grounds.

(4) No effect on similar authorities

Nothing in this subsection-

(A) repeals or limits any existing authorities of a federal agency to install, construct, operate, or maintain battery recharging stations; or

(B) requires a federal agency to seek reimbursement for the costs of installing or constructing a battery recharging station-

(i) that has been installed or constructed prior to December 4, 2015;

(ii) that is installed or constructed for Federal fleet vehicles, but that receives incidental use to recharge privately owned vehicles; or

(iii) that is otherwise installed or constructed pursuant to appropriations for that purpose

(5) Annual report to Congress

Not later than 2 years after December 4, 2015, and annually thereafter for 10 years, the Administrator of General Services shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report describing-

(A) the number of battery recharging stations installed by the Administrator on the Administrator's own initiative under this subsection;

(B) requests from other Federal agencies to install battery recharging stations; and

(C) the status and disposition of requests from other Federal agencies.

(6) Federal agency defined

In this subsection, the term "federal agency" has the meaning given the term "executive agency" in section 105 of title 5 and includes-

(A) the United States Postal Service;

(B) the Executive Office of the President;

(C) the military departments (as defined in section 102 of title 5); and

(D) the judicial branch.

(7) Effective date.

This subsection shall apply with respect to fiscal year 2016 and each succeeding fiscal year. (Pub. L. 114–94, div. A, title I, §1413(c), Dec. 4, 2015, 129 Stat. 1418.)

Appendix B. Template for Employee Survey

Electric vehicles (EVs) use electricity as either their primary fuel or to improve fuel efficiency. We are considering developing an installation and region EV policy to assist employees who drive EVs to work. Your responses to this survey will be used to determine employee interest. Participation in this survey is voluntary.

1. If you drive to work, approximately how far is your trip (one way)?
    a. Less than 10 miles
    b. 10-25 miles
    c. 26-50 miles
    d. More than 50 miles
2. How many days a week on average do you commute to work using your vehicle?
    a. Less than once a week
    b. One-Two days a week
    c. Two-Three days a week
    d. Four-Five days a week
3. Throughout the workday, what is your usual travel pattern?
    a. I stay at the worksite and do not move my vehicle.
    b. I leave the worksite to move my vehicle at least once.
4. Do you own or are you considering purchasing or leasing an all-electric or plug-in hybrid electric vehicle?
    a. Yes, I already own one.
    b. Yes, I'm considering purchasing in next 6 months.
    c. Yes, I'm considering purchasing in 12-24 months.
    d. Yes, I’m considering purchasing in the next 2+ years
    e. No
5. If yes, what type of vehicle are you most interested in?
    a. Plug-in hybrid electric vehicle (e.g.., Ford Escape, Toyota Prius Prime, Jeep Wrangler)
    b. Battery electric vehicle (e.g., Tesla Model Y, Nissan Leaf, Ford F150 Lightning)
6. Do you or could you have access to charge an EV at your residence?

   a. Yes
   b. No
   c. I don't know.

7. If [Agency] installs electric vehicle charging stations at your facility, would you use them?
   a. Yes
   b. No
8. If yes, how many times per week do you expect to charge on-site?
   a. Less than once a week
   b. One-Two days a week
   c. Two-Three days a week
   d. Four-Five days a week

Appendix C. POV Fee Calculations

Equation 1: Energy per Charge Session

K—Energy per session (kWh)

D_d—Average daily driving distance (miles)

e_V—Vehicle efficiency (miles/kWh)

$$K = \frac{D_d}{e_V}$$

$$K = \frac{55\ mi}{3.6\ mi/kWh} = 15.3\ kWh$$

Equation 2: Length of Charge Session

T_E – Time spent charging (hours)

P_E – Power rating of EVSE (kW)

K – Energy per session (kWh)

$$T_E = \frac{K}{P_E}$$

$$T_{E1} = \frac{15\ kWh}{1.4\ kW} = 10.7\frac{hr}{session} \quad T_{E2}\frac{15\ kWh}{6.7\ kW} = 2.2\ hr/session$$

Equation 3: Electricity Fee

E – Electricity expense ($/session)

K – Energy per Session (kWh)

R_E – Price rate of electricity ($/kWh)

$$E = K \times R_E$$

$$E = 15\ kWh \times \$0.1268/kWh = \$1.90/session$$

Equation 4: Network Fee

N – Network expense ($/session)

C_N – Network contract ($/year)

S_N – Charge sessions in a year (sessions/year)

$$N = \frac{C_N}{S_N}$$

$$N_{E1} = \frac{\$0/yr}{250\ sessions/yr} = \$0.00/session \quad N_{E2} = \frac{\$300/yr}{375\ sessions/year} = \$0.80/session$$

Equation 5: Unit Fee

U – Installation expense ($/session)

C_U – Cost of installation ($)

A_U – Amortization period (years)

S_M – Charge Sessions in a year (sessions/year)

$$U = \frac{\left(\frac{C_U}{A_U}\right)}{S_M}$$

$$U_{E1} = \frac{\left(\frac{\$100}{10\ yrs}\right)}{250\ sessions/yr} = \$0.04/session \quad U_{E2} = \frac{\left(\frac{\$5{,}200}{10\ yrs}\right)}{750\ sessions/yr} = \$0.69/session$$

Equation 6: Install Fee

I – Installation expense ($/session)

C_I – Cost of installation ($)

A_I – Amortization period (years)

S_M – Charge Sessions in each month (sessions/month)

$$I = \frac{\left(\frac{C_I}{A_I}\right)}{S_M}$$

$$I_{E1} = \frac{\left(\frac{\$500}{40\ yrs}\right)}{250\ sessions/yr} = \$0.05/session \quad I_{E2} = \frac{\left(\frac{\$3{,}000}{40\ yrs}\right)}{375\ \frac{sessions}{yr}} = \$0.20/session$$

Equation 7: Maintenance Fee

M – Maintenance expense ($/session)

C_M – Maintenance contract ($/year)

S_N – Charge sessions in a year (sessions/year)

$$M = \frac{C_M}{S_N}$$

$$N_{E1} = \frac{\$0/yr}{250\ sessions/yr} = \$0.00/session \quad N_{E2} = \frac{\$200/yr}{375\ sessions/year} = \$0.53/session$$

Equation 8: Transaction Fee

T – Transaction fee ($/session)

F_C – Charging fee billed to customer ($/session)

C_T – Transaction fee for collected charging fee (% of charging fee)

$$F_C = (\mathrm{E} + \mathrm{N} + \mathrm{U} + \mathrm{I} + \mathrm{M})$$

$$T = F_C * C_T$$

$$T = (1.90 + 0.80 + 0.69 + 0.20 + 0.53) * 10\% = \$0.41$$

Appendix D. Third-Party Charging Network Fee Collection

To recover the costs of installing, operating, and maintaining Federal workplace EVSE, the FAST Act requires Federal agencies to collect fees from drivers charging POVs. Agencies must deposit these fees monthly into their respective Treasury Department appropriations account for the operation of the building.

When Federal sites use a third-party charging network provider to collect workplace charging fees, they can electronically collect fees from users based on utilization (e.g., $/kWh or $/h). This allows the site to charge based on the amount of energy the vehicle uses or how long it remains plugged into the charging station.

If using a third-party charging network, there are two main options to collect and deposit the fees: First, the third-party provider sends a physical check, known as the lockbox method. Second, the third-party provider sends a wire transfer or Automated Clearing House (ACH) payment. Both options deposit the remittance payment directly into the Treasury account.

Typical Process for Physical Check (Also Referred to as the Lockbox Method)

- Work with the third-party vendor to set up monthly remittance checks as the method for collecting charging fees. Coordinate with the vendor on who the check should be addressed to and where it should be sent.
- Before sending the check, the third-party vendor should provide a report summarizing the previous month's charging sessions and the total remittance amount. Once the agency confirms the report's accuracy, the vendor can proceed with sending the check. Notify the accounting department (or the department responsible for depositing checks) of the check amount so they can monitor for its arrival.
- The third-party vendor sends the physical check for the agreed-upon remittance amount.
- Once the check arrives, the accounting department (or the department responsible for deposits) deposits the check into the appropriate Treasury account.

Typical Process for Wire Transfer or ACH Payment

- Work with the third-party vendor to set up an automatic payment as the method for remitting charge fees and ensure routing information is provided.
- Note that third-party vendors may default to an ACH payment method, which is less expensive than wire transfers. If planning to use a wire transfer, Federal

agencies should ensure the vendor sets up the wire transfer process, which may require backend adjustments.

- For both ACH and wire transfer, have your agency chief financial officer work with the Federal Bank to create a proxy account number with an American Bankers Association Routing Number that links to your specific Treasury account. Share that account information with the third-party vendor and instruct them to deposit the funds to that proxy account which will then be routed to the appropriate Treasury account.
- Prior to having the vendor send the ACH or wire transfer, the vendor should provide a report summarizing the previous month’s charging sessions and total remittance amount. Once the agency confirms the report's accuracy, the vendor can proceed with the transfer. Agencies should also notify their accounting departments of the remittance amount to monitor for its arrival.
- After the third-party vendor sends the payment, the accounting department should confirm receipt.

For more information, visit: energy.gov/FEMP

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