



April 2023

ELECTRIC VEHICLE INFRASTRUCTURE

USPS Should Plan for Potential Workplace Charging

Accessible Version

GAO Highlights

Highlights of [GAO-23-105781](#), a report to congressional requesters

Why GAO Did This Study

The federal government is poised to invest billions of dollars in public chargers. Given the number and location of USPS facilities, some stakeholders and policymakers have suggested that public chargers at postal facilities could help advance federal efforts.

GAO was asked to determine the feasibility of using USPS facilities to host public chargers. This report, among other things, (1) describes the groups that might use these chargers, (2) describes the potential benefits and challenges to USPS of hosting chargers, and (3) examines the extent to which USPS has considered options for workplace charging at its facilities as it moves to electrify some of its delivery fleet.

GAO conducted a literature review, reviewed charger site-selection guides, and analyzed USPS facility data. GAO also interviewed USPS officials as well as 13 federal and private-sector stakeholders, including DOE and industry associations, selected based on factors such as their engagement in electric vehicle charging issues. GAO compared USPS's actions to consider workplace charging with applicable guidance, such as from DOE.

What GAO Recommends

GAO recommends that the Postmaster General ensure appropriate USPS leaders incorporate the potential for workplace charging into planning efforts to deploy fleet-charging infrastructure. USPS partially agreed. GAO believes considering the potential for such charging would be beneficial.

View [GAO-23-105781](#). For more information, contact Catina Latham at (202) 512-2834 or lathamc@gao.gov.

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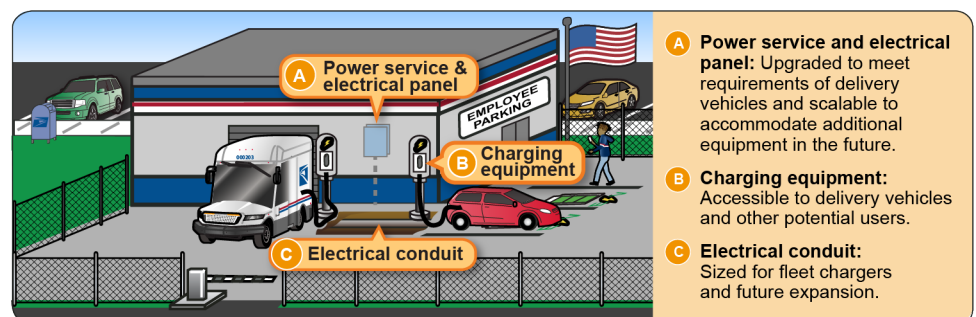
What GAO Found

The United States Postal Service's (USPS) facilities, such as post offices, could potentially provide the public and postal employees with electric vehicle chargers. For example, publicly-accessible chargers could serve community members without a charger at their home. Additionally, five of the 13 stakeholders GAO interviewed said employees would most benefit from chargers at USPS facilities, given the time available to charge a personal vehicle during a work shift.

However, hosting chargers for the general public would pose significant challenges and provide relatively few benefits to USPS, according to USPS officials and stakeholders whom GAO interviewed. For example, USPS officials said hosting public chargers could be at odds with USPS's goal of moving customers in and out of a facility quickly. Moreover, USPS is generally prohibited from offering nonpostal services, and officials said addressing challenges could require significant resources. In light of these and other challenges, USPS has not pursued chargers for the general public. Stakeholders GAO interviewed also recognized these challenges, but a few noted potential benefits for USPS, including improving USPS's reputation on environmental issues and enhancing its relevance.

USPS is preparing to introduce electric vehicles into its delivery fleet and is planning to install chargers for these fleet vehicles. However, USPS has not fully incorporated the potential for employee workplace charging into these plans. USPS has taken some initial steps to explore the potential for employees to charge their own vehicles at work. These steps include designating leadership and surveying some employees on their interest. USPS officials said there are complex issues USPS would need to resolve before it could establish a workplace charging program, such as developing policies and potentially negotiating work rules with multiple employee organizations. However, the facility assessments USPS has developed in planning to install fleet chargers have not examined the potential for sharing fleet chargers with employees, or for installing additional chargers for employees' use. Department of Energy (DOE) guidance encourages agencies to plan for long-term needs when installing chargers. Incorporating the potential need for workplace charging into current planning activities could spare USPS the expense of modifying facilities in the future.

Illustration of a Hypothetical USPS Facility Prepared for Electric Vehicle Chargers to Serve Postal Delivery Vehicles and Potential Additional Users in the Future



Source: GAO analysis of Department of Energy information. | [GAO-23-105781](#)

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Abbreviations

DOE	Department of Energy
FDB	Facilities Database
GIS	geographic information system
USPS	United States Postal Service

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April 13, 2023

The Honorable Jamie Raskin
Ranking Member
Committee on Oversight and Accountability
House of Representatives

The Honorable Gerald E. Connolly
Ranking Member
Subcommittee on Cybersecurity, Information Technology, and
Government Innovation
Committee on Oversight and Accountability
House of Representatives

The Honorable Stephen F. Lynch
House of Representatives

The landscape of electric vehicle charging is expected to change considerably in the coming years. As the number of electric vehicles on the road increases, many retail establishments, places of business, and other public venues are starting to see value in providing chargers to their customers, employees, and visitors. To help reduce greenhouse gas emissions and improve the mobility of electric vehicles, the federal government is beginning to fund the deployment of publicly-accessible electric vehicle charging infrastructure nationwide. Likewise, private-sector companies, states, and localities are looking for locations to install public chargers.

The United States Postal Service (USPS) is preparing to install electric vehicle charging equipment at some facilities to support new electric delivery vehicles that are expected to begin service in 2023. Given that USPS facilities are widely distributed across the country, along with USPS's plans to electrify its delivery fleet, some stakeholders and policymakers have suggested that postal facilities could serve as locations for publicly-accessible vehicle chargers.

You asked us to determine the feasibility of using USPS facilities to host publicly-accessible electric vehicle charging equipment. This report (1) describes the potential users of charging equipment at USPS facilities and the extent to which USPS facility characteristics could make the facilities suitable sites for public charging equipment; (2) describes the

potential benefits and challenges to USPS that postal officials and stakeholders identified with USPS hosting public charging equipment at its facilities; and (3) examines the extent to which USPS has considered options for workplace charging at its facilities as it moves to electrify some of its delivery fleet.

To describe the types of users who could potentially use USPS charging equipment and USPS facility characteristics that could make them suitable for such equipment, we conducted a literature search, reviewed selected literature and relevant guides, and interviewed USPS officials and a nongeneralizable selection of 13 stakeholders. We selected these stakeholders based on their familiarity with USPS or the characteristics of desirable public electric vehicle charging sites, their expertise in electric vehicle charging issues, or on the recommendation of others we interviewed. Selected interviewees included officials from the Department of Energy (DOE) and representatives from non-profit advocacy associations and industry associations. We also analyzed USPS facility data and data from other federal agencies, such as the Department of Transportation and DOE, to determine the number of facilities with characteristics, such as proximity to highways that could make them suitable for charging equipment. We assessed the reliability of the data by interviewing knowledgeable agency officials, reviewing relevant documentation, and conducting electronic testing to determine whether data contained appropriate values. We determined the data were sufficiently reliable for our purposes.

To describe the potential benefits and challenges to USPS of hosting public charging infrastructure at USPS facilities, we interviewed USPS officials and 13 stakeholders, as described above.

To examine the extent to which USPS has considered options for workplace charging for employees at its facilities, we reviewed USPS documents related to, for example, planning for electric delivery fleet chargers, and interviewed USPS officials and the selected stakeholders. We compared USPS actions with USPS strategic documents and federal criteria on electric vehicle charging equipment at federal facilities to assess the extent that USPS actions are consistent with these standards. See appendix I for more detailed information on our scope and methodology.

We conducted this performance audit from February 2022 to April 2023 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain

sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Availability of Charging Equipment

The need for convenient, reliable charging will increase as more people purchase electric vehicles. Currently, most electric vehicle owners rely on home charging, and this method is likely to continue to be predominant in the near future, according to DOE estimates.¹ Workplace charging, in which drivers charge their vehicle during their work shift, is also increasingly common and is likely to expand in the future.² As at homes, vehicles parked at workplaces during a work shift tend to sit idle for multiple hours at a time.

Public chargers—namely charging equipment in a public location and available to anyone—provide an option when other forms of charging are unavailable, inconvenient, or a trip exceeds a vehicle’s range. Public chargers are particularly important for drivers who live in structures, such as apartments, that may not readily accommodate charging equipment or lower income people that may find installing such equipment unaffordable.³ However, with relatively few electric vehicles on the road—about 1.5 million out of about 279 million on the road in 2021 according to DOE data—public chargers are limited in number.⁴ As of December 2022, there were almost 50,000 public chargers nationwide, according to DOE data. These chargers are owned by many different types of locations (shopping malls, hotels, apartment complexes, etc.) and by a range of providers (e.g., private firms, municipalities, utilities, or automakers). According to DOE, these hosts and providers are expected to install

¹Department of Energy, *National Plug-in Electric Vehicle Infrastructure Analysis* (Washington, D.C.: September 2017).

²National Academies of Sciences, Engineering, and Medicine, *Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy—2025-2035* (Washington, D.C.: 2021).

³National Academies of Sciences, Engineering, and Medicine (2021).

⁴Department of Energy, Alternative Fuels Data Center, “Vehicle Registration Counts by State” (2021), accessed on Feb. 8, 2023, <https://afdc.energy.gov/vehicle-registration>.

many additional public chargers as the number of electric vehicles increases.

There are a number of different public charging business models. Some providers offer charging free to customers as an amenity, while others charge nominal fees to cover costs or seek to make a profit from selling charging services. For example, providers may set the fees either as a price per kilowatt-hour of electricity delivered (e.g., \$0.49 per kilowatt-hour) or per charging session (e.g., \$6 per session), among other models.

Types of Electric Vehicle Charging Equipment

Different types of electric vehicle charging equipment provide varying power levels at different costs, and serve different needs. According to a National Academies of Sciences study, three types of electric vehicle charging equipment are expected to dominate the charging infrastructure from 2025 to 2035: Level 1, Level 2, and Level 3 or “DC fast charging” (see figure 1).⁵ Often, the highest-power charging equipment (Level 3) needs additional electrical service to support its higher power rating and high-voltage power, which significantly increases installation costs. For example, according to the International Council on Clean Transportation, the fastest Level 3 DC fast charger can cost over \$140,000 to purchase and more than \$39,000 per charger to install, when between three and five chargers are installed.⁶ Further, operation of these chargers may incur additional electricity costs given their substantial power requirements. These chargers charge vehicle batteries quickly, with the exact speed being dependent on the vehicle’s design and technology. Presently, some electric vehicles can be charged up to 80 percent in under 20 minutes.

Lower-power charging equipment (Level 1 and 2) can be more readily installed at a wide-range of facilities—homes, businesses, and public facilities—at relatively low costs compared to the fastest charging equipment. For example, Level 2 public and workplace charger hardware may cost between about \$900 and \$3,000.⁷ To fully charge a vehicle, these chargers take more time—from 4 to 10 hours—than fast chargers.

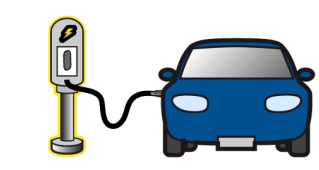

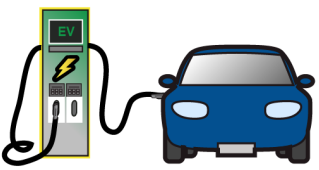

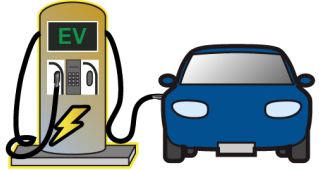

⁵National Academies of Sciences, Engineering, and Medicine (2021).

⁶International Council on Clean Transportation, *Estimating Electric Vehicle Charging Infrastructure Costs Across Major U.S. Metropolitan Areas* (Washington, D.C.; 2019).

⁷International Council on Clean Transportation (2019). Site preparation, installation, and operation would represent additional costs.

Level 2 chargers are the most common type of public charger. For all equipment types, costs vary depending on factors such as a sites' existing wiring and any required trenching and electrical upgrades.

Figure 1: Levels of Electric Vehicle Charging Equipment

Charge Level	Approximate Range Per Hour of Charge ^a	Required Equipment and Applicable Charging Scenarios
 <p>Level 1</p>	 <p>5 Miles (Up to 5 miles per hour)</p>	<ul style="list-style-type: none"> Requires a standard receptacle outlet and no additional electric equipment. Most plug-in electric vehicles come with a Level 1 cordset with a standard three-prong plug on one end. Best for scenarios in which vehicles are parked for extended periods of time, such as at home or work.
 <p>Level 2</p>	 <p>20 Miles (Up to 20 miles per hour)</p>	<ul style="list-style-type: none"> Requires the installation of additional electric equipment. Some vehicles come with a Level 2 cordset, which has a plug for a 240-volt outlet, similar to that used for a clothes dryer. Best for scenarios in which drivers park their electric vehicles for up to several hours, such as at home, work, or public charging locations.
 <p>Level 3</p>	 <p>240 Miles (Up to 240 miles per hour)</p>	<ul style="list-style-type: none"> Requires the installation of significant and costly electric equipment, not commonly available for at-home installation due to high voltage. Also called DC fast charging, provides the fastest charging speed. Best for scenarios in which charging must be done quickly.

Sources: GAO analysis of National Academies of Sciences, Engineering, and Medicine and Congressional Research Service information. | GAO-23-105781

^aApproximate charge capacity and range; real-world results vary by vehicle. Actual charge times depend on battery's state of charge and charge acceptance rate.

Federal Efforts Related to Electric Vehicle Charging

The federal government is encouraging the adoption of electric vehicles and the development of chargers nationwide. The Biden Administration has called for a national network of 500,000 public chargers. Moreover, the Biden-Harris Electric Vehicle Charging Action Plan calls for electric vehicles to be 50 percent of new vehicle sales by 2030. In addition, the Infrastructure Investment and Jobs Act created two funding programs: (1) the National Electric Vehicle Infrastructure formula grant program and (2) the Discretionary Grant Program for Charging and Fueling Infrastructure. These programs were appropriated \$7.5 billion, which includes funding for charging infrastructure on targeted travel corridors, rural areas, and

disadvantaged communities.⁸ The Department of Transportation, in coordination with DOE, is responsible for implementing these efforts. Their goals include building a national network of public chargers and increasing access in rural and disadvantaged areas.

The federal government has also taken steps to increase the availability of chargers at federal agencies as it has worked to electrify its own fleets. Federal agencies have installed charging equipment for fleet vehicles, employees, and the general public at some of their facilities. For example, the National Park Service has installed more than 140 public chargers in and near national parks across the country. We have reported that, according to GSA fleet data, federal agencies, including USPS, are beginning to increase the number of electric vehicles in their fleets, in part spurred by federal initiatives.⁹ These deployments are expected to grow as federal efforts related to electric vehicles increase. For example, in December 2021, the president issued Executive Order 14057 calling for all vehicle acquisitions at executive agencies to be zero-emission vehicles, such as electric vehicles, by 2035. While this Executive Order does not apply to USPS, it affects approximately 380,000 vehicles within federal fleets as they become subject to replacement.¹⁰

USPS Efforts to Electrify Its Delivery Vehicle Fleet

Like federal agencies and private delivery companies, USPS is in the process of acquiring electric vehicles and installing chargers at some of its facilities. USPS is planning to replace its current delivery vehicle fleet, which consists of roughly 200,000 vehicles. Accordingly, USPS announced in December 2022 that it expects to order 60,000 next generation delivery vehicles, a minimum of 75 percent of which will be electric.¹¹ The next generation delivery vehicle is a custom design, right-

⁸Pub. L. No. 117-58, Div. J, tit. VIII, 135 Stat. 429, 1421, Federal Highway Administration (2021); *id.* § 11101(b)(1)(C), 135 Stat. at 445; see also 23 U.S.C. § 151(f).

⁹GAO, *Federal Vehicle Fleets: Observations on the Transition to Electric Vehicles*, [GAO-23-105635](#), (Washington, D.C.: October 20, 2022).

¹⁰The Executive Order only applies to executive agencies, as defined by 5 U.S.C. § 105, excluding independent regulatory agencies, as defined in 44 U.S.C. § 3502(5). For the purposes of this Executive Order and 5 U.S.C. ch. 1, USPS is excluded as an independent establishment, and therefore is not an executive agency.

¹¹A forthcoming GAO report (GAO-23-105409), which we expect to issue in Spring 2023, will provide more information on USPS's acquisition of electric delivery vehicles.

hand drive vehicle with increased cargo capacity and improved safety features compared to current light-duty vehicles. These vehicles have two powertrain options: an internal combustion engine that uses gasoline and a battery electric vehicle that requires charging equipment. The first new vehicles are expected to enter service in late 2023. As part of this effort, USPS plans to install electric vehicle charging equipment at some of its facilities.¹² According to USPS officials, USPS has yet to determine where these new electric vehicles and the associated chargers will be located, but has determined Level 2 chargers will meet its operational needs.

Different Types of Users Could Potentially Use Electric Vehicle Charging Equipment at USPS Facilities, but Suitability of Sites Is Unknown

The General Public and USPS Employees Could Potentially Use Chargers at USPS Facilities, but Have Varying Needs for Equipment and Amenities

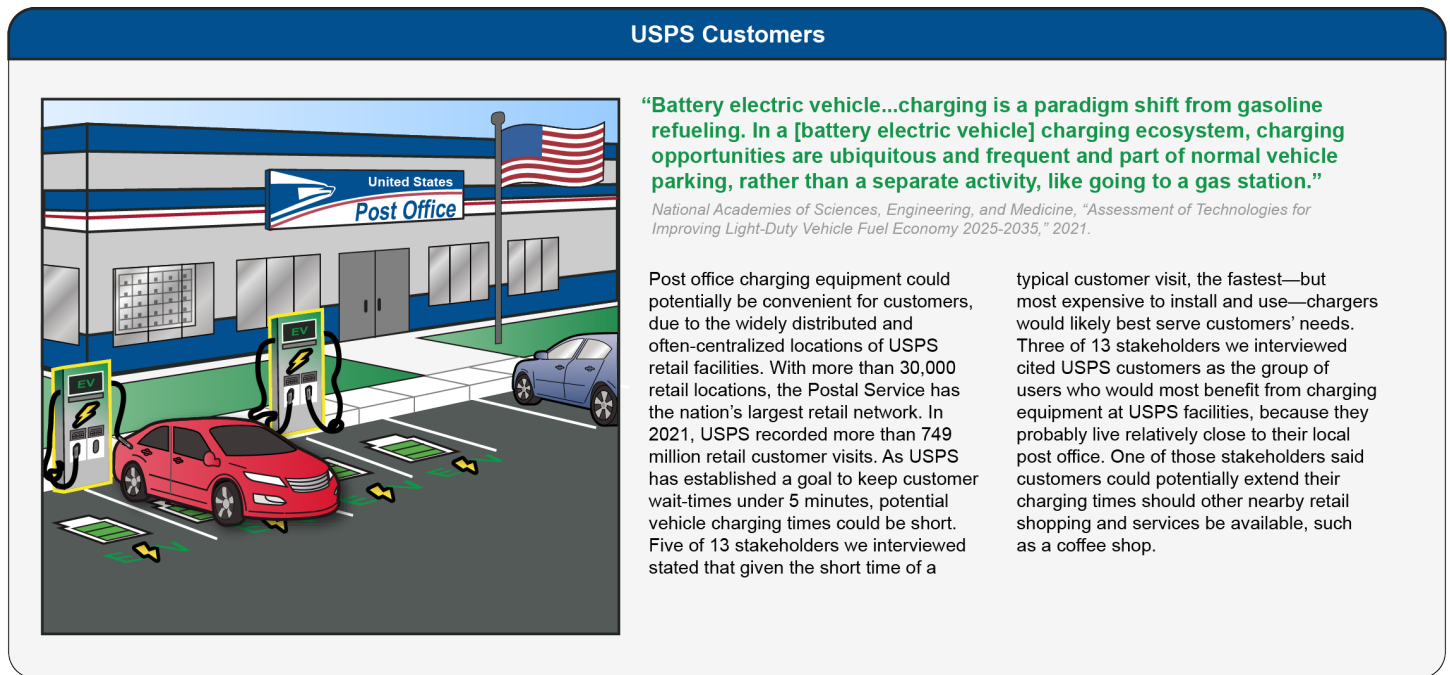
Potential users of public charging facilities at USPS facilities include USPS customers, travelers, community members, and USPS employees. All electric vehicle operators generally share certain basic needs at charging facilities, such as safety, parking, and reliable equipment. Beyond these basics, however, different types of users have specific needs for equipment and amenities based on the convenience of the facility charger's location and the length of time they have available to charge their vehicles. An entity planning to install public charging equipment would need to align its services with the needs of the user group or groups it aims to serve.

Figures 2-5 provide illustrations of four categories of potential users of charging equipment at hypothetical USPS facilities—USPS customers, travelers, community members, and USPS employees—and their likely

¹²In addition to funding from USPS's revenue, the Inflation Reduction Act provided \$1.71 billion for the purchase, design, and installation of infrastructure to support zero-emission delivery vehicles at postal facilities.

needs.¹³ We based these figures on our review of relevant literature and on interviews with 13 knowledgeable stakeholders. The categories are illustrative and are not mutually exclusive; individuals could belong to one or more groups at any given time.

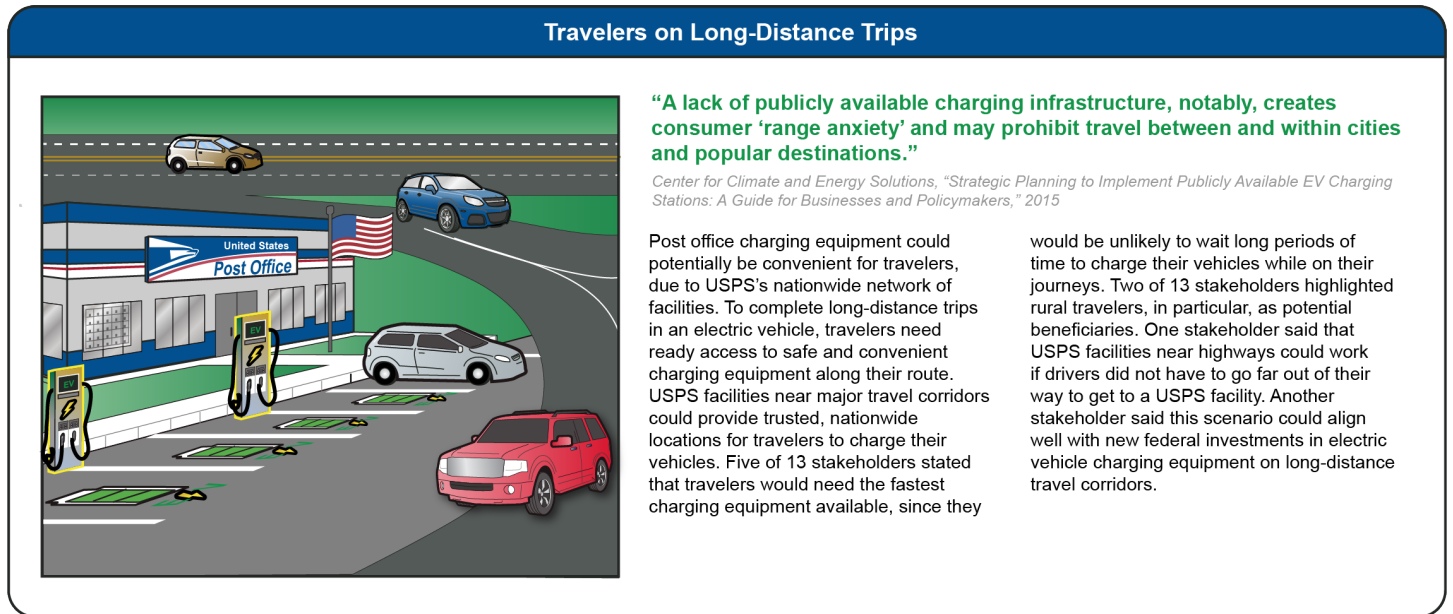
Figure 2: United States Postal Service (USPS) Customers Could Potentially Charge Vehicles while Completing Business in Post Offices



Sources: GAO analysis of interviews with 13 stakeholders and U.S. Postal Service documents. | GAO-23-105781

¹³For the purposes of our work, we categorized potential users of publicly-accessible electric vehicle chargers at USPS facilities into the following groups: (1) “USPS Customers”: drivers who charge their vehicle while patronizing USPS; (2) “Travelers”: drivers on long-distance trips beyond their vehicle’s range; (3) “Community members”: drivers dependent, in full or in part, on charging facilities in their community; and (4) “USPS Employees”: USPS employees who charge their vehicles at their place of work.

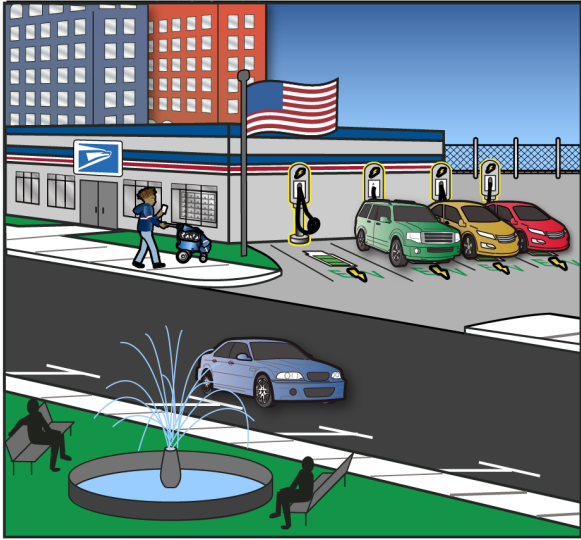
Figure 3: Travelers on Long-Distance Trips Could Potentially Charge Vehicles at United States Postal Service (USPS) Facilities near Highways



Sources: GAO analysis of interviews with 13 stakeholders and Department of Transportation Federal Highway Administration National Electric Vehicle Infrastructure program guidance. | GAO-23-105781

Figure 4: Community Members Could Potentially Access Vehicle Charging Equipment at United States Postal Service (USPS) Facilities

Community Members



“Municipal, county, and tribal governments are crucial partners as community site owners. Community sites such as libraries, schools, business districts, and even public facilities like curbside parking spaces play an important role in ensuring widespread access to EV charging.”

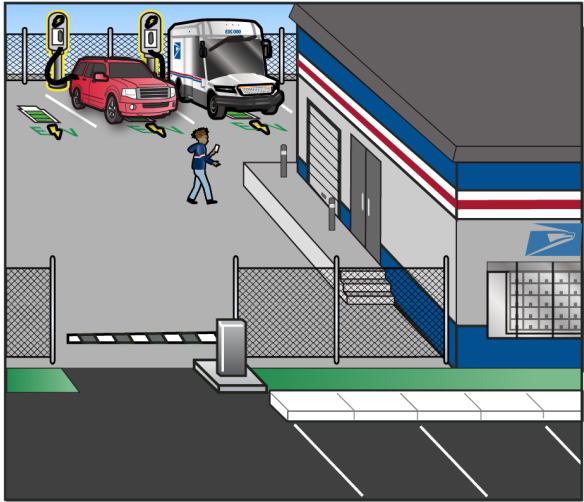
U.S. Department of Transportation, “Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure,” February 2022

Post office charging equipment could potentially be convenient for members of a variety of different types of communities—including rural, urban, and suburban—due to USPS’s nationwide presence in every state, city, and town. The type of charging equipment community members need would vary, depending on the length of time different members would have to leave their vehicles charging. Three of 13 stakeholders we interviewed said community members would be the group who would most benefit from charging equipment at USPS facilities, while they engage in daily activities ranging from a few hours to all day, or even while they leave their vehicles to charge overnight. Three stakeholders cited community charging as particularly useful for residents without access to home charging, such as some apartment or condominium dwellers. Three stakeholders cited USPS’s reputation as a reliable community institution that could encourage community use. One of them described the typical post office as the “lifeblood of the community,” especially in rural areas.

Sources: GAO analysis of interviews with 13 stakeholders and U.S. Postal Service and National Academies of Sciences, Engineering, and Medicine documents. | GAO-23-105781

Figure 5: United States Postal Service (USPS) Employees Could Potentially Charge Their Personal Vehicles while Working

USPS Employees



“Many drivers performed a vast majority of their away-from-home charging at only one location. Much of this can be attributed to workplace charging...[which] could make [plug-in electric vehicles] viable for people without access to home charging.”

Idaho National Laboratory, U.S. Department of Energy, “Plugged In: How Americans Charge Their Electric Vehicles,” July 2015

Post office charging equipment could potentially be convenient for USPS employees, due to the large number of employees who drive to work nationwide. USPS has approximately half a million fulltime employees. Five of 13 stakeholders we interviewed cited USPS employees as the group of users who would most benefit from charging equipment at USPS facilities, because they could conveniently charge while they work. Five of 13 stakeholders we interviewed stated that USPS employees would likely charge their personal vehicles during the workday, and would not need the fastest chargers. Instead, mid-level or even the lowest power chargers could be beneficial. Four of 13 stakeholders we interviewed suggested employees could also potentially share USPS fleet-charging equipment while delivery vehicles are in use.

Sources: GAO analysis of interviews with 13 stakeholders and U.S. Postal Service documents. | GAO-23-105781

USPS Locations Could Increase Access to Chargers in Some Targeted Areas, but Suitability of Specific Facilities Is Unknown

Given their wide distribution, many of USPS's over 30,000 facilities are in locations that are aligned with federal goals for expanding access to public chargers. Building a national charger network is one such goal. To do so, federal grants target increasing the number of chargers along the specific travel corridors that comprise the national electric vehicle

charging network.¹⁴ Based on our data analysis, USPS has about 7,800 facilities located within a mile of these travel corridors.

Another goal of federal-funding programs for public chargers is to increase access in rural and disadvantaged communities.¹⁵ Based on our data analysis, about 11,100 USPS facilities are in rural areas, which tend to have fewer chargers than urban and suburban areas.¹⁶ USPS officials noted that rural facilities are typically small and may not have existing electrical infrastructure needed to support vehicle chargers. About 6,700 facilities are in areas with high or very high degrees of social vulnerability—a measure of disadvantage across urban and rural areas that includes factors such as poverty, disability, and minority status.¹⁷ Of these facilities, about 44 percent are more than 5 miles from an existing public charger, suggesting they could provide locations for public chargers in disadvantaged areas where there are currently few available.

However, the suitability of specific facilities is unknown. USPS's facilities database contains USPS facility locations and other information necessary to USPS operations. USPS officials told us the facilities database serves as a comprehensive source of information related to USPS's core mission of mail and package delivery. Accordingly, the

¹⁴The Infrastructure Investment and Jobs Act appropriated \$5 billion for the National Electric Vehicle Infrastructure grant program for states to deploy electric vehicle charging infrastructure and establish an interconnected network to facilitate data collection, access, and reliability. Initially, funding under this program is directed to designated alternative fuel corridors. Pub. L. No. 117-58, Div. J, tit. VIII, 135 Stat. 429, 1421–26, Federal Highway Administration (2021). According to Department of Transportation guidance, the funds directed to alternative fuel corridors will be to build out the national network, particularly along the Interstate Highway System.

¹⁵The Discretionary Grant Program for Charging and Fueling Infrastructure (23 U.S.C. § 151(f)) provides grants to certain entities, including states, localities, and tribal governments, to contract with a private entity for acquisition and installation of certain publicly-accessible fueling and charging infrastructure, including electric vehicle charging infrastructure along alternative fueling corridors. Fifty percent of the funds made available each year are required to be reserved for community grants which give priority to rural areas, low-moderate income neighborhoods, and communities with low ratios of private parking to households, or high ratios of multiunit dwellings to single family homes.

¹⁶Based on the Department of Agriculture's rural-urban classifications (2019 update). These codes classify U.S. census tracts using measures of population density, urbanization, and daily commuting and are based on the Office of Management and Budget and the United States Census's urbanized area definitions for the 2010 Census.

¹⁷Based on the Centers for Disease Control and Prevention's social vulnerability classification system, which measures the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood.

database supports facility management broadly and maintains information important to postal customers. For example, this database provides USPS's website with information on location addresses, hours of operation, and available postal services.

Given the purpose of USPS's facilities database, it does not have some information that is key to understanding the extent to which USPS facilities could be suitable for public charging equipment. For example, USPS officials said the database is not designed to include information on nearby amenities, such as neighborhood shopping or transit services, which could be important to drivers while using a public charger. The database also does not contain information on the power available and used at each facility. This information could help assess the extent, and cost, of the work needed to prepare a site to host chargers. Officials added that some of this information, such as information on power use and local amenities, would be available to local facilities managers or as a result of site-specific assessments that take into consideration these other factors, as discussed later in the report.

USPS Officials and Selected Stakeholders Identified Potential Challenges, While Some Stakeholders Identified Potential Benefits to Hosting Public Chargers

USPS officials identified a number of challenges to hosting public chargers related to USPS's mission, legal and financial issues, and planning and operations. Some stakeholders identified similar potential challenges with USPS hosting public charging stations. Additionally, USPS officials said that at congressional request, in 2021, USPS conducted a preliminary analysis of the potential costs and practicality of providing vehicle chargers to the public.¹⁸ According to USPS officials, USPS decided not to pursue public charging after concluding that it is outside USPS' core mission and due to legal constraints. USPS officials and stakeholders we interviewed identified these and other challenges, as summarized below.

¹⁸USPS officials said they provided some congressional briefings in 2021 based on their work but did not produce a written report or other documentation of their findings.

Mission conflicts. The core statutory mission of USPS is to provide prompt, reliable, and efficient postal services to all communities. USPS officials noted that there is no role for USPS to provide electric vehicle charging for the general public (i.e., customers, travelers, and community members). USPS officials expressed concern that the pursuit of public charging would conflict with or complicate the execution of USPS's mission. For example, USPS officials said hosting public chargers could conflict with the high importance USPS places on reduced wait times in retail facilities. Three stakeholders stated that the quick visits by typical USPS customers would require more expensive fast-charging equipment. According to USPS officials, there is no policy goal that any potential USPS efforts to host public chargers should aim to achieve. Specifically, there is nothing that defines whether USPS's purpose in hosting chargers should be to serve the needs of its customers, help establish the national network of chargers that travelers may need, or address gaps in charging availability that may exist in disadvantaged communities.

Legal constraints. According to USPS officials, USPS does not have authority to directly provide charging to the public. USPS is generally prohibited from offering nonpostal services, unless they were previously authorized by the Postal Regulatory Commission.¹⁹ Officials told us that while USPS has the general authority to manage its properties, that authority is limited by the nonpostal provision.

However, USPS officials said it might be possible for public chargers to be located at USPS facilities through partnerships with the public or

¹⁹See Postal Accountability and Enhancement Act, Pub. L. No. 109-435, § 102(a), 120 Stat. 3198, 3200 (2006). USPS is statutorily authorized, subject to Postal Regulatory Commission approval, to provide various "nonpostal services" offered as of January 1, 2006. The term "nonpostal service" is defined by statute to mean any service that is not a "postal service." 39 U.S.C. § 404(e)(1). A "postal service" is defined as the delivery of letters, printed matter, or mailable packages, including acceptance, collection, sorting, transportation, or other functions ancillary thereto. 39 U.S.C. § 102(5). The Postal Service Reform Act of 2022 authorized situations in which USPS may provide nonpostal services to the public on behalf of a state, local, or tribal government for non-commercial purposes. Pub. L. No. 117-108, § 103(a), 136 Stat. 1127, 1141 (codified at 39 U.S.C. § 3703). USPS also has separate statutory authority to provide services to federal executive agencies. 39 U.S.C. §§ 411, 3704.

private sector.²⁰ For example, officials said USPS has long-standing authority to provide nonpostal services on behalf of federal agencies.²¹ In addition, according to USPS officials, USPS is authorized to lease or license access to its real property. As a result, potentially, it could allow third parties to install and maintain charging equipment located at USPS facilities. In addition, representatives of private firms that lease facilities to USPS told us that they were open to investing their own funds in public charging equipment.

However, legal constraints could also affect third-party partnerships. Two stakeholders we interviewed cited potential challenges USPS could face in making changes to complex leases. USPS officials also said modifying existing leases—USPS leases from over 19,000 landlords—risks undermining favorable terms in existing leases because it would allow other parts of the lease to be modified. Moreover, USPS officials said that while they would consider partnership proposals for public charging equipment, USPS has not received any such proposals.

Financial considerations. USPS officials said the statutory restrictions on nonpostal services would preclude generating revenue from public chargers. Absent funding from potential partnerships as mentioned above or a potential revenue stream, the officials said USPS would need funding to purchase, install, and operate public electric vehicle chargers. They noted that the cost to purchase a public charger could range from a few thousand dollars for a slower charger to tens of thousands of dollars for a faster charger. Installation would be an additional cost that could vary widely by site. In some areas, such as remote rural locations, the cost of bringing sufficient additional power to a facility could be high. Additionally, hosting chargers could negatively affect revenue from postal services if the provision of chargers resulted in less available parking for paying

²⁰USPS can partner with federal agencies or state, local, and tribal governments to provide some nonpostal services, such as passport applications. We have previously reported that USPS may be well positioned to offer additional nonpostal products and services because it is a trusted brand, has vast delivery and retail networks, and experience with other nonpostal efforts. However, as we reported, most additional nonpostal products and services would likely have a low net revenue potential and are not likely to significantly improve USPS's financial viability. For more, see GAO, [GAO-21-479SP](#), *U.S. Postal Service Primer; Answers to Key Questions about Reform Issues* (Washington, D.C.: September 23, 2021).

²¹For more on nonpostal services, see GAO, *U.S. Postal Service: Expanding Nonpostal Products and Services at Retail Facilities Could Result in Benefits but May Have Limited Viability*, [GAO-20-354](#) (Washington, D.C.: Mar. 10, 2020) and GAO, *U.S. Postal Service: Offering Nonpostal Services through Its Delivery Network Would Likely Present Benefits and Limitations*, [GAO-20-190](#) (Washington, D.C.: Dec. 17, 2019).

customers. Four stakeholders we interviewed also questioned the financial viability of chargers at USPS locations. Three stakeholders cited extensive costs for upgrading USPS facilities' power capacity to accommodate the fastest charging equipment. One raised concerns about whether the substantial federal investment would result in utilization rates that justify the expense and the administrative burden on USPS, and questioned whether private companies would financially gain from USPS partnerships.

Planning and operations challenges. USPS officials and some stakeholders said planning and operating public charger programs would involve a range of practical challenges related to parking, staffing, safety, and security. Some stakeholders also mentioned potential operational challenges for postal employees on site.

- Parking limitations and conflicts. USPS officials said some facilities have limited parking, especially at peak times and during holiday seasons, and some facilities do not have any parking. The officials expressed concern that public charger users could crowd parking lots and otherwise interfere with USPS's ability to serve customers. In addition, they said USPS could face liability issues related to potential crashes in parking lots involving public charging equipment users. Five stakeholders stated that USPS on-site staff could have to expand their responsibilities to monitor the use of public chargers to ensure fair turnover by making sure users do not stay too long.
- Retail and management staff capacity. USPS officials said both retail and management staff may not have the capacity or skills to plan and operate public charging programs. For example, retail staff would likely have to respond to charging equipment problems while also being responsible for carrying out their normal job duties. In addition, facilities managers would need to obtain a new skillset to be able to adequately plan for, and potentially operate and maintain, charging equipment. USPS officials and one stakeholder stated that on-site staff could be called upon to troubleshoot operations and maintenance issues with charging equipment, even if a third party managed the equipment. In addition, USPS officials cited resource concerns related to personnel. They said that to implement public charging equipment broadly, USPS facilities staff would need to modify a large number of facility leases. Officials described this task as well beyond the capabilities of already-overburdened and limited staff.

- Safety and security. USPS officials cited safety concerns, such as inadequate lighting in facility parking lots, which could make customers who charge after-hours vulnerable. Officials also said that because USPS delivery vehicles need to be parked behind security fences, USPS would not consider sharing fleet-charging equipment with public users.

Postal officials we interviewed did not identify any benefits to USPS of pursuing public chargers. According to USPS officials, USPS's 2021 preliminary analysis did not address whether there were potential benefits to USPS from public charging equipment implementation. Officials also said USPS could not earn revenue from chargers, so there would be no potential financial benefits to USPS from hosting public chargers.

Stakeholders stated that there were potential societal benefits of USPS hosting chargers, such as increasing access in rural and disadvantaged areas, but held different views on whether doing so would benefit USPS. Two stakeholders said public chargers would offer little to no benefit to USPS. However, a few stakeholders identified some potential benefits to USPS if it were to host public chargers. Specifically:

Enhanced environmental reputation. Three stakeholders said hosting public chargers could demonstrate USPS's environmental commitment. Visible chargers at USPS locations could boost USPS's reputation through leading by example on reducing carbon emissions.

Increased community relevance. Two stakeholders said that as electric vehicles become more prevalent, USPS facilities that host public charging equipment could become more central and relevant to surrounding communities. One stakeholder said that hosting public charging equipment would help USPS expand its engagement with customers, such that the post office could come to be seen as a community hub. Another stakeholder said providing public charging could help ensure USPS's continuing relevance and that over time, drivers could come to trust that post offices in most towns would have charging equipment.

USPS Has Begun to Explore Workplace Charging but Has Not Included This Potential in Site Planning for Electric Fleet Vehicles

USPS has taken some initial steps to explore workplace charging.²² USPS officials said that they are considering the feasibility of sharing charging equipment intended to support fleet chargers with employees and have identified issues that would need to be addressed before USPS could launch such a program. However, USPS's ongoing effort to assess sites in preparation for the deployment of fleet-charging equipment has not incorporated the potential for employees to share this equipment or the potential installation of additional chargers for employees.

USPS designated a lead office for workplace charging and took a first step to gauge employee interest. In 2022, USPS made the Environmental Affairs and Corporate Sustainability office (sustainability office) responsible for evaluating the potential for a workplace charging program. In addition, USPS included questions on workplace charging for the first time in its 2022 annual employee commuter survey.²³ This annual survey is sent to a subset of USPS employees who use specific computer equipment as part of their work duties and collects information about how employees get to work, among other topics. This group is not representative of USPS's workforce overall. However, according to USPS officials, it is easier and less costly to survey this group than all employees. Questions covered topics such as electric vehicle ownership and interest in workplace charging.

USPS officials said they see some potential benefits in establishing a workplace charging program and view it as more feasible than hosting

²²As a benefit offered to employees, workplace charging would not be subject to the general prohibition on nonpostal services discussed earlier in this report. Additionally, charging stations for employees' privately owned vehicles are authorized under 42 U.S.C. § 6364.

²³The results of this survey are not generalizable to the entire USPS workforce. We did not independently review the survey's methodology or administration, but the questions are consistent with template questions from DOE guidance. Approximately 9,000 employees responded out of the 46,000 that received the survey. USPS officials said surveying all USPS employees is considerably more difficult because many postal workers, such as letter carriers, do not use the computer system that the survey is distributed with, among other factors.

chargers for the general public. As such, USPS officials said USPS is currently considering whether or not to make fleet-charging equipment available to employees. Officials said workplace charging could advance USPS's environmental goals—such as decreasing the greenhouse gas emissions associated with employee commutes²⁴—and provide employees with a valuable benefit. Further, officials said USPS employees could potentially share fleet-charging equipment without the safety or security risks that would accompany public use, because employees are generally allowed in the secured areas where this equipment would be located.²⁵ USPS officials added that the charging equipment they plan to acquire for the electric delivery fleet is expected to include the technical capabilities needed for different types of users, such as employees. Ten of 13 stakeholders we interviewed said workplace charging would benefit USPS employees. Of these ten, four also said USPS should plan for it concurrent with installing fleet-charging equipment, and that the availability of chargers could spur EV adoption among employees.

USPS sustainability office and Next Generation Delivery Vehicle program officials identified several issues that have a bearing on establishing a workplace charging program. First, officials said the employee survey found few respondents currently owned electric vehicles and a minority expressed interest in workplace charging in the future. USPS officials said they plan to continue to monitor interest and include workplace charging questions in future surveys.

Additionally, according to USPS officials, the agency would need to address other issues before launching a program. For example, new work rules would be needed to provide direction on when employees could use shared chargers so as not to conflict with fleet operations, whether the time it takes an employee to move a personal vehicle to and from a charger would count as work time, and whether or not to charge a fee for use. Moreover, USPS officials said that work rules may need to be negotiated with employee unions. Officials said they were in the early stages of evaluating these issues and some, such as labor negotiation activity, could be sizeable undertakings. As a result, while officials said

²⁴USPS tracks the greenhouse gas contributions of employees' commutes as part of its sustainability reporting.

²⁵USPS currently has delivery vehicles at about 8,300 facilities, but it has not yet determined which facilities will host new electric delivery vehicles.

they see workplace charging as a possibility at some point in the future, they could not predict when, or if, USPS would establish such a program.

However, USPS's ongoing planning for the electrification of its fleet has not fully considered the potential for a workplace charging program, which could result in USPS missing opportunities. Given the variation among facilities, USPS is in the process of assessing selected facilities as a first step toward installing chargers for electric delivery vehicles. As of November 2022, USPS completed over 100 site assessments, according to USPS officials. These assessments examine the capacity and layout of existing electrical service, among other considerations. Officials indicated that as they learn from these assessments, they actively make adjustments and improvements with subsequent site plans. However, because the site assessments are focused on preparing facilities for fleet charging, they do not take into consideration how sharing equipment with employees or installing additional charging equipment for employees' use in the future, could potentially change current design and installation plans. Officials said that if USPS decides to pursue a workplace charging program that it will then determine what facility modifications may be needed.

USPS's strategic plan, *Delivering for America (2021)*, and *Climate Action Plan (2021)* commit USPS to champion sustainable and environmentally focused solutions that are integrated into policies, initiatives, and actions.²⁶ Furthermore, implementing instructions for Executive Order 14057 call for agencies to have comprehensive strategies for deploying charging equipment that include planning for charging infrastructure use by employees.²⁷

DOE delineates steps agencies should take when considering workplace charging. These steps include (1) designating leadership, (2) surveying employees on their interest, and (3) anticipating future workplace charging needs and incorporating those needs into current projects.²⁸

²⁶USPS, *Delivering for America: Our Vision and Ten-Year Plan to Achieve Financial Sustainability and Service Excellence*. (Washington, D.C.: Mar. 23, 2021) and USPS, *2021 Climate Action Plan*, (Washington, D.C.: 2021).

²⁷USPS has indicated that while it is not required to follow this Executive Order, it will strive to meet the intent of this order.

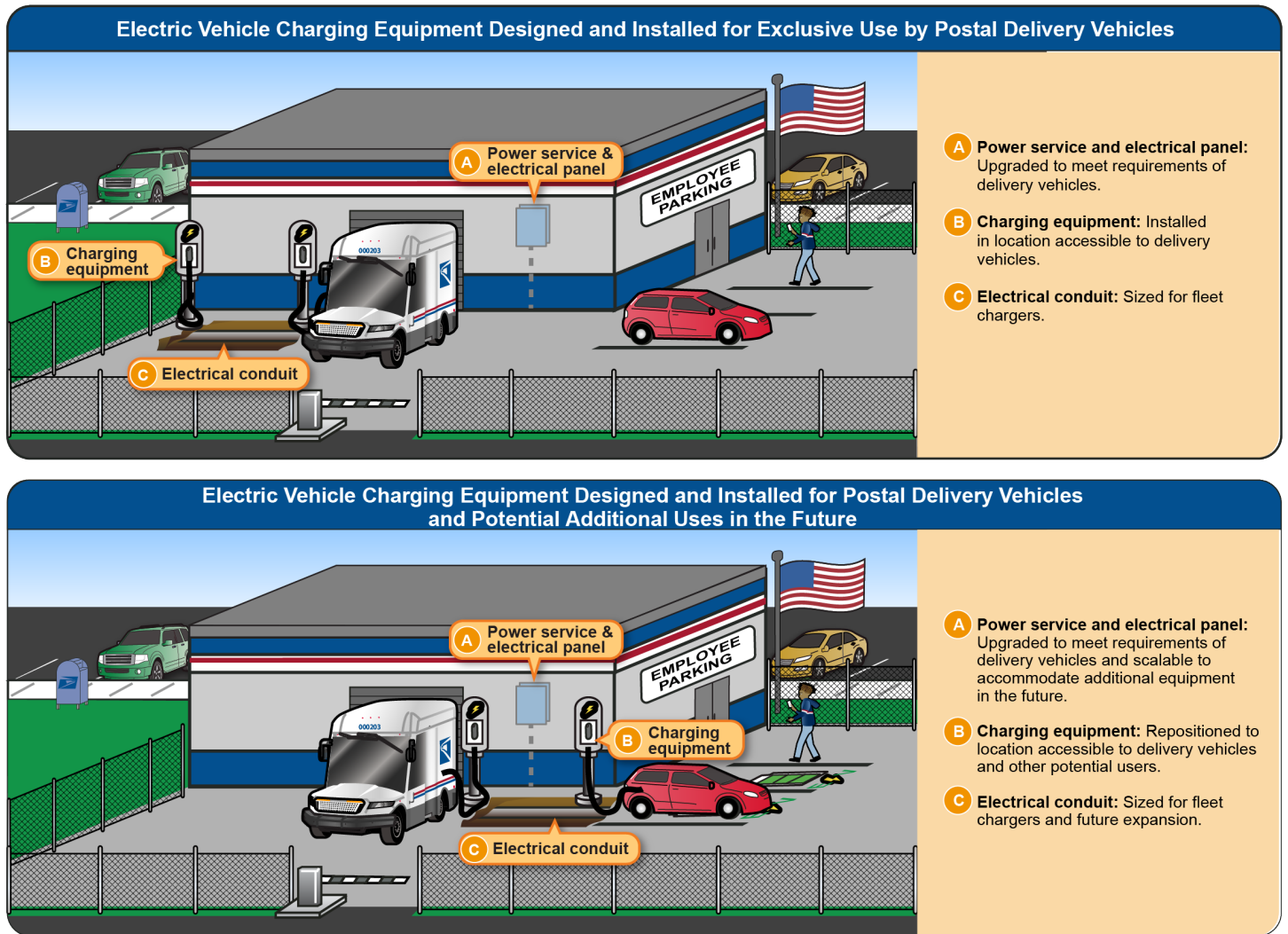
²⁸Department of Energy, *Federal Workplace Charging Program Guide*, (Washington, D.C.: November 2020) and *Implementing Workplace Charging within Federal Agencies*, (Washington, D.C.: April 2017).

While USPS has designated leadership and surveyed some employees on their interest, USPS has not incorporated the potential for future workplace charging in current assessments.

According to DOE's guidance, agencies should consider the quantity and location of charging equipment they may require over the next 10 to 40 years, to avoid the need for future upgrades.²⁹ Narrowly tailored plans, for example, may include upgrades to power service that only accommodate near-term needs and cannot be scaled up without additional costly work. A more forward-looking approach, according to guidance, integrates a range of potential users into scalable plans that would entail low-cost upgrades in the future. (See fig. 6.)

²⁹DOE (2017).

Figure 6: Examples of Site Designs for Hypothetical USPS Facilities That Focus on Near-Term Needs, and That Consider Both Near-Term and Future Needs, for Electric Vehicle Charging



Source: GAO analysis of Department of Energy information. | GAO-23-105781

According to officials, USPS has not considered future workplace charging in its site assessment plans to install charging equipment at its facilities because the agency’s focus has been on replacing its delivery fleet. This effort entails a multi-billion-dollar acquisition—the first vehicle order in March 2022 was for \$2.98 billion—and will affect postal operations for decades. Accordingly, they said that evaluation and planning related to charging equipment has focused on the needs of these vehicles. Further, USPS’s Next Generation Delivery Vehicle

program team has been working on this acquisition for multiple years and initiated work on charging infrastructure in mid-2021. As such, these efforts are considerably further along than USPS's efforts on workplace charging, as the sustainability office was tasked with examining workplace charging in 2022. However, USPS's efforts to prepare sites for charging equipment for electric delivery vehicles also present an opportunity to plan ahead in line with its environmental commitments and DOE's guidance. Site plans that include the potential for workplace charging could help USPS avoid costly facility preparation work in the future. Likewise, sound planning now could make it easier and less costly for USPS to launch a workplace charging program should it opt to do so in the future.

Conclusions

With the acquisition of electric delivery vehicles, USPS is poised to enter the electric vehicle future. USPS has also designated leadership to focus on workplace charging and assessed some employees' interest through a survey. However, as USPS begins to prepare sites and install charging equipment for its electric delivery fleet, it has an opportunity to help ensure these investments take into consideration the potential future needs of employees. USPS could consider options for sharing equipment, installing additional equipment, or some combination of both. Incorporating the potential for future workplace charging as USPS prepares sites for electric delivery vehicles will better position it to avoid costly future upgrades, potentially provide an employee benefit, and advance sustainability goals.

Recommendation for Executive Action

The Postmaster General should ensure that the leadership of the Next Generation Delivery Vehicle Program and the sustainability office incorporate the potential for workplace charging in USPS's site planning efforts to deploy fleet-charging infrastructure. (Recommendation 1)

Agency Comments and Our Evaluation

We provided a draft of this report to USPS and DOE for review and comment. In emailed comments from the Executive Director of the Next Generation Delivery Vehicle Program, USPS partially agreed with our

recommendation. Specifically, USPS said it would explore any additional initiatives after electric delivery vehicle infrastructure is more developed, provided that those initiatives might add public service value, are financially responsible, and are consistent with USPS's primary mission. However, the emailed comments further stated that USPS cannot focus on other initiatives at this time. USPS said its first responsibility is to devote its limited resources to its primary mission of delivering mail and packages in a financially self-sufficient manner. USPS indicated that it is currently focused on efforts to support that mission, including efforts to re-engineer its delivery network and delivery vehicle fleet.

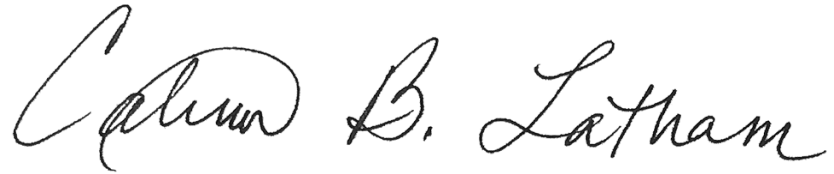
We continue to believe that USPS should incorporate the potential for workplace charging in its site planning efforts. While we are aware of USPS's mission, USPS is actively conducting site assessments of individual facilities as part of its efforts to introduce electric delivery vehicles. These assessments provide information about the facility modifications needed to support chargers, but have focused exclusively on fleet charger needs. Anticipating potential needs now can help USPS avoid costly facility modifications in the future. In addition, USPS has already taken initial steps toward workplace charging by examining the feasibility of such a program, and deciding to acquire chargers for its electric delivery fleet that are also capable of serving employee vehicles. By incorporating the potential for workplace charging into site planning efforts, USPS could plan for potential future needs in a financially responsible manner.

USPS also provided technical comments, which we incorporated as appropriate. DOE informed us that it had no comments.

We are sending copies of this report to the appropriate congressional committees, the Postmaster General, the Secretary of Energy, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this report, please contact me at (202) 512-2834 or lathamc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix II.

Letter

A handwritten signature in black ink that reads "Catina B. Latham". The signature is written in a cursive style with a large, looped initial "C".

Catina Latham, Director
Physical Infrastructure Issues

Appendix I: Objectives, Scope, and Methodology

This report (1) describes the potential users of charging equipment at USPS facilities and the extent to which USPS facility characteristics could make the facilities suitable for public charging equipment; (2) describes the potential benefits and challenges to USPS that postal officials and stakeholders identified with USPS hosting public charging equipment at its facilities; and (3) examines the extent to which USPS has considered options for workplace charging at its facilities as it moves to electrify some of its delivery fleet.

To describe the types of users who could potentially use USPS charging equipment and the USPS facility locations that could be suitable for such equipment, we identified and reviewed guides and reports relevant to publicly-accessible electric vehicle charging. First, we conducted internet searches for charging equipment implementation guides that covered topics including site selection and design, planning, permitting, funding, and installation. We identified 10 of these guides for further review, based on our assessment of their relevance to our objective. The guides we reviewed were published by a variety of entities. These included a clean energy regional coalition, a non-profit policy research organization, a state business and economic development office, a state regional council, a private charging equipment company, and three federal agencies—the Department of Energy (DOE), the Department of Transportation, and the General Services Administration.

Second, we conducted a literature search and selected publications that could provide a baseline description of the scope of potential opportunities that different types of USPS facilities could provide for different types of public charging equipment users. We identified 26 reports published by a variety of entities, including a foundation, non-profits, an academic institution, an electric utility, and the U.S. government by searching the internet, searching library databases, and reviewing the bibliographies of reports we identified. We judgmentally selected eight reports for review based on our assessment of their relevance to our objectives. We reviewed these reports and identified common themes related to (1) the attributes and needs of electric vehicle drivers who charge, or could potentially charge, their vehicles using public

charging equipment and (2) the relevant characteristics of facilities that could host appealing public charging stations. While we focused our search on literature published between 2020 and 2022, we also considered and selected some older literature dating back as far as 2015.

Additionally, we also conducted 13 interviews with selected stakeholders. These stakeholders were comprised of officials from entities and organizations we selected based on, among other factors, their familiarity with USPS facilities and operations, their familiarity with characteristics of desirable public electric vehicle charging sites and the potential users of those sites, their expertise in electric vehicle charging issues, or on the recommendation of others we interviewed. The 13 entities and organizations we selected for stakeholder interviews included: postal stakeholders representing either USPS employees or companies that lease property to USPS; transportation and energy associations; private electric vehicle charging equipment companies; non-profit trade and advocacy associations; and three federal agencies—DOE, the Department of Transportation, and the General Services Administration. We conducted content analysis of the information obtained through the stakeholder interviews to identify key themes. To ensure the accuracy of the content analysis, two GAO analysts independently verified the interviews provided support for key themes. The results from our analysis are not generalizable, but do illustrate the types of users who could potentially be served, USPS facility locations that could be suitable for such equipment, and aspects of successful workplace charging.

To describe the potential suitability of USPS facilities for public chargers, we analyzed data from USPS and other federal agencies to determine the number of facilities in locations that could make them suitable sites for public charging equipment. Specifically, we conducted geographic information system (GIS) analysis of USPS location information from USPS's Facilities Database (FDB) and geographic information from other federal agencies relevant to advancing various federal goals for public chargers. Data from other federal agencies were: (1) Department of Transportation information on the locations of alternative fuel corridors, which are roadways designated for potential federal investment in charging equipment; (2) DOE information on the locations of existing and planned charging equipment;¹ (3) Department of Agriculture data on

¹Because these DOE data are continually changing, as new charging equipment is deployed and planned, we used data from summer 2022 to establish a fixed point in time for our analysis.

urban-rural classification;² and (4) Centers for Disease Control and Prevention data on social vulnerability.³

For the purposes of our GIS analysis, we found each of these five data sources to be sufficiently reliable for the purposes of producing basic counts of facilities in locations with certain attributes. We assessed the reliability of these data by reviewing relevant documentation, conducting electronic testing, interviewing knowledgeable agency officials, and considering the results of prior reliability assessments. Electronic testing looked for discrepancies, such as missing data or nonsensical values, in these data sources. The FDB includes a wide range of data on the physical characteristics of facilities (e.g., parking); their operations (e.g., hours); and management (e.g., owned versus leased). While we determined FDB location data were sufficiently reliable for the purposes of our GIS location analysis, we excluded parking data from our analysis because USPS officials indicated these data were not consistently accurate. Further, we did not describe other characteristics that are relevant to assessing the suitability of facilities because FDB does not include information on these characteristics (e.g., utility data) and because USPS officials indicated that individual facilities differ so widely that meaningful descriptions were not possible.

To describe the potential benefits and challenges to USPS of hosting public chargers, we interviewed USPS officials with responsibilities for the delivery fleet, sustainability initiatives, and other aspects of USPS operations. We also interviewed USPS officials about challenges they identified in a 2021 USPS preliminary analysis of the possibility of deploying public chargers and the potential costs of doing so; USPS conducted this analysis at congressional request. Additionally, we discussed challenges and benefits with the 13 stakeholders we selected for interviews, as described above. Based on this information, we identified common themes and categorized potential challenges and benefits into broad categories. Our summaries do not comprehensively

²We relied on the Department of Agriculture's rural-urban classifications (2019 update). These codes classify U.S. census tracts using measures of population density, urbanization, and daily commuting and are based on the Office of Management and Budget and the United States Census's urbanized area definitions for the 2010 Census.

³The social vulnerability classification system measures the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood. It provides a method to evaluate social disadvantage.

examine every aspect of a challenge or benefit but do provide a general description of each.

To examine the extent to which USPS has considered options for workplace charging at its facilities, we reviewed USPS planning documents and interviewed USPS officials and the selected stakeholders described above. We compared USPS actions with USPS strategic documents and other federal criteria on deploying electric vehicle charging equipment at federal facilities. Criteria included USPS's strategic plan, *Delivering for America (2021)*, and its *Climate Action Plan (2021)*, which commit USPS to champion sustainable and environmentally focused solutions that are integrated into policies, initiatives, and actions.⁴ Likewise, we compared USPS actions with other federal criteria. For example, DOE has issued a range of guidance related to planning and installing electric vehicle chargers, including guides specifically for federal agencies.⁵

We conducted this performance audit from February 2022 to April 2023 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

⁴USPS, *Delivering for America: Our Vision and Ten-Year Plan to Achieve Financial Sustainability and Service Excellence*. (Washington, D.C.: Mar. 23, 2021) and USPS, *2021 Climate Action Plan*, (Washington, D.C.: 2021).

⁵DOE, *Federal Workplace Charging Program Guide*, (Washington, D.C.: November 2020) and DOE, *Implementing Workplace Charging within Federal Agencies*, (Washington, D.C.: April 2017).

Appendix II: GAO Contact and Staff Acknowledgments

GAO Contact

Catina Latham, (202) 512-2834 or lathamc@gao.gov

Staff Acknowledgments

In addition to the individual named above, the following staff made key contributions to this report: John W. Shumann (Assistant Director); John W. Stambaugh (Analyst in Charge); and Gary Guggolz. Also contributing to this report were Saar Dagani, Elizabeth Dretsch, Charlotte Hinkle, Shirley Hwang, John Mingus, Dan Luo, Daniel Patterson, Malika Rice, Michael Soressi, Karla Springer, Laurel Voloder, and Alicia Wilson.

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