

EV Readiness Toolkit for Workplace Charging

Resources for organizations that want to provide EV charging stations for their employees.



MADERA CTC Madera County Transportation Commission



Charging Station Lingo

EVSE — Electric Vehicle Service Equipment; the charging station and all its components

Level 1 — A wall plug and the cord that comes with the car, or a portable charging station that plugs into a wall outlet. Level 1 gives 4-6 miles of range per hour of charging.

Level 2 — A charging station mounted on the wall or on a pedistal and connected to the electrical supply. Level 2 gives 12-24 miles of range per hour of charging.

DCFC — Direct Current Fast Charger is a charging station mounted on a pedistal and a high-voltage power supply. DCFC can fully charge an empty battery in an hour or less.

Smart Charging – An EVSE that is connected to a network and can communicate

Dwell Time — The length of time a car sits still before moving to a different destination

Ports — The number of handles or connectors on a charging station

Infrastructure — Includes all the equipment needed to bring electricity from the utility to the building's electrical panel and then to the charging station.

Survey Questions

Consider creating an online survey and posting a QR code with a link to the survey or emailing it to your employees.

If you drive to work, what's your typical commute distance (one-way) to work?

- Less than 10 miles
- □ 10-25 miles
- **2**6-50 miles
- □ More than 50 miles

During the workday, what is your usual travel pattern?

- □ I stay at the work site until the end of the day
- □ I leave the work site at least once a day at least two days a week
- □ I leave the work site more than once a day at least two days a week
- □ I regularly leave the work site throughout the day
- Other: _____

Do you own a plug-in hybrid electric vehicle (PHEV) or battery-electric vehicle (EV)?

- No
- Yes What model? ______

If you answered no, would you consider buying or leasing a PHEV or EV? If so, when?

- **D** This year
- Next year
- Within two years
- Longer than two years
- □ Not considering a PHEV or EV

Do you have or could you install a charging station at home?

□ No □ Yes □ Not sure

Would you consider the ability to charge an EV at work a perk?

□ No □ Yes □ Not sure

If workplace charging were an option, would you be willing to pay to use the charging station? No Yes Not sure



Policies

Written policies ensure that everyone has the same understanding about responsibilities and communication. These can be as simple as a one-page agreement that all EV drivers sign or included into a company manual. You might not need all these policies.

- Clarify users' responsibility for safety, like making sure the cord isn't a tripping hazard and replacing the connector when done charging.
- State how drivers report a station that is damaged or not working and who resolves the issue.
- Decide if you will require driver's to register to be able to use the workplace charging stations. If so, how drivers will register and with whom. Will you issue permits or placards to authorized vehicles?
- Determine the times of day that charging stations are available to employees, which might be:
 - Always
 - Only during business hours
 - Between 8:00am and 8:00pm
 - Not during peak hours of 4:00pm to 9:00pm
- Set clear rules for sharing charging stations and decide how to make sure everyone knows the rules. Policies might include:
 - Time limits for charging station use, like four hours per day per employee
 - Giving priority to battery EVs over plug-in hybrid EV
 - Requiring that EVs be actively charging when parked at a charging station, then moved
 - Stating if employees are permitted to unplug each other's cars
- Create a grievance process: how do charging station users file a complaint? Who is the arbitrator of disputes? What are the consequences for drivers who abuse the policies?
- If charging is free, is it part of a benefits package? Do you have similar benefits for employees who carpool, take transit, bike, or walk?
- If your charging station will also be available to customers, visitors, or the public, consider how you'll communicate your rules to them.



What you need to know about ADA

In parking lots with shared parking (spaces are not assigned to a person or a unit), one charging port must be adjacent to a van-accessible ADA parking spot. The images below show two options that are ADA compliant. Your project designer will make sure your charging stations meet the requirements, which include an accessible route from the charging station to the building.





In this configuration, the charging stations are on the sidewalk. The sidewalk must be at least 48 inches of unimpeded space.

The EV charging cord needs to be long enough that a person in a mobility device could carry the cord when using the ramp.



Charging Station Planning Checklist

Your project designer will help you identify a location that is close to the electrical supply and meets all state and local design requirements. This checklist helps be prepared to help the designer with the charging station placement.

- □ If you are a property manager, do you have permission from the property owner?
- If you have a third-party operator or concessionaire, have you talked about requirements for insurance and limits on liability?
- Do city codes affect the placement of the charging station?
- Do you have different areas for customer and staff parking? Are any parking spaces assigned to a person or "employees only?"
- How will a driver walk from an EV parking space to your establishment?
- Does your electric panel have space to add a breaker? (If all the spaces are filled, an electrician can add a second panel.)
- □ Are the parking spaces somewhat close to the panel or an electrical supply?
- □ To run the electric wires from the panel to the charging station, will the electrician need to tunnel through concrete, walls, or grassy areas?
- □ Will at least one charging port be adjacent to an ADA parking space?
- If charging stations are on a pedestal, is the driving lane wide enough for maneuvering? Can maintenance vehicles navigate around the charging stations and EVs?
- D When a car is charging, will the cord extend over a walkway and create a tripping hazard?
- Are the parking spaces in the line of sight of a building, the street, or a parking lot attendant?
- Are the parking spaces level and well-drained, or will drivers stand in a puddle after a storm?
- □ Would the screen of the charging station be in the direct path of the afternoon sun?

Ready to power up your property? <u>Click here to start.</u>

