

Electric Vehicle Charging Station

Electric Vehicles (EVs) are becoming an increasingly popular choice for consumers who want sustainable and affordable transportation. An EV is any vehicle that is partially or entirely powered by electricity and plugs in to recharge. Most EV owners are able to charge their vehicles at home during overnight hours, but charging opportunities away from home are needed to allow longer trips and increase the confidence of potential car buyers considering EV purchases.

At over 100 locations across the state of South Carolina, there are Electric Vehicle Charging Stations (EVCS) in commercial or municipality parking locations. Most are found in public parking garages. Dominion Energy South Carolina supports businesses interested in installing EV charging stations at their locations for visitors, customers, tenants and employees.

Many other businesses, commercial properties and municipalities are now considering installing electric vehicle charging stations (EVCS) in their parking lots and public garages. Here are a few reasons why.

Benefits of Installing EVCS

- Provides a valuable amenity to tenants, visitors, employees and customers
- Attracts new customers who drive EVs and drive repeat traffic
- Demonstrates your company's commitment to environmental leadership and innovation and contribute to your corporate sustainability goals, including LEED® certification
- Qualifies for possible state and federal incentives and tax credits. Check with your tax advisor regarding taking advantage of available credits for your investment
- Reduces local air pollution and meet corporate greenhouse gas reduction goals
- Drives on a fuel sourced in the United States
- Allows corporate fleet charging at your facility



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Types of EV Chargers for Businesses

- **A Level 1 charging station** uses a standard AC 120 Volt household outlet and is the least expensive. Charging times vary greatly from vehicle to vehicle, but generally take around 10-20 hours for a fully depleted battery to be at full capacity. If you are an owner of a hotel, bed & breakfast, condo facility, or airport parking lot, where cars are commonly parked for 10 to 12 hours (and sometimes for days), this will work perfectly for you.
- **A Level 2 charging station** – an AC 240 volt station supplied with at least 30 amps – is a good choice for malls, tourist destinations, and most bars and restaurants, where patrons might spend a couple hours or more. These locations are well suited to Level 2 charging, which usually can add 20 to 25 miles of range in an hour.
- **A Level 3 charging station** – also called Direct Current Quick Charger (DCQC) – is the fastest and most powerful type of charging available. Owners of grocery and convenient stores along major highways, where motorists only pop in for a pit stop, are good candidates for DC charging that can add 50-75 miles of range in 20 to 30 minutes. DCQCs capable of supplying 50-135 kilowatts of electricity are the most expensive of the three kinds of charging stations.

Other Considerations

Single port vs. Multi-Port

Installing a multi-port station, or multiple stations at once, reduces the cost per charger but demand must exist to justify the extra capacity. Cost is reduced mainly because a single trench/bore, conduit, and wire can be used to service the adjacent stations. There are other efficiencies in mobilization, repetition, permitting, etc.

Fees and Access to Customers

You may choose to limit access to employees and customers or open to the general public. Public charging stations may utilize usage fees to recover costs. More than half of today's public charging stations are free — for good reason. "Free" can be a magic word for attracting customers.



Purchasing and Installation

Your organization can choose from a number of electric vehicle supply equipment manufacturers. When it is time to install your EVCS, you should contact a certified licensed electrician of your choosing to do the work. As your energy provider, we are happy to connect you to the energy source you need for your charging station.

Additional Resources: (useful links)

Explore your options as a host and learn more about types of plug-in vehicles and charging technologies by visiting the following websites:

<http://www.afdc.energy.gov/pdfs/51227.pdf>

<http://www.plugincars.com/ev-charging-guide-for-businesses.html>

For more information, please contact Paul Hampton at paul.hampton@dominionenergy.com or call 803-217-4672.