

# Fast Charging Considerations for Site Hosts

As more electric vehicles hit the road, many businesses are considering installing electric vehicle charging stations.

Electric vehicle charging comes in three levels: Level 1, Level 2 and direct current fast charge (“DC fast charge”). Level 1 and Level 2 stations (common in homes and workplaces) supply AC power that has to be converted to DC before reaching the battery, whereas DC fast chargers supply current directly to an electric vehicle’s battery. The design of DC fast chargers allows them to charge a vehicle much faster than Level 1 and Level 2 stations, providing about 60-80 miles of range in 20 minutes.

DC fast chargers are particularly beneficial for drivers looking for a quick charge while on a longer trip, but how do you decide if installing one is right for you?

## DC Fast Charging

### Considerations



- Are you focused on convenience or having your customers visit for longer periods?
  - » Think road trips: Convenience (gas) stations and large retail stores can be good options for DC fast charging because customers will be lured by the “in and out” options.
  - » If you want to attract customers who would be willing to spend more time at your place of business, Level 2 might be a better option. Common locations for Level 2 stations include grocery stores, restaurants, movie theaters, parks, multifamily housing and workplaces.
  - » If customers spend long time periods at your location, such as a parking garage, Level 1 may be the best option.
- Are there gaps in charging options that you can fill?
  - » Use apps like PlugShare to see if you’re filling a need by offering DC fast charging.
- Are you along heavily trafficked corridors?
  - » DC fast charging in these locations can be a great way to support long-distance travel.




### Benefits of Installing



- Attracts electric vehicle owners to your business or community
- Offers a convenient way to charge that extends driving range
- Eases interstate and intrastate travel for electric vehicle drivers
- Encourages electric vehicle adoption by increasing visibility of cars and charging
- Provides a valuable amenity to attract new customers
- Shows an example of meeting customers’ requests and future needs
- Promotes sustainability efforts and social responsibility
- Supports emerging technologies and showcases innovation at your business

# Types of Connectors

There are a few types of DC fast charging standards and plugs, and vehicles can often accept only one kind of connector.

<b>Standard</b>	CHAdeMO	CCS	Supercharger
<b>Vehicle Examples</b>	Nissan	Chevrolet, Hyundai, Jaguar	Tesla
<b>Typical Power Range</b>	22-150 kW		
<b>Plug Type</b>			

## Equipment and Installation

The overall cost to purchase and install a charging station can vary significantly based on a number of factors, including the specific charging station model and any required site work, electrical upgrades, hardware and software. Installation costs typically range from \$30,000 to \$75,000.

## Charging to Charge

Charging stations can require payment. Payment options are at the discretion of the operators who install or maintain the stations and are subject to applicable state regulations.

## Demand Charges

Demand charges are a pricing component often found on utility bills to cover the cost of equipment needed to serve a specific customer. They are typically set by the highest single use of electric demand during a particular period. Whether 2 or 50 electric vehicles use a DC fast charge station in a given month, the demand charge will likely be the same. Therefore, charging stations with higher utilization (more charging per day) can have a lower total cost to operate.