

# Electric Vehicle (EV) Charging 101

## Charging Levels

### Level 1



**120 Volt Outlet**  
(household outlet)

- Plug into a 120-volt grounded outlet
- Adds roughly 4 miles of range per hour
- Best for topping off a car's charge at home
- Great for overnight charging

### Level 2



**208/240 Volt Outlet**  
(standard dryer outlet)

- Plug into a 240V outlet
- Adds from 15 – 30 miles per hour of charge
- Ideal for charging at home, work, or on the road

### DC Fast Charging (Level 3)



**CCS/SAE**  
American/European cars



**NACS** North American Charging Standard. Moving to J3400 in 2025

- Public Charging
- Can fully charge within 20 minutes to 1 hour
- Can add 240 miles per charging hour
- Tesla has a fast charging network specific to its car with a different plug shape

### Level 1/Level 2 Compatible Plugs



**SAE J1772**



**NACS** North American Charging Standard. Moving to J3400 in 2025



## Quick Facts



There are over 70,000 public charging stations & 192,000 public charging ports in the U.S.



Chargers range from simple plug-and-go to smart chargers that can be programmed to start and stop when you choose



The average commute for Americans is 35 miles per day

## Home Charging

In most cases, home charging is cheaper than public charging. You can choose whether to plug in directly to an outlet (Level 1) or install a Level 2 charging station at your home.

Typically, home charging stations cost between \$300 - \$1,000 plus the cost of an electrician to install it. Check with your utility or a local energy conservation organization for recommendations on contractors and electricians who can install your station.

## Charging Networks

When charging at a public station, you'll likely use a charger that's serviced by a network. Many have membership programs or subscriptions (you can download the app on your phone) and you can also pay as you go.

Rates vary by network - some charge by session, per kWh, by the hour and some are free.

Membership with these networks usually includes a member discount or if you're not a member you can call the 24-hour customer service line to pay on the spot.

Blink Charging, ChargePoint, Electrify America, Tesla, and EVgo are the most common network providers in the U.S.

## Finding Public Stations

Resources and apps like PlugShare, Chargeway, or the Alternative Fuels Data Center give real-time information on charging station locations, pricing, nearby amenities, and availability. Google Maps also now shows charging station locations.

Charging stations can be anywhere - at grocery stores and shopping centers, rest stops on the highway, and even at your workplace. You can run errands and grab a meal while you're charging up, plus some charging stations can communicate with your car and phone so you control when charging occurs.