



What type of home charger do I need?

There are two ways to charge your vehicle at home.

Level 1 home charging. Plug into a regular household 110v outlet : This is the slowest way to charge your vehicle, but for many EV drivers that do not drive many miles a day, or for those driving a Plug In Hybrid electric vehicle, this may be all you need for a sufficient charge each day. Most EVs come equipped with a portable charging cord that can be plugged directly into a regular 110/120v household outlet. With this method, the average charge for a small EV is about 5 to 7 miles of range per hour of charging, and it can take 8-24 hours to fully charge an EV battery depending on battery capacity and how depleted it is. Note: Level 1 chargers and installation is not incentivized through the Charge@Home program

Level 2 home charging. Install an EV Charger and 240 volt circuit (if needed) or use an appropriate charging cord with 240v outlet: This is a faster way to charge your car at home, and usually requires an electrical outlet to be installed near your parking spot. This can be installed at your home near to where you park your car. With this option you can charge a car between two to five times faster than with a Level 1 charger. You can get up to 30 miles or more in an hour of charging depending on the unit's power output level.

Selecting a level 2 home charging unit

SMUD's Charge@Home program provides incentives for you to install a Level 2 charger at home. Depending on your EV and driving needs, your charger needs can differ. At any time during your research, feel free to reach out to [SMUD's EV Support Program](#) for One-on-One support to help answer any questions, including those below. Also, it's a good idea to consult a licensed electrician to help determine any costs and work needed to accommodate an EV charger.

Here are a few questions you should consider to help you determine which charging set up will be right for you:

1. What are your charging needs?
 - Is a Level 1 charger sufficient for your charging needs, or do you need the faster charging of a Level 2 charger?
2. How much charging power can your EV receive (it's different among different EV models), and what charger best meets your need?

3. Do you need a new EV circuit installed at home, or is there one with a sufficient amperage rating for your EV charger of choice already available near where you park your EV?
4. Do you have enough capacity on your Electric panel to install up to a 40Amp EV circuit?
 - If you are unsure, we strongly recommend consulting a licensed electrician to help you determine this.

What to consider when installing a home charging unit

1. Choose the correct EV charging unit for you home and vehicle needs. See [Charge@Home Qualified Product](#) list for a list of incentive eligible chargers.
2. Choose an Electrician or Contractor. If you need to install an EVSE charging unit or EV circuit.
3. Get the appropriate permits from your local jurisdiction, usually a local City or the County Building Department. Your Electrician or Contractor should help you with this.

Note on TESLA Wall Connectors: While the Tesla brand Wall Connector does not currently meet SMUD specifications, Tesla vehicles can use a connector adapter with any of the EV charger models in our [Charge@Home Qualified Product](#) list.

Have more questions? Talk to us!

If you have more questions or need one on one support. Please access [SMUD's EV Support Program](#) on the web or by emailing support@pluginamerica.org or call 1-877-EV-HELP-1 (1-877-384-3571).

What about public charging?

DC Fast Charging or Tesla Supercharging stations, sometimes called level 3 Public Charging, are very high-powered EV chargers that can add as much as 200 miles of range per hour of charging in the case of Tesla Superchargers. Non-Tesla chargers can add much as 160 miles of range per hour of charging. They are great for drivers on longer trips, they are most commonly located in public spaces around town at grocery stores and malls, or along transportation corridors. Keep in mind that you usually have to pay to use them.

For a list and map of DC Fast Chargers everywhere see PlugShare.com, or download one of several smartphone apps such as the PlugShare, Chargeway, Chargepoint, Greenlots, apps.

*Note: Most EVs have the correct port to allow for Level 3/DC Fast Charging, but some do not. If you think you will need this type of charging, make sure the electric car you are considering offers that option. All Teslas have the correct port for Supercharging.