



# ENERGY STAR® Certified Electric Vehicle Chargers



**With the steady increase of electric vehicles on the roads in the United States, preparing for an electric transportation future is just smart.** As part of your ENERGY STAR Home Upgrade, make sure your home is wired and ready for an ENERGY STAR certified EV charger to power your new ride.

## Why should I make my home EV ready?

The future of transportation is electric, so even if you don't plan on getting an EV right away, there are things you can do now to make your home electric vehicle ready. Installing the necessary wiring at your house will help you prepare for this change to a cleaner, cheaper transportation fuel. People who drive EVs are finding it's convenient to have access to EV charging at home. With charging available at home, you won't have to rely on public charging. When you charge your vehicle overnight, you can have a full battery every morning, simply plugging in when you get home at the end of your day.

### Did you know?

**An ENERGY STAR certified charger is about 40% more efficient than a standard model.**

## EV Charger Pre-wiring Guidance

Getting ahead of the game by installing the necessary wiring will make the eventual EV charger installation quicker and easier. Unless you have immediate plans to purchase an EV, waiting to buy the actual charger will give you flexibility to buy the latest model when you get your car and the ability to take it with you if you move. There are four basic steps in getting your house ready for EV charging:

1. Determine the type of charger that will be needed (Level 1 or Level 2).
2. Find the right location for the charger (garage, driveway, side of house, curbside on public road).
3. Check your homes electrical capacity.
4. Schedule installation work.

Learn more about each of these steps at [www.energystar.gov/products/energy\\_star\\_home\\_upgrade/electric\\_vehicle\\_ready](http://www.energystar.gov/products/energy_star_home_upgrade/electric_vehicle_ready).

### Ready to find the right EV Charger for your home?

**The ENERGY STAR Product Finder can help!**

Visit [energystar.gov/productfinder/product/certified-evse/results](http://energystar.gov/productfinder/product/certified-evse/results).

## EV Purchase Incentives

There are both federal and state incentives for the purchase of EVs in many areas, offering combined savings of over \$10,000 off the purchase price. Learn more at [www.energystar.gov/products/other/ev\\_chargers/electric-vehicles-and-hybrids](http://www.energystar.gov/products/other/ev_chargers/electric-vehicles-and-hybrids).

ENERGY STAR® is the simple choice for energy efficiency. For more than 25 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment. Learn more at [energystar.gov/products/other/ev\\_chargers](http://energystar.gov/products/other/ev_chargers).



## EV Charger Incentives

Federal incentives for 30% of the installed cost—up to \$1,000—are available for home EV charger and wiring installation. Learn more at the Alternative Fuels Data Center at [afdc.energy.gov/laws/10513](https://afdc.energy.gov/laws/10513).

Additionally, there are utility incentives available in some areas. Check with your local utility for details. Visit the ENERGY STAR Rebate Finder for a list of utility companies that offer incentives for the purchase and installation of ENERGY STAR certified electric vehicle chargers: [www.energystar.gov/rebatefinder](https://www.energystar.gov/rebatefinder).

## Choosing the Right EV Charger

To determine what type of charger you will need, consider the following factors: **1)** How many miles do you drive every day?, **2)** Do you have a fully electric car, or is it a plug-in hybrid (gas and electric)?

### Level 1 (120 volt) Charger

If you have a hybrid car that only goes roughly 15-30 miles on pure electricity, you will not need to upgrade your home electrical system at all. These cars can be served by a standard 120V outlet and a charging cord (provided with the car) that plugs directly into a standard electrical outlet wiring.

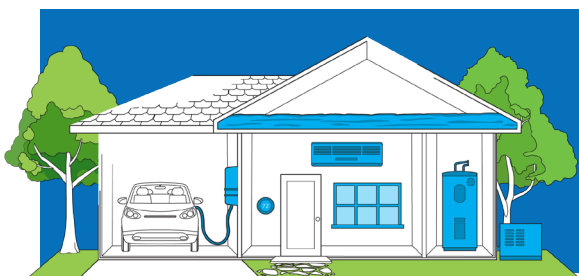
### 240 Volt Chargers

Fully electric cars have large batteries and ranges of 100-400 miles and require a more powerful 240V charger. They provide much faster charging and will allow for daily use of your EV, without worrying about running out of charge.

| Choosing the Right EV Charger  |   |
|--|---|
| EV Charger Type  | Average Charging Rate<br>(per hour of charging)   |
| <b>Level 1</b> Plugs into standard outlet (120 volt)   | <b>2 to 5 miles</b> of range (depending on environment conditions and battery charge %) |
| <b>Level 2</b> Requires heavy duty electrical circuit and plug (like an electric dryer) (240 volt) | <b>10 to 30 miles</b> of range  |

ENERGY STAR certified EV chargers save energy over time, are fully safety certified and use open communication standards.

- **Energy Savings:** EV chargers are typically in standby mode (i.e., not actively charging a vehicle) for about 85% of the time. ENERGY STAR certified EV chargers provide the same functionality as non-certified products but use 40% less energy in standby mode, reducing their impact on the environment.
- **Safety:** Not all EV chargers that are for sale are safety certified. Ensure your charger meets safety standards by choosing one that has earned the ENERGY STAR label. All ENERGY STAR certified chargers are tested for safety by a nationally recognized testing laboratory.
- **Smart Technology:** Some ENERGY STAR certified EV charger models are connected or “networked,” allowing for remote power monitoring and control of the charging state of the connected vehicle. These smart grid ready products may qualify households and property managers to participate in special energy bill savings programs that may be offered by some local electric utilities.



## INTRODUCING ENERGY STAR HOME UPGRADE

Making your home electric-ready is one of six high-impact, energy efficiency improvements for your home that are designed to work together to deliver significant energy and cost savings. Count on ENERGY STAR to help you transition from fossil fuels to a cleaner, healthier, and more comfortable home.