




# ELECTRIC VEHICLE HOME CHARGING 101

## TYPES OF CHARGING

LEVEL 1	LEVEL 2	LEVEL 3
		
5 miles of range per charge hour*	~25 miles of ranger per charge hour*	Up to 80 miles of range per 20 minutes of charge*
Simple and convenient option for vehicles with a smaller battery (i.e. PHEVs) or shorter commutes.	Faster charging for added convenience and flexibility in daily driving.	Not available for home charging.
Use existing 120V outlets and the stock charger that comes with the EV for overnight charging.	Great for longer commutes or recharging mid-day.	

## TELL ME MORE ABOUT LEVEL 2 CHARGING

There are two kinds of Level 2 chargers - smart chargers and non-networked chargers.

### SMART CHARGERS

Smart chargers allow users to start and stop charging remotely and track energy usage and battery status. They also integrate with smart home technology.

### NON-NETWORKED CHARGERS

Non-networked chargers cannot be managed remotely but ultimately offer a simple and budget-friendly option. Many vehicles come with stock Level 2 chargers - similar to standard Level 1 chargers that all vehicles come with.

## WHAT DO I NEED TO GET A LEVEL 2 CHARGER?

### 240V OUTLET

Level 2 charging requires 240V of current. You may need to work with an electrician to add a new line or extend an existing one. A NEMA outlet makes for easy station installation and allows you to take your charger with you if you move! *This is a great option for renters who want to be able to take their charger with them at the end of a lease.*

### ELECTRICIAN

Installing a charging station is as simple as moving a dryer. Many certified electricians can easily provide this service. You can work with a local contractor or find a skilled installer through an online directory like Angie's List. Your electrician can ensure you have the proper current, amperage, and type of NEMA outlet to support Level 2 charging.

### COST OF INSTALLATION

Charging hardware can range in price from \$300 to \$800. Establishing the needed 240V lines and installing the chargers will vary on a case by case basis. Like any other home improvement project, consider bidding the project out and getting multiple estimates.

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## WHAT DO I NEED TO GET A LEVEL 2 CHARGER?

### RETAILERS

Electric vehicle chargers are sold at most major home improvement stores, but they can also be purchased through online retailers, directly from EVSE manufacturers, or from certified resellers.

#### SMART CHARGERS



#### NON-NETWORKED CHARGERS



## COST OF CHARGING

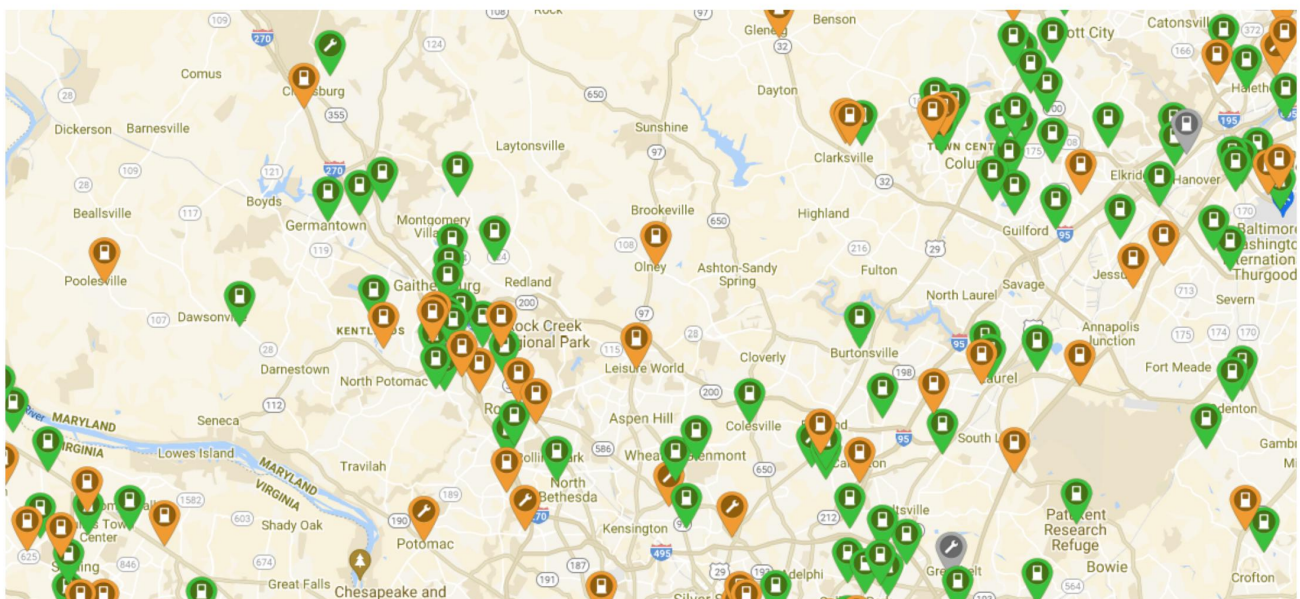
Did you know that one gasoline gallon equivalent of electricity in Maryland only costs \$1.16? Use this calculator to predict the impact of home charging on your electric bill based on your personal vehicle use:

[www.afdc.energy.gov/calc](http://www.afdc.energy.gov/calc)

## FINDING PUBLIC CHARGING



Whether you park in a garage or on the street, charge at home all the time or never, own your home or rent an apartment, there are charging options for you. You can download the free PlugShare app to always find the nearest charging station.



#### Sources

1. [afdc.energy.gov/fuels/electricity\\_infrastructure.html](http://afdc.energy.gov/fuels/electricity_infrastructure.html); 2. [energy.gov/maps/egallon](http://energy.gov/maps/egallon); 3. [afdc.energy.gov/calc](http://afdc.energy.gov/calc); 4. [plugshare.com](http://plugshare.com)