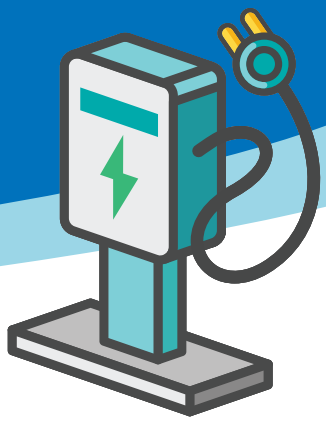
Power MI Drive | Consumers Energy Count on Us®



Charge Up at Home

By now you know that charging your car at home is easy, convenient, and cheap. In fact, it's so much better that the only thing you'll miss about gas station trips are the windshield squeegees and the snacks. Assuming you don't rely on public charging and are looking to learn more about charging at home, this article is for you.

Charging Options

How long your car will take to charge depends on the battery's capacity, state of charge (i.e. how full the battery is already), your vehicle's onboard charger power throughput, and the power rating of your Electric Vehicle Service Equipment or EVSE. EV advocate group Plug In America gives an overview of charging levels in their EV Charging 101 document. Let's see what it means for you:

Most EV charging happens at home

Level 1 charging cable included with a Nissan LEAF

Level 1 Charging

The day you bring your new EV home, you can plug the cord it probably came with into a standard 120V wall outlet, and the North American standard J-1772 plug into your EV to get 40 miles of range overnight. That might be all you'll ever need so no additional charging equipment is necessary. That cable will also be handy when you visit friends or family who don't have Level 2 charging or public charging nearby.

Typical Garage 240V 50A Outlet

Level 2 Charging

If you need more range than 40 miles per day, adding a higher power circuit and an EVSE capable of delivering that power can boost the charging rate to allow adding several hundred miles of range overnight. If you have an electric dryer circuit, an EV charging circuit is nothing more exotic than that. Combined with an EVSE like ones eligible for PowerMIDrive rebates, you'll be able to add about 25 miles of range per hour of charging or 300 miles overnight.

Depending on the capacity and location of your breaker box, you will likely need to add a breaker, wiring to your charging location, and a receptacle where you plan to mount the EVSE. A licensed electrician can give you an estimate for your particular situation.

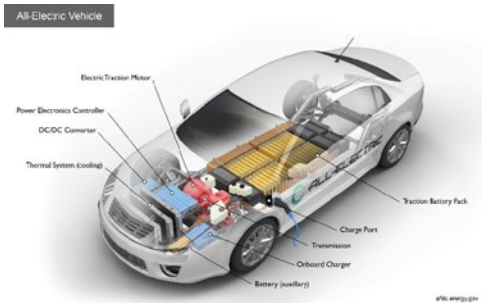
The Consumers Energy PowerMIDrive program offers a $500 rebate on several popular Wi-Fi connected home chargers. The details and a list of approved EVSEs can be found on our PowerMIDrive Home Charger Rebates web page.

EV Basics for Beginners

Whether you are thinking of getting a plug-in vehicle or you have just made the leap into electrified transportation, one of the logical first questions is, “how do I charge my car?”

How it Works

If you have access to an outlet where you park your car, you’re all set. Your plug-in vehicle will probably come with a charging cable that plugs into a standard 120V home receptacle. That charging cable is officially considered to be Electric Vehicle Service Equipment or EVSE. The “charger” is actually on board the car. The typical EVSE has safety and communication circuits to ensure the receptacle is properly grounded and will only deliver electricity to charge your car when it’s safe to do so and the battery isn’t full.



Key Components of an All-Electric Car
Image Source: afdc.energy.gov

Charging Rebates

Since most people charge at home, PowerMIDrive offers EV drivers $500 in rebates for installing electric vehicle chargers at their home. It also comes with electric rates that encourage EV drivers to charge their vehicle to get the most savings on their electric bill. You can learn more about home charging rebates and eligibility requirements by visiting ConsumersEnergy.com/powermidrive.

Where to Install Your Charging Station

Consider where you will park your EV and where the charge port is located on the car. Most EVs have their charge port towards the front or driver’s side of the vehicle. A notable exception are Teslas that have the charge port near the rear driver’s side. A home EVSE will have a 24-25’ cord that can reach pretty far but try to avoid locations where the cable becomes a trip hazard.

Driver’s side wall mount is usually a good EVSE installation location