## **Know your charger**



All EVs except Mitsubishi, Nissan, Tesla



for all EVs except Tesla



**CHAdeMO** 

Only for Mitsubishi, Nissan models



NACS

North American **Charging Standard** 

Previously just for Tesla models. In 2025, most car manufacturers will be *converting to NACS* 

## **Before you buy**

Talk to your local electric cooperative before purchasing an EV or PHEV to:

- Make sure the proper infrastructure is available to accommodate a home charger
- Discuss available EV incentive programs

#### Other considerations:

- Members looking for more affordable EVs should check with local dealerships to see if they sell used
- Used EVs can be just as fun, yet more affordable, than purchasing a new vehicle
- The majority of EV charging happens at home. Install your home charger where you park the vehicle
- Your parking space should be clear of objects that may obstruct a vehicle's ability to plug-in; the cord should not wrap around or drape over the vehicle
- Level 2 charger plus installation can cost between \$500 and \$1,200

## **Incentives from your** cooperative

Check with your local electric cooperative before purchasing an electric vehicle to ensure your home is ready to install a Level 2 charger. Your cooperative may offer incentives to purchase and/or install an electric vehicle in your home. We encourage charging at night when demand for electricity is low. Visit our website for more details.



www.MiEnergy.coop 1-800.432-2285



Your electric cooperative recognizes the need for convenient, publicly available electric vehicle charging stations. We've joined with other cooperatives across the country to develop Levels 2 and 3 charging stations within co-op service territories, building the charg  $EV^{TM}$ network.

A map of existing chargEV<sup>TM</sup> charging stations and more information can be found at:



www.CHARGE.coop



**Charge Powered By Co-ops** on Facebook

# Is an Electric Vehicle in **Your Future?**





## **Electric Vehicles at a Glance**

## **All-Electric Vehicle (EV)**

EVs use a battery to store the electrical energy that powers the motor. EV batteries are charged by plugging the vehicle into an electric power source.

#### **RANGE**

110-400 mi.

#### **FUEL TYPE**

**Battery** 

#### **MILES PER GALLON EQUIVALENT**

68-141

## **Plug-In Hybrid Vehicle (PHEV)**

PHEVs are powered by conventional or alternative fuels and electrical energy stored in a battery. The vehicle can be plugged into an electric power source to charge the battery in addition to using regenerative braking and the internal combustion engine or other propulsion source.

#### **RANGE**

12-48 mi. (electric) 200-640 mi. total

#### **FUEL TYPE**

Gasoline + Battery

#### **MILES PER GALLON EQUIVALENT**

42-133



## How will you charge the vehicle?

Based on surveys of electric vehicle (EV) owners, more than 80 percent of charging occurs at home. There are different levels of charging stations available. The information below may help you decide which is best for your needs. If you do not want to charge a vehicle, a conventional hybrid will use less gasoline than non-hybrid models.

## **Residential EV Chargers**

### **LEVEL 1 CHARGER**



Requires access to a 120-volt outlet in an area where you can recharge the car overnight (or have a qualified electrician install one in a convenient location).

\* Level 1 chargers are now rarely used.

#### **VOLTAGE**

120V, Single-Phase AC

#### **AMPS**

12-16 Amps

#### **CHARGING LOADS**

1.4 to 1.9 kW

#### **CHARGE TIME FOR VEHICLE**

3-5 Miles of Range Per Hour

## **LEVEL 2 CHARGER**



Requires installation of a 240-volt hardwired EV charger or the appropriate 240-volt receptacle for a plug-connected charger (installation must be completed by a qualified electrician).

\*Also called the "Residential" or "Home" charger

#### **VOLTAGE**

208V or 240V, Single-Phase AC

#### **AMPS**

12-80 Amps (typ. 32 Amps)

#### **CHARGING LOADS**

3.6 to 19.2 kW (typ. 7 kW)

#### **CHARGE TIME FOR VEHICLE**

10-55 miles of range per hour Based on 3 miles of range per kW per hour

## **Public EV Fast Chargers**

TIP: Download an app on your smartphone to help locate charging stations when you travel



#### **VOLTAGE**

480V, 3-Phase AC

#### **AMPS**

<400 Amps (typ. 60 Amps)

#### **CHARGING LOADS**

<350 kW (typ. 150 kW)

#### **CHARGE TIME FOR VEHICLE**

150 miles of range per hour Based on 3 miles of range per kW per hour