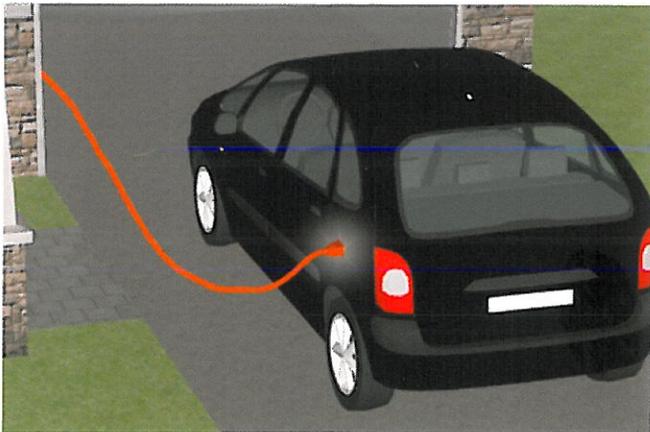


## 3 STEPS TO GET PLUG-IN READY

# Three Important Steps to Making Your Home Ready for a Plug-In Electric Vehicle



Once you know the make and model of the plug-in electric vehicle you want to purchase, you will choose from several electric vehicle rate options and two charging levels, as well as deciding what, if any, work you want done to your home electrical infrastructure.



Make sure to allow adequate time to get your garage plug-in ready, as you'll need to engage an electrician, SCE, and possibly obtain city permits.



Familiarize yourself with SCE's electric vehicle rate options and charging implications at [www.sce.com/pev](http://www.sce.com/pev).

### 1 Complete SCE's 'Getting Plug-In Ready Checklist' at [www.sce.com/pev](http://www.sce.com/pev)

- Review vehicle charging options and recommendations
- Familiarize yourself with SCE's electric vehicle rate options and charging implications at [www.sce.com/pev](http://www.sce.com/pev)
- Engage an electrical contractor to:
  - Evaluate your current residential charging capabilities
  - Provide an estimate for any home electrical work, including accommodating both Level I and Level II charging, as well as single- and dual-meter rate options
  - Help you complete SCE's Getting Plug-In Ready Checklist

*NOTE: Some automakers offer this electrical contractor consultation as part of the electric vehicle purchase.*

### 2 Contact SCE to Select an EV Rate

- Submit the Getting Plug-In Ready Checklist to SCE via [www.sce.com/pev](http://www.sce.com/pev), or simply have the information ready when calling SCE at 1-800-4EV-INFO (1-800-438-4636)
- Discuss vehicle choice and charging preferences
- Explore electric vehicle rate options with an SCE representative
- Select an electric vehicle rate option

### 3 Perform Any Necessary Home Equipment Upgrades

- Authorize the electrical contractor to obtain required permits and complete desired electrical work
- Obtain any required city electrical inspections
- Once you have received notification that the city has approved all electrical work, and SCE has completed any necessary meter service, you are ready to charge your electric vehicle

For more information, visit [www.sce.com/pev](http://www.sce.com/pev).

# The Difference Between Plug-In Hybrid Electric Vehicles and Battery Electric Vehicles

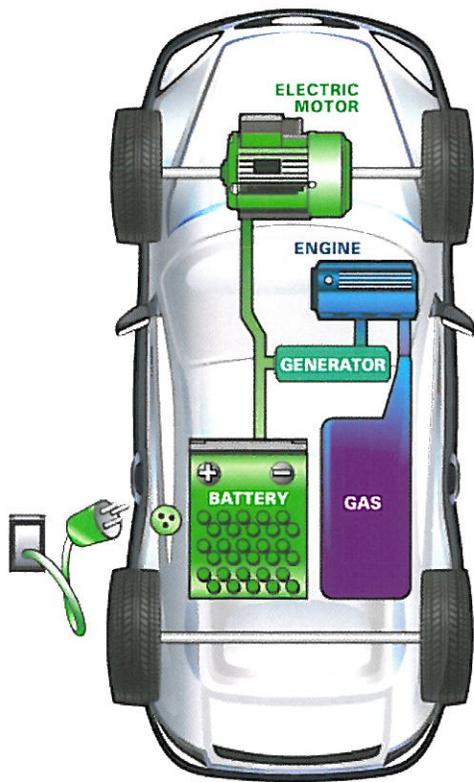
There are two types of plug-in electric vehicles: the plug-in hybrid electric vehicle and the battery electric vehicle. If you are considering purchasing one of these vehicles, it is important to understand which type of vehicle you are interested in purchasing, as it will influence your rate, home charging infrastructure, and charging options.

Plug-in hybrid electric vehicles have two power systems, an internal combustion engine and a battery which can be re-charged from electricity. These vehicles use both gas and electricity. Most plug-in hybrids will take four to six hours to fully charge on a standard 120-volt outlet.

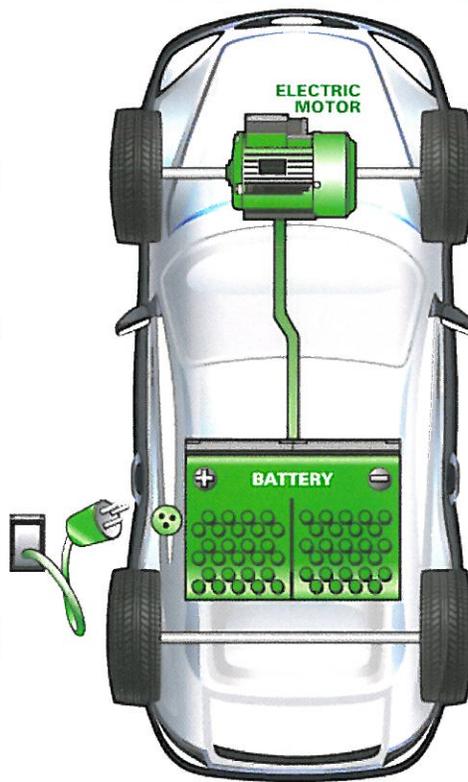
Battery electric vehicles are powered by electric motors and batteries, and they do not require any gas. A battery electric vehicle will take 12 to 24 hours for a full charge on a standard 120-volt outlet, while most models will take three to six hours to fully charge on a 240-volt rated charging unit.

Both types of plug-in vehicles have unique benefits. Customers should choose the vehicle that best meets their individual needs.

PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)



BATTERY ELECTRIC VEHICLE (BEV)



CONVENTIONAL VEHICLE



For more information, visit [www.sce.com/pev](http://www.sce.com/pev).

## Preparing for Plug-In Electric Vehicles

Several major automobile manufacturers have announced plans to introduce plug-in electric vehicles in late 2010. This shift in technology represents a major impact to electric utilities, which will be the main source of "fuel" for these cars in the future.

## Southern California Edison (SCE) getting ready

In October 2009, SCE joined other U.S. utilities in signing a plug-in electric vehicle readiness pledge, which calls for moving forward aggressively to create the infrastructure to support the full-scale commercialization and deployment of these vehicles. To meet this pledge, SCE is working in various areas, including:

- The customer experience
- New policy and regulatory guidelines
- Impacts on the electricity grid

## The Customer Experience

SCE recently conducted an in-depth analysis of all the steps required for a customer to get "plug-in ready." Many factors come into play: city permits, third-party electricians, licenses and city inspections. SCE is working in partnership with local officials in its service territory to make the customer experience as simple and convenient as possible.

## New Policy and Regulatory Guidelines

The California Public Utilities Commission has initiated a series of plug-in electric vehicle readiness workshops to address rates, charging infrastructure and policies to prepare for the expected growth of plug-in electric vehicles in 2010 and beyond. SCE will provide updates as they become available, on [www.sce.com/pev](http://www.sce.com/pev).



**Plug-in electric vehicle technology represents a major impact to electric utilities, which will be the main source of "fuel" for these cars in the future.**

## Impacts on the Electricity Grid

During early market development, when the number of plug-in electric vehicles is relatively small, SCE does not anticipate any significant system-wide impacts to the electricity grid or electricity supply. However there may be a need to reinforce the distribution system in neighborhoods that have large numbers of plug-in vehicle owners and faster, higher-voltage charging systems.

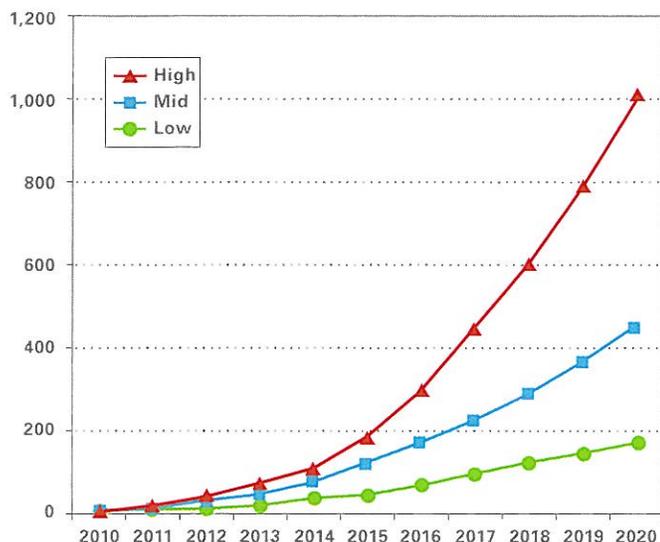
To do this, it is important that SCE knows where the plug-in electric vehicles will be to better prepare for impacted circuits. SCE is encouraging its customers to notify its customer service representatives as soon as they begin considering a purchase.

**For more information, visit [www.sce.com/pev](http://www.sce.com/pev).**

# Between 450,000 to 1 Million PEVs in SCE Service Territory by 2020

## Cumulative Plug-in Vehicles in SCE Service Area\*

(in thousands)



\* Includes both plug-in hybrid and battery electric vehicles, forecasts based on review of approximately 12 external studies.

The chart above reflects high, mid and low projections of the plug-in electric vehicle adoption rate in SCE's service territory.

Southern California Edison (SCE) will be among the first utilities in the country to get real-world experience connecting customers' plug-in electric vehicles (PEV) to the electric grid. Although no one knows yet how large the market for PEVs will be, or how fast it will grow, SCE has identified the following five cities in its service territory to likely have high PEV-purchase rates: Simi Valley, Santa Barbara, Monrovia, Long Beach and Santa Monica.

SCE's service territory could see a high of 200,000 plug-ins by 2015 and 1 million by 2020. The utility is continuing to keep a pulse on forecast trends as the market develops. Currently, the most likely scenario is 100,000 by 2015 and 450,000 by 2020.

SCE views the plug-in electric vehicle market in two stages:

### Early Market (2010-2014)

- Modest number of plug-in electric vehicles
- Early adopters with high expectations for PEV ownership
- Uncertainty about market development and PEV impact on the electric grid
- New policies and standards developed and implemented

### Growing Market (2015 and beyond)

- Growing number of plug-in electric vehicles
- Some clarity on customer charging behavior and impacts to the electricity grid
- Growing significance of load management to ensure reliability and customer pricing satisfaction

For more information, visit [www.sce.com/pev](http://www.sce.com/pev).

# What You Need to Know Before Buying an Electric Car



If you are thinking about purchasing a plug-in electric car, it is important to know that there are a number of decisions you need to make and actions you may need to take before you drive one home.

#### Some questions you'll need to consider:

- Are you buying a plug-in hybrid or a battery electric car?
- Is your home's electrical panel and wiring configured correctly to enable you to charge the battery in your car?
- What is the best rate for you to charge your vehicle on?
- What is the best time for you to charge your vehicle?
- Do you need to hire an electrical contractor?
- Will you need to obtain city permits for any electrical work?

As you're considering purchasing an electric car, please let SCE know by taking a brief survey at [www.sce.com/pev](http://www.sce.com/pev). Taking the survey will help us determine how to better serve you in regards to your potential battery electric or plug-in hybrid vehicle purchase, and it will allow us to keep you informed of important electric vehicle information around rate and charging options, and getting your home plug-in ready.

For more information, visit [www.sce.com/pev](http://www.sce.com/pev).