

PLUG-IN VEHICLES FAQs

PLUG IN AMERICA



How far can you drive between charges? (Electric cars & plug-in hybrids)

The Toyota RAV4 EV can go a maximum of 125 miles on one charge. The Tesla Roadster can drive more than 200 miles. The Tesla, like many of the new EVs coming, is capable of charging at any electrical plug anywhere.

Electric range of plug-in hybrids will vary depending on design, but the total range is similar to gas cars. A Hymotion A123 conversion kit gives a plug-in Prius about a 30-mile electric range and a total range the same as a conventional Prius. GM says its plug-in hybrid Chevy Volt will go 40 miles on one charge and more than 400 miles on a charge plus a tank of gas.

How long does it take to recharge?

That depends. The RAV4-EV charges from empty to 100% in 5 1/2 hours using a 240-volt outlet. Mitsubishi's planned iMiEV can recharge 80% of the battery in less than 20 minutes using a fast-charging system.

Where do you recharge?

Most people recharge in their own garage overnight, but there are public chargers for electric cars as well in parking garages and shopping centers.

How much does it cost to charge?

Less than \$1 to charge a plug-in hybrid; \$2-4 for an all-electric car.

What about the pollution created making the electricity?

Even on today's electrical grid, with 50% of U.S. power coming from dirty coal plants, plug-in cars still reduce emissions of greenhouse gases and most other pollutants compared with either conventional gasoline cars or hybrids, because so much of it comes out of tailpipes. [Read the emissions summary](#). But there's more. Utilities have excess generating capacity at night which could charge millions of plug-in cars. While electricity is getting cleaner and more renewable every year, even the cleanest gasoline car becomes ever more polluting. An electric car, on the other hand, just gets cleaner over time as the grid gets cleaner.

Aren't batteries full of toxic chemicals and precious metals that will end up in landfills?

A: No. Every car has a lead-acid battery, the most toxic metal used for batteries. Even with its low value as scrap, the recycling rate for lead-acid batteries is about 98% in the U.S. EVs will use newer chemistries such as NiMH and LiIon. Both of these metals are inherently more valuable than lead, and since the batteries are quite large, the value of the spent battery packs will be such that the recycling rate will approach 100%. It is illegal to dispose of these batteries in a landfill and their value will ensure that is not their fate. Nickel, while mildly toxic, will be reclaimed during the recycling process. Lithium is even less toxic and more valuable than nickel.

Q: Where can I get a plug in car if I can't afford a Tesla or a conversion?

Unfortunately, major automakers have not started selling plug-in vehicles yet. But all of them are working on some type of plug-in. Visit our [contact automakers page](#) and let your favorite car company know that you want to plug your car in. Tell them "No Plug, No Deal" and don't purchase a car until it can be plugged in. You can also visit [EVFinder.com](#) to buy used EVs and conversions.

For more FAQs and information, go to <http://www.pluginamerica.org>