Electric Vehicle FAQ

What is an EV?

An electric vehicle, or EV, is any car or truck that gets some of or all of the power it needs to move from electrical energy. All use electric motors for power, and almost all electric vehicles store electrical energy in batteries. A pure electric vehicle (also called a battery-electric vehicle, or BEV) is an electric vehicle that uses an electric motor powered by a battery to run the car — with no gasoline engine at all.

Do electric vehicles really reduce emissions?

Yes. Electric vehicles reduce or eliminate carbon emissions from the tailpipe. That's huge, given that one third of the nation's greenhouse gases come from transportation, and 60 percent of that is from personal vehicle use.

And even when powered by electricity generated from 100 percent coal power, battery-electric vehicles still create about 60 percent less carbon than traditional gas-powered vehicles. And as electricity becomes cleaner and more renewable every year, even the cleanest gasoline car becomes ever more polluting. An electric car, on the other hand, gets cleaner as the grid gets cleaner.

How can I reduce the impact of my driving even more?

EV drivers can further reduce their environmental impact by signing up for PGE renewable power options such as Clean Wind, Green Future Solar or Green Source. With Green Source, 100 percent of your energy use is offset with renewable energy. Add that to an electric vehicle with zero tailpipe emissions, and you're making a dramatic difference in your vehicle's carbon footprint.

If everyone buys electric cars, won't PGE need to build more power plants?

When connected to the smart grid of the future, electric batteries have the potential to benefit both consumers and the overall electrical grid. With the potential of someday feeding electricity back to the grid during peak demand, electric vehicles could help keep overall electricity costs lower by reducing the need for PGE to build supplemental power sources. Your charged vehicle could even potentially serve as an emergency power source for your home or business in the event of an outage.

PGE estimates that 90 percent of charging would be done at customers' homes, with the remaining 10 percent at public stations, representing new overnight off-peak load. Research has

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indicated that the existing electric grid in the Northwest could handle a nearly 75 percent adoption rate of plug-in vehicles.

Can EV batteries be recycled?

Lithium, the main component in EV batteries, is highly recyclable and many manufacturers are creating programs to help customers recycle or repurpose batteries at the end of their useful life in a car. Once their life in a vehicle ends, batteries still have some usefulness left.

For instance, someday these spent batteries could be used to store renewable power and reduce the impacts of intermittent solar or wind, or when combined, these batteries might take on a second life as a backup power supply for PGE customers during an outage.

How do EVs help with energy independence?

When we keep our energy dollars here, we keep jobs here. Electric vehicles and charging stations are good for Oregon's economy.

Oregon doesn't have any producing oil wells. When you fill up with gasoline, much of the money you pay leaves our state, and keeps going right out of our country. Electricity can be transmitted over long distances, but most of what we use is made locally. So your fuel dollars can stay a lot closer to home when you charge up your car with electricity.

Do electric cars need regular tune-ups like gasoline cars?

Like all vehicles, electric vehicles do require regular maintenance. But unlike traditional gasoline vehicles, EVs do not require regular oil changes, have significantly fewer moving parts and fluids, and have simpler components that decrease the frequency and expense of vehicle maintenance.

Plug-in hybrid and extended range vehicles, which have an internal combustion engine as well as electrical drive components, do require regular maintenance on the whole system.