

Electric Vehicle 101



Seattle City Light

Everything you need to know about driving electric

What is an electric car?

Modern electric cars look, feel, and drive the same as gasoline-powered cars, and are available with the same features and accessories. Under the hood, though, they're completely different. Electric cars use rechargeable batteries and electric motors to move, instead of a gasoline-powered engine. In Seattle, electric car drivers benefit from City Light's clean electricity, thus reducing carbon emissions and health impacts of transportation.

Electric cars are quieter and drive smoother than gasoline-powered cars and have better acceleration. They have fewer parts and require

less maintenance. Many electric car drivers can fully charge their cars at home or at work. A growing network of charging stations are available in King County and throughout the country to recharge an electric car when home or work charging isn't enough.



Why should I choose an electric car?

Electric Cars are Cheaper to Drive

In the Pacific Northwest, electric car drivers pay a fraction of the cost to drive the same distance as a gallon of gas in a gas-powered car. Electric cars are also cheaper to operate, with almost no maintenance costs.

Electric Cars are Easy to Fuel

Many electric car drivers can fully recharge their car overnight at home, just like a cellphone. Some drivers can also fully charge their electric car while they're at work. With these options, you'll save time by skipping the gas station. For longer trips, most electric cars can be quickly charged at public direct current (DC) fast chargers.

Electric Cars are Better for the Environment

Electric cars are oil-free, produce 85% fewer carbon emissions and no smog, and can be powered by renewable energy from sources like Seattle City Light's hydroelectric dams, solar panels, or wind turbines.

Electric Cars are Better for Our Health

Gasoline powered cars, trucks, and buses produce toxic air pollutants that are harmful to the health of everyone in our communities. These pollutants can cause asthma, cancer, and other health problems. Electric cars do not produce any of these toxic air pollutants, so they contribute to better air quality and health for us, our children, and our communities.



What do I need to know?

How long is my commute?

Even entry-level electric cars have a range of 80+ miles per charge—well within most of our daily commutes. For those going further, there are newer models with ranges of 200+ miles per charge.

Do I have access to charging where I live?

If you have a source of power where you park, you're all set. You can plug right into a regular 120-volt household outlet (this is called "Level 1" charging). If you want faster charging, you can install a home charger using the same type of 240-volt outlet that powers your laundry dryer or electric oven (this is called "Level 2" charging). If you live in a condo or apartment, see if the building can install "Level 1" or "Level 2" charge options. You can also find locally available public chargers at plugshare.com.

Are there chargers where I work?

If there are, you instantly double your daily range! EV chargers are becoming more and more common at the workplace, and some businesses will provide it if requested. Just ask.

How can I charge even faster?

If you don't have access to a charger in your home or at work, or if you need more range quickly, you can find a DC fast charger near you. These stations greatly reduce time spent charging—adding about 80+ miles of range in about 30 minutes.

How affordable is an electric vehicle?

EV batteries continue to get cheaper. We estimate that in the mid-2020's, EVs will cost the same as a gas vehicle. Affordable, used EVs are now available for sale from lease returns, trade-ins, and private party sellers.

How far can I drive on a single charge?

Most cars sit parked for about 12 hours during the night when the driver is home, and 9 hours during the day when the driver is at work. Charging during these times can provide most people with more than enough range:

Level 1 Charging – 120 volts

Standard household electrical outlet

12 hours (at home)	Up to 60 miles
9 hours (at work)	Up to 45 miles

Level 2 Charging - 240 volts

Same outlet that powers your laundry dryer or electric oven

12 hours (at home)	Up to 300 miles
9 hours (at work)	Up to 225 miles



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For more information, visit
seattle.gov/light/electric-vehicles
or email SCL_ElectricVehicles@seattle.gov