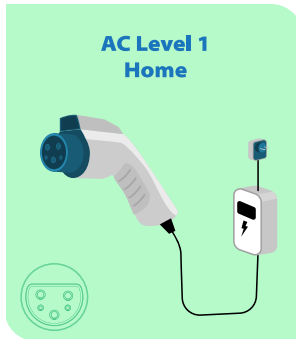


The Basics: EV Charging

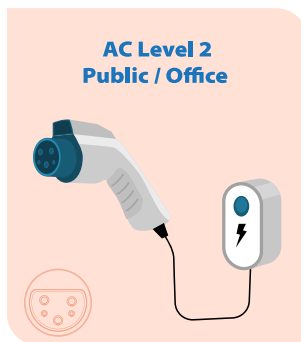
Electric vehicles (EVs) are paving the way for a sustainable future, and understanding how to charge them is essential for all EV owners. There are options to meet your needs, from low voltage home charging stations to high voltage public chargers.

Charging Options

Level 1 charging uses a standard household outlet, typically providing 120 volts. It can be used at home or work using the same power source as your block heater, with no need for additional infrastructure. It works best for those who drive short distances daily and can charge frequently or overnight.



Level 2 charging requires a 240V special outlet (like those used for dryers or other large appliances), or a hard-wired charger. It's suitable for both home and public charging stations, offering a good balance between speed and convenience for daily use.



Level 3 Fast and super-fast charging, also known as **DC fast charging**, uses high-voltage direct current to rapidly charge an EV. These chargers are typically found at public charging stations. This option is required for longer trips or when you need a quick charge on the go, providing a significant range boost in a short time.



Home Charging

You can charge at home using the portable Level 1 charger that comes with your EV, or install a faster Level 2 charger.

Before installing a Level 2 charger, check with an electrician about any needed electrical upgrades. Visit SaskPower's website and Charger Installation Guide for details on charging levels and installation steps.

Know Your EV Charging Cost at Home

- Check your electricity rate (including taxes/fees).
- Find your EV's battery size in kWh (see the manufacturer's site).
- Calculate cost: Multiply rate per kWh by battery capacity.

Public Charging

Public EV charging ports are available at over 50 locations in Saskatoon. Apps and websites provide real-time location and status of nearby chargers. An app will usually be required to connect and pay for your public charge but most are linked for easy access. To find the nearest charger, visit:

- <https://www.plugshare.com>
- <https://chargehub.com/en>

Public Charging Etiquette

Keep public charging smooth for everyone:

- Use EV spots only if you're charging
- Follow posted time restrictions
- Move your car when done
- Check in on the app
- Don't unplug others without permission
- Be polite—no rude notes

Charger Compatibility

Level 1 and 2 connectors

Most EVs and chargers in Canada and the U.S. use the standard SAE J1772 connector, supported by all major manufacturers.

Tesla uses a different connector (NACS -North American Charging Standard) but can charge at most Level 2 stations using a J1772 adapter.

Level 3/DC Fast-Charging Connectors

EVs use one of three DC fast charger (Level 3) connectors, which aren't interchangeable. Know your connector type before charging—ask your dealer if unsure. Some Tesla Superchargers now support non-Tesla EVs with NACS connectors or adapters. Check compatibility by adding your vehicle to the Tesla app or visiting:

https://www.tesla.com/en_ca/NACS

SAFETY WARNING: Only NACS-equipped vehicles or CCS1 vehicles with a Tesla-approved NACS adapter can use Tesla Superchargers. Third-party adapters are not allowed, and AC adapters may damage your vehicle. Check with your manufacturer for guidance.

Charging Cost, Time and Range

Options	Level 1	Level 2	Level 3 (fast charger)
Installation Costs (per charging port)	\$0 - \$1,200	\$1,000 - \$4,000	\$30,000 - \$50,000
Charge speed (kilowatt/ hour- kW/h)*	2-5 kW/h	10-25 kW/h	50-350 kW/h
Estimated hourly cost	\$0.33 - \$0.82 (assuming a rate of 16.38 cents/kW/h at home)	\$1.64 - \$4.10 (assuming a rate of 16.38 cents/kW/h at home) \$1.50-\$3.00 (at a public station)	\$15 - \$20 (at a fast-charging station)
Time to 80% charge**	8 - 50+ hours	4 - 10 hours	15-60 minutes
Range (per hour of charging)**	3 - 8 km	16 - 50 km	Maximum driving range of the vehicle
Typical uses	Home or workplace charging	Home or workplace charging at home; public spaces	Public spaces including highways; not for home charging

This table has been adapted from NRCan <https://natural-resources.canada.ca/energy-efficiency/transportation-energy-efficiency/zero-emission-vehicles/electric-vehicle-charging>

* Charging speed depends on your vehicle's onboard charger and the station's output. Max charge rates vary—check your manual or ask your dealer.

** Charge time and range per hour vary with vehicle, battery, charger, temperature, battery level, and tire pressure

Learn more

- [Saskatoon.ca/EV](https://saskatoon.ca/EV)
- [Saskatoon.ca/MurbEv](https://saskatoon.ca/MurbEv)
- [Saskatoon.ca/CityEV](https://saskatoon.ca/CityEV)