



## Electric Vehicle (EV) Home Charging

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EVs are becoming common-place on Saskatchewan streets and highways. Forward-looking real estate developers are planning for this.



All EVs are charged by plugging them in. They can be charged at home using a Level 1 (120 volt) or Level 2 charger (240 volt) that plugs into a receptacle installed where you park your car. Charging time is based on the charger level (1 or 2) and how full the battery is when you start.



### Level 1 Charger

**1 hour of charging provides 5-7 km driving range**

All EVs come with a Level 1 portable charger that plugs into a regular 120 volt, 15 amp household receptacle. The J1772 connector on the output cable plugs into the charge port on the car. This provides the slowest rate of charging but provides the greatest flexibility in where you can charge.

Level 1 chargers may be suitable for EV drivers who are able to charge overnight and average 50 km or less of travel per day.



## **Level 2 Charger**

**1 hour of charging provides 30-40 km driving range**

The most common way to charge an EV is at home. All non-Tesla EVs sold in North America use the same J1772 plug standard on the car (Tesla requires an adaptor) which means that any J1772 Level 2 charger can charge any EV in Canada and the United States (earlier Tesla home chargers would only charge Tesla vehicles).

Level 2 chargers can come with input plugs similar to those on an electric welder (NEMA 6-50P), a stove (NEMA 14-50P) or be hardwired. These require 240 volts and the most common ones can deliver 30-50 amps to the car. The input plug receptacle or hardwiring should be installed by a licensed electrician.



## **When to Charge**

Saskatchewan does not presently have time-of-use electricity pricing but many jurisdictions do. Here we pay one price regardless of the time of day of this use. However, your house electrical service is not designed to have all its major appliances running at the same time. Rather, it is designed to accommodate what would typically be run at one time plus a safety factor.

In the summer, if you were to run the air conditioner, dryer, hot tub, stove, kitchen appliances, and EV charger all at once, you might trip the service breaker. Therefore, it is better to charge an EV at night when there are fewer loads on the house service. This usually works out well since the car will then be ready for driving the next day.

## **Where to Get a Level 2 Charger**

We are offering the Elmec EVC30 Standard and EVC30 Smart Home Level 2 chargers as highlighted in the attached datasheet. Elmec chargers are manufactured in Canada.

Talk to us about adding a Level 2 charger to your home. Ask us any questions you have on EV chargers or the cars themselves.



## EVduty-40 (Nema 6-50)

### Product specifications

- MODEL: EVC30-2530-00000
- Plug type : NEMA 6-50P
- 208-240VAC / 30 amps / 7,2 kW
- For indoor or outdoor installation (-40 ° C to 40 ° C)
- Output cable: 7,6 meters (25 feet)
- Wall mount for the charging station and cable holder included
- Casing dimensions: 330mm x 165mm x 60mm (13.00" x 6.50" x 2.50")
- Limited warranty: **5 years** (3 yrs for the cable/connector)
- Compatible with all plug-in vehicles (100% electric or plug-in hybrids) sold in North America (SAE J1772MD, lasting over 10 000 charging cycles)
- Manufactured by Elmec Inc. in Shawinigan, Québec, Canada

### Power Sharing ("Link")

This function allows a group of charging stations to share the available power according to the capacity of the protection circuit breaker that protects the power supply of the charging stations and the number of charging stations currently in use. This function has two levels that can be used separately or simultaneously.

Functions	EVC30 Standard	SMART VERSIONS	
		EVC30 Smart-Home	EVC30 Smart-Pro
Possibility to adjust the maximum output current of the charging station to 16A, 20A, 24A or 30A (possible via "Dipswitch")	✓	✓	✓
Charging function starts as soon as vehicle is connected (no access control to charging)	✓	✓	✓
Charging function starts as soon as vehicle is connected and access to charging capacity is authorized.		✓	✓
Wi-Fi connectivity through the EVduty mobile application		✓	✓
Start/Stop a charging session using the EVduty mobile application		✓	✓
Possibility to view charging session data in real time using the EVduty mobile application		✓	✓
Create/Add/Modify a charging station		✓	✓
Create/Add/Modify a private charging terminal		✓	✓
Possibility to adjust the maximum output current of the charging station to 8A, 12A, 16A, 20A, 24A, 28A, 30A		✓	✓
Configure 'Power sharing' function (« Links »)		✓	✓
Manage access to private charging terminals via invitations		✓	✓
Display charging sessions history and other events on a specific charging terminal		✓	✓
Manage access to private or public charging terminals via invitations			✓
Create/Add/Modify a public charging terminal			✓
Generate revenues by applying a base cost to charging sessions			✓
Modify the price of a charging session			✓



- Generate new recharge revenues with the EVduty Smart-Pro terminal
- No monthly subscription required
- WiFi network communication
- Access control with the EVduty mobile app