

## Appendix C: EV Charging Infrastructure and Technology

EV charging takes longer than refilling at a gas station and is split into three types.

**Level 1 Charging:** Uses a typical 120v outlet and can trickle charge and requires a long period to charge a vehicle, e.g., the duration of a work day or overnight.

**Level 2 Charging:** Uses a similar electrical draw as a clothes dryer, provides a higher level of performance, which more quickly charges a vehicle, supporting a better consumer experience and is consistent with recent policy across BC and North America.

**Level 3:** Charging (DC Fast Charging), uses DC power and can recharge most EVs to an 80% charge in 30-40 minutes. Within DC Fast Charging stations, there are various types depending on the charging rate. Common levels of DC fast charging stations include 25kW, 50kW, 100kW, and 150kW DC fast charging stations.



**Figure 1: EV Charging Types**

**Power Sharing:** When multiple charging ports are connected to the same power circuit, and the available power is shared between charging ports using demand management software. Power sharing allows charging sites to maximize the number of ports they can deploy while still ensuring EV drivers get an adequate charge. It takes advantage of the fact that most cars only need to charge for a few hours but are usually parked for much longer.