



The Corporation of the District of North Vancouver
ADMINISTRATIVE AND OPERATIONAL POLICY

Title	Electric Vehicle Charging Infrastructure Policy
Section	Planning, Properties & Permits

POLICY

This policy is intended to guide staff regarding the provision of electric vehicle charging infrastructure in association with a rezoning application for new multifamily residential, commercial, industrial, and/or mixed use development.

1.0 DEFINITIONS

- (a) **“Electric Vehicle (EV)”** means a vehicle that uses electricity for propulsion and that can use an external source of electricity to charge the vehicle’s batteries. This includes EVs that rely exclusively on a battery and plug-in hybrid EVs. It excludes hybrid vehicles that recharge on-board and do not have the ability to plug-in to recharge.
- (b) **“Electric Vehicle Supply Equipment (EVSE)”** means equipment to deliver charging and includes the complete assembly, consisting of conductors, connectors, devices, apparatus, and fittings installed specifically for the purpose of power transfer and information exchange between a branch electric circuit and an electric vehicle.
- (c) **“Energized Outlet”** means a connection point in an electrical wiring installation at which current is taken and a source of voltage is connected to supply utilization equipment. An energized outlet may be either a junction box for permanent connection or a receptacle (“plug”).
- (d) **“Electric Vehicle Energy Management System (EVEMS)”** refers to a variety of technologies and services that control the rate and timing of EV charging. An EVEMS distributes the electricity, allowing multiple charging points to safely use a single circuit simultaneously.
- (e) **“Level 2 Charging”** is defined by SAE International’s J1772 standard:

Charge Method	Nominal Supply Voltage (V)	Max Current (Amps-continuous)
AC Level 2	208V to 240V AC, 1 phase	≤80A

The amperage rating for EV circuits required by most Level 2 EVSE is 40A, although this may differ depending on the particular system design.

2.0 MULTIFAMILY REQUIREMENTS

- (a) 100% of required parking stalls (not including designated visitor parking stalls) shall feature energized outlets capable of providing Level 2 charging or higher.

3.0 COMMERCIAL AND INDUSTRIAL REQUIREMENTS

- (a) A minimum of 20% of parking stalls (not including designated accessible parking stalls) shall feature energized outlets capable of providing Level 2 charging or higher; and,
- (b) 100% of designated accessible parking stalls shall feature energized outlets capable of providing Level 2 charging or higher.

4.0 ADDITIONAL REQUIREMENTS

- (a) **Plans:** EV charging systems shall be indicated on all applicable plans and drawings submitted for review as part of a detailed rezoning application. Detailed applications for rezoning should include how the proposed EV charging systems, including electrical service requirements, EV Energy Management Systems, electrical rooms, and associated components are designed to accommodate the required EV charging.
- (b) **Labelling:** EV Parking stalls shall be labelled as intended for use for electric vehicle charging.
- (c) **Electric Bicycle Charging:** Electric bicycle charging requirements shall be provided as noted in the Bicycle Parking Policy and End-of-Trip Facilities policy.
- (d) **Communications Technology:** Projects implementing EVEMS must provide the communications technology necessary for the function of the systems (e.g. cellular repeaters, wireless access points or cabled infrastructure).
- (e) **EVSE Certification:** Electrical configurations must be designed and certified to *C22.2 NO. 280-16 - Electric Vehicle Supply Equipment (Tri-national standard, with UL 2594 and NMX-J-677-ANCE-2016)* by certification agencies such as CSA, Intertek (cETL), or UL (cUL). Products solely certified to *UL 2594* can typically also be certified to CSA due to harmonized CSA and UL standards.
- (f) **Metering:** In buildings with shared parking areas, EV electrical infrastructure should be metered separately from the common areas so that stratas, buildings owners, and BC Hydro can distinguish between common area electrical usage and EV charging electrical usage.

- (g) **EV Energy Management System (EVEMS):** Developments can meet the requirements by providing either a dedicated circuit to an outlet at each parking stall or an EV Energy Management System (EVEMS) to control electrical load associated with EV charging.
- i. To ensure a sufficient rate of electrical vehicle charging, developments using EVEMS must meet the following minimum performance standard:

The system must be capable of supplying a minimum performance level of 12kWh average per EVSE, over an 8-hour period, assuming that all parking spaces are in use by a charging EV.

5.0 PROCEDURE

The following procedure is used to implement this policy but does not form part of the policy. This procedure may be amended from time to time at the discretion of the General Manager of Planning, Properties & Permits.

- (a) Exemptions from the EV charging requirements are listed below:
- i. Projects requiring rezoning where the associated bylaws have received 1st reading as of the date this policy is approved.
 - ii. Projects requiring rezoning for which a development permit has been issued as of the date this policy is approved.
 - iii. Projects requiring rezoning that have a complete and valid building permit application submitted prior to the approval of this policy.
 - iv. The General Manager of Planning, Properties & Permits or designated staff may specify requirements for a performance standard for electric vehicle energy management systems to ensure a sufficient rate of electric vehicle charging, metering, and other technical matters related to electric vehicle charging infrastructure.
 - v. The General Manager of Planning, Properties & Permits or designated staff may provide an exemption for an exceptional circumstance where the requirements are demonstrated to be not feasible.

Policy approved on: March 17, 2021

Replaces policy: Implementation of Electrical Vehicle Charging Infrastructure with Development Policy (approved on December 15, 2014)