EV ready fleet plan requirements

EV READY FLEET PLAN REQUIREMENTS EFFECTIVE OCTOBER 6, 2025.

Your EV ready fleet plan must include the requirements outlined below.

Purpose of the EV ready fleet plan

This plan will:

- Assist an organization to develop a comprehensive plan to convert some or all of their internal combustion engine fleet vehicles to zero emission vehicles.
- Provide an organization with a preliminary zero emission fleet vehicle replacement schedule.
- Develop a capital and operation budget, and projected cost and emission savings to support business case development and decision–making.
- Enable BC Hydro to determine how much incentive it can provide customers to complete their electrical infrastructure upgrades identified in their EV Fleet ready plan.

Who can create an EV ready fleet plan?

- One company must be identified as the lead author on an EV ready fleet plan.
- Two items in the EV ready fleet plan must be completed by following electrical professionals:
  - Section 4—The electrical capacity assessment must be completed by either a certified, licensed electrical contractor or a licensed electrical engineer registered with the Engineers and Geoscientists of British Columbia.
  - Section 5—The single line diagram under ‘Electrical infrastructure plan’ must be completed by an electrical engineer registered with the Engineers and Geoscientists of British Columbia.

EV fleet plan eligibility criteria

- Companies must have light, medium–and/or heavy–duty vehicles (Class 1, Class 2b through 8, including pickup trucks) in their fleet to participate in the EV ready fleet program.
- Your EV ready fleet plan must at minimum support the design for at least one light, medium–and/or heavy–duty vehicles that could be switched to zero emission in the next three years. This is the minimum number of vehicles required to be purchased and implemented into your fleet to be eligible to apply for incentives to assist with the electrical infrastructure costs. Please note your plan can design for more than one EV to be acquired within the next three years if that’s what your business prefers.
- Organizations have 6 months from the date of receiving funding approval from BC Hydro to complete their EV ready fleet plan and submit it online for review by BC Hydro.

EV ready fleet plan elements

Your EV ready fleet plan must include the following elements:

1. Property and company details

a. Date the EV ready fleet plan was prepared

b. Company name and building address

c. Name and contact information (address, email, and phone number) of the person overseeing the development of the plan

d. Name and contact information (address, email, and phone number) of who the plan was created by

2. Fleet assessment

a. Fleet inventory spreadsheet:

Include all light–, medium– and heavy–duty vehicles in an organizations fleet.

Minimum requirements: one row per vehicle including:

- Annual mileage, age, vehicle make and model, and location.

Optional to be included if information is available:

- Average and maximum daily driving distance
- Average and maximum engine idle hours
- Typical payload (cargo and passengers)
- Need for auxiliary power (e.g. power takeoff)
- Vehicle location
- Actual maintenance and fuel cost (historical)
- Average hours used per day (e.g. charging window)

b. Fleet EV suitability assessment

1) Total cost of ownership and financial analysis

Complete a total cost of ownership (TCO) and financial analysis to determine the recommended vehicles for zero emission replacement. For each vehicle, provide a comparison of the combustion engine vehicle (i.e. business as usual) and the zero emission vehicle replacement. TCO should include but is not limited to:

- Purchase price and depreciation for vehicle, including, if available, incentives for zero emission vehicles
- Annual fuel and electricity costs (both energy and demand charges)
- Include energy required (kWh) versus liters of fuel and the associated GHG reduction per replacement vehicle
- Carbon pricing
- Maintenance cost
- Costs for electrical vehicle supply equipment (EVSE) including network subscription fees and EVSE maintenance costs, as well as (if available) incentives for EVSE
- Electrical infrastructure costs to support charging needs

Fleet vehicle ZEV replacement schedule

Based on the TCO analysis identify the zero–emission vehicle replacement schedule for a minimum of one vehicle the customer will be incorporating into the fleet within a period no longer than 3 years.

3. Charging (electric vehicle supply equipment—EVSE) plan

Based on the vehicles chosen for replacement, analyze estimated EV charging system requirements:

a. Specify the number, type of EVSE, power level and location of EVSE's required to meet the minimum needs of the vehicles identified for replacement. This requires consideration of the likely daily energy requirements for proposed ZEV replacements based on usage profiles considered under the suitability assessment, and assumptions around worst case scenarios.

b. Is an EV energy management system being used? Y/N. Explain why or why not.

c. Provide estimated charger costs including maintenance costs (planned maintenance, unplanned repairs, ongoing network fees to enable load management (if applicable) and other services).

4. Electrical capacity assessment

Identify and include:

(If multiple facilities are part of your design please include this information for each facility)

- The existing electrical main service size
- The existing peak demand in kW on the main service and how it was determined
- The spare capacity prior to charger installation
- The potential charger load based on the charging plan
- The spare capacity after charger installation and whether or not a service upgrade is required

Include the name and contact information (including phone number and email address) and electronic signature of who completed the electrical capacity assessment (must be a licensed electrical contractor and/or a registered professional electrical engineer).

5. Infrastructure plan

Determine electrical infrastructure requirements to support the customer's charging and vehicle acquisition plan

- Provide a conceptual design that includes the location of charging equipment. Concept design should consist of:
  - Single-line diagram
- Estimate electrical infrastructure costs including any necessary electrical service upgrades (if required)
- Estimated electrical infrastructure implementation schedule for the vehicles identified for replacement
- Reference any design provisions for future expansion of charging to support fleet electrification growth

Include the name, contact information (including phone number and email address) and electronic signature of who completed the single-line diagram (must be a registered professional electrical engineer).

6. EV ready fleet plan summary

- Include the number of vehicles that could be procured in the next three years
  - Include electricity consumption in kWh
  - Include GHG (in tCO2e) reductions
  - Include electrification demand in kW based on charging plan
- Estimate electrical infrastructure costs including any necessary electrical service upgrades
- Estimated charger costs
- Summary of the total cost of ownership (TCO) and financial analysis
- Consultants' recommendation to implement the EV Ready fleet plan based on the results

7. Fleet Demand Response Top-up (Optional)

In addition to the meeting the eligibility criteria for the EV Ready Fleet Plan, to be eligible for the Demand Response Assessment Top-up the Applicant must:

- Meet the eligibility requirements shown in the EV Fleet Program Terms and Conditions, for both the EV Ready Fleet Plan and Demand Response Assessment Top-up, and
- Complete a Demand Response Assessment which meets the requirements outlined below.

The Demand Response Assessment is an assessment of the potential of deferring of charging between the hours of

5–9pm and must include the following, in addition to meeting all EV Ready Fleet Plan requirements:

- An explanation of how the demand response event will be responded to, and how that response will fit into daily operations, which cannot use more of a carbon–intensive energy source (e.g. gas, diesel) as a way to reduce its BC Hydro electricity use.
- An assessment of the available demand response:
  - Total expected kW on a business daily basis consumed between 5 pm to 9pm for the period of November 1 – March 31 shown in half hour increments.
  - Average plug–in rate estimating how many vehicles will be plugged in by half hour increment throughout a typical business day.
  - Charger type, capacity, average charging time and number of chargers at the site.
  - Vehicle inventory and types.
  - Software and hardware providers of chargers.
- An assessment of Electrification progression each year for duration of the electrification plan, showing "minimum, typical, and optimistic" response capability.
- Identification of if the charging station is supplied by an exclusive BC Hydro Smart meter (not shared with other load or the building service): yes/no
- Assessment of any impacts of participating in demand response, such as requirements for higher power chargers, larger battery vehicles, or operational impacts.
- Assessment of any additional costs of implementing the demand response strategy.

8. Vehicle to Grid Top–up (Optional)

In addition to meeting the eligibility criteria for the EV Ready Fleet Plan, to be eligible for the Vehicle to Grid (V2G) Assessment Top–up the Applicant must:

- Meet the eligibility requirements shown in the EV Fleet Program Terms and Conditions, for both the EV Ready Fleet Plan and V2G Assessment Top–up, and
- Complete a Demand Response Assessment which meets the requirements outlined below.

The V2G Assessment is an assessment of the potential to participate in V2G programs, and must include the following, in addition to meeting all EV Ready Fleet Plan requirements:

- An explanation of how the V2G capabilities will fit into daily operations.
- Assessment of the capital, operating and maintenance costs and depreciation for V2G capable vehicles, chargers, and associated equipment.
- Assessment of the available demand response in kW broken down by time of day, season, and electrification progression, showing "minimum, typical, and optimistic" response capability. The demand response should be a combination of load displacement and net injection (over and above site load) into the grid as supplied by the V2G operation. Assume all fleet charging takes place outside of 5 pm to 9 pm daily, and demand response events are between 5 pm and 9 pm and are held occasionally.
- Assessment of any operational impacts of participating in demand response.
- Assessment of any additional costs of implementing the demand response strategy.
- Where fleets and operations are not uniform, breakdown responses by fleet vehicle type and/or route, as to the requirements for and opportunity of participating in V2G.