

GO ELECTRIC FLEET SHOW

Learn More: Electric Vehicle Suitability Assessments

An Electric Vehicle Suitability Assessment (EVSA) helps organizations analyze their fleet's operational needs and determine which vehicles can be replaced. Telematics devices, such as OBD-II sensors, are often used to collect this data over several weeks or months, providing a clear picture of real-world vehicle performance. An Electric Vehicle Suitability Assessment is a critical tool for fleet operators looking to transition to EVs efficiently.

What is an EV Suitability Assessment?

An EV Suitability Assessment (EVSA) is a data-driven process that evaluates a fleet's vehicles to identify those best suited for electrification. It takes into account key factors such as vehicle usage, energy consumption, charging infrastructure needs, and cost comparisons between internal combustion engine (ICE) vehicles and EVs.

Key Components of an EV Suitability Assessment

The first step in an EVSA is gathering data on how vehicles are used. This includes:

- Daily driving distance
- Typical routes and trip frequency
- Time spent idling
- Load requirements (for freight vehicles)
- Seasonal variations in usage

Range and Charging Needs Assessment: Once usage data is collected, an EVSA evaluates whether EVs can meet operational requirements. This includes analyzing:

- Average and peak daily mileage compared to EV range
- Opportunities for overnight and mid-day charging
- Access to public and private charging stations
- Charging speeds required to minimize downtime

Cost and Financial Analysis: An EVSA compares the Total Cost of Ownership (TCO) between ICE vehicles and EVs, considering:

- Purchase price and incentives
- Fuel vs. electricity costs
- Maintenance and repair expenses
- Depreciation and resale value
- Carbon credit or tax incentives

Environmental Impact Evaluation: Reducing carbon emissions is a key driver for fleet electrification. An EVSA calculates:

- Current CO2 emissions from ICE vehicles
- Potential emissions reductions with EV adoption
- Alignment with corporate sustainability goals and government mandates
- This data helps organizations measure their impact and build a case for EV adoption.

Implementation Strategy and Phased Transition Plan: Not all fleet vehicles can be converted to EVs at once. An EVSA provides a roadmap for a phased transition, outlining:

- Priority vehicles for replacement
- Recommended procurement timelines
- Charging infrastructure rollout plans
- Training for drivers and fleet managers

CleanBC Go Electric support:

The CleanBC Go Electric Rebates Program and Fleet Charging Program make it easier for B.C. businesses and organizations to transition to electric fleets. Administered by Plug In BC, these programs offer rebates for conducting fleet assessments, electrical infrastructure assessments, performing electrical upgrades, purchasing and installing charging stations, and purchasing various types of electric vehicles.

Visit pluginbc.ca/fleets or email fleets@pluginbc.ca for more information



Fraser Basin Council

Plug In BC is a program of the Fraser Basin Council and works in collaboration with government, industry, academic institutions, EV owners, NGOs and utilities to advance the uptake of electric vehicles in British Columbia.

The CleanBC Go Electric Fleet Charging Program is one of a suite of programs offered under the Province of BC's CleanBC Go Electric Program. The program is funded through the Ministry of Energy and Climate Solutions and is administered by the Fraser Basin Council Society.