Alberta (Regional) Checklist

Who can benefit from this checklist?

Government entities, public agencies, institutions, utilities, and commercial organizations in Alberta who are interested in transitioning their fleet to electric.

○ Understand the basics of electric vehicles (EVs), and how they differ from internal combustion engine vehicles (ICEVs).

○ Understand the basics of charging infrastructure, and how it differs from fueling in an ICEV.

○ Deploy telematic loggers onto existing ICEV fleet to collect operational data, including data on route lengths, daily mileage, idle times, elevation changes, payload weights, and seasonal impacts over a 3–12-month period.

○ Shift from solely focusing on Capital Expenditure (CAPEX) to Total Cost of Ownership (TCO). Conduct a financial analysis that includes initial purchase price, electricity vs. fuel costs, maintenance savings, and available funding:

Important:

- Budget for a 40-50% reduction in maintenance costs.
- Budget for a 60-70% reduction in fuel costs.
- Explore National Funding Opportunities: Government of Canada's Electric Vehicle Affordability Program, Clean Fuel Regulations and Capital Cost Allowance, NRCan's Zero Emission Vehicle Infrastructure Program, and Green Municipal Fund's Municipal Fleet Electrification.
- Explore Regional Funding Opportunities: ATCO's Community Energy Fund and Alberta Municipalities's EV Charging Program.

○ Research the four charging ownership models and the three fleet EV ownership models. Select the appropriate ownership model that works for both the fleet and organization.

○ Consult with the local utility to help identify infrastructure barriers, streamline project planning, and reduce delays throughout the electrification process. Determine the timeline and requirements for any necessary grid upgrades.

○ Use the collected data from the telematic loggers to determine which ICEVs are stronger candidates for electrification, and which are not.

○ Ensure that employees are comfortable with the transition to EVs, and all departments are committed to the electrification strategy. Build-up internal awareness and create education and training programs for all employees:

Important:

- Provide formal training to staff on regenerative braking, smooth acceleration, pre-conditioning, and charging (levels 1, 2 and 3).
- Provide staff with test-driving opportunities for them to feel comfortable with EVs and charging technology.
- Provide formal training to maintenance staff and technicians on high-voltage charging systems and fire suppression.

○ Engage with key stakeholders about the electrification process, including vehicle manufacturers, charging providers, not-for-profit organizations, fleet management companies (e.g. Enterprise, Element Fleet), and government entities:

Important:

- Determine the level and type of chargers required and plan site layouts.
- Determine which EVs suit the fleet most appropriately.
- Determine where the home-base for EV charging will be done (e.g. parking lot, facility, depot).

○ Develop a strategic roadmap unique to the fleet's circumstances and needs. Ensure the roadmap closely aligns with EMC's 8-phase roadmap.