Canadian Clean Fuel Market

Generating Carbon Credit Revenue from Electric Fleets

The **Canadian Clean Fuel Regulation (CFR)** allows EV charging station operators to appoint a third party, such as BMO, to act on their behalf in dealings with the regulator. BMO's CFR service provides a turnkey solution for credit creation.

Generating Carbon Credit Revenue from Electric Fleets

The new Canadian federal Clean Fuel Regulations (CFR) and British Columbia's Low Carbon Fuel Standard (LCFS) have created new carbon markets. These markets are intended to reduce the carbon intensity of transportation fuels by providing a financial reward for producing and using low-carbon alternatives such as renewable biofuels or electric vehicles. Unlike other climate policy instruments, CFR and LCFS programs do not use taxation to discourage the use of carbon-intensive fossil fuels. They also don't provide government funding for low-carbon alternatives. Instead, they establish a credit market with fossil fuel suppliers directly supporting the transition to low-carbon fuel alternatives.

Carbon Intensity (CI) refers to the amount of carbon dioxide equivalent emitted to the atmosphere per unit of fuel throughout it's life-cycle. CFR and LCFS programs set annual CI targets that decline over time. Fuel suppliers earn credits for providing fuels with a CI below the target and incur debits for providing fuels with a CI above the target. Fuel suppliers holding debits must obtain an equivalent number of credits by the end of each year. **An entity holding excess credits can sell them to a fuel supplier**.

This document is intended to provide a brief overview of the requirements for credit generation under **Canada's CFR program** through the provision of metered electricity for transportation applications.

Electric Charging Equipment Eligibility

Under most CFR and LCFS programs, **electricity qualifies as a low carbon fuel when used to displace diesel or gasoline**. As of June 20, 2022, smart charging stations across Canada can generate credits from the electricity they provide for transportation. Examples include charging electric passenger vehicles, electric heavy-duty vehicles, material-handling equipment and electric vessels[1]. **See fig. 1** to assess your potential eligibility as a supplier of electricity.

A non-exhaustive list of eligible vehicle and equipment types is also provided (**fig. 2**).

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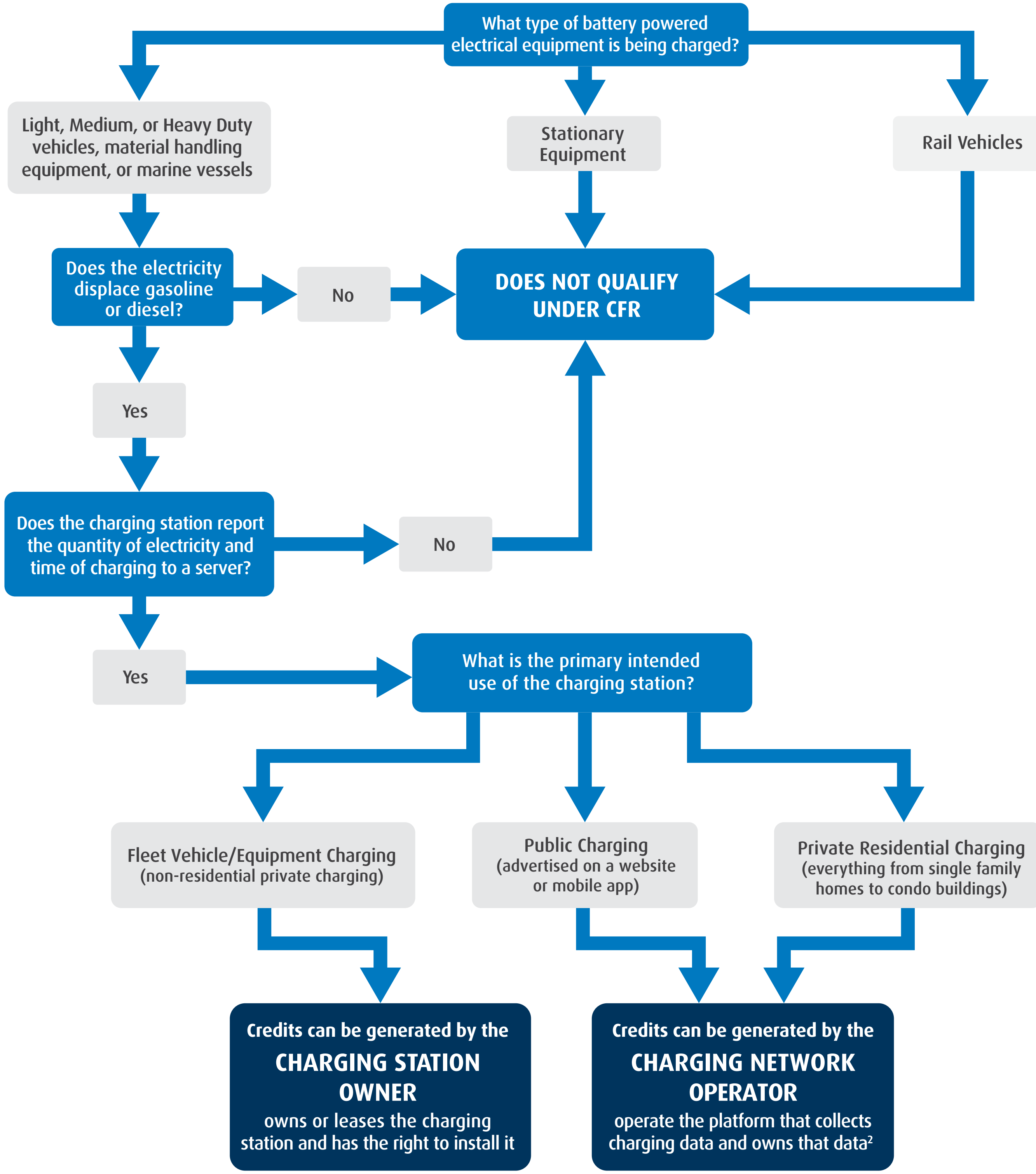
Fig. 1: Credit Eligibility Flowchart: Canadian CFR for Electric Vehicles[1]



Electric equipment must replace equipment that would run on a liquid fuel like gasoline or diesel, and electricity must go into an on-board battery used to power the propulsion system of the vehicle or vessel.

The charging station must be able to measure and remotely report the amount and time of charging.

Fig. 2: Eligible vehicles and equipment types[1]

Any vehicle that is propelled by an electric motor powered by an on-board rechargeable battery that is charged by an off board charger may qualify. See table below for examples of eligible and ineligible equipment and vehicles (indicative only).

Category	Equipment/Vehicle type	Eligible
On-Road vehicles	Heavy Duty vehicles	Yes
	Buses	Yes
	Light and Medium-Duty vehicles	Yes
	Plug-in hybrid electric vehicles	Yes
	Fully hybrid electric vehicles	No
Marine vehicles	Ocean-going vessels (OGVs)	Yes
	Tugs and harbour vessels	Yes
	Shore power	No
Cargo-handling equipment	Trucks	Yes
	Yard tractors	Yes
	Reach stackers	Yes
	Rubber-tired gantry cranes	Yes
	Aerial lifts	Yes
	Forklifts	Yes
	Rail-mounted gantry cranes	No
	Grain conveyor system	No
	Positioning equipment	No
Rail transport	Locomotives	No
	Switcher locomotives	No
	Rail car pushers	No

On-Road vehicles

Credits can be generated for charging all on-road battery electric or plug-in hybrid battery electric vehicles if the charging station can remotely report the amount and time of charging.

Marine vehicles

Credits can be generated for charging battery electric vessels from chargers that can remotely report the amount and time of charging.

Cargo-handling equipment

Credits can be generated for wheeled equipment that runs on power stored in a battery when charged by a device that can remotely report the amount and time of charging.

Note: for all applications, credits are generated based on the amount of electricity that goes from a charger that can remotely report the amount and time of charging to a battery that powers the propulsion system of a vehicle or piece of mobile equipment that does not run on rails[3]

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Why Work With BMO?

The Canadian CFR allows charging station operators to appoint a third party, such as BMO, to act on their behalf in dealings with the regulator. Our CFR service provides a turnkey solution for credit value creation, which can include:

- Assessment of program eligibility
- Registration into the program
- Management of Credit and Tracking System (CATS) account
- Monitoring data as it is received and adapting to regulations as they evolve
- Management of third-party verification
- Compliance reporting
- Monetization of credits to generate a revenue stream for your business

BMO is one of the largest developers of compliance-grade credits in Canada, with over 15 years of experience developing regulatory-approved credits.

How Much Can You Earn?

Even a few qualifying electric vehicle smart chargers could **generate credits that could lead to monetary gains**.[4] And, the number of credits your business generates could increase as you replace more traditional transportation fuel with metered electricity—in many provinces over 1 credit for every MWh of electricity used for transportation. For example, British Columbia, Ontario and Quebec all currently generate about 1.2 credits/MWh, whereas Alberta generates about 0.7 credits/MWh.

If you are in British Columbia, **your project may also qualify to generate BC LCFS credits, which can stack on top of Canadian CFR credits.**

Ready to get started?

Our team of experts are eager to explore CFR credit opportunities for your business. Get in touch to determine whether you qualify.

Reach out to your BMO Representative today.

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[1] The regulator (Environment and Climate Change Canada or ECCC) has the authority to modify program design elements and has some discretion over the details of program application for participants. BMO will work with the regulator on your behalf for your project.

[2] Charging Network Operators are required to reinvest 100% of credit revenues to expand EV charging infrastructure or reduce the cost of EV ownership.

[3] Vehicles and equipment that run on rails do not qualify for CFR credit generation.

[4] BMO does not forecast market prices and makes no explicit or implied guarantee regarding monetary gains, credit prices or volumes.

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