PROGRAM GUIDE FOR
CleanBC Go Electric Public Charger Program

Date: July 14, 2021

Funded by the Province of British Columbia

Contents

Abbreviations

B.C. – British Columbia

DCFC – Direct Current Fast Charger

EV – Electric Vehicle

FBC – Fraser Basin Council

MEMLI - Ministry of Energy, Mines and Low Carbon Innovation

OCPP – Open Charge Point Protocol, v1.6 or higher

ZEV – Zero-Emission Vehicle

Glossary of Terms

Dual Standard – A DCFC that possesses both CHAdeMO and Combined Charging System (CCS) Combo 1 plugs; simultaneous charging capability not required

Indigenous community - A First Nation (i.e. Band government) or its wholly owned subsidiaries (e.g. development corporations)

Interface – The controls and/or screen (as applicable) used to operate a charger

Multi-Port Charger – Single charger that can charge more than one vehicle simultaneously

OCPP Compatible – Property of a charger having OCPP installed, and able to be controlled by any OCPP network operator upon agreement with the charger's owner, i.e. not limited by hardware, software or contract (except for a limited, defined term) to any one network operator

Tandem Installation – Project where more than one DCFC is installed at the same location as part of a project

1.0 ***Program Overview (Management and Communications)***

1.1 Program Summary

The CleanBC Go Electric Program is intended to encourage and accelerate the adoption of zero-emission vehicles (ZEVs) in British Columbia (B.C.) for both their environmental and economic benefits. The CleanBC Go Electric Public Charger Program (Program) is a sub-program of the CleanBC Go Electric Program and is intended to increase the number of public Direct Current Fast Chargers (DCFCs) throughout B.C. to support the growing number of ZEVs on the road. The Program aims to target current gaps in the public DCFC network in B.C. such as Indigenous communities, rural and northern areas, and city centers experiencing long queues for DCFCs due to high ZEV uptake.

The Program will provide varying rebates of up to $80,000 per charge port depending on charger output, to a maximum of 50% of project costs, with enhanced rebates of up to $130,000 per port, to a maximum of 90% of costs for Indigenous communities (see section 3.1). The Program will also provide rebates for co-located Level 2 stations with DCFCs, up to $5,000 per station, to a maximum of 50% of costs (90% for Indigenous communities). The target number of DCFC ports to be installed from the Program is 80 and for Level 2 stations is 60. The total Program funding available for charger rebates is $5,076,000.

This Program Guide serves as direction for the CleanBC Go Electric Public Charger Program, and identifies the requirements for administration, implementation, and oversight of the Program. The document may be periodically updated as needed to clarify Program requirements and improve Program effectiveness.

1.2 Program Management & Administration

The Ministry of Energy, Mines and Low Carbon Innovation (MEMLI) is responsible for overall CleanBC Go Electric Public Charger Program management. Fraser Basin Council (FBC) will administer the Program on behalf of MEMLI.

In order to meet CleanBC Go Electric Program targets, MEMLI may modify any component of the Program. Program modification may include but is not limited to:

- Rebate eligibility criteria; and,
- Funding caps

The Program will be regularly reviewed and evaluated by MEMLI staff. MEMLI reserves the right to change or terminate the Program at any time without notice.

1.3 Program Communications

The application forms, eligibility requirements and applicable rebate amounts will all be accessed online. The CleanBC Go Electric Public Charger Program and application

process will be added as a page/subpages on FBC's Plug In BC website (https://pluginbc.ca/publiccharger/), using the CleanBC Go Electric branding. The Program page will link back to the CleanBC - Go Electric website (https://goelectricbc.gov.bc.ca/). FBC will use internal capacity to support the initial design and creative work to help with the set-up of the key marketing elements in a timely way. Ongoing updates will be done by FBC staff.

Enquiries related to the administration of the Program including, but not limited to, eligibility requirements, and application processing, should be directed to FBC at: PublicCharger@pluginbc.ca

Enquiries related to the overall design of the Go Electric B.C. Public Charger Program can be directed to MEMLI at: CEVEnquiries@gov.bc.ca

1.4 Resources

The following tools and reports are presented here for quick reference:

- BC Public Light Duty ZEV Infrastructure Study
- BC Hydro Fast Charging Design Guide
- Operations and maintenance calculator
- Operations and maintenance template

2.0 ***Program Criteria***

2.1 Applicant Eligibility

Applicants must apply and be approved for Program rebate(s) before any costs are incurred. Any costs incurred before approval was received will not be eligible for a rebate(s) and cannot be counted toward eligible expense totals. After approval is received, applicants will have 18 months to complete projects and submit final documentation.

To be eligible for the Program an applicant must:

- Be the current site owner or have approval (in writing) from the site owner to install the charging infrastructure for a minimum ten-year period; and,
- Be a business, not-for-profit, local government, Indigenous community, utility or public sector organization located and operating in B.C. (*excluding* core government entities, i.e. Provincial Ministries, but *including* non-core entities, e.g. utilities, health authorities, school districts, universities, crown corporations, etc.)

2.2 Installation Site Requirements

To be eligible for the Program a project's charger installation site must be:

- Located within B.C.;
- Publicly accessible 24 hours per day, 365 days per year; and,
- Accessible by those using mobility aids (wheelchairs, canes, etc.), including:
    - A space of at least 1.2 m between any protective bollards in front of the charger, such that they do not obstruct interface (i.e. screen and/or controls);
    - A rise not exceeding 9 cm above grade for any concrete footing;
    - Fonts that are clear and easy to read on any signage;
    - A parking space that is:
        - Not less than 2 400 mm wide and provided on one side with an access aisle not less than 1 500 mm wide;
        - Located on a paved level surface.

2.3 Equipment Requirements

To be eligible for the Program all equipment must:

- Be new, and purchased after program launch date;
- Remain operational by the original owner for a minimum of five years, or be replaced with a charger of equal or higher output that remains operational for five years from the date of the original project installation. Changes in equipment ownership within the five year period may be considered in extenuating circumstances (e.g. due to sale of a business) and must be approved to maintain Program funding;;
- Contain appropriate certification marks (CSA, cUL, cETL, etc.) for use in B.C.;
- Have a method of payment that does not require a charging network account, if payment is required;
- Have charging port holsters and the top of interface not exceeding 1.2 m above grade;
- Remain accessible to the public for use 24 hours per day, 365 days per year;
- Include an Operating and Maintenance Plan;
- Not replace an existing charger.

To be eligible for the Program DCFC equipment must:

- Be dual standard (CHAdeMO and Combined Charging System (CCS) Combo 1 plugs);
- Be networked and be OCPP compatible by the date of installation;
- Have a minimum power output of 20 kW.

To be eligible for the Program Level 2 equipment must:

- Have a J-1772 port;
- Have input power at 208 or 240 volts;
- Have a minimum power output of 32 amps.

2.4 Eligible Project Costs

Costs eligible for rebates through the Program will be:

- Dual standard DCFC equipment;
- Co-located Level 2 stations;
- Installation costs such as labour and materials, including:
    - Necessary electrical equipment (e.g. cabling and conduit, transformer)
    - Earthworks;
    - Paving of one parking space per charger;
    - Curb and/or protective bollards around chargers;
    - Lighting directly above or adjacent to chargers (within 5 m);
    - Network equipment (e.g. cellular booster);
    - Way finding and on-site signage pertaining to the chargers (e.g. location, output, time limits, instructions for use);
    - Site markings (e.g. pavement painting);
    - One security camera per charger;
- Project management and engineering design fees;
- Tesla CHAdeMO adapter;
- Utility provider fees for electrical connection; and,
- Network service provider initial sign-up fees; and,
- Equipment warranty.

2.5 Final Project Documentation Requirements

To receive rebate funds applicants must submit the following documentation after DCFC (and Level 2, if applicable) equipment is installed and operational:

- Invoice for DCFC equipment (and Level 2 equipment, if applicable);
- Itemized invoice for DCFC (and Level 2, if applicable) installation;
- Copy of network agreement;
- Photo of installed DCFC (and Level 2, if applicable) equipment; and,
- Proof all eligible equipment, (DCFCs and Level 2s, as applicable) is/are operational.

3.0 ***Rebate Overview***

Applicants are eligible for three rebate tiers to cover up to 50% of the eligible costs of DCFCs with power outputs of ≥20kW (but less than 50 kW), ≥50kW (but less than 100 kW), and ≥100kW. Indigenous communities will be eligible for higher rebates at each tier, to a maximum of 90% of total project costs. Level 2 chargers installed as part of a funded DCFC project are eligible for a rebate of up to 50% of the additional cost or 90% for Indigenous communities. Indigenous communities refer to a First Nation (i.e. Band government) or its wholly owned subsidiaries (e.g. development corporations). To receive an Indigenous community rebate, the Indigenous community must own the equipment; a third-party that owns and installs equipment on Indigenous lands is not eligible for the enhanced rebates.

Prospective installation locations greater than 500 m from the nearest public charger (Level 2 or DCFC) will be required to install either tandem DCFC stations or a co-located Level 2 station (minimum 32 A; higher power preferred) to provide redundancy to the site. Installation of both multiple DCFCs and one or more Level 2s per site will also be supported. A multi-port station on its own does not fulfill this requirement.

The applicant will be responsible for ongoing operation and maintenance costs associated with the DCFC and will be required to prepare an Operating and Maintenance Plan for its charger(s).

Rebates may be capped at 10 per organization to reserve funds for other organizations.

3.1 DCFC Funding Tiers

Applicants are offered three tiers of rebates for DCFC stations with: 1) output of 20kW or greater, but less than 50 kW; 2) output of 50 kW or greater but less than 100 kW, and 3) output of 100 kW or greater. Rebate amounts are as follows:

Charger Output	Maximum Rebate Amount	Maximum Rebate Amount for Indigenous Communities
DCFC: ≥20 kW, but <50 kW;*	$20,000; up to 50% of project costs	$50,000; up to 90% of project costs
DCFC: ≥50 kW, but <100 kW;	$50,000; up to 50% of project costs	$100,000; up to 90% of project costs
DCFC: ≥100 kW	$80,000; up to 50% of project costs	$130,000; up to 90% of project costs

Level 2: ≥32 amps	$5,000; up to 50% of costs	$5,000; up to 90% of costs

* under conditions identified in section 3.4

3.2 Level 2 Additions

To provide contingency charging in the case a station is occupied or not functioning, Level 2 chargers installed in tandem with DCFCs as part of the Program will be eligible for an additional maximum of $5,000 in project funding per Level 2 charger (≥32 A), to a maximum of $10,000 per installation site (percentage caps still apply). Level 2 stations are not required to be networked.

3.3 Tandem or Multi-Port DCFC Installations

Tandem and multi-port DCFCs are eligible for one rebate for each vehicle that can charge simultaneously at a given output level. For tandem DCFC stations a 75% funding limit will apply while the combined dollar cap will remain the same. The funding amount of multi-port stations will be based on the maximum simultaneous output level of operating ports.

For example, if the total cost for two tandem 50 kW stations is $180,000, the applicant is eligible for 2 x $50,000 rebates = $100,000.

Multi-port stations must be accompanied by an additional charging station (DCFC or Level 2) on the same site.

3.4 Station Output Level Conditions

In order to ensure effective deployment of charging stations under the Program, the following are guidelines for DCFCs with charging output levels of <50 kW.

Stations with less than 50 kW output would be eligible under the following conditions:

- In urban centres (i.e. within Census Agglomerations or Census Metropolitan Areas with a population of 100,000 or greater);
- In areas not located on or near primary, secondary highways or major roads, as defined by the B.C. Ministry of Transportation and Infrastructure;
- As part of a tandem installation with a ≥50 kW DCFC;
- Where an electrical service extension (and/or service upgrade, as applicable) to accommodate a ≥50 kW station would be cost prohibitive.

3.5 Pilot Projects

DCFC pilot projects (e.g. for car sharing, ride hailing, taxi, battery storage stations, etc.) may be considered through this Program if they are able to demonstrate public benefit. Specific eligibility criteria may be developed for pilot projects.

4.0 ***Application Process***

Applicants can find Program information, criteria, application forms and other relevant information on FBC's Plug In BC website (https://pluginbc.ca/publiccharger/). Applications will be submitted online and must receive approval before any works begin. Any costs incurred before approval was received will not be eligible for a rebate(s) and cannot be counted toward eligible expense totals. Applicants who do not own the site they plan to install a DCFC at will need to include a written agreement demonstrating right to use the site with their application for a ten-year period.

Applications will be reviewed on a minimum two-month cycle, or more frequently depending on application volume. Once a decision has been made, applicants will be notified by email if they have been successful; remaining applications will be retained for future review periods.

Preference will be given to applications that:

- Fill existing DCFC network gaps and/or underserved areas (e.g. Indigenous communities, rural and northern areas, communities with high ZEV uptake, high concentrations of existing multi-unit residential buildings, etc.);
- Are co-located with primary amenities (lighting, washrooms, non-cellular wireless (i.e. WiFi) internet available at all times);
- Are co-located with one or more additional DCFCs;
- Are located near secondary amenities, such as restaurants, shopping and attractions (e.g. parks, libraries, community centres, etc.);
- Include stations ≥75 kW when located on primary and secondary highways, where feasible;
- Include stations able to deliver ≥120 A of electricity, if proposing DCFCs with output ≥50 kW but <100 kW;
- Include Level 2 stations with a higher output than 32 A, if Level 2 stations are proposed;
- Include an on-site Tesla CHAdeMO adapter;
- Include capability to add of future DCFCs (e.g. space on site, oversized conduit, etc.)
- Agree to provide data on charger usage;
- Include site design drawings;
- Include an operating and maintenance plan as part of the original application;
    - for more guidance see BC Hydro's EV Fast Charging Design & Operational Guidelines at https://www.bchydro.com/powersmart/electric-vehicles/industry/fast-charging.html).

Once approval is received, applicants will have an 18-month window to install their DCFC(s) (and Level 2(s) if applicable) and submit final project documentation. FBC will review the final documentation for completeness and will then issue rebates. The items below lay out the steps for applying, receiving approval, and receiving the rebate:

- Application for station(s): Applicant creates an online profile and applies for the number of stations desired, including information on organization type and documentation, site description, proof of site ownership or permission of the landowner, charger type(s) and output(s), capital budget/quotation (including site acquisition/lease (if applicable), permits, design, electrical service extension, site preparation/civil works, electrical equipment, charger, lighting, and signage), and site design drawings (optional), and operating and maintenance plan (optional at application phase).
- Screening and pre-approval: FBC staff screen applicants for eligibility and move forward applicants that meet mandatory criteria.
- Station approval: in consultation with MEMLI staff, FBC approves applications based on a diversity of geographic and usage types. Applicants then have 18 months for implementation. FBC staff will check in periodically to assess progress. Projects that may require advance payments to manage the cashflow, might have the option to be funded through an up-front contribution agreement.
- Completion report: Applicant provides completion report including documentation, photos, financial report and copies of invoices to verify costs. These will be submitted online via the application platform. FBC will reserve the right to make on-site audits for projects if required. An Operating and Maintenance Plan must be submitted at this stage. An Operating and Maintenance report template is available on FBC's Program website (https://pluginbc.ca/publiccharger/) but an alternative format may be used, as long as it contains the following elements:
    - Service stability
        - Charger up-time targets
        - Performance monitoring (e.g. testing, remote, crowdsource, etc.)
        - Ensuring access
            - Cleaning interface
            - Clearing/plowing area
            - Lighting
            - Preventing blocking by vehicles not charging

        - Regular maintenance/warranty
        - Staff training
            - Customer service (on site/remote)
            - Operation/signup walkthrough
            - Resetting device
            - Nearby charging locations
            - Local towing companies
        - Incident response plan (e.g. for device failure, vehicle impacts, tampering/vandalism, etc.), including:
            - Response procedures (e.g. shutdown, fire department, repair/replacement, etc.)
            - Service provider and/or warranty service
            - Response time targets
            - Public notification of failure
            - Spare parts supply/inventory
            - Graffiti removal
    - Cost of electricity (including demand charges)
    - Network fees
    - Revenue collection strategy (if applicable)
    - Insurance

Station utilization data: Successful applicants are encouraged to provide usage data for DCFCs funded under the Program, for a minimum period of five years from the date of installation. Usage data includes information related to charging sessions (i.e.: start/end time, duration, energy, power per minute, peak power) but excludes personally identifiable data. Successful applicants will work with the Ministry of Energy, Mines and Low Carbon Innovation to determine the best tools and methods for data sharing.

For example, successful applicants can send station utilization data in the format of an annual report that includes a record for each charging session during the year, its start and end time, the maximum charging rate (kW), the energy delivered (kWh), and the charging connector type. It should not contain any personally identifiable information of users (names, membership numbers, credit card numbers). Acceptable formats are .xls, .xlsx, and .csv.

Final documentation will also be submitted online. Printable or paper application forms

may be requested from FBC in extenuating circumstances. New stations funded under the Program will be entered into charging station databases (e.g. Chargehub, Plugshare, etc.) with a link to the Program webpage.

5.0 ***Interaction with Other Programs in Market***

There are two other programs currently in market that offer rebates for DCFCs and can be accessed for B.C. based DCFC projects. The two programs are:

- Natural Resources Canada (NRCan) Zero Emission Vehicle Infrastructure Program (ZEVIP); and,
- NRCan Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative (EVAFIDI).

Both programs provide maximum federal funding of 50% of total project costs to a maximum of $50,000 per DCFC. Currently MEMLI has partnered with NRCan on both programs to provide additional funding for B.C based DCFC projects. Successful applicants completing DCFC projects in B.C. are automatically eligible for B.C. funding. MEMLI funding provides a maximum of $25,000 per DCFC to a max of 25% of the total project costs (on top of the federal $50,000 funding). Any station that receives MEMLI funding through the ZEVIP or EVAFIDI will not be eligible for funding through the CleanBC Go Electric Public Charger Program.

The stacking of provincial funding with ZEVIP, EVAFIDI, and other CleanBC Programs is not permitted. Stacking of funding from other government funding programs with the Public Charger Program will be limited to 75% of eligible project costs, except in the case where the applicant is a local or Indigenous government or their department or agency in which case the stacking limit for government funding is 100% of the total project costs. Funding from other sources will be allowed as long as funding amounts do not exceed total project costs. Reporting of application for other government funding for the use toward a project funded under the CleanBC Go Electric Public Charger Program is mandatory.