



# Zero-Emission Vehicle Update

## 2023

# A Message from the Minister



It wasn't so long ago that battery-powered electric vehicles were the stuff of science fiction. Today, zero emission vehicles (ZEVs) are here to stay, and they are coming in greater numbers, models and choices than ever before. I'm encouraged to see so many British Columbians taking advantage of the benefits of ZEVs as we drive forward to a cleaner, quieter, low-carbon future.

In 2023, a total of 44,009 new light-duty (passenger) ZEVs were registered in the province, which represented 22.65% of all new light-duty vehicle registrations – that's almost one in four! In total, there were 153,045 light-duty ZEVs on the road in B.C.

Our government continues to work diligently to support British Columbians as they adopt cleaner driving options, and to grow the province's ZEV industry through a suite of CleanBC Go Electric programs and rebates. As of December 2023, the Province had issued rebates for 84,267 light-duty ZEVs through the Go Electric Passenger Vehicle Rebate program. These rebates have put over \$274 million back in the pockets of British Columbians since April 2015.

Our support for ZEVs extends beyond light-duty vehicles. In 2018, B.C.'s commercial transport sector accounted for approximately 60% of B.C.'s transport emissions and 22% of total provincial emissions. We are working to reduce emissions in the medium- and heavy-duty commercial vehicle sector through programs that support technology development and commercialization. These programs are designed to encourage businesses, non-profit organizations, local governments, and other public entities to adopt electric or hydrogen fuel-cell specialty use vehicles for their fleets, replacing gas or diesel vehicles.

The CleanBC Roadmap to 2030 details a range of expanded and ambitious actions to accelerate the transition to a net-zero future and achieve B.C.'s legislated greenhouse gas (GHG) emissions targets. These actions include strengthening the Zero-Emission Vehicles Act in November 2023 to require 26% of light-duty vehicle sales to be ZEVs by 2026, 90% by 2030 and 100% by 2035 - five years ahead of the original target.

We know that as people make the switch to cleaner energy, we need a work force in place to support these new and exciting opportunities. That's why we're supporting training programs in local colleges so that more automotive technicians can upgrade their skills in the wake of a rapidly changing industry. B.C. has one of the largest public charging networks in the country, so we've also provided funding for Red Seal electricians in B.C. to become certified in installing EV charging infrastructure.

To better support public-sector organizations in B.C. that are leading the way to a cleaner future, we have increased rebates for public-sector organizations through the CleanBC Go Electric Fleet Charging program so organizations with fleets can plan for and install the charging infrastructure they need. We continue to support the widespread adoption of EVs by installing more public EV charging stations across B.C. As of the end of 2023, we have over 4,700 public EV charging stations in B.C.

Looking forward into 2024, we're making public charging stations even more accessible, with \$30 million to support over 500 new public fast charging stations for light-duty vehicles across B.C. With this funding, we've invested over \$95 million in the Go Electric Public Charger program over the past two fiscal years.

More charging stations means we're making the EV choice easier for British Columbians, helping to reduce range anxiety by prioritizing new stations to fill geographic gaps in rural, northern and remote communities. Many of these new stations will be installed in popular community spots where people gather, like community halls and recreation centres, and in high density cities where there is a particular need for additional fast chargers.

I also want to highlight a new First Nations Low-Carbon Transportation Project, which is funded by the Province and launched in 2023. The BC Assembly of First Nations is leading a three-year project that aims to promote and accelerate First Nations' equitable access to safe, affordable, reliable, low-carbon and active transportation within and between communities, reduce carbon pollution and uphold the rights and well-being of all First Nations peoples. We look forward to seeing their results!

We are moving forward to a cleaner, quieter, and more sustainable future, and we're doing it responsibly with a view to investing in our strong economy. B.C.'s ZEV sector continues to deliver jobs and significant economic opportunities across the province with an estimated 384 B.C. companies that directly provide 8,280 full-time jobs and contribute \$920 million to the provincial gross domestic product.

This indicates we're cruising smoothly on the CleanBC highway, revving up the economy, shifting into high gear for job creation, and steering towards a more affordable options for people. Our journey to a cleaner, brighter future is picking up speed, and the performance just keeps getting better!

Sincerely,

**Josie Osborne**

Minister of Energy, Mines and Low Carbon Innovation

*Cover photo credit: Michael Stanyer from Plug In BC*

# Zero-Emission Vehicle Market Highlights

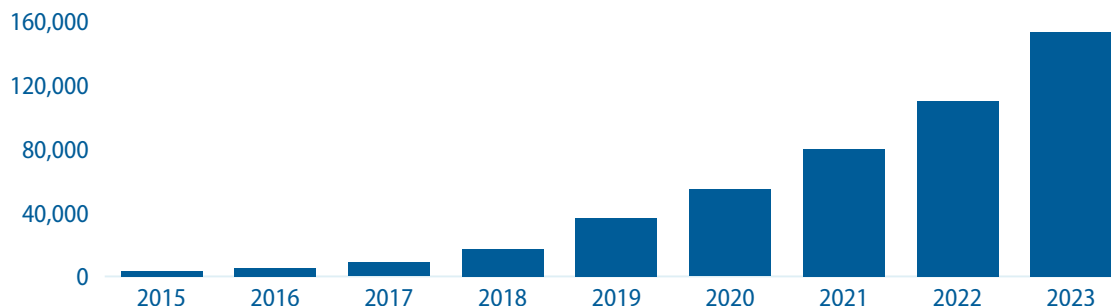
With the suite of CleanBC Go Electric programs and Zero-Emission Vehicle Regulation, we're getting more zero-emission vehicles (ZEVs) on the road in B.C. We're working on the following:

- ▶ Bringing down the price of ZEVs.
- ▶ Making it easier to charge or fuel a ZEV.
- ▶ Supporting research, jobs, training and economic development in B.C.'s ZEV sector.
- ▶ Increasing availability of ZEVs for British Columbians.

## B.C. is leading the charge for ZEVs.

- ▶ In 2023, light-duty ZEV sales represented 22.65% of all new light-duty vehicle sales in B.C.<sup>1</sup>
- ▶ 153,045 light-duty ZEVs are registered in B.C. as of December 31, 2023.<sup>2</sup>
- ▶ At the end of 2023, there were 4,756 public charging stations in B.C.
- ▶ In 2023, B.C. had the highest uptake of ZEVs in Canada.
- ▶ In 2023, there were 86 new medium- and heavy-duty ZEVs registered in B.C., which represented 0.57% of all new medium- and heavy-duty vehicle registrations in B.C.<sup>3</sup>

**British Columbia Light-Duty ZEV Registration Totals<sup>2</sup>**



<sup>1</sup> Based on S&P Global Mobility New Vehicle Registration data from January 2023 through December 2023.

<sup>2</sup> Based on S&P Global Mobility Units in Operation Registration Data as of December 31, 2023 (Model Years 1981 and Newer) for the Province of British Columbia. Figures and information sourced to S&P Global Mobility within this report (the "S&P Global Mobility Materials") are the copyrighted property and of S&P Global Mobility Ltd. and its subsidiaries ("S&P Global Mobility") and represent data, research, or opinions of S&P Global Mobility, and are not representations of fact. The information and opinions expressed in the S&P Global Mobility Materials are subject to change without notice and S&P Global Mobility has no duty or responsibility to update the S&P Global Mobility Materials. Moreover, while the S&P Global Mobility Materials reproduced herein are from sources considered reliable, the accuracy and completeness thereof are not warranted. No further reproduction of this material is allowed without the express written permission of S&P Global Mobility.

<sup>3</sup> Based on S&P Global Mobility Registration Data (Year End 2023) for the Province of British Columbia and S&P Global Mobility's definition of Class 3-8 vehicles which excludes vehicles less than 10,000 GVW. Figures and information sourced to S&P Global Mobility within this report (the "S&P Global Mobility Materials") are the copyrighted property and of S&P Global Mobility Ltd. and its subsidiaries ("S&P Global Mobility") and represent data, research, or opinions of S&P Global Mobility, and are not representations of fact. The information and opinions expressed in the S&P Global Mobility Materials are subject to change without notice and S&P Global Mobility has no duty or responsibility to update the S&P Global Mobility Materials. Moreover, while the S&P Global Mobility Materials reproduced herein are from sources considered reliable, the accuracy and completeness thereof are not warranted. No further reproduction of this material is allowed without the express written permission of S&P Global Mobility.

# ZEV Targets

B.C. became the first jurisdiction in the world to legislate a 100% ZEV sales requirement. The *ZEV Act*, passed on May 30, 2019, requires automakers to meet ZEV sales targets reaching 10% of new light-duty vehicle sales by 2025, 30% by 2030, and 100% by 2040. In 2023, the Province increased the stringency of the *ZEV Act* such that ZEVs will make up 26% of light-duty vehicle sales by 2026, 90% by 2030, and 100% by 2035. The legislation aims to ensure a greater availability of ZEVs at more affordable prices in B.C.

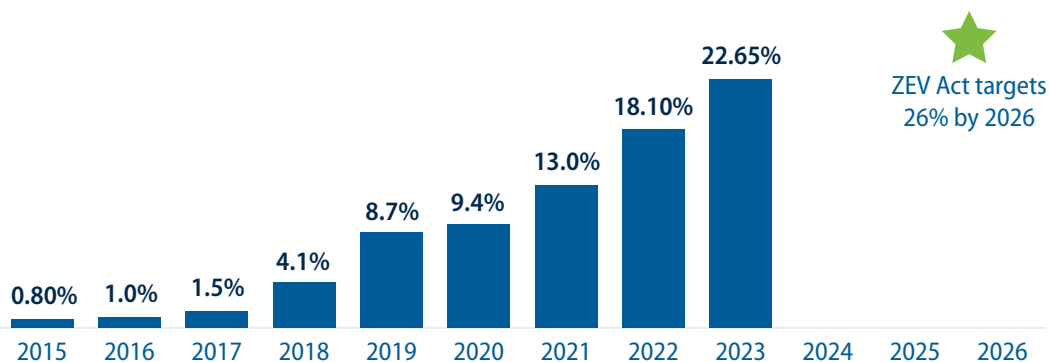


In the CleanBC Roadmap to 2030, the Province also committed to implement ZEV targets for medium- and heavy-duty vehicles, and to develop a Clean Transportation Action Plan that will identify the next set of actions to reduce greenhouse gas emissions in the transportation sector by 27-32% by 2030, including actions to shift transportation to more energy-efficient modes. We are well on our way to achieving the 2026 ZEV sales targets. In 2023, there were 44,009 new ZEVs registered in B.C., which represented 22.65% of all new light-duty vehicle registrations in B.C.

In 2023, there were 86 new medium- and heavy-duty ZEVs registered in B.C., which represented 0.57% of all new medium- and heavy-duty vehicle registrations in B.C.

Note: Recent amendments to the ZEV Act, which received Royal Assent on November 30, 2023, increased the weight of vehicles captured under the Provincial ZEV sales targets and Provincial targets report to include Class 2b vehicles.

## British Columbia Light-Duty Vehicle ZEV Sales Rates<sup>4</sup>



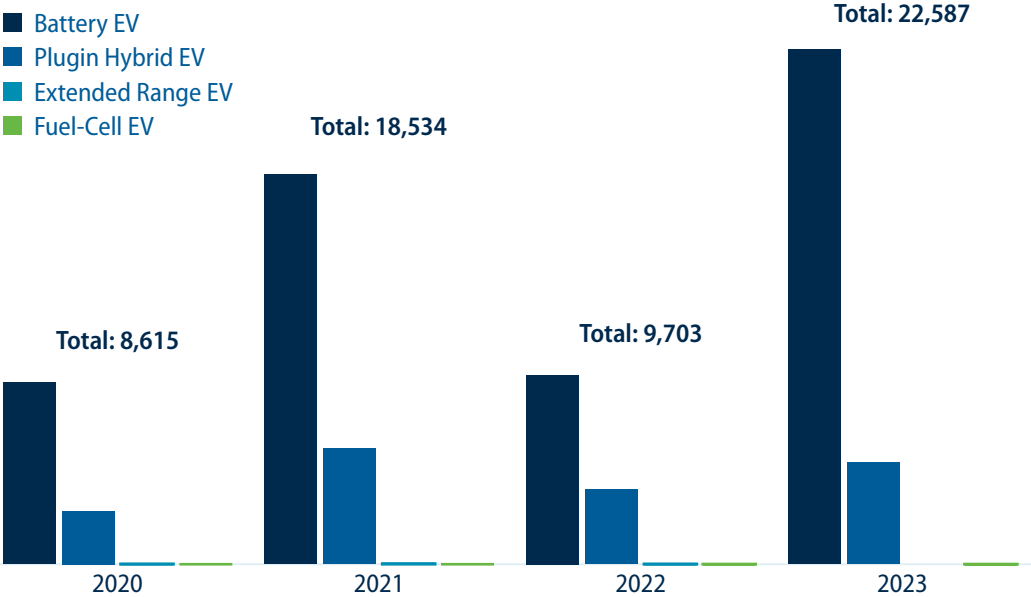
<sup>4</sup> Based on S&P Global Mobility New Vehicle Registration data from January 2023 through December 2023. Figures and information sourced to S&P Global Mobility within this report (the "S&P Global Mobility Materials") are the copyrighted property and of S&P Global Mobility Ltd. and its subsidiaries ("S&P Global Mobility") and represent data, research, or opinions of S&P Global Mobility, and are not representations of fact. The information and opinions expressed in the S&P Global Mobility Materials are subject to change without notice and S&P Global Mobility has no duty or responsibility to update the S&P Global Mobility Materials. Moreover, while the S&P Global Mobility Materials reproduced herein are from sources considered reliable, the accuracy and completeness thereof are not warranted. No further reproduction of this material is allowed without the express written permission of S&P Global Mobility.

# Passenger Vehicle Rebate

As of December 2023, the Province has issued rebates for 84,267 ZEVs through the Go Electric Passenger Vehicle Rebate Program, totalling \$274,414,698 since April 2015.

The program continues to use an income-tested rebate approach to ensure EV rebates are accessible to those who need them most. In May 2023, BC Hydro started funding the rebate program in collaboration with the Province of British Columbia. The program continues to be delivered by the New Car Dealers Association of BC. The top applicant cities for rebates in 2023 were Surrey, Vancouver, and Richmond.

Number of Light-Duty vehicle rebates by year



In 2023, five rebates were issued for FCEVs and zero rebates were issued for EREVs.

Light duty ZEVs that received the most rebates in 2023
Tesla Model Y
Tesla Model 3
Chevrolet Bolt
Volkswagen ID.4
Mitsubishi Outlander



Photo credit: Community Energy Association



Photo credit: Seaspan

## Commercial Vehicles

The Go Electric Commercial Vehicle Pilots (CVP) program and Go Electric Rebates (GER) program are designed to support the adoption of commercial<sup>5</sup> ZEVs in a variety of applications.

The CVP program is a competitive program that supports pilot projects focused on the development and deployment of commercial zero-emission medium and heavy-duty vehicles. The CVP program also supports fuelling infrastructure across all modes of transportation. The program is available to B.C. businesses, local and regional governments, public sector organizations, and non-profit organizations. Selected projects can receive up to 33% of the cost for both eligible vehicles and fuelling infrastructure.

The GER program provides post-purchase rebates for eligible commercial and specialty use vehicles for B.C. businesses, local and regional governments, public sector organizations, and non-profit organizations. Individuals can also receive rebates on zero-emission motorcycles and neighbourhood ZEVs under the low-speed category. In 2023, Class 2b vehicles were added as an eligible vehicle type in the Medium and Heavy Duty (MHD) Vehicle rebate category.

<sup>5</sup> Commercial vehicles include on-road and off-road medium, heavy-duty trucks, vans, buses, marine vessels, port, airport equipment, etc

### HIGHLIGHTS:

- ▶ Since November 2017, the Go Electric Rebate (GER) program has distributed \$10,684,929, providing a total of 1428 rebates to eligible commercial vehicles and other speciality use vehicles.
- ▶ Since the CVP Program launched in January 2021, \$47 million has been allocated across 29 projects representing 86 on-road battery electric vehicles (BEV), 25 off-road BEVs, one off-road plug-in hybrid electric vehicle (PHEV), and five off-road hydrogen fuel-cell electric vehicles (FCEV), as well as 118 total commercial vehicle charging points and fuelling stations.
- ▶ In 2023 elibird aero's proposal for \$491,000 was approved to acquire two fully electric training aircraft and two accompanying level 3 chargers. elibird aero is a 100% Indigenous-owned company offering pilot and aircraft maintenance training as well as sightseeing tours out of the Boundary Bay Airport in Delta. This is the second 100% Indigenous-owned project to be supported by CVP.
- ▶ Gat Leedm, an Indigenous-owned logistics and freight company, was granted \$914,000 in 2021 for the purchase of three battery electric drayage trucks and supporting charging infrastructure for operations out of the Port of Prince Rupert.
- ▶ Since 2020, a total of 96 electric school buses have been ordered through the Go Electric School Bus program, a successful partnership between the Ministry of Education, the Ministry of Energy, Mines and Low Carbon Innovation and the Association of School Transportation Services of B.C. Out of the 75 school buses (all fuel types) ordered in 2023, 28 were electric, representing a 37% adoption rate.

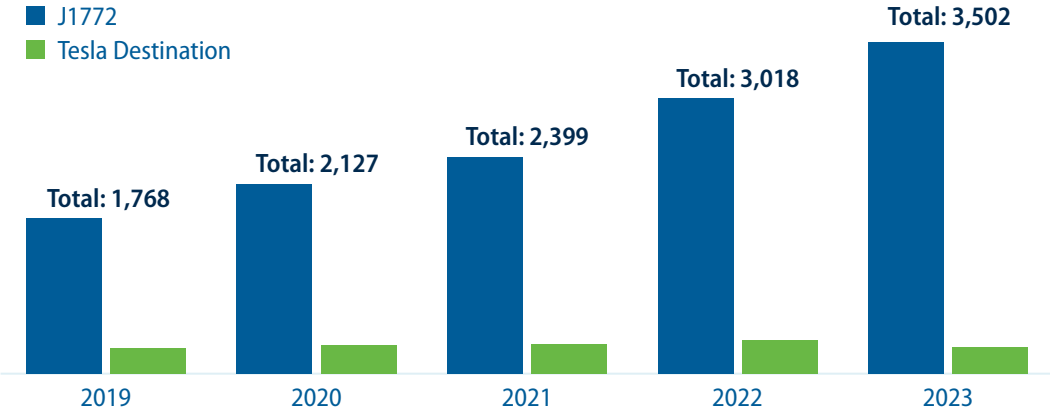
# Public Charging and Fuelling Infrastructure

## Public EV Charging Infrastructure Funding

Through the Go Electric Public Charger program, Indigenous applicants can receive up to 90% of project costs to a maximum of \$130,000 per fast-charging station and \$7,500 per level 2 charging station, while all other applicants can receive up to 50% of project costs, to a maximum of \$80,000 per fast-charging station and \$5,000 per level 2 charging station. In the CleanBC Roadmap to 2030, the Province committed to having 10,000 public EV charging stations in B.C. by 2030.

Additionally, Go Electric funding provides successful applicants of Natural Resources Canada’s (NRCan) Zero Emission Vehicle Infrastructure Program (ZEVIP) with top up funding of up to 25% of project costs to a maximum of \$25,000 for public fast-charging projects located in B.C. This funding is in addition to funding of up to 50% of project costs provided by NRCan.

Public Level 2 Charging Station Growth<sup>6</sup>



## Hydrogen Fuelling

The Go Electric Hydrogen Fuelling Program provides funding to public hydrogen fuelling station developers in B.C. At the end of 2023, there was a network of five public hydrogen fuelling stations for light-duty vehicles in B.C., with six more planned for completion.



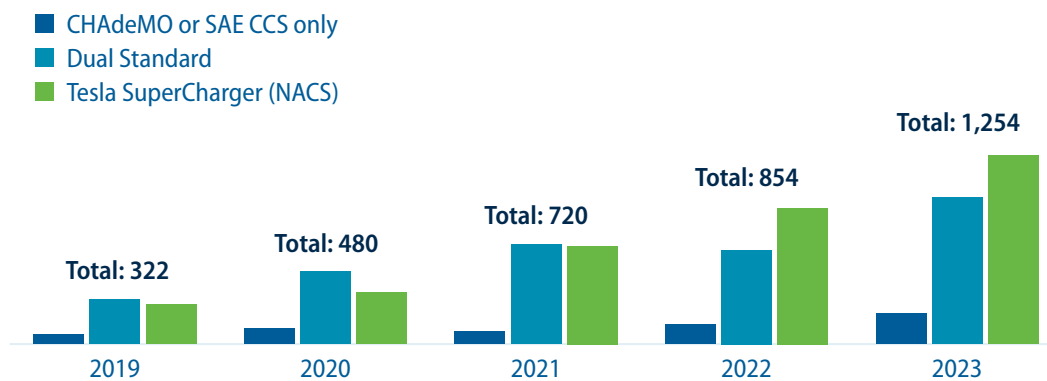
<sup>6</sup> Data for 2023, 2021, 2020, and 2019 is provided by PlugShare. Data from 2022 is from the NRCan Electric Charging and Alternative Fuelling Stations Locator.





# Public Charging and Fuelling Infrastructure

Public Fast-Charging Station Growth<sup>7</sup>



Public charging station numbers grew by 47% in 2023, compared with 2022. By the end of 2023 in B.C., there were 1,257 fast charging stations across 402 public fast-charging sites (of those sites 62 were Tesla Supercharger sites). Approximately 80% of the core network of fast-charging sites enabling travel throughout B.C. are now ready.

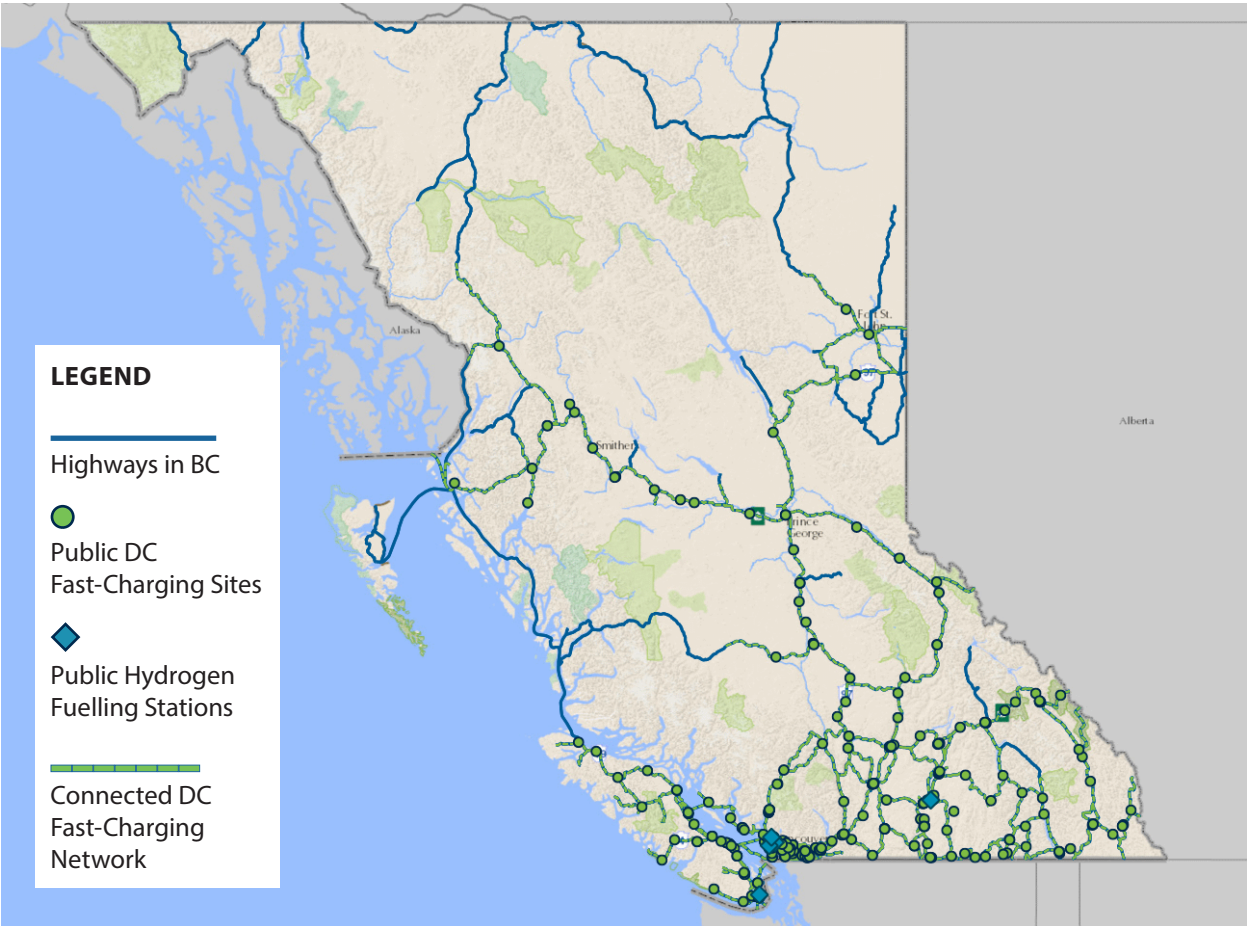
Charger Type	Description
SAE CCS	A type of connector for charging an EV at a public fast charger, mostly associated with American-brand EVs.
CHAdeMO	A type of connector for charging at a public fast charger, mostly associated with Japanese brand EVs.
Dual Standard	A station that has both a CHAdeMO and a SAE CCS connector. Public fast charging stations being deployed in B.C. are largely dual standard. All EVs with fast-charging capability can charge at these stations (including Teslas with an adaptor).
Tesla Supercharger or NACS	Tesla connector for fast charging stations. In November 2022, Tesla changed the name of its charging connector to the North American Charging Standard (NACS) and opened its connector to the industry as a public standard.

<sup>7</sup> Data for 2023, 2021, 2020, and 2019 is provided by PlugShare. Data from 2022 is from the NRCan Electric Charging and Alternative Fuelling Stations Locator.

# Public ZEV Infrastructure Network

The network of public fast-charging and hydrogen-fuelling stations is expanding along B.C.'s primary and secondary highway systems, major roads, and in community centres. In the CleanBC Roadmap to 2030, the Province committed to completing B.C.'s Electric Highway by ensuring broad geographic coverage of EV fast-charging sites by summer 2024. The Ministry is working with its partners to support a network that will allow safe and convenient travel in a ZEV throughout B.C.

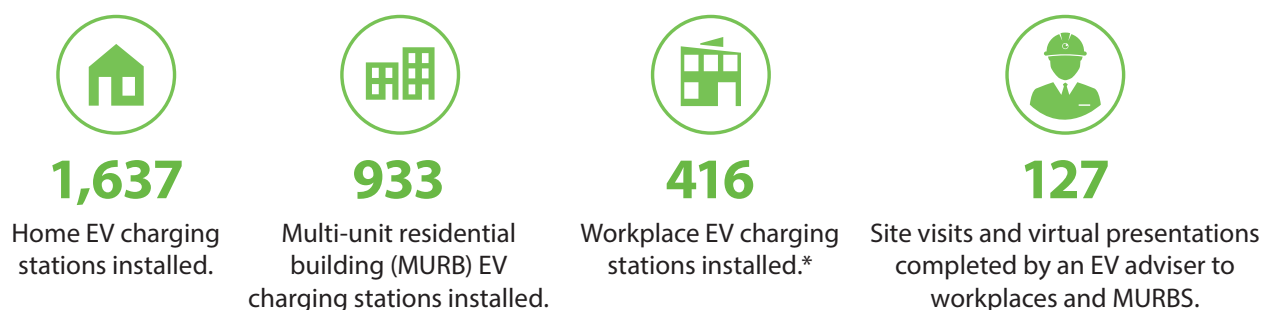
The [British Columbia Public Light-Duty ZEV Infrastructure Study](#) serves as a guide for utilities, municipalities, First Nations communities, and the private sector to invest in further expansion of the EV fast-charging and hydrogen-fuelling network in B.C. Based on modelling all routes with a 30-kWh EV, the study identified 194 charging sites that are needed to have geographic coverage along primary and secondary highways. Due to the evolution of the EV market towards having larger battery sizes since original geographic connectivity modelling was conducted in 2017, the routes were remodeled with a 60-kWh vehicle – resulting in 170 strategically located sites being required for geographic connectivity province-wide. Further analysis of existing level 2 charging infrastructure resulted in identifying 155 sites being deemed necessary for completing B.C.'s Electric Highway. Approximately 124, or 80%, of the 155 sites identified have active fast charging stations.



# Home, Workplace, and Fleet Charger Rebates

The Go Electric EV Charger Rebate program offers rebates for the purchase and installation of Level 2 charging stations in single-family homes, apartments, condominiums, and workplaces. Increased rebates are available for First Nations communities and businesses. Up to five hours of free support services provided by an EV Advisor are available for apartments, condos, and workplaces. The program also provides rebates for apartment and condo buildings to complete an EV Ready plan, install electrical infrastructure to implement the EV Ready plan, and install charging stations.

## EV Charger Rebate Program Statistics (January to December 2023)



\*Please note that the 2022 ZEV Annual Report incorrectly stated that 547 MURB EV charging stations were installed during the 2022 calendar year – total EV chargers installed at MURBs in 2022 was 998. The 547 charging stations cited were associated with the standalone MURB rebate stream, though an additional 451 MURB charging stations were also supported through the EV Ready rebate stream.

The Go Electric Fleet Charging program offers rebates for ZEV fleet assessments, infrastructure assessments, electrical upgrades, and Level 2 and fast-charging stations for fleets. Eligible businesses and municipalities can also access technical support, including up to 40 hours of free support services from a ZEV fleet advisor. Increased rebates are available for First Nations communities and businesses. In 2023, the Fleet Charging program provided rebates for 71 Level 2 chargers and 15 fast chargers.



Photo credit: Michael Stanyer from Plug In BC

### HIGHLIGHTS:

- ▶ With additional federal funding from Natural Resources Canada's Zero Emission Vehicle Infrastructure Program, increased rebate offers of up to \$5,000 per charging station supported the purchase and installation of 680 level-2 chargers at over 130 MURBs and workplaces across B.C.
- ▶ Total combined charger rebates/installs at MURBs and workplaces increased by 8% compared to 2022, which includes a 67% increase in charging installations at workplaces.
- ▶ As of the end of 2023, approximately 3.4% of the roughly 15,000 multi-unit residential buildings in B.C. have EV Ready Plans.
- ▶ The number of EV Ready stalls increased by 63% and the number of EV Ready buildings increased by 81% since 2022.

# Training and Jobs

The Go Electric Training programs help prepare B.C.'s workforce to be leaders in the transition to ZEVs. Go Electric funding supports Red Seal Electricians in B.C. to complete the Electric Vehicle Infrastructure Training Program (EVITP) delivered by the Electrical Joint Training Committee (EJTC). This program provides training and certification for electricians to safely install EV charging infrastructure. A total of 349 electricians have now taken the course, including 37 in 2023.

The EV Maintenance Training program offers courses for the servicing of ZEVs. Courses are designed as an upgrade option for existing Red Seal Automotive Service Technicians. A total of 468 students have now taken the course, including 205 in 2023. Red Seal Automotive Service Technicians can now access this training program at the following schools:

- ▶ British Columbia Institute of Technology (BCIT)
- ▶ Camosun College
- ▶ Okanagan College
- ▶ College of New Caledonia
- ▶ Kwantlen Polytechnic University
- ▶ College of the Rockies
- ▶ Vancouver Island University

In addition, the Province is working with BCIT to develop a ZEV Maintenance Training Program for Medium- and Heavy-Duty Mechanics. This project aims to provide commercial truck and transport mechanics and MHD equipment technicians with ZEV and hydrogen fuel cell vehicle (HFCV) training in service and repair. A ZEV truck, bus and heavy-duty equipment training curriculum will be developed, with courses designed as an upgrade option directed at certified Red Seal Heavy Duty Equipment Technicians (HDET).



**349**

Electricians trained through the Electric Vehicle Infrastructure Training Program\*



**468**

Automotive Technicians have completed the Electric Vehicle Maintenance Training Program\*

\* As of the end of December 2023. The number shown is the total number of people who have been trained since the program became available.



# First Nations Low-Carbon Transportation Project

The First Nations Low-Carbon Transportation Project is funded by the Ministry of Energy, Mines and Low Carbon Innovation, and developed, delivered, and led by the BC Assembly of First Nations (BCAFN). This three-year project aims to promote and accelerate First Nations' access to safe, reliable, and affordable low-carbon transportation. As part of the implementation of the [BC First Nations Climate Strategy and Action Plan](#) (Theme 4.2, Objectives 4.2.1 and 4.2.2), the [First Nations Low-Carbon Transportation Project](#) aims to:

- ▶ Assess gaps and opportunities that restrict and assist First Nations access to transportation.
- ▶ Advocate for transportation-related policies that help reduce greenhouse gas emissions and uphold First Nations' Title, Rights and Treaty Rights.
- ▶ Strengthen community capacity and climate awareness.

Key project activities include developing a Transportation Assessment Report, preparing a First Nations Low-Carbon Transportation Planning Guide, and undertaking five community-led First Nations pilot projects that reflect the diversity of First Nations in B.C., including coastal, remote, and urban communities. In 2023, Nisga'a Nation, ʔEsdilagh First Nation, Daylu Dena Council (Lower Post First Nation), Heiltsuk First Nation and Squamish Nation were selected as the pilot project communities. These communities will be receiving up to \$65,000 in flexible funding to support the creation of their own Low-Carbon Transportation Plan and Gap Analysis Report.



*Photo credit: Community Energy Association*

With input from the pilot communities and support from the Community Energy Association, the BCAFN started preparing a First Nations Low-Carbon Transportation Planning Guide that can support all interested First Nations in developing their own comprehensive low-carbon transportation plans. During the past year, the BCAFN also began drafting a Transportation Assessment Report to assess barriers and opportunities and provide recommendations to address gaps and strengthen opportunities to ensure that First Nations across B.C. have equitable access to transportation.

In 2024, the BCAFN will continue to work with project partners on key project activities, including preparing and delivering a transportation survey to all First Nations communities in B.C. and engaging with the Province to explore solutions to the findings and recommendations associated with the project's Transportation Assessment Report, which is expected in 2025.



Photo credit: Community Energy Association

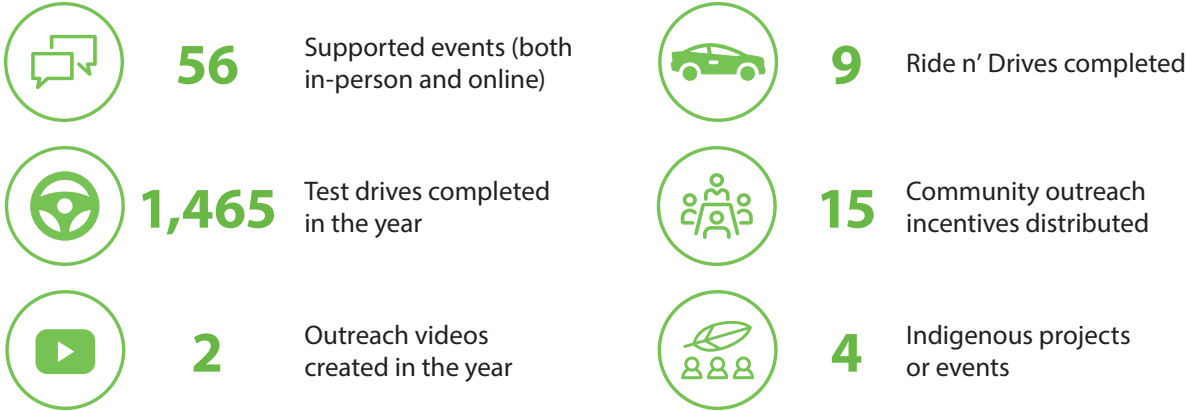
# Public Outreach

The Go Electric Community Outreach Incentive Program (COIP) provides funding to communities and non-profit organizations in B.C. to deliver EV outreach activities and events. To date, COIP has delivered funding to 76 community-led awareness projects. In 2023, COIP funding was provided to 15 projects from a variety of regions across British Columbia to support EV awareness, including digital marketing campaigns, educational videos, virtual events, and in-person EV demonstrations.

**COIP PROJECT SPOTLIGHT**  
 Charge FWD produced a [video](#) that highlights the positive impact of an Indigenous-owned public charging station in the territory of the Leq'amel First Nation in Deroche, B.C.

In 2023, 56 Emotive events, supported by Go Electric, occurred in communities across B.C. that included car show demonstrations, test-drive events, scavenger hunts, and various local events.

To learn more about Emotive, the provincial and local government outreach partnership, visit [emotivebc.ca](https://emotivebc.ca) or follow them on [Instagram](#), [Facebook](#) or [YouTube](#).



# ZEV Economic Development

The Go Electric Advanced Research and Commercialization (ARC) program supports B.C.'s zero emission vehicle sector by providing reliable and targeted support for research and development, commercialization and demonstration of B.C.-based zero-emission vehicle technologies, services, and products.

Since the ARC program launched in 2018, more than \$9 million has been committed to 21 projects across two funding calls. Approximately 175 full-time equivalent jobs are anticipated to be created and sustained by the projects. Two projects from the first funding call and one project from the second funding call are complete.

The ARC program is investing \$5 million in a third funding call that launched in August 2023, with funding decisions expected in 2024.

The Go Electric Commercial Vehicle Innovation Challenge (CVIC) is a funding initiative launched through the ARC program. CVIC is designed to support technology innovation in the hard-to-decarbonize commercial vehicle sector, while also creating economic growth, high-value jobs, and investment in a growing B.C.-based ZEV technology sector. CVIC has a total of \$30 million in funding that will be distributed over two funding calls. The first CVIC funding call launched in April 2023 with \$20 million in available funds. Funding decisions are expected in 2024, and the second CVIC funding call is expected to launch in 2025.



# Other ZEV Data

## Light-duty ZEVs Registered in B.C.<sup>8</sup>



There were 146 medium and heavy-duty ZEVs (Class 3 – Class 8 on the road as of the end of December 2023. 100% of these vehicles are battery electric vehicles.<sup>6</sup>

### Light-duty Registration Totals for 2023 by Development Region<sup>6</sup>

Region	ZEV Registrations
Cariboo	667
Kootenay	1,279
Lower Mainland/Southwest	118,614
Nechako	133
North Coast	218
Northeast	127
Thompson-Okanagan	7,942
Vancouver Island/Coast	23,451
Other	614



<sup>8</sup> Based on S&P Global Mobility Units in Operation Registration Data as of December 31, 2023 (Model Years 1981 and Newer) for the Province of British Columbia. Figures and information sourced to S&P Global Mobility within this report (the “S&P Global Mobility Materials”) are the copyrighted property and of S&P Global Mobility Ltd. and its subsidiaries (“S&P Global Mobility”) and represent data, research, or opinions of S&P Global Mobility, and are not representations of fact. The information and opinions expressed in the S&P Global Mobility Materials are subject to change without notice and S&P Global Mobility has no duty or responsibility to update the S&P Global Mobility Materials. Moreover, while the S&P Global Mobility Materials reproduced herein are from sources considered reliable, the accuracy and completeness thereof are not warranted. No further reproduction of this material is allowed without the express written permission of S&P Global Mobility.



# Model Year 2022 Zero-Emission Vehicle Act Compliance Report

The purpose of this report is to provide data on the status of vehicle suppliers' compliance with B.C.'s *ZEV Act* and *ZEV Regulation*. The *ZEV Act* establishes a ZEV unit credit system in which suppliers must obtain ZEV credits (positive ZEV units) in each model year compliance period, equal to or greater than, the ZEV units that will be deducted from their ZEV unit balance each year on the compliance date.

## Model Year 2022 Annual Compliance Requirements

Vehicle suppliers are required to demonstrate compliance with the *ZEV Act* for each model year. For model year 2022, medium and large volume class suppliers must have a minimum number of ZEV credits equivalent to 14.5% of their total consumer sales of model year 2022 light duty vehicles. Small volume suppliers are not required to meet an annual compliance requirement.

A total credit balance of zero or greater at the end of the compliance date of September 30, 2023 indicates the supplier is compliant with the *ZEV Act* for model year 2022. There is no restriction on which model year of credits a supplier uses to meet their compliance requirements for a given model year, but as a rule, the oldest model year of credits are used first to meet compliance requirements.

Suppliers earn credits for consumer sales of ZEVs where the credit value of each model is based on the ZEV type (e.g., BEV, PHEV, FCEV) and range of the vehicle model. Suppliers can also obtain credits through credit transfers with other suppliers, initiative agreements, and credit agreements.

Consumer sales of ZEVs generate credits based on the ZEV Class and range of the vehicle model. The definitions of the types of ZEVs eligible to generate credits, and the formulas for calculating credits, are set out in the *ZEV Regulation* Sections (1) and (14), respectively.

ZEV models are divided into Class A, Class B, and Class C. The class of credits a supplier receives corresponds with the ZEV class of the vehicle that was sold. Medium volume supplier compliance requirements can be met with either Class A or Class B credits. For model year 2022, large volume supplier compliance requirements must be met with at least 10% Class A credits, while the remaining 4.5% may be met with Class B or Class A credits. Credits are not issued for consumer sales of Class C vehicles.

## Vehicle Suppliers Total Light-Duty Sales and Credit Requirements for MY 2022

The table below shows the volume class and credit requirements for vehicle suppliers that have a ZEV requirement for model year 2022. The table also shows suppliers' total number of new model year 2022 light-duty consumer sales in B.C., which is used to calculate suppliers' compliance credit requirements.

Vehicle Supplier	Volume Class	Total Light-duty Consumer Sales MY 2022	Minimum A Credits Required	A or B Credits Required	Total Credits Required
BMW	Large	5,064	506.40	227.88	734.28
FCA	Large	16,210	1,621.00	729.45	2,350.45
Ford	Large	20,960	2,096.00	943.20	3,039.20
GM	Large	14,598	1,459.80	656.91	2,116.71
Honda	Large	12,938	1,293.80	582.21	1,876.01
Hyundai	Large	13,131	1,313.10	590.90	1,904.00
Jaguar Land Rover	Medium	914	N/A	132.53	132.53
Kia	Large	6,297	629.70	283.37	913.07
Mazda	Large	4,798	479.80	215.91	695.71
Mercedes	Large	5,235	523.50	235.58	759.08
Mitsubishi	Medium	3,545	N/A	514.03	514.03
Nissan	Large	6,583	658.30	296.24	954.54
Porsche	Medium	1,443	N/A	209.24	209.24
Subaru	Large	4,376	437.60	196.92	634.52
Tesla	Large	14,235	1,423.5	640.58	2,064.08
Toyota	Large	29,649	2,964.90	1,334.21	4,299.11
Volkswagen	Large	8,810	881.00	396.45	1,277.45
Volvo	Medium	1,320	N/A	191.40	191.40
<b>Total</b>	<b>-</b>		<b>16,288.40</b>	<b>8,377.01</b>	<b>24,665.41</b>



Photo credit: Community Energy Association

## Credits Issued for Vehicle Supplier's Consumer ZEV Sales

The table below shows the number of consumer ZEV sales and the number of credits issued to each supplier, by ZEV class, during the model year 2022 compliance period.

Model Year 2022 Compliance Period				
Vehicle Supplier	ZEV Class A Consumer Sales	ZEV Class A Credits Issued	ZEV Class B Consumer Sales	ZEV Class B Credits Issued
BMW	422	1,105.83	784	409.20
FCA	0	0	654	365.06
Ford	1,300	3,956.99	705	466.91
GM	1,636	4,940.43	0	0
Honda	0	0	0	0
Hyundai	1,849	5,755.04	760	469.76
Jaguar Land Rover	11	29.20	3	1.47
Kia	688	2,036.83	290	170.56
Mazda	241	361.50	0	0
Mercedes	80	298.44	0	0
Mitsubishi	0	0	2044	1,305.36
Nissan	306	749.46	0	0
Porsche	121	315.97	55	25.95
Subaru	0	0	0	0
Tesla	15889	57,244.06	0	0
Toyota	13	52.00	1,471	1,177.40
Volkswagen	731	2,061.08	43	22.80
Volvo	369	1,063.72	459	267.57
<b>Total</b>	<b>23,656</b>	<b>79,970.55</b>	<b>7,268</b>	<b>4,682.04</b>

## Credits Issued for Vehicle Supplier Initiative Agreements

The table below shows the credits issued under initiative agreements for the model year 2022 adjustment period from October 1, 2022 to September 30, 2023.

Vehicle Supplier	ZEV Class of Credit	Model Year of Credits	Total Credits Issued
Ford	A	2022	120.34

## Credits Recorded for Vehicle Supplier Credit Transfers

The table below shows the credit transfers between vehicle suppliers recorded by the Director, by ZEV Class and model year, for the model year 2022 adjustment period from October 1, 2022 to September 30, 2023.

Seller	ZEV Class of Credit	Model Year of Credits	Total Credits	Buyer	ZEV Class of Credit	Model Year of Credits	Total Credits
Tesla	A	2022	1195	Mazda	A	2022	1195

## Vehicle Supplier Credit Balances for Model Year 2022

The table below shows each suppliers' credit balance prior to, and after, their compliance credit reduction, as well as the compliance ratio credit reduction, broken down by ZEV Class, on the model year 2022 compliance date of September 30<sup>th</sup>, 2023.

Vehicle Supplier	ZEV Class of Credit	Credit Balance Before Compliance Reduction*	Compliance Ratio Credit Reduction*	Credit Balance After Compliance Reduction*
BMW	A	1,265.59	506.40	759.19
	B	458.10	227.88	230.22
FCA	A	2,512.65	1,985.39	527.26
	B	365.06	365.06	–
Ford	A	6,401.27	3,039.20	3,362.07
	B	466.91	–	466.91
GM	A	9,624.73	2,116.71	7,508.02
	B	–	–	–
Honda	A	17,529.69	1,876.01	15,653.68
	B	–	–	–
Hyundai	A	14,929.58	1,434.24	13,495.34
	B	469.76	469.76	–
Jaguar Land Rover	A	46.91	46.91	–
	B	1.47	85.62	-84.15
Kia	A	7,949.57	742.51	7,207.06
	B	170.56	170.56	–
Mazda	A	2,354.54	695.71	1,658.83
	B	–	–	–
Mercedes	A	1,140.22	759.08	381.14
	B	–	–	–
Mitsubishi	A	–	–	–
	B	1,888.28	514.03	1,374.25
Nissan	A	3,309.44	954.54	2,354.90
	B	–	–	–
Porsche	A	1,041.91	183.29	858.62
	B	25.95	25.95	–

Vehicle Supplier	ZEV Class of Credit	Credit Balance Before Compliance Reduction*	Compliance Ratio Credit Reduction*	Credit Balance After Compliance Reduction*
Subaru	A	41.46	437.60	-396.14
	B	–	196.92	-196.92
Tesla	A	105,144.85	2,064.08	103,080.77
	B	–	–	–
Toyota	A	7,361.48	2,964.90	4,396.58
	B	1,746.45	1,334.21	412.24
Volkswagen	A	4,403.96	1,254.65	3,149.31
	B	22.80	22.80	–
Volvo	A	1,576.99	–	1,576.99
	B	272.17	191.40	80.77
<b>Total</b>	–	<b>192,522.35</b>	<b>24,665.41</b>	<b>167,856.94</b>

\*Note: Reported information may be subject to change due to reassessments of previous model years.

For model year 2022, 16 of the 18 vehicle suppliers were assessed to have a total credit balance of zero or greater at the end of the compliance date. The two vehicle suppliers assessed with a total credit balance containing a credit deficit have not met their compliance obligation for model year 2022. Both vehicle suppliers were assessed to have a total credit balance of zero or greater at the end of the compliance date for model year 2021. Therefore, section 10 (3) under the ZEV Act, which refers to automatic administrative penalties does not apply, as per section 10 (4) under the ZEV Act.



Photo credit: BC Ministry of Transportation



Photo credit: Community Energy Association

## Glossary

Acronym	Description
ZEV	Zero-Emission Vehicle – used interchangeably with “EV”, and includes BEVs, FCEVs, EREVs, and PHEVs.
DCFC	Direct Current Fast Charger – the public fast chargers that today allow EVs to get 100 - 300km in 30 minutes of charging (but faster chargers giving more range in less time are coming out every year).
EV	Electric Vehicle – used interchangeably with “ZEV”, and includes BEVs, FCEVs, EREVs, and PHEVs.
BEV	Battery Electric Vehicle – powered 100% with electricity.
FCEV	Fuel-Cell Electric Vehicle – powered 100% with hydrogen.
EREV	Extended Range Electric Vehicle – has an electric motor and battery, but the battery is recharged with a combination of electricity and gas.
PHEV	Plug-in Hybrid Electric Vehicle – has both an electric motor powered by electricity from a battery and a gas engine fueled by conventional gas.
EVSE	Electric Vehicle Supply Equipment – an industry term for charging stations.
MHD	Medium- and Heavy-Duty – refers to medium- and heavy-duty vehicles.

To learn more about the Province’s clean transportation actions, visit [gov.bc.ca/zeroemissionvehicles](https://gov.bc.ca/zeroemissionvehicles). To find CleanBC Go Electric rebates, visit [goelectricbc.gov.bc.ca](https://goelectricbc.gov.bc.ca).

# Thank You To Our Partners

Thank you to all the EV associations, local communities, academic institutions, original equipment manufacturers, industry associations, infrastructure vendors and installers, and other organizations for continuing to support the adoption of EVs in B.C. and contributing to the implementation of EV policies and programs.



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