

September 29, 2021

## Submission to the Select Standing Committee on Finance and Government Services: Budget 2022 Consultation

Via <https://consultations.leg.bc.ca/Submission/Create?cons=Budget2022>

The Vancouver Electric Vehicle Association (VEVA) is pleased to present this submission in support of the Budget 2022 Consultation. VEVA is a volunteer-led, non-profit organization (B.C. Societies Act, Feb 1, 1988) that promotes the adoption and use of electric vehicles as a vital step in achieving a healthy and sustainable environment.

This submission is focused on government of B.C. priorities for implementing a sustainable recovery as outlined in the *Budget 2022 Consultation Paper*<sup>1</sup>, namely innovation, sustainability & CleanBC, and inclusiveness. We also take account of British Columbians' priorities as summarised in the *Economic Recovery Consultation report*<sup>2</sup>, including a focus on the economy, the environment and climate change, green technology, Indigenous relations, and education and training.

We have five inter-related recommendations:

1. Re-establish CleanBC as a guiding policy framework and integrated set of initiatives
2. Update BC's ZEV mandate and commitments
3. Accelerate the buildout of EV charging infrastructure
4. Support made-in-BC EV manufacturing, supply chains and battery recycling
5. Update the Low Carbon Fuel Standard to mitigate the negative impacts of gas-powered vehicles still in use and to support the emerging EV charging industry

### 1. Re-establish CleanBC as a guiding policy framework and integrated set of initiatives

**CleanBC** was inaugurated in 2018 as a core component of the province's economic and environmental strategy. Although the CleanBC in Action website has not been updated since September 12, 2020, we understand that consultation is underway with the B.C. Climate Solutions Council<sup>3</sup> (CSC) regarding a "CleanBC 2030" Roadmap.

**The CleanBC 2030 Roadmap** – As we note below and more broadly in this submission, we are pleased that the CleanBC 2030 Roadmap looks to have an openly integrative and wholistic perspective and a coherent focus on inter-sectoral collaboration that should serve the government well in meeting its economic and environmental targets. Specifically, we note that in a recent letter to Minister Heyman<sup>4</sup>, the CSC lauded several features of the evolving roadmap approach including:

- Its "focus on **environmental, economic and social outcomes**."

<sup>1</sup> <https://www.leg.bc.ca/content/CommitteeDocuments/42nd-parliament/2nd-session/fgs/budget-consultation/Budget-2022-Consultation-Paper.pdf>

<sup>2</sup> [https://engage.gov.bc.ca/app/uploads/sites/121/2020/07/BuildingBCsRecovery\\_WhatWeHeardReport\\_September2020.pdf](https://engage.gov.bc.ca/app/uploads/sites/121/2020/07/BuildingBCsRecovery_WhatWeHeardReport_September2020.pdf)

<sup>3</sup> The B.C. Climate Solutions Council is an advisory group with a legislated mandate through the Climate Change Accountability Act to provide strategic advice to the B.C. government on climate action and clean economic growth. It was established in February 2020 and includes members from "First Nations, environmental organizations, industry, academia, youth, labour and local government." <https://www2.gov.bc.ca/gov/content/environment/climate-change/planning-and-action/advisory-council>

<sup>4</sup> [https://www2.gov.bc.ca/assets/gov/environment/climate-change/advisory-council/letter\\_bc\\_csc\\_2030roadmap\\_20210507.pdf](https://www2.gov.bc.ca/assets/gov/environment/climate-change/advisory-council/letter_bc_csc_2030roadmap_20210507.pdf)

- Transparency about the “uncertainty in the [energy] transition and **how multiple pathways could lead to CleanBC targets.**”
- A “**focus on partnerships** and the intention to **work directly with different sectors/stakeholders to achieve shared public and private sector targets.**”
- An “intention to draw on **more targeted incentives**, such as transitioning the existing ZEV incentive program to an income-tested model to address equity concerns.”

CSC also made several cautionary comments, and emphasized that the “roadmap” needs to:

- “Strengthen and implement the **core CleanBC policies**”, namely: the carbon tax, the Zero Emission Vehicle Standard, the Low Carbon Fuel Standard, and the Clean Portfolio Standard<sup>5</sup>,
- Provide “more information on the **different sources of clean energy** and how they are anticipated to meet the needs of different end uses (i.e., transportation, oil and gas, buildings, industry)”, and
- Support more **coordinated energy planning between BC Hydro and FortisBC.**”

According to CSC, in the latter case “both utilities can [play] critical roles – in the CleanBC transition, and the roadmap should help focus their efforts and provide clarity on how **electricity, renewable gas and hydrogen will help to achieve the CleanBC targets.** Similarly, development of the roadmap should be done in coordination with **related utility processes** such as BC Hydro’s Integrated Resource Plan and Electrification Plan.”

#### **VEVA’s Recommendations:**

We endorse CSC’s call for more **coordinated energy planning between BC Hydro and Fortis BC**, and for more **transparency and clarity in the planning process.** We have **concerns** about the potential role of renewable gas and hydrogen and agree that this needs to be explained in the roadmap.

We also support **incorporating a similarly transparent and integrated approach more broadly into CleanBC 2030** as a vital step in enhancing its potential for success and helping the government reach its 2030 climate target.

As part of this, it is critical that CleanBC 2030 facilitate **cross-ministerial and interdepartmental coordination along with public/private sector collaboration.**

Finally, a renewed CleanBC will only be successful if it is **well resourced.** We strongly advocate that **program needs are clearly articulated, prioritized and financed.**

As the main expression of the government’s climate action plan, targeted government support that is multi-lateral and inter-sectoral is essential for **CleanBC’s success.**

## **2. Update B.C.’s ZEV mandate and commitments**

When CleanBC was launched in 2018 it mandated that 100% of all new light-duty vehicles sold in the province would be ZEVs by 2040. In the ensuing three years, a great deal has changed, and an updated ZEV Standard is now warranted. In June 2021, B.C.’s 2040/100% target was **superseded** by the **Government of Canada’s own target that all new light-duty cars and passenger trucks sales would be zero-emission by 2035**<sup>6</sup>.

<sup>5</sup> In addition to these core CleanBC policies, CSC is also calling on the government to take a “whole of government” approach to CleanBC policy development and implementation. [https://www2.gov.bc.ca/assets/gov/environment/climate-change/advisory-council/letter\\_bccsc\\_allgovtapproach\\_202100413.pdf](https://www2.gov.bc.ca/assets/gov/environment/climate-change/advisory-council/letter_bccsc_allgovtapproach_202100413.pdf)

<sup>6</sup> <https://www.canada.ca/en/transport-canada/news/2021/06/building-a-green-economy-government-of-canada-to-require-100-of-car-and-passenger-truck-sales-be-zero-emission-by-2035-in-canada.html>

Although the new federal ZEV mandate itself may appear timely, from a **diffusion of innovations** stand point, evidence now suggests that the **actual rate for ZEV adoption is accelerating faster than this target** and is starting to follow a classic, technological disruption “S” curve.<sup>7</sup>

Accordingly, **we strongly urge** the B.C. government to take **full account of these changes** and **strengthen the provincial ZEV Standard as part of the province’s roadmap to CleanBC 2030**.

**A limiting factor to date** is that B.C.’s ZEV target has been deployed more as a “backstop” measure than a “driver of change.”<sup>8</sup> According to CSC, the expectation was that the market would stay ahead of the “backstop”, as indeed it has. The difficulty with this approach is that it fails to exert a leadership role to help direct the changes that are underway. Jurisdictions need to be **out in front** during periods of accelerating change and ready to **invest in emerging technologies and technological innovation, new industries and markets, and jobs** that will accompany the changes.

In a subsequent letter to Minister Heyman<sup>8</sup>, CSC recommends that the B.C. government increase the ZEV sales target for 2030 to between 80% and 100% for light duty vehicles and introduce ZEV requirements for medium- and heavy-duty vehicles.<sup>9</sup>

According to CSC, the **2030/100% target** would put B.C. on a trajectory similar to other forward-looking jurisdictions like Norway, whereas the **2030/80% target** would accomplish many of the same objectives but offer flexibility if some regions in the province and vehicle types such as pickup trucks lag in ZEV sales.

We support CSC’s call to **accelerate B.C.’s ZEV adoption schedule**. At the same time, we also recognize this will result in **increased demand for supports and services** including **increased support for upgrading fleets** to help meet the new targets. This means the government will need to play a leadership role in these areas.

#### **VEVA’s Recommendations:**

We recommend that the B.C. government:

1. Implement a 2030 ZEV sales target of 100% of new light duty (LDV) vehicles.
2. Enhance ZEV legislation to include medium and heavy-duty vehicles (MDV/HDV) at 10% of new vehicle sales in 2025, 60% in 2030 and 100% by 2035.
3. Encourage and aid B.C. municipalities, B.C. government departments and B.C. crown corporations to achieve 50% ZEV fleets by 2025 and 100% by 2030.<sup>10</sup>
4. Facilitate and encourage the use of more electric vehicles in micro-mobility<sup>11</sup> by i) applying a fee & rebate strategy that assesses fees to purchase and register internal combustion powered vehicles in this category and provides rebates and other incentives for electric vehicles, and ii) assisting BC EV manufacturing and supply companies in this space to build their markets within BC and beyond.

<sup>7</sup> <http://www.gtc.com/electromobility/pdf/Sustainable%20Energy%20Systems/Rethinking-Energy-LCOE.pdf>  
<https://www.scientistwarning.org/2020/06/04/energy-sector-disruptors/>; <https://seekingalpha.com/article/4225153-evs-oil-and-ice-impact-2023-and-beyond>

<sup>8</sup> [https://www2.gov.bc.ca/assets/gov/environment/climate-change/advisory-council/letter\\_zevstandardadvice\\_07092021.pdf](https://www2.gov.bc.ca/assets/gov/environment/climate-change/advisory-council/letter_zevstandardadvice_07092021.pdf)

<sup>9</sup> CSC gives four reasons for these changes: alignment with net-zero objectives, market demand for ZEVs continues to grow in B.C., vehicle manufacturers are embracing 100% ZEVs, and other jurisdictions are embracing 100% ZEVs.

<sup>10</sup> The Liberal party proposed 100% ZEVs for the federal fleet by 2030 in their recent election platform, p. 46.  
<https://liberal.ca/wp-content/uploads/sites/292/2021/09/Platform-Forward-For-Everyone.pdf>

<sup>11</sup> The micro-mobility category includes e-scooters, push e-scooters, e-bikes and e-trikes and low-speed electric vehicle categories for local utility, delivery and service trucks, off-road vehicles (e.g., in the construction, motion picture and recreation sectors), and horseless carriages in the tourism industry.

5. Create a fee & rebate system to encourage B.C. businesses to upgrade their fleets with a target of 50% ZEV fleets by 2025 and 100% by 2030.
6. Amend the programs of Clean Energy Vehicles (CEV) and Scrap-It to be accessible to all B.C. registered dealerships ensuring greater access for British Columbians to both new and used ZEVs.
7. Encourage the sale of used ZEVs through a PST “tax holiday” that enables more widespread access to EV technology and benefits the local automotive sector in contrast to the economic outflow for new cars imported from other jurisdictions.
8. Enhance ZEV affordability by increasing rebate and incentive programs through **Go Electric** for used as well as new vehicle purchases to make ZEVs accessible to lower income groups.

### 3. Accelerate the buildout of EV charging infrastructure<sup>12</sup>

#### VEVA’s Recommendations:

To meet the accelerating ZEV adoption rate noted above, **we recommend that the B.C. government work directly with municipalities, the B.C. utilities, the federal government and industry** to support a rapid buildout of charging infrastructure. Key steps in this process that we are recommending include **the following measures:**

#### a) Universal Access for all Persons:

Universal access means a design of EV charging facilities that enables all individuals, including persons with temporary or permanent disabilities that limit their mobility or movement, to be able to access and plug in their electric vehicles in a curb-less, unobstructed, well lit, and safe environment, with facilities. These standards are as important as curb cuts for sidewalks, and these standards need to be set early in the buildout of infrastructure.

The government will need to ensure there is full access to EV charging for all British Columbians by formalizing a **code of best practices** based on principles of Universal Design and Universal Access and requiring that all charging infrastructure meet or exceed the code.

We note that BC Hydro has already taken the initiative to reach out to the EV community and to collaborate with VEVA members in this area, and they have incorporated accessibility recommendations into their EV Fast Charging Guidelines. The task now is to convert the guidelines into regulation as a matter of compliance with the accessibility rights protected by the **BC Human Rights Code**, to enable everyone, including persons with disabilities, to access and operate EVs.

#### b) Equal Charging Resources in All Geographic Areas: The government will need to ensure that all primary and secondary highways and towns in rural and remote areas of B.C. including remote Indigenous communities and tourism destinations have full DC fast charging coverage by actively supporting charging installations and operations through direct investment, liberalizing public utility demand charge schemes, reducing interconnection fees, and incentivizing private sector and localized investment.

- Primary and secondary highways should have a minimum distance between charging stations across the province to ensure that EVs can travel anywhere where primary and secondary highways exist.

<sup>12</sup> The focus of these recommendations is on electric vehicle (EV) charging infrastructure. While we recognize that the province is planning to support hydrogen fuel cell technologies and related requirements for hydrogen charging facilities, we note that to date, the emerging market trends we are witnessing embrace electrification of light duty vehicles (LDV) and hence a requisite buildout of related EV charging infrastructure.

- c) **Level 2 Residential and Public Charging:** The B.C. government needs to increase CleanBC’s incentives and supports for home, workplace and community-based **Level 2 charging installations**, as follows:
- Extend funding and maintain the very appropriate **EV Ready** and **Go Electric** programs underway through CleanBC.
  - Support the recommendation of the Union of B.C. Municipalities Resolution B144 on **“Right to Charge”** for all multi-unit residential buildings, whether strata owned condos or rental apartments.<sup>13, 14</sup>
  - Direct B.C. municipalities to implement minimum EV charging infrastructure requirements in their zoning bylaws for the **legacy** stock of multiple unit residential buildings (MURBs) with legislated deadlines for compliance in 3 years for rental apartments and 5 years for strata owned condos. This is particularly important for renters in apartment buildings who have little or no influence on landlords, and for condo stratas, mandated minimums will strengthen the position of strata owners currently petitioning for EV charging infrastructure now.
  - As a direct stimulus to the hospitality sector, incentivize private sector investment in charging infrastructure for hotels, bed and breakfasts and convention centres. This will have the combined effect of advancing the tourism and event hosting sector by promoting **EV tourism** as well as supporting EV adoption in the province generally.
  - Provide subsidies and tax credits for street level charging and public facilities such as community centres, malls and municipal recreation facilities, and businesses.
  - Revise BC Hydro’s current **‘inclining block rate’** that charges a higher rate per kilowatt-hour for electricity usage beyond a certain threshold and penalizes EV drivers if their EV charging exceeds the threshold. CSC confirms that “BC Hydro is currently re-assessing its residential rate design, and [urges the] **government [to] ensure that any new design supports** rather than discourages faster EV adoption.”<sup>8</sup>
- d) **DC Fast Charging Infrastructure:** The B.C. government will need to take decisive, coordinated and timely steps with industry and the federal government to ensure that the **EV fast charging infrastructure in B.C.** anticipates and fully supports the electrification of transportation and related industries.
- e) **Increase the Buildout Rate:** This means that the government needs to take steps **now** to ensure that the number of DC fast charging stations regionally and locally is **dramatically** increased by at least fourfold over the next 5 years. We recommend the following measures:
- Specifically **target, encourage and support private sector investment** in DC fast charging infrastructure. This includes undertaking revisions to BC Hydro’s demand charge schemes and interconnection fees that currently act as disincentives to private sector DC fast charging providers.
  - In addition to the recent B.C. charging infrastructure study,<sup>15</sup> undertake research that models future **demand growth in B.C.** based on the experience in jurisdictions in Europe and North America that are further along in the diffusion curve for EV adoption.

<sup>13</sup> “Therefore, be it resolved that UBCM request that the province develop ‘Right-to-Charge’ rules, such as those in place in Ontario, California and Hawaii, to facilitate access to home charging infrastructure for British Columbians living in multi-family buildings,” p. 188 <https://www.ubcm.ca/sites/default/files/2021-07/2019%20UBCM%20Resolutions%20Book.pdf>

<sup>14</sup> Minister Eby’s mandate letter raises this as a priority, as follows: “Bring in ‘right-to-charge’ legislation that will enable installation of electric vehicle charging infrastructure in more strata and apartment buildings.” [https://www2.gov.bc.ca/assets/gov/government/ministries-organizations/premier-cabinet-mlas/minister-letter/eby\\_mandate\\_2020\\_jan.pdf](https://www2.gov.bc.ca/assets/gov/government/ministries-organizations/premier-cabinet-mlas/minister-letter/eby_mandate_2020_jan.pdf)

<sup>15</sup> [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/transportation/bc\\_public\\_id\\_zev\\_infrastructure\\_study\\_final\\_20210505.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/transportation/bc_public_id_zev_infrastructure_study_final_20210505.pdf); also see: <https://electricautonomy.ca/2021/07/06/bc-ev-charging-infrastructure/>

- Evaluate and model **peak demand** such as during holidays, commuting and work shift cycles in order to anticipate and accommodate increased usage along major travel routes and at major transportation end points and nodes, including tourism destinations.
- Require, to the extent possible, that **modular components be incorporated into DC fast charging installations** so that they are readily upgradeable to higher kWh ratings to take advantage of higher charging rate capacities of newer model EVs as they emerge.
- Ensure that all EV charging systems in B.C. accept **driver roaming schemes and credit card payment** whether at the charging station itself or through a phone app. Enabling payment across proprietary charging systems is a crucial step in making public EV charging more accessible.<sup>16</sup>

**Tapping into Federal Programs:** In the recent federal election, the Liberal party committed to invest \$700 million to add 50,000 new electric vehicle chargers and hydrogen stations to Canada’s network, and to provide \$100 million to ensure existing buildings can install charging stations.<sup>17</sup> This was in addition to its existing investments in Level 2 and DCFC charging through Natural Resources Canada and the *A Healthy Environment and a Healthy Economy* plan where they recently committed an additional \$150 million over three years in charging and refueling stations across Canada. Their stated goal is to ensure that every Canadian – urban and rural – can easily charge their zero-emission vehicle. **We urge the B.C. government to work directly with the newly elected minority Liberal government to secure a fair share of this funding for the province.**

- f) **Mobilizing localized and renewable energy production:** A critical part of the approach we are recommending is that government will need to ensure that **rural, remote and Indigenous communities** receive the full benefits of **localised energy production** through use of **renewables** such as wind and solar farms in addition to available utility transmission services, and that these resources enable forward-looking installation of **ZEV charging infrastructure and supports for all applications**, including farming, mining, fisheries, forestry, marine services, aviation, rail, trucking, and transportation and public transit, as appropriate.
- g) **Mobilizing localized training opportunities for workers in the new Green Economy:** It is also critical that training opportunities be distributed across **rural, remote and Indigenous communities** and not be centralized in urban areas. The availability of **broadband in remote communities** is essential to be able to integrate such training into local contexts. **Scholarships** and **daycare programs** are also vital for enabling all British Columbians to participate in skills training and knowledge acquisition for the jobs being created in the new economy.

#### 4. Support made-in-BC EV manufacturing, supply chains and battery recycling

**Calling for strategic economic investment in the automotive sector:** The disruptive technological changes that are occurring in the automotive sector present an opportunity for Canada generally and B.C. specifically to integrate their sources of **clean hydro and renewable energy with green technologies** and **supply chains for EV manufacturing** and reduce GHG emissions and air pollution. These are areas where Canada and B.C. are both well positioned to lead, and that would provide strong economic, environmental and health benefits as well as secure a supply of EVs for British Columbians.

#### VEVA’s Recommendations

The B.C. government should take all necessary steps to encourage investment in EV production (including LDV, MDV and HDV vehicles) and electric drive retrofitting of Class 3 to Class 8 trucks and heavy equipment as well as EV component manufacturing and the raw materials supply chain. Critical

<sup>16</sup> Currently in B.C., ChargePoint, BC Hydro, Flo and Greenlots all support driver roaming with each other.

<sup>17</sup> Liberal Platform, p. 46 <https://liberal.ca/wp-content/uploads/sites/292/2021/09/Platform-Forward-For-Everyone.pdf>

steps will be to recruit and incentivize OEMs (Original Equipment Manufacturers) to operate in B.C. that produce:

- Electric vehicles and EV components for all types of vehicles including automobiles, trucks, buses, rail, forklifts and industry specific equipment, earth moving equipment, mining equipment, tractors and farm equipment, motorcycles, bicycles, ships and boats, aircraft, and medical and personal transportation systems, and other micro-mobility systems<sup>11</sup>, etc.,
- Batteries and battery materials and technologies, including batteries recycling,
- Charging station hardware and infrastructure,
- Related software and web technologies, and
- Raw materials required for the EV supply chain.

Such steps potentially include tax incentives and subsidies for **companies that locate their head offices and manufacturing facilities** in B.C. They also include cross-subsidizing **university and industry research** in fields related to renewable energy and clean technologies as well **augmenting existing training programs for skilled workers** in these fields.

**EV and Component Supply Issues in the North American Context:** Due to strong demand for EVs, the supply of vehicles in B.C. has been, and continues to be restricted and needs to be addressed. A contributing factor is that zero emission vehicle mandates in many American states and “Buy American” polices are encouraging Canadian companies to produce EVs in the USA.

Without building a strong domestic EV automobile, truck and equipment industry, Canada and B.C. will continue to suffer from EV shortages, and, equally importantly, **miss out on** the employment, climate change mitigation and green economic opportunities that would result.

**Accessing Federal Funding:** In the recent federal election, the Liberal party reaffirmed their \$8 billion investment in the Strategic Innovation Fund - Net Zero Accelerator which is advancing projects that will help decarbonize heavy industry, support clean technologies and help meaningfully accelerate domestic greenhouse gas emissions reductions by 2030, including in the auto-manufacturing sector. They also announced their support for the **Mines to Mobility Strategy** that is intended to attract investments and build up Canada’s battery supply chain, from mining and processing raw materials to assembling road-ready electric vehicles. This strategy has already attracted \$6 billion in planned investments in Canada’s automotive sector. **Here again, we urge the B.C. government to work directly with the newly elected minority Liberal government to participate in these programs and access relevant funding for the province.**

## **5. Update the Low Carbon Fuel Standard (LCFS) to mitigate the negative impacts of gas-powered vehicles still in use and to support the emerging EV charging industry**

**Longevity of gas vehicles:** Even though a strengthened ZEV Standard stands to accelerate the adoption of new ZEV vehicles, most vehicles on the road in B.C. will continue to be gas-powered for the near term. The functional life for many gas cars and trucks is 10-14 years or more.

Equally, although many auto manufacturers are taking steps to transition to producing ZEV vehicles, for the time being they are still making gas-powered vehicles and selling them with attractive discounts, financing and marketing. This is partly because their manufacturing processes for gas vehicles are well established and highly profitable. Eventually this picture will change, but presently new gas vehicles are still coming onto the market in B.C. and Canada.

This being the case, it is critically important that the B.C. government strengthen its low carbon fuel requirements to help mitigate the continued air pollution and GHG emissions that are the result of these manufacturing strategies. There are several components to this.

1. The LCFS has been part of the province’s climate plan for over a decade and regulates the **life-cycle carbon intensity of fuels**, that is, the total carbon generated in the production, distribution and consumption of fuels, including fossil fuel-derived and renewably derived gas, diesel, gasoline, and electricity.<sup>18</sup>
2. In concert with the Carbon Tax, the LCFS fuel standards are intended to reduce overall GHG emissions by **reducing** the life-cycle carbon intensity of fuels over time to help meet the government’s 2030, 2040 and 2050 climate targets.
3. Fuel producers that don’t comply with the LCFS standard have the option to **reduce their emissions** such as through **changed production methods and/or fuel blending** or **pay a penalty**, the value of which is set according to the value of **LCFS credits** that trade in the market place.

Because the LCFS provides the opportunity for clean fuel suppliers such as **electrical utilities** to sell “carbon credits” to less clean fuel suppliers such as **oil and gas**, the LCFS provides a mechanism to support the critical buildout of EV charging in B.C. discussed previously.

Significantly, **in support of public and private sector EV charging infrastructure**, the BC Government recently amended the Renewable and Low Carbon Fuel Requirements Regulation (LCFS) to clarify the rules for **electricity credit creators**, so that, beginning in January 2022, the **supplier for electricity will be the person who provides the electricity through the final supply equipment**, with minor exceptions.<sup>19</sup>

This means that B.C.’s **EV charging service providers** will be able to offset their capital and operating costs in part by selling credits to the oil and gas producers who create the fuels for the gas-powered cars and trucks that continue to operate in B.C.’s towns and on B.C.’s highways.

This is an important **bridge during this interim period when ZEV adoption is growing**. Once there are higher numbers of ZEVs in use overall, the increased usage of the charging infrastructure will help offset overall costs and enable charging service providers to make a profit.

CSC is **recommending** that the government increase the **stringency of the LCFS 2030 target** from a 20% reduction in life-cycle carbon intensity to a reduction of approximately **40% relative to the 2010 baseline** they have been using.<sup>14</sup> **VEVA fully supports this measure.**

This change is intended to avert the possibility that a rise in **available EV charging carbon credits** from the anticipated increases in EV ownership and charging will act as a **disincentive to gasoline and diesel producers to lower the life-cycle carbon intensity of their fuels** since the cost of the credits would be below the costs of reducing emissions at current rates.

Coupled with the recent change to the LCFS that gives government the authority to **publish the names of fuel suppliers that are non-compliant**, CSC reasons a **40% reduction** will put pressure on the companies to be compliant with the standard and that the reduction will also **encourage development and use of renewable fuels** (such as ethanol and green hydrogen) whether independently or as part of fuel blends.

CSC is also **recommending** that the B.C. government and BC Hydro redirect the revenue they receive from the LCFS via non-compliance penalties and credits toward programs that are consistent with LCFS goals, including programs to **help make zero emission transportation more affordable** to British

<sup>18</sup> [https://www2.gov.bc.ca/assets/gov/environment/climate-change/advisory-council/letter\\_csc\\_lowcarbonfuelstandardadvice\\_08092021.pdf](https://www2.gov.bc.ca/assets/gov/environment/climate-change/advisory-council/letter_csc_lowcarbonfuelstandardadvice_08092021.pdf)

<sup>19</sup> The exceptions are “vehicle charging at a residential building that includes fewer than 5 dwelling units, TransLink trains that were in operation on December 31, 2020, and electric trolley buses that were in operation on December 31, 2020.”



Columbians, and B.C. businesses and organizations. Presently, the penalties go to general revenue in government, and the carbon credits are used by BC Hydro to mitigate upward pressure on general rates. **VEVA fully supports this recommendation.**

CSC also **recommends** that the B.C. government work with the federal government on the **Clean Fuel Standard** to align expectations and opportunities for clean fuels across the country. The Clean Fuel Standard was one of the programs the **Liberal party emphasized they would continue to support in the recent election**. **Here again, VEVA fully supports this recommendation.**

We thank the Government of British Columbia for this consultation opportunity at a pivotal time when government choices will shape our province's economic renewal, social equity and success in overcoming the COVID pandemic. This is also an opportunity for B.C. to reassert its leadership role in Canada in climate action, sustainability and the green economy.

We would be pleased to provide further information to the Select Standing Committee upon request.

Respectfully submitted,

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**About the Vancouver Electric Vehicle Association – VEVA Constitution**

VEVA is a non-profit organization (BC Societies Act, Feb 1, 1988) that promotes the adoption and use of electric vehicles.

Its purposes are:

- (a) To advocate for, promote and support the conversion to and use of electric vehicles as a vital step in achieving a healthy and sustainable environment.
- (b) To provide a forum for individuals and businesses to share their experiences, assist owners and operators of electric vehicles, and to use their collective knowledge to educate each other and the public about the benefits and value of electric vehicles.
- (c) Present and participate in events to showcase electric vehicles and related technologies.
- (d) Collaborate with other organizations to promote electric vehicles.
- (e) Preserve artifacts and vehicles of significance to the history of electric vehicles to ensure these examples survive for appreciation by future generations.

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