

## Recommended Government Actions and Policies<sup>1</sup>

### VEVA Government Relations Committee

### September 1, 2021

#### 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.

#### ZEV Mandate<sup>2</sup>

On June 29, 2021, as part of its green economy and climate change response, the Government of Canada announced a mandatory target for all new light-duty cars and passenger trucks sales to be zero-emission by 2035. Although this mandate may appear timely, from a diffusion of innovation stand point, evidence now suggests that the actual rate for ZEV adoption is accelerating faster than this target and is following a classic, technological disruption “S” curve.<sup>3</sup>

Accordingly, we urge the Government to take full account of these changes and invest in supportive infrastructure and Canadian ZEV-related industries now in order to capitalize on the economic, health and environmental benefits that will accrue to early adopters of renewable and zero emission technologies in the new global economy. To not do so would be to lose a once in a generation opportunity to position Canada at the forefront of the burgeoning green technological revolution that is occurring globally.

#### VEVA Recommended Government Policies

In accordance with its constitution, VEVA recommends the following four (4) government undertakings and policies:

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<sup>1</sup> These are high level recommendations based on the current context of government policies, initiatives and regulations. They are reflective of government policies in Canada and British Columbia as of August 30, 2021.

<sup>2</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>

<sup>3</sup> <http://www.gtc.com/electromobility/pdf/Sustainable%20Energy%20Systems/Rethinking-Energy-LCOE.pdf>  
<https://www.scientistswarning.org/2020/06/04/energy-sector-disruptors/>;  
<https://seekingalpha.com/article/4225153-evs-oil-and-ice-impact-2023-and-beyond>

**1. Charging Infrastructure** – To support the accelerating ZEV adoption rate, government at all levels (municipal, provincial, federal) must work actively with industry to support a rapid buildout of charging infrastructure, through the following steps:

- **Level 2 Residential and Public Charging:** Increase the incentives and supports for at home, at work and community-based Level 2 charging installations, including retrofit grants and new building standards for multiple unit residential buildings (MURBs) and subsidies and tax credits for street level charging and for standalone residences and public facilities such as community centres, malls and municipal recreation facilities, and businesses.
- **DC Fast Charging Infrastructure:** Take decisive, coordinated and timely steps with industry to ensure that the EV fast charging infrastructure in Canada anticipates and fully supports the electrification of transportation and all related industries.
- **Increase the Buildout Rate:** Take steps now to dramatically increase the number of DC fast charging stations nationally, regionally and locally to better anticipate and meet growing consumer demand through the following measures:
  - Undertake research that realistically determines demand growth in Canada, in part by drawing on research in jurisdictions in Europe and North America that are further along in the diffusion curve for EV adoption.
  - 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.
  - Incorporate, to the extent possible, modular components into DC fast charging installations that are readily upgradeable to higher kWh ratings to take advantage of higher charging rate capacities of newer model EVs as they emerge.
  - Specifically target, encourage and support private sector investment in DC fast charging infrastructure.
- **Universal Access for all Persons:** Ensure there is full access to EV charging for all Canadians including persons with disabilities 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. *(Code to be established)*
- **Equal Charging Resources in All Areas:** Ensure that all primary and secondary highways and towns in rural and remote areas have full DC fast charging coverage by actively supporting charging installations and operations through direct investment, liberalizing public utility demand charge schemes and incentivizing private sector investment.

## **2. Domestic EV Manufacturing and Supply Chains**

- **A Call for Strategic Economic Development in the Automotive Sector:** The disruptive technological changes that are occurring in the automotive sector present an opportunity for Canada to integrate supply chains for automotive manufacturing with the production of renewable and green technologies and to reduce GHG emissions and air pollution. These are areas where Canada is well positioned to lead, and that would provide strong economic, environmental and health benefits as well as secure a supply

of EVs for Canadians. Government at all levels must take all necessary steps to encourage investment in EV production, EV component manufacturing and the EV raw materials supply chain in Canada, including incentivizing OEMs (Original Equipment Manufacturers) to operate in Canada that produce:

- Electric vehicles of all types (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, etc.),
  - Batteries and battery materials and technologies,
  - Charging station hardware and infrastructure,
  - Related software and web technologies, and
  - Raw materials required for the EV supply chain.
- **EV and Component Supply Issues Need to be Addressed:** Due to strong demand for EVs, the supply of vehicles in Canada 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 will continue to suffer from EV shortages, and, equally importantly, miss the employment, environmental mitigation and economic opportunities that accrue from domestic EV production.

### **3. EV Educational Programs and Purchasing and Operational Incentives**

- In addition to supporting a broad ZEV manufacturing and sales mandate through quotas set with the automobile and truck industries in Canada, governments at all levels must:
  - Support a program of public education regarding the environmental, low operating cost and low maintenance benefits of EVs.
  - Directly support and accelerate the conversion of government’s own departmental and agency fleets from internal combustion engine technologies to EVs. This vehicle demand could seed the building of a strong domestic EV production and supply chain.
  - Incentivize the purchasing and operating of EVs in industry and households through tax relief and direct financial support.

**4. Canadian Climate Change Leadership** – Governments (all levels) and political leaders must take a coordinated and coherent approach to their economic policies with respect to reducing GHG footprints.

- Leadership in climate change means that all government initiatives must align to have maximum effect on reducing CO2 and methane production, including:
  - Scaling back and eliminating support for carbon-producing industries,
  - Undertaking appropriate measures to discourage carbon energy utilization, and
  - Rewarding the use of renewables and zero emissions technologies.
- Without such unified policy, the benefits achieved from electrification and renewable energy risk being severely diluted or reversed with significant negative environmental and public health consequences.