

B.C. Climate [Solutions](#) Council

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Jill Tipping, President & Chief
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BC Tech Association

Joie Warnock, Assistant to the
President, Unifor

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Dear Minister Heyman,

A key element in CleanBC's successful launch in 2018 was the commitment that all new light-duty vehicles would be required to be zero emissions by 2040. The provincial government was rightly lauded for moving beyond targets and regulating that outcome through the Zero-Emissions Vehicle (ZEV) Act.

Three years later, the world has changed significantly, and a strengthened ZEV Standard is a key opportunity to renew provincial climate leadership and ensure the roadmap to our 2030 CleanBC target is backed by credible policies. B.C.'s transportation sector produces the largest amount of carbon emissions in the province; accounting for about 37% of the total. It also had the largest increase in annual emissions of any sector over the past decade.

Our advice at the end of 2020 highlighted the ZEV Standard, the Carbon Tax, the Low Carbon Fuel Standard, and the Clean Portfolio Standard as four provincial policies that should be strengthened to reach our 2030 targets. For the ZEV Standard, we recommend the policy be strengthened by:

- Increasing the ZEV sales target for 2030 from 30% of new light duty vehicles to between 80% and 100%.
- Introducing ZEV requirements for medium- and heavy-duty vehicles.

Four reasons underpin these recommendations:

1. Alignment with net zero objectives – According to the International Energy Agency's recent analysis of global pathways to net zero emissions by 2050, all new vehicles in advanced economies need to be ZEVs by the early 2030s in their net zero scenarios. To achieve that outcome globally, it follows that some leading jurisdictions will need to get there sooner, and to date B.C. has been a leading jurisdiction on ZEV policy and adoption. We should remain a world leader.

2. Market Demand for ZEVs continues to grow in B.C. – Almost 10% of the vehicles sold in B.C. in 2020 were ZEVs, which means the market is five years ahead of the ZEV Standard requirements. With this positive trend in B.C.'s market, along with a forecast for the variety, range and affordability of ZEVs to continue to improve, we anticipate demand in British Columbia will continue to grow, which will make it

easier for B.C. to strengthen the ZEV Standard.

3. **Vehicle manufacturers are embracing 100% ZEVs** – Since the launch of CleanBC, vehicle manufacturers such as General Motors, Ford, Volvo, and Honda have announced that they will be phasing out the manufacture of new internal combustion engines between 2030 and 2040. Coupled with those medium term trends, the variety of ZEV makes and models continue to grow and by next year, all types of light duty vehicles – from sedans to SUVs and pick-up trucks – will be available as ZEVs.
4. **Other jurisdictions are embracing 100% ZEVs** – Since the launch of CleanBC, many jurisdictions have announced more ambitious ZEV targets and policy. The list includes Quebec and California, which are undertaking updates to their ZEV Standards to have 100% ZEV sales by 2035; the UK setting a target of 100% ZEV sales by 2030; and Washington State developing regulations with the objective of 100% ZEV sales by 2030. In addition to the climate and air quality benefits, economic objectives are also driving the shift to stronger ZEV policies as jurisdictions pursue the economic opportunities associated with electricity generation, EV charging, battery manufacturing and recycling, and vehicle manufacturing.

Our understanding is that, to date, B.C. has predominantly used the ZEV Standard as a backstop with an expectation that ZEV supply and demand would likely stay a step ahead of the targets in the Act. Increasing the 2030 ZEV sales target to between 80% and 100% would shift this approach and the ZEV Standard would become a driver of change as opposed to a backstop. Given the need to accelerate progress, we think the shift to using the ZEV Standard as a driver of change is appropriate.

To meet a 2030 ZEV sales target between 80% and 100%, B.C. would likely need over 200,000 new ZEVs in 2030. That would represent between 2% and 7% of the 2030 ZEV sales forecast for the United States by the International Energy Agency's Global EV Outlook (the lower end of the range is based on their 'Sustainable Development' scenario, while the upper end is based on their 'Stated Policies' scenario). In 2020, ZEV sales in B.C. were about 5% of ZEV sales in the U.S. By strengthening the ZEV Standard, B.C. would be increasing the likelihood that North America can reach the 'Sustainable Development' scenario, which would minimize the risk of ZEV supply constraints.

Targeting 100% light duty ZEV sales in 2030 would put B.C. on a trajectory similar to what Norway has been able to accomplish over the last six years. Sales of light duty ZEVs in Norway currently make up 75% of total vehicle sales (up from 5% in 2016) with a goal of 100% of sales being ZEVs by 2025. While Norway does not have a ZEV Standard, it does have significantly higher taxes and fees on internal combustion engine vehicles (e.g. ZEVs do not need to pay the roughly \$17,000 per vehicle registration tax).

A 2030 sales target of 80% ZEVs would achieve most of the benefits of 100%, while still leaving flexibility if certain regions and/or vehicle types are still lagging in ZEV sales. In 2020, the percentage of ZEV sales was as high as 11% in the Lower Mainland, but under 1% in the northeast and northwest. Some of that discrepancy is because trucks are much more common in the north, and light duty ZEV trucks will not be available until next year. Even as ZEV trucks come to market, they are not expected to reach cost-parity with their internal combustion engine counterparts until close to 2030, which will likely temper demand.

The [Climate Solutions Council](#) provides strategic advice to the B.C. government on climate action and clean economic growth. It includes members from First Nations, environmental organizations, industry, academia, youth, labour, and local government.

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It will be important to accompany an accelerated ZEV Standard schedule with a commensurate acceleration in the provincial government's plans for EV charging. For 100% of light-duty vehicle sales to be ZEVs by 2030, all drivers will need to have convenient, affordable, and reliable access to charging. That should include home, workplace, fleet, and public charging options that are supported by government, utility, and private sector investment.

B.C.'s electricity rate design will also need to be updated to align with a strengthened ZEV standard. The current residential design is an "inclining block rate" that charges a higher rate per kilowatt-hour for electricity usage over a certain threshold. Installing a home EV charger would often cross this threshold, resulting in significantly higher electric bills and a disincentive to purchase an EV that is at odds with the CleanBC goals. BC Hydro is currently re-assessing its residential rate design, and government should ensure that any new design supports rather than discourages faster EV adoption.

Markets for medium- and heavy-duty vehicles are not yet as advanced as light duty vehicles, but they are maturing faster than anticipated even five years ago. The maturation of those market segments represents an opportunity to enhance B.C.'s ZEV policy, and the ZEV Standard was written with the expectation that targets for medium- and heavy-duty vehicles would eventually be added.

California's leading work on medium- and heavy-duty ZEVs, which they are in the process of adding to their ZEV Mandate would be an opportune starting point for B.C. The proposed sales targets in California start with model year 2024 and have an overall objective of 100% ZEV sales for medium- and heavy-duty vehicles by 2045.

Thank you for considering our advice on the ZEV Standard. We look forward to continue working with you and your staff on the role a strengthened ZEV Standard can play in B.C.'s 2030 roadmap.

Sincerely,



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Co-Chair, B.C. Climate Solutions Council



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