ELECTRIC MOBILITY CANADA
ACCELERATING ELECTRIC TRANSPORTATION

MOBILITÉ ÉLECTRIQUE CANADA
ACCÉLÉRER L'ÉLECTRIFICATION DES TRANSPORTS

Priority Policies for the Advancement of Transportation Electrification in Canada

2022 pre-budget recommendations

By Electric Mobility Canada – Mobilité Électrique Canada

August 6, 2021

As the leading voice of electric mobility in Canada, Electric Mobility Canada (EMC) presents the following recommendations to help achieve the electrification of Canada's transportation sector and major growth in Canada's ZEV supply chain:

Policy & Regulation for ZEV supply

1- **Develop a Canadian electric mobility strategy to achieve Canada's climate and electrification targets**

Now that Canada has unveiled its own hydrogen strategy, the time is right for Canada to have its own electric mobility strategy for Canada's urban, suburban, rural and remote communities. Canada needs a comprehensive, coherent and visionary plan that include all modes of transportation.

Budget to develop an electric mobility strategy in 2021-2022: $3 million

2- **Support the development of a Canadian ZEV supply chain industry**

With the global trend toward electrification and smart mobility, there is a strong need to future-proof Canada's automotive sector to ensure it retains its leadership during this critical transition.

Budget to develop a Canadian ZEV supply chain strategy in 2022-2023: $2,000,000

3- **Set clear, binding and legislated requirements (such as ZEV mandates) for all categories of vehicles.**

a) 100% of Light Duty passenger vehicles sold by 2030 be ZEVs and that binding interim targets and mandates be established between now and 2030.

b) 100% of Medium- and Heavy-Duty vehicles sold by 2040 be ZEVs and that binding interim targets and mandates be established between now and 2040.

c) For off road vehicles, align with the strongest regulation and emission standards in North America.

Budget for regulatory measures: $0

Light-Duty passenger ZEV Demand

4- Establish a financially neutral *feebate* system to make polluting passenger vehicles pay for ZEV rebates, so the rebate program can finance itself. For vehicle categories that do not yet have a ZEV option, feebate exemptions should be considered until ZEV models come to market.

5- Renew and expand passenger ZEV purchase incentive program eligibility for individual consumers, businesses and fleets, by re-funding the iZEV program and expanding eligibility to address high-polluting vehicles like pickup trucks and SUVs by increasing the base MSRP cut-off for the iZEV program for eligible light duty vehicles from the current $45,000 threshold with a $54,999 ceiling to a new $60,000 threshold with a $69,999 ceiling.

6- Remove the federal rebate for PHEVs with less than 50 km of electric range *or* make the rebates proportional to their official range: $2,000 from 40 to 59km, $3,000 from 60 to 79km, $4,000 from 80km or more.

7- Offer an incentive of up to $2,000 for low speed, off road and micro-ZEVs (e.g. snowmobiles, ice cleaner, personal watercraft, rider mowers, micro cars, micro trucks, small tractors, e-bikes, e-scooters, etc.) to support better rural and urban air and water quality while supporting Canada's emerging manufacturers.

8- Incentivize lower- and modest- income Canadians to transition to ZEVs by offering a dedicated rebate for a new or used ZEV via a program like the California Income Eligibility program.

Electric Mobility Canada /Mobilité électrique Canada – www.emc–mec.ca – info@emc–mec.ca
38 place du Commerce, 11-530 Ile des Sœurs, QC H3E 1T8

9- Offer a "Green cash for clunkers" / “Green SCRAP-IT” style incentive: We believe that such a program must be focused on Canada’s long-term climate objectives, meaning funds should be only available for the purchase of new or used ZEVs, transit passes or active transportation tools (e.g. bikes or e-bikes). This program should be stackable with other incentive programs.

10- Incentivize ZEV conversions: offer a $5000 rebate for the purchase for any Light-Duty passenger vehicle converted from a gas or diesel to a ZEV.

11- Implement a G/HST exemption for both new and used light duty ZEVs to support equitable access to the benefits of driving electric.

12- Provide a four-year federal guarantee on ZEV financing contracts for ZEV loans via the Canada Infrastructure Bank to ensure that all Canadians have access to ZEV financing since their initial purchase price is higher than that of comparable gas vehicles.

Budget for Light-Duty passenger vehicle incentives (supported by a financially neutral feebate system): $0

Charging Infrastructure Measures

We recommend expanding targets for the Zero Emission Vehicle Incentive Program (ZEVIP) and the Electric Vehicle and Alternative Fuel Infrastructure Deployment (EVAFID) and setting specific targets for each use case covered under these programs for the upcoming fiscal year (2022- 2023) and the next five years:

13- Establish a greater focus on charging infrastructure investment needs by:

a. Setting and funding higher one and five-year targets for EV charging station deployment sufficient to meet Canada’s ZEVS sales targets.

b. Setting a goal to make 1-million existing apartment and condominium/strata parking stalls EV-ready by 2030 and establishing new funding programs to achieve this goal.

c. Focusing dedicated charging investments: (i) on cities’ downtown areas where millions of Canadians cannot charge their ZEVs at home, (ii) rural, remote and Northern communities where charging deployment may be less developed

d. Focusing on highway side charging investments to close the gaps in Canada’s charging infrastructure along long-distance travel corridors, and on increasing density of charging in high-travel areas where charging demand is growing fastest.

ZEV Infrastructure Use Case	**FY 22/23**
Public fast charging stations (EVAFID/ZEVIP) above/beyond previous commitments	**1,500**
Light-duty consumer vehicle charging (public, workplace, multi-family)	**10,000**

Budget for 2022-2023: $300 millions

14- Incorporate EV-ready requirements into the Model National Building Code and Energy Code for Buildings and/or support EV-ready municipal zoning bylaws.

Budget for 2022-2023: $0

Electric Mobility Canada /Mobilité électrique Canada – www.emc–mec.ca – info@emc–mec.ca
38 place du Commerce, 11-530 Ile des Sœurs, QC H3E 1T8

15- Put underutilized government lands to work by facilitating multi-service provider "charging hubs," particularly in high density and high-cost real estate markets.

Budget for 2022-2023: $50 millions

16- Accelerate timelines for Measurement Canada to enable energy-based billing for charging services.

Budget for 2022-2023: $0

17- Include EV charger installation or EV-readiness as part of energy efficiency programs to help Canadians who live in older houses retrofit to the electric infrastructure requirements for EV charging.

Budget for 2022-2023: $30 millions

Medium- and Heavy-Duty Demand Measures

18- Incentivize consumer and fleet acquisitions of ZEVs in the medium and heavy-duty vehicle classes (e.g. transit buses, school buses and commercial trucks) vehicles to meet or surpass binding vehicle sales requirements with trade-in or scrappage programs for fossil fuel-powered vehicles in exchange for a ZEV (ideally one that is stackable with other financial incentives) and rebates (that have a clear pre-approval process).

a) Electric Transit buses

- Subsidizes 85% of the price differential between an electric transit bus and a fossil fuel transit bus *instead of loans* to accelerate the transition towards electric transit buses.
- Subsidizes 50% of the cost of new electric transit infrastructure that needs to be installed for electric buses
- Make the proposed program admissible with other federal and provincial programs
- Offer financial support for three to five years for the operating costs of the transit systems to compensate for the significant drop in revenue due to COVID-19 since the current emergency fund will end soon.

For Québec & Ontario, *support the provincial requirement for 25% of Canadian content for transit buses.* **EMC understands that these supports would enable EMC's bus OEM members to:**

- Maintain or grow the number of high-tech jobs (R & D, engineering, etc.) in Canada
- Ensure 5% of these funds is reinvested into Canadian Operations / Infrastructure

b) **Electric school buses:**

- Subsidize 85% of the price differential between an electric school bus and a fossil fuel school bus *instead of loans*
- Subsidize 50% of electric school bus infrastructure
- Make such an incentive program stackable with other federal and provincial programs to support cleaner commutes for students and Canada's school bus manufacturing industry.

EMC understands that these supports would enable EMC's bus OEM members to:

- Maintain and grow the number of high-tech jobs (R & D, engineering, etc) in Canada
- Ensure 5% of the contract is reinvested into Canadian Operations / Infrastructure
- Ensure 5% of the contract is invested into Canadian R&D
- Ensure in kind support from OEMs for demonstration programs

Electric Mobility Canada /Mobilité électrique Canada – www.emc–mec.ca – info@emc–mec.ca
38 place du Commerce, 11-530 Ile des Sœurs, QC H3E 1T8

c) **Other medium- and heavy-duty vehicles**:
Cover 85% of the price differential between a new, used or converted medium- or a heavy- duty ZEV for commercial use compared to an equivalent fossil fuel vehicle (e.g. semi-trailer trucks, excavators, motor graders, wheel loaders, dozers, backhoes, dumpers, waste and recycling trucks, etc.).

Budget for 2022-2023: $1,5 billion

19- Establish, a time-limited, federally funded five-year utility connection "rebate" program to support the deployment of large-scale EV charging installations, particularly in the medium and heavy-duty segments.

Budget for 2022-2023: $50 million

20- Champion Canada's mining advantage by supporting electrification at mining locations across the country and promoting sustainable mining development and operations, particularly in connection with those metals and minerals necessary for the ZEV supply chain in Canada and in other jurisdictions.

Budget for 2022-2023: $50 million

21- Pre-order or bulk buy heavy-duty electric transit buses, school buses and waste hauling vehicles for public sector agencies.

Budget for 2022-2023: $50 million

Ramping Up Canadian-based ZEV Manufacturing & Green Jobs

22- Increase economies of scale in the ZEV supply chain to accelerate the reduction in battery prices and ZEV technologies by leveraging R&D, Strategic Innovation Fund, resource exploration and other economic development funding.

Budget for 2022-2023: $1,5 billion

23- Expand funding for ZEV education targeted at Canadian citizens, businesses, fleet owners, dealers, elected officials and governments to increase awareness of the reality and advantages of ZEVs and ZEV infrastructure.

Budget for 2022-2023: $8 million

24- Fund ZEV education, training and retraining programs to help current and future electric mobility sector workers and companies make the transition as efficiently and seamlessly as possible.

Budget for 2022-2023: $10 million

25- Significantly increase **electrification of government and Crown corporation fleets** with clear binding targets, education and training and adequate financial support vehicle for purchases and the associated charging infrastructure. We encourage the federal government, its agencies and other levels of government to update their whole-of-government procurement approach to focus on purchasing near-zero and zero-emission public vehicles and associated infrastructure and services.

Budget for 2022-2023: $40 million

26- **Support the electrified transportation sector by investing in EMC's mission**

Working in collaboration with the Federal government, EMC will develop an innovative Canadian electric mobility strategy and help develop a vibrant ZEV supply chain industry, from mining to mobility and from BC to the Maritimes and the Canadian north.
Budget for 2022-2023 : $2 million

Electric Mobility Canada /Mobilité électrique Canada – www.emc–mec.ca – info@emc–mec.ca
38 place du Commerce, 11-530 Ile des Sœurs, QC H3E 1T8

There are 3 main reasons to support electric mobility

1- Air pollution & health

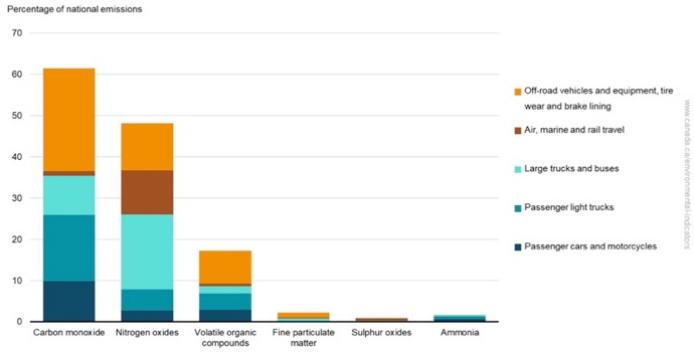
a) According to the 2021 Health Canada report[1]:

- 15,300 deaths per year can be attributed to air pollution in Canada
- $120 billion a year is the total annual economic cost of health outcomes associated with air pollution

b) According to a 2020 Environment Canada report[2], transportation accounted for:

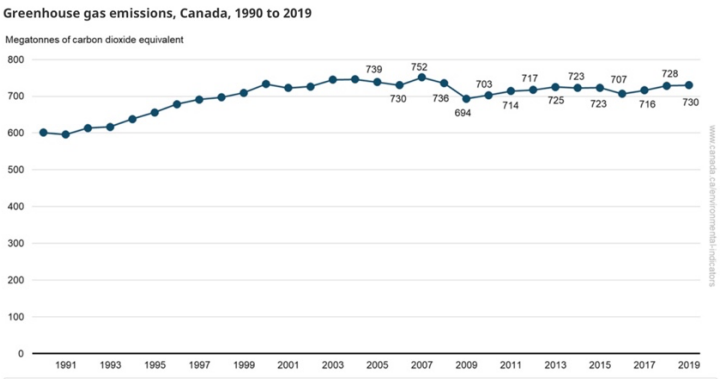
- 37% of Canada's Carbon Monoxide (CO) emissions,
- 37% of Canada's Nitrogen Oxides (NOx) emissions
- 30% of Canada's Black Carbon emissions

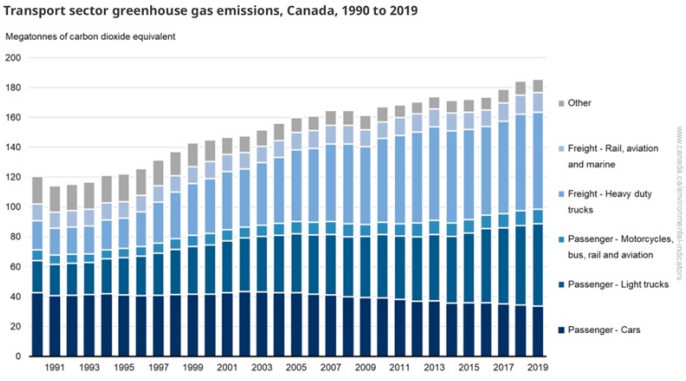
Figure 24. Contribution of transportation, off-road vehicles and mobile equipment to total air pollutant emissions by transportation mode, Canada, 2019



2- Climate change

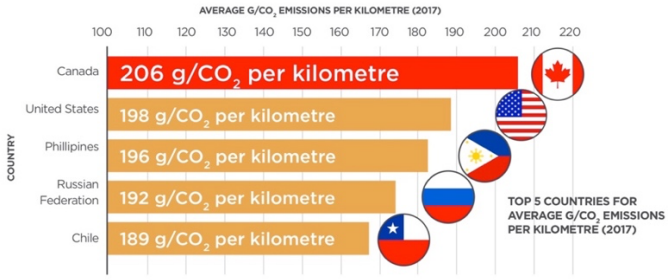
Since April 2021, Canada has a new more ambitious GHG emission reduction target for 2030: -40% to -45% compared to 2005 level. According to a 2021 Environment Canada report[3], in the 14 years between 2005 and 2019, GHG emissions in Canada decreased by only 1%. Therefore, Canada needs to lower its GHG emissions by another 39% to 44% in the remaining 9 years until 2030.





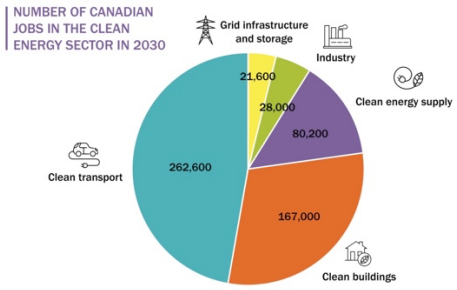
Electric Mobility Canada /Mobilité électrique Canada – www.emc–mec.ca – info@emc–mec.ca
38 place du Commerce, 11-530 Ile des Sœurs, QC H3E 1T8

According to 2019 report from the International Energy Agency[4], Canada's Light Duty passenger fleet is the #1 in the world for GHG emissions per kilometer driven. They are also the largest and second heaviest in the world.



3- The economy

According to 2019 report from Clean Energy Canada[5], there will be approximately 560,000 jobs in the clean energy sector by 2030, with almost 50% in clean transport.



According to a 2020 report by Electric Mobility Canada[6], if Canada adopts a strong electric mobility strategy inspired by those of California, BC or Québec, we can anticipate at least $200 billion in sales revenue between now and 2030 in the EV sector.

Sources:

1: https://www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/2021-health-effects-indoor-air-pollution/hia-report-eng.pdf

2: https://www.canada.ca/content/dam/eccc/documents/pdf/cesindicators/air-pollutant-emissions/2021/air-pollutant-emissions-en.pdf

3: https://www.canada.ca/content/dam/eccc/documents/pdf/cesindicators/ghg-emissions/2021/greenhouse-gas-emissions-en.pdf

4: https://www.iea.org/reports/fuel-economy-in-major-car-markets

5: https://cleanenergycanada.org/wp-content/uploads/2019/10/Report_TER2019_CleanJobsFuture_20191002_FINAL-FOR-WEB.pdf

6: https://emc-mec.ca/wp-content/uploads/EMC-The-case-for-the-EV-industry-and-a-ZEV-standard-DEC-6-2020.pdf