



Association des Véhicules Électriques du Québec

AVÉQ Brief for Pre-budget Consultations

Prepared for the Standing Committee on Finance, Government of Canada

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SUMMARY

Purpose

To establish policies in Canada that promote electric vehicles (cars, delivery trucks, heavy trucks) and financial incentives that encourage Canadians to see electrification as a social project and a source of pride

Goals

- Encourage the public to purchase electric vehicles (EVs) through financial incentives and foster the creation of local benefits for using EVs, such as dedicated carpooling lanes, free municipal parking and free charging stations
- Encourage the federal government, municipalities and small businesses to purchase electric cars and delivery trucks by offering tax benefits
- Provide Canadians who have switched to EVs with energy security by:
 1. Having Transport Canada install 400 volt rapid charging stations on major highways, including the Trans-Canada
 2. Having businesses install 240 volt charging stations by offering financial incentives
 3. Offering financial assistance for the purchase and installation of workplace charging stations for employees, similar to the Quebec government's "Branché au travail" [plugged in at work] program (federal buildings)

THE AVÉQ'S POSITION

We support the federal government's efforts to promote the use of EVs and enable Canadians to travel across the country in electrically powered vehicles.

These efforts must be made with the cost of such a project in mind. Canada's major social projects have allowed us to gain energy independence. These projects always cost a lot, but we have reaped the benefits. The impact will be as follows:

- Lower greenhouse gas (GHG) levels
- Lower health care costs for ailments caused by atmospheric pollution

The AVÉQ's goals are to promote the use of EVs by improving Canada's anemic charging infrastructure, encourage electric tourism by EV owners and educate the public about the benefits of EV use.

Our association is a non-profit entity that has no budget or corporate or government support.

Infrastructure and Communities

What federal measures would provide Canadian communities with the necessary infrastructure to support people and businesses, including for work, recreation and supplying goods? First, it is imperative to adopt ideas from countries and states where electric transportation is flourishing in order to understand what will spur the public to buy EVs.

ELECTRIFICATION OF TRANSPORTATION IN CANADA: OUR PRESSING NEEDS

Canada is behind to an unprecedented degree when it comes to programs to decarbonize our road transportation system. This inaction is hurting our efforts to reduce GHG emissions.

As in most industrialized countries, road transportation accounts for over 50% of Canada's GHG emissions. International policies have been adopted to reduce dependence on fossil fuels even as Canada continues to be ridiculed internationally for its lack of vision and its tax credits to the fossil fuel industry, worth over \$46 billion a year. [3]

While we know very well that our need for oil will remain high in the years ahead, major federal government investment is needed to enable a transition to electrified modes of transportation and to help provincial governments turn their electrical production toward renewable sources.

Norway, a world leader in electrifying transportation, has a climate similar to ours. It has a number of incentive policies to facilitate the energy transition:

NORWAY: Objective of 50,000 subsidized EVs on the road

(Population: 5 million; Number of vehicles: 2.5 million)

- Government program to raise awareness about the impacts of gas vehicles, with an emphasis on the social and economic benefits of EVs
- Financial incentives of €8,000 for buying or leasing*
- Free public charging infrastructure in cities with free parking*
- Rapid, 400 volt recharging infrastructure on highways and in downtowns
- Access to dedicated lanes*
- Free access to downtowns and toll waivers*
- Free ferries*

(*until the goal of 50,000 EVs on the road has been reached)

The AVÉQ was invited by the Conseil du Patronat du Québec [Quebec employers council] and the Quebec Department of Environment to participate in the study of the parliamentary committee on transportation and the environment (Winter 2015) and discuss the future of electric transportation in Quebec and the overall approaches needed to support further growth in this mode of transportation in the province. [1] The parliamentary committee, after hearing from numerous experts, agreed to most of the AVÉQ's recommendations, which are now part of the Couillard government's transportation electrification action plan. [1]

Accordingly, we have focused our recommendations on four main issues:

1. Awareness and education
2. Financial and social incentives
3. Availability of EVs
4. Infrastructure

What Canada Needs to Do to Reach Its Objectives

Population: 35 million

Number of registered vehicles: 23 million

Goal to match Norway: 500,000 subsidized EVs

1. Financial incentive of \$3,000 for the purchase or lease of 500,000 EVs: \$300 million per year for 5 years
2. Recommend that provincial governments also provide a financial incentive
3. Charging infrastructure: One 240 volt, 30+ amp charging station per five EVs: \$140 million per year for 5 years (100,000 240 volt charging stations including installation)
4. Rapid charging infrastructure (400 volt) on highways (every 65 km): 32,000 km to cover means 500 rapid charging stations (\$70,000 purchase and installation cost each): \$7 million per year for 5 years
5. Legislation to ensure Canada-wide compatibility across various charging networks: no cost
6. Awareness and education: \$10 million per year for 5 years
7. Availability of EVs: zero-emissions legislation: \$400,000 per year for 5 years
8. Make harmonization process for European EVs, as set out in the free trade agreement, a priority

EDUCATION

In the past year, the AVÉQ and other groups have toured the province (60 stops) to raise public awareness about the benefits of EVs and their everyday use with the help of volunteer EV owners. We noticed that public education is very important to reaching a large number of people, and we realized that our efforts reach only a few. **A bigger budget and more resources are needed to educate Canadians about the benefits of EVs.**

FINANCIAL INCENTIVES

In Quebec, Ontario and British Columbia, financial incentives of at least \$8,000 are currently available for the purchase or lease of a fully electric or rechargeable hybrid vehicle. These subsidies remain important to this nascent industry, which is only a few years old. For most consumers, buying an EV would still be impossible without these measures. The industry supports multiple research centres, a hundred or so companies and thousands of jobs in Canada. This niche of the future is important to support, just as the aerospace and pharmaceutical industries have been supported, as these technologies are often used in or for vehicles on the market and those that will be introduced in the years to come. **Support buyers, but also the budding industry in Canada.**

Financial incentives exist to enable new technology and mass production to reduce the additional purchase cost to a point where this interim support will no longer be necessary. These incentives should be designed to expire with a major drop in the extra cost of EVs, which could be estimated as the annual energy cost of a gas vehicle. **G20 governments must stop subsidizing the fossil fuel industry at a rate of \$452 billion a year.** [4]

INFRASTRUCTURE

Finally, charging and support infrastructure for EVs is the key to fueling EVs across the country and providing energy security for EV owners. People must be able to quickly and easily recharge their EVs on long journeys, in locations with services (not in federal parking lots).

SOCIAL INCENTIVES

Social incentives are measures that make EV drivers' lives easier, such as free parking in the city, dedicated lanes, free charging at work and changes to building codes to ensure the necessary infrastructure is available in new construction. **These measures fall within provincial and municipal jurisdiction.**

CANADA-EUROPEAN UNION HARMONIZATION

In the Canada-European Union free trade agreement, the respective governments committed to improving vehicle environmental performance and supporting efforts to harmonize vehicle safety regulations. Since EVs manufactured in Europe according to European standards cannot be sold here, **Canada needs to make the harmonization process for EVs a priority.**

IMPACT ON POLLUTION

The impact on GHG reduction is significant, as replacing one gas car with an electric car directly and locally contributes to lower air and sound pollution and four fewer tonnes of GHG emissions per year. Alternatives such as the purchase of carbon credits would not have a targeted impact. **Electrifying urban buses, “last-mile” delivery trucks and taxis would have a direct and local impact. We recommend allowing pilot projects for autonomous vehicles.**

The future cost in lost agricultural productivity, health care costs and property damage caused by rising sea levels in Europe and the United States is an estimated \$36 per tonne of GHG.

Air quality must be addressed locally, not indirectly through the purchase of carbon credits. People who live and work in downtowns are the first to be affected by sound stress and poor air quality, which causes many serious respiratory problems, reducing not only quality of life but also longevity. Air pollution also has a major financial impact on those affected, as they need medication for their ailments.

NEED FOR ZERO-EMISSIONS LEGISLATION

If the public is properly educated and understands the importance of electric transportation, it will be important to have EVs ready for purchase when consumers decide to adopt them. At present, buying an EV at a dealer is still complicated. Demand is not high enough, as the manufacturers are not promoting them. Not all dealers are authorized to sell EVs, sales people do not know the product very well and have no incentives to sell something that is not in inventory, and only a few manufacturers offer EVs in Canada.

A zero-emissions law that promotes electric transportation rather than biofuel transportation is needed. Such legislation would benefit consumers, who would see their transportation costs decline. See the organizations at www.czeq.org [in French only] and www.zevalliance.org for more details.

Finally, the technology would lead to a lot of changes in the way people use personal transportation. Autonomous electric car-sharing services would grow, and interconnected cars would become more widespread, leading to reduced road congestion.

Besides the reduction in GHGs, the environmental, social and economic benefits of EVs would improve our day-to-day quality of life.

REFERENCES

1. [KPMG study on the global financial impact of climate change: \\$70 billion to \\$100 billion a year to adapt](#) [website in French only].
2. [The Quebec transport and environment committee study of 2015: Our brief available for consultation and our interview with *Le Courrier Parlementaire*](#) [website in French only].
3. [Canada Provides ~\\$46 Billion a Year in Subsidies to Fossil Fuel Industry According to the IMF, Where Could Those Funds Be Better Spent?](#) [website]
4. [G20 Nations Spending \\$452 Billion on Fossil Fuel Subsidies](#) [website]

The AVÉQ has 4,000 members, receives 440,000 monthly visits on its website and serves as a resource for the public, government agencies, para-public organizations and the media.