

Written Submission for the Pre-Budget Consultations in Advance of the 2019 Budget

By:

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- **Recommendation 1:** That Canada develop a **clean fuel implementation strategy** to support the implementation of the Clean Fuel Standard. This strategy would include measures such as a fund to support the commercial deployment of clean fuels, aligning existing fiscal programs to support Clean Fuel Standard objectives and other studies and consultations that may be necessary to implement the Clean Fuel Standard.
- **Recommendation 2:** That Canada commission a study and stakeholder engagement process to develop indirect land use change values to support the development of the Clean Fuel Standard before the 2022 implementation date.
- **Recommendation 3:** That the federal government provide an incentive fund to support the uptake of light- and heavy-duty zero-emission vehicles (ZEV) via a rebate in 2019 until such time as ZEVs have achieved price parity. This could be layered on top of provincial funding or provided only with provincial commitments to other ZEV support activities.
- **Recommendation 4:** That the federal government should invest in a **national life-cycle inventory (LCI) database** that provides open access to information regarding the life-cycle carbon impacts of a product or service. This database will give business, industry, and governments across Canada access to high-quality, cross-sectoral, transparent LCI data—essential to effective and strategic decision-making based on minimizing long-term costs and maximizing environmental benefits. As with leading jurisdictions, Canada should begin the development of this database with the transportation sector, including establishing best practices and performance benchmarks.

Catalyzing clean transportation to ensure long-term Canadian energy competitiveness

In late 2016, Canada released the Pan-Canadian Framework on Clean Growth and Climate Change (PCF), which included a focus on reducing transportation-related emissions. The framework includes four action areas for transportation: 1) setting emission standards, 2) putting more zero-emission vehicles on the road, 3) shifting from higher to lower emitting modes, and 4) investing in infrastructure and cleaner fuels. Identified actions include the development of a Clean Fuel Standard, a zero-emission vehicle strategy, and expanding government leadership through procurement.

Each of these elements is critical to helping Canada reduce carbon pollution in the transportation sector, while also creating a domestic market for clean fuels and zero-emission vehicles. This domestic market in turn helps domestic companies compete in the global clean transportation market.

The global market for clean transportation is growing rapidly. China, the U.K., Germany, and many other countries recognize the importance of this market and are developing climate change and clean growth policies to capitalize on it.

Each recommendation below will help Canada realize its climate ambitions, support a competitive clean transportation industry, and help Canadian households and businesses benefit from this transition.

Recommendation 1: Develop a clean fuel implementation strategy

The Clean Fuel Standard (CFS) is the single biggest carbon reduction effort in the PCF. Its successful implementation could triple the Canadian market for clean fuels, creating significant economic opportunity. A clean fuel implementation strategy would help Canada and Canadians benefit the most from this transition by encouraging investment in Canada and minimizing cost impacts to other industries.

The potential new clean fuel economic activity is significant, up to \$5.6 billion a year by 2030 for the construction, operation, and supply of new facilities.¹ Canada will be competing with other jurisdictions such as the United States for this private investment. A clean fuel implementation strategy would ensure that Canada remains a competitive choice for clean fuel investment. In addition, meeting the CFS will require new business models and technologies, where government support could help pilot, demonstrate, and commercially deploy emerging and near-commercial technologies. For example, the Ethanol Infrastructure Grants and Loans program in the U.S provides loan guarantees for blender pumps in the U.S.² and British

¹ Clean Energy Canada (2018) What a Clean Fuel Standard Can do for Canada. <http://cleanenergycanada.org/report/clean-fuel-standard-report/>

² U.S. Department of Energy (2018) Alternative Fuels Data Centre. <https://www.afdc.energy.gov/fuels/laws/ETH/US>

Columbia has supported pilot projects to incorporate biocrude at the Parklands refinery.³ Stakeholders have broadly supported these types of measures early in the CFS design process.⁴

A clean fuel implementation strategy, with the CFS at its core, would include but not be limited to a Clean Fuel Fund, aligning existing spending programs to support CFS objectives, and other studies and consultations that may be necessary to implement the CFS. The strategy should be developed over 2019 and then announced in advance of the 2022 CFS implementation date.

Recommendation 2: Develop indirect land use change values

Indirect land use change should be included when the CFS is implemented in 2022, so industry can feel confident in investing in clean fuel facilities. To do this, the government will need to develop Canadian-specific values, which will likely require detailed analysis and discussion within the clean fuel community. This effort is worthwhile since the chosen values will influence which fuels and which types of facilities industry invests in to meet the standard. Other jurisdictions like California and Oregon already incorporate indirect land use change. Not developing indirect land use change values now would increase uncertainty around the CFS and potentially direct investment into clean fuel facilities that would later be considered more polluting. For example, an ethanol facility may purchase corn from an existing corn farm; however, somewhere in the world additional corn will be produced to make up for the change, potentially expanding farmland and associated greenhouse gas emissions. California estimates this indirect land use change increases the greenhouse gas emissions associated with corn ethanol by 40%.

Recommendation 3: Provide zero-emission vehicle rebates

Evidence shows that when it comes to increasing the uptake of zero-emission vehicles, rebates matter. The three provinces (B.C., Ontario, and Quebec) that have offered rebates for the purchase of zero-emission vehicles today account for 95% of Canadian EV sales. During the transition period before EVs attain price parity with internal combustion engines, well-designed rebates are an important tool that should be offered coast to coast to consumers purchasing zero-emission vehicles. This is particularly important now that Ontario has cancelled its rebates.

⁵ **For Budget 2019, a national commitment to EV rebates would send a powerful signal.**

Some provinces already offer rebates to ZEV drivers, raising the question of “unevenness” between provinces and territories if the Government of Canada offers a federal rebate. Some potential approaches to address this situation include:

³ Ministry of Energy and Mines and Petroleum Resources (2018) Projects supported under part 3 agreements. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/transportation/renewable-low-carbon-fuels/r1cf014_-_projects_supported_under_part_3_agreements.pdf

⁴ IISD (2018) Clean Fuel Standard: Summary of stakeholders comments on the discussion paper. <https://www.iisd.org/sites/default/files/publications/clean-fuel-standard-summary-comments-en.pdf>

⁵ Ontario has now cancelled its electric and hydrogen vehicle rebate program. <http://www.mto.gov.on.ca/english/vehicles/electric/electric-vehicle-incentive-program.shtml>

- The federal rebate could simply be added on top of any provincial initiatives. That is the situation in effect in California today, where the combined effect of two sets of incentives makes EV purchases particularly appealing.
- The Government of Canada could commit funding to provinces and territories to support the zero-emission vehicle strategy. As a condition of receiving the funding, each jurisdiction could be required to offer a rebate for EV purchases. If a jurisdiction already offers an adequate level of rebate, the federal government could offer provinces and territories **a menu of other eligible categories for their ZEV support dollars**, such as charging infrastructure, technology investment, and public awareness activities. Once they have an adequate rebate in place, jurisdictions would be free to select options from that menu that align best with their particular EV needs.

While there is a clear short-term need for investment in EV rebates, rebates should have an end date. The Government of Canada could set an uptake limit as B.C. has done⁶ or reduce the rebate as the cost of ZEVs decline and price parity with internal combustion engine vehicles is achieved. The Government of Canada can also look ahead to **the forthcoming national Clean Fuel Standard as an important potential source of revenues to support zero-emission vehicles**. Once the standard is in effect (likely in 2022), providers of clean fuels—including electricity for EVs and hydrogen for hydrogen fuel cell vehicles—would be eligible to generate credits.

Under a well-designed national Clean Fuel Standard, these credits could provide an important source of support for EVs. Preliminary modelling analysis done by Navius Research for Clean Energy Canada suggests that a national standard modelled on British Columbia’s current clean fuels policy would produce enough credits to have a significant impact on zero-emission vehicle adoption, with credit revenues from the policy contributing to 70% more ZEVs on the road in 2030 than we would see without the Clean Fuel Standard. **This approach would allow for significant support to EV adoption without an ongoing commitment of public funds.**

Some are also concerned that EV rebates flow only to the affluent. The government can mitigate this concern by ensuring a portion of ZEV rebates are designed specifically for lower income Canadians, as California has done.⁷

Recommendation 4: Create a national life-cycle inventory (LCI) database

Through the PCF, the Government of Canada—together with provincial and territorial governments—has committed to “modernize procurement practices, adopt clean energy and technologies, and prioritize opportunities to help Canadian businesses grow, demonstrate new technologies and create jobs.” While seemingly a tall order, it’s an important step toward Canada’s goal of building a resilient economy based on clean growth.

⁶ Government of British Columbia (2018) Discussion 1 – Zero emission vehicles (Clean Transportation) <https://engage.gov.bc.ca/cleangrowthfuture/2018/07/20/clean-transportation-discussion-1/>

⁷ Clean Vehicle Rebate Project (2018) Income Eligibility. <https://cleanvehiclerebate.org/eng/income-eligibility>

Through procurement and infrastructure spending, Canada has an opportunity to leverage its strengths in clean technology, particularly in the transportation sector. The government can meet its goal of reducing emissions while maintaining and strengthening Canada's economic competitiveness.

To ensure that government receives true value for money over the long-term, including avoiding the burgeoning costs of climate change on infrastructure, Canada should incorporate life-cycle assessment (LCA) into procurement policies and infrastructure spending programs. LCA enables a full cost and benefit account across the life of a product or asset, and it provides a measure of the impacts directly attributable to the functioning of a product, asset, or system throughout its life. Metrics can include emissions and other environmental, economic, and innovation attributes.

LCA is an essential tool for evidence-based decision-making of government spending. Through the creation of a national database that contains a life-cycle assessment inventory of goods and services, the government can make decisions or support the decisions made by other levels of government, industry, and business in a way that is not overly burdensome. It does not add red tape.

The government should begin to develop a database by consulting with industry stakeholders and life-cycle inventory and assessment experts, starting with data sets for materials, industry sectors, and project types that are the most-ready, such as the transportation sector. This data should be transparent, open, and shared with the private sector to help spur the development and innovation of goods and services and LCA tools. Canada should learn from other jurisdictions, such as Sweden or the Netherlands, as to how their databases were developed, as well as from within its own borders—specifically, Quebec's International Reference Centre for the Life Cycle of Products, Processes and Services.

We thank the Standing Committee on Finance for inviting us to participate in the pre-budget consultation process leading up to the 2019 Budget. We would be pleased to discuss any of our proposals with you in greater detail.