CLEAN ENERGY CANADA

2023 Clean Energy Canada Pre- Budget Submission

List of Recommendations

Recommendation 1: $200 million over three years to support incentives for used EV purchases to be allocated through the Incentives for Zero-Emission Vehicles (iZEV) program.

Recommendation 2: $350 million over four years to develop a dedicated medium and heavy-duty vehicle infrastructure stream within the existing Zero-Emission Vehicle Incentive Program (ZEVIP).

Recommendation 3: $7 million over seven years to support a public-private partnership to implement a national batteries plan to maximize the potential of Canada's battery supply chain.

Recommendation 4: $500 million over five years to create a fund that will incentivize the use of commercially viable low-carbon materials and practices in federally funded infrastructure projects.

Recommendation 5: $15 million over five years to fund capacity building programs, staffing and technical support for provinces, territories, municipalities, and private sector to adopt Buy Clean.

Recommendation 6: $300 million over five years to demonstrate and scale a diverse set of innovative, near-zero emission building materials.

Recommendation 7: That the Government prioritize the deployment of funding to support the urgent expansion of clean electricity infrastructure.

1) Making Zero-Emission Passenger Vehicles Accessible and Affordable for all Canadians

Cost: $200 million over three years

Getting more people in zero-emission cars will make life more affordable for Canadians and help support a world-class ZEV industry. Zero-emission vehicles cost less to fuel and maintain, saving Canadian drivers $10,00-$15,000 over eight years of ownership compared to a comparable gas-powered car.[1] However, the sticker price of a new ZEV is still an obstacle to many Canadians concerned about inflation and affordability, and particularly low-income Canadians.

It is timely for Canada to move forward on this mandate letter commitment and introduce used EV purchase incentives. The U.S. *Inflation Reduction Act* includes an EV tax credit designed to serve lower- and middle-income buyers by including income caps on those eligible to benefit from the tax credits and offering up to $4,000 USD for used electric vehicle purchases. This signature Budget 2023 investment could mirror this focus on expanding access to affordable EVs and offer incentives of up to $2,000 CDN per used EV, supporting a total of 100,000 used EV purchases.

This investment in EV affordability would complement Canada's efforts to make EVs available to Canadians by using a national zero-emission vehicle mandate.

2) Accelerating the Uptake and Production of Zero-Emission Medium- and Heavy-Duty Vehicles

Cost: $350 million over four years

Heavy-duty gasoline and diesel vehicles are responsible for over 9% of Canada's total national emissions and over 30% of transportation emissions—and their contribution is growing. Zero emission fleets do not only reduce emissions, but also as vehicles are less expensive to fuel and maintain, they result in savings of $40,000 to $67,000 over a vehicle's lifetime compared to diesel[2] , increasing the efficiency and competitiveness of Canadian businesses.

Accelerating deployment of zero-emission medium- and heavy-duty vehicles also provides manufacturing opportunities. Already, Canada is home to leading electric bus and truck makers such as

[1] Clean Energy Canada. *The True Cost*. https://cleanenergycanada.org/report/the-true-cost/. (2022).
[2] https://www.pembina.org/pub/guide-electrifying-urban-delivery-fleets-canadian-cities

New Flyer, Nova Bus, and Lion Electric. General Motors will start producing electric delivery vans in Ontario this year, serving customers like FedEx. Growing domestic demand for these vehicles can further bolster this industry, creating good jobs for Canadians.

To increase uptake of MHDVs and allow Canadian businesses to access the associated cost savings and emissions reductions, successful jurisdictions[3] have not only provided purchase incentives, but also complementary support to build the infrastructure required to service these emerging fleets. Transitioning to an EV fleet involves a broad range of project costs, not only vehicles and charging infrastructure but also the site and electrical design, installation, utility connection fees and incremental costs associated with automation equipment.

Budget 2023 can provide support for MHDV expansion in Canada by covering 50% of the costs or up to $500,000 of eligible equipment and software and establish a higher threshold ($750,000) and greater cost share (75%) for small businesses.[4]

3) Fund the Canadian Battery Alliance to make Canada a North American Battery Powerhouse

Cost: $7 million over seven years

New modeling from Clean Energy Canada and the Trillium Network for Advanced Manufacturing indicates a domestic EV battery supply chain could support up to 250,000 jobs by 2030 and add $48 billion to the Canadian economy annually. However, this potential relies on fast action by government, paricularly in response to major investments in the battery supply chain recently announced by the United States.

The Canadian Battery Taskforce has found that the best next step for Canada is to develop a public-facing, national battery plan and fund a public-private partnership modeled after the European Battery Alliance to lead implementation. The EU Battery Alliance includes EU countries, investment institutions, and key industrial, innovation, and academic stakeholders and is managed by EIT InnoEnergy, a European company supported by the European Institute of Innovation and Technology.

[3] B.C.'s Commercial Vehicle Pilot Program and California Energy Commission's investment in MHDV infrastructure
[4] California's EnergIIze Program

4) Develop the Clean Infrastructure Incentive Fund to activate the Canadian market for commercially viable low-carbon building materials and practices

Cost: $500 million over five years

By investing in low-carbon materials and practices using its own spending power, the Government of Canada has the potential to reduce emissions, support well-paying jobs, and maintain industry competitiveness as Canada and the world transition to net-zero. Fully implementing Buy Clean in Canada could **unlock up to 14 million tonnes of direct and indirect emissions reductions**, supporting a growing **green building materials sector that could reach $50 billion by 2030**.[5]

The US has just earmarked US$5.5 billion to procure low-carbon building materials through the IRA. Their policy includes US$2 billion/ 4 years to "reimburse or provide incentives" to offset the incremental costs (up to 2%) of using low-carbon materials in federal and state highway projects.

The Buy Clean Industry Alliance is calling on the federal government to keep pace with recent U.S. investments, ensure Canadian producers have a domestic market to sell low-carbon materials, and maximize the GHG emissions reduction potential of government procurement by creating a short-term fund to offset incremental costs of using low-carbon materials. The Clean Infrastructure Incentive Fund, with an investment of $100 million/ year sunsetting after 5 years, would provide financial support to offset the incremental cost of using low-carbon materials and construction practices (up to 2% of total project costs) in federally-funded infrastructure projects at the federal, provincial or municipal levels. Providing a financial incentive for low-carbon project bids will help; to familiarize procurement agencies, to create a market for low-carbon goods, and to incentivize the use of existing best practices in the construction industry.

We recommend this fund be flowed through Infrastructure Canada as a top-up to funding provided through other streams with a federal cost-share component. The funding should cover incremental costs of using lower carbon materials and construction processes in federally funded projects, up to a 2% cost premium on total project costs. To be eligible for funding, depending on their approach to embodied carbon reductions, projects must provide verification of low-carbon materials (using Environmental Product Declarations), or submit a whole-project LCA demonstrating reduced embodied carbon relative to a baseline. This investment will help create a path to ensure that by 2030, all infrastructure transfers from the federal government include Buy Clean provisions.

[5] Direct and indirect private market impacts if Buy Clean were implemented at all levels of government, according to a new study conducted by Global Efficiency Intelligence.

5) Build capacity across the broader public sector to increase adoption of Buy Clean practices

Cost: $15 million over five years

In addition to cost, lack of awareness, understanding and capacity among provincial and local governments and public entities is a barrier to wider adoption of green procurement policies.

Successful international models have dedicated a team as a hub for practical information on sustainable procurement.[6] By building a federal team with expertise on low-carbon procurement, the Government of Canada can offer training and capacity-building to other levels of government and the private sector. This team needs to first provide technical support and expertise to public agencies to share technical expertise and address project barriers. Second, the team should provide some level of project-specific support to contractors and engineers, including walk-throughs/site visits and technical support. Finally, the team should increase awareness of low-carbon materials and processes outside of government by creating communications products and online resources.

We recommend a $15 million commitment over 5 years: $6 million for ~10 FTEs to support the development of this team and $9 million for the creation of resources.[7]

6) Invest in Canadian innovation to decarbonize industry, and ensure Governments are ready to procure emerging technology

Cost: $300 million over five years

In addition to providing financial incentives to deploy market ready lower-carbon materials, there is a pressing need to support and scale-up more innovative materials with a lower carbon footprint. The IEA estimates that pre-commercial technologies for steel, cement and other heavy industries are needed for about 60% of 2050 emission reductions under their net-zero scenario.[8] Governments must provide support to ensure these technologies are widely available by mid to late-2020s or risk missing key investment cycles to meet net-zero.

We recommend that Budget 2023 allocates $300 million over 5 years to develop, test, demonstrate, and deploy pre-commercial materials and products that contribute to net-zero goals.

---

[6] A potential model to follow is 'PIANOo', the Dutch Public Procurement Expertise Centre

[7] We recommend that this small team be housed in NRCan's Greening Government Services branch, but could leverage the contacts and expertise of Procurement Assistance Canada and the Clean Growth Hub.

[8] Achieving Net Zero Heavy Industry Sectors in G7 Members

We recommend $55 million/year over 5 years be allocated to NRCAN's Low Carbon Building Materials Innovation Hub. Allocating and expanding the funding for the Hub would support Canadian companies to identify early-stage and pre-commercial building materials across the full value chain of low carbon building materials and technologies, fund R&D and real-world material testing, and share data.

A complementary $5 million/year over 5 years should be allocated to ISED's Innovative Solutions Canada to ensure that new products and technologies have a pathway to commercialization through federal procurement.

7) Support the rapid deployment of clean electricity infrastructure to support new renewable generation on Canadian electricity grids

As the world shifts away from fossil fuels, Canada will need roughly twice as much electricity to be net-zero by 2050.[9] The vast majority of this electricity will need to come from renewable sources to meet Canada climate targets. Clean electricity can help households save on energy bills and insulate consumers from fossil fuel price shocks. Furthermore, clean electricity is increasingly cited as a competitive advantage by companies looking to invest in Canada.[10]

Expanding transmission between provinces is a key enabler for the expansion of renewable generation.[11] The United States has recently invested almost $2.9 billion to incentivize the development of electricity transmission.[12] While electricity is largely an area of provincial jurisdiction, the federal government has a key role to play in keeping ratepayer costs low and helping finance and incentivize the build out of transmission infrastructure.

As Canada looks to implement the Clean Electricity Regulation, major investments in generation, transmission and distribution will be required to achieve a 2035 net zero grid. While Clean Energy Canada has not quantified the scale of investment required, we recommend Budget 2023 include a large-scale federal investment to support clean electricity infrastructure deployment.[13]

---

[9] Clean Energy Canada. *Underneath it All.* December 2021.
[10] Quebec's ability to provide cheap, low carbon energy was cited by General Motors as a key factor in their decision to locate their battery materials facility.
[11] https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2021/key-findings.html
[12] *Electricity Transmission Provisions in the Inflation Reduction Act of 2022.*
[13] Green Budget Coalition has suggested $12 billion over 5 years. *Recommendations for Budget 2023*. 2022.