



List of Recommendations

Recommendation 1 - Emphasizing Efficient Electrification

- Grid investments should be program-focused and improve the affordability and reliability of the system while reflecting Canada's diverse electricity markets.
- The Federal government, in collaboration with stakeholders, industry and other levels of government should develop and implement a regionally appropriate electrification strategy that would guide Canada's long-term approach to reducing GHG emissions in other economic sectors.

Recommendation 2 - Enabling Electricity Investments

- Ensure regulatory approvals are completed on time and are accelerated or simplified where possible.
- Work with provincial economic regulators to approve expansions of innovative electricity programs.
- Modernize Canada's legislative framework for electricity metering, with an eye to enabling innovative metering infrastructure and the clean technologies that it underpins.

Recommendation 3 - Support Shovel-Ready Projects

- Provide customer-focused energy efficiency programs.
- Improve grid reliability and efficiency by supplementing existing work.
- Advance future work and expand grid capacity.

Recommendation 3: Move Forward Projects to Support Net-Zero and Decarbonization Objectives

- Make investments to support broader electrification, including grid capacity for new technologies.
- Accelerate maturity of new technologies like Small Modular Reactors, Energy Storage, Hydrogen and Carbon Capture and/or Conversion so that they can be used broadly.

Recommendation 4: Improve Cyber Security by Expanding Project Lighthouse to Other Jurisdictions

Recommendation 5: Prioritize Efforts to Improve Reliability and Reduce The Use of Diesel Electricity Generation in Remote and Indigenous Communities.

About CEA

The Canadian Electricity Association (CEA) is the National Voice of Electricity in Canada. CEA members generate, transmit and distribute electricity to industrial, commercial and residential customers across Canada. Electricity is a key economic, environmental and social enabler that is essential to Canadian prosperity.

Electricity companies in Canada provide safe, reliable and sustainable electricity from coast to coast to coast. CEA ensures members remain at the forefront of customer service, sustainability, and technological innovation. Our electricity sector is among the most sustainable in the world, with more than 80% of electricity produced in Canada already non-emitting. Since 2005, the sector has reduced GHG emissions by more than 30% and will further do so as Canada's remaining coal-fired power plants are retired. With the right planning, electrification can take advantage of unused electrical generating capacity and help control prices.

Canada's transition to a low carbon economy will be made possible by electricity. Safe, reliable, and sustainable electricity can substitute emitting forms of energy while facilitating innovation and improving the customer experiences. No- or low-emission electricity can be leveraged to help reduce emissions in other sectors, including transportation, heating, and industrial processes. It is not a question of if electricity will be a part of this evolution, but how.

As the government looks beyond COVID-19, it has the opportunity to advance economic recovery and Canada's transition to a low carbon economy with measures that decarbonize the Canadian economy and modernize the electricity system in order to meet the evolving needs of customers in a sustainable, reliable, and safe manner.

Supporting businesses supports the electricity sector.

While the electricity sector has mostly weathered the storm thus far, some members are beginning to experience financial pressures. For distribution utilities, cash flow and liquidity became a challenge as electricity customers affected by COVID-19 are experiencing financial pressures causing them to delay or not pay bills.

This risk can extend to generators and transmission companies as well, especially when providing electricity directly to industrial customers that are facing financial pressures from lack of operations. In open markets, such as Alberta, merchant prices for electricity have dropped during the pandemic, reducing income for generators that rely on merchant prices.

Economic measures that assist businesses in hard economic times also keep Canada's electricity system working and encourage continued investments. This can be even more pronounced in areas where there are additional economic challenges, such as Canada's oil and gas sector.

Emphasize Efficient Electrification



Canadian
Electricity
Association

Association
canadienne
de l'électricité

Grid investments should be program-focused and improve the affordability and reliability of the system while reflecting Canada's diverse electricity markets. Canada has a diverse electricity market: service territory, ownership, and market structure vary from province to province. Government should be mindful that our sector is structured differently across the country, and programs should be designed accordingly if those programs are to succeed.

Investments should also be mindful that the electricity sector is structured differently across Canada. Programs should be designed to strengthen the efficiencies of each jurisdiction's structure and avoid unintended consequences. When generation owners offer their units into the market it is important that there is a level playing field to ensure that the price of electricity can sustain competitive market entrants. Without careful consideration, investments could benefit the sector in some regions while undermining the strengths of others, resulting in unintended wealth transfers between provinces. Consultation with provinces and territories, independent system operators and stakeholders is essential.

Recognizing Canada's diverse electricity system, government should respect that sub-national electrical regulators are the most capable entities to protect consumers and ensure grid reliability. Any changes to that system, including how decisions on attaching telecommunications equipment to electrical infrastructure are made, will put Canadians at risk through improper regulation.

Finally, as government works to advance goals like decarbonization, indigenous reconciliation and beyond, it must ensure that investments create durable, sustainable improvements. This includes prioritizing investments in systems operation capacity. The 2019 Speech from the Throne aspired to providing every community in Canada with clean, affordable power; the impact of cost on customers cannot be forgotten.

To achieve this, the Federal government, in collaboration with stakeholders, industry and other levels of government should develop and implement a regionally appropriate electrification strategy that would guide Canada's long-term approach to reducing GHG emissions throughout the economy.

Enabling Electricity Investments:

As the economy restarts, it will be important to make sure that planned or underway projects move forward. The Conference Board of Canada has estimated that there is a need for \$1.7 trillion in investment in the electricity sector by 2050 to meet Canada's climate goals. Deferrals and delays on such investments would be counterproductive to broader stimulus efforts while also delaying improvements to the grid and increasing costs. Government can get projects moving by:

- **Ensuring regulatory approvals are completed on time and are accelerated or simplified where possible.** There are many electricity projects that are viable and funded but are held back by delays in the Federal Government approvals process. Accelerating or simplifying the federal approval process to ensure that projects can move forward and get people working



sooner rather than later is important for major and routine works. Opportunities include the *Impact Assessment Act* and expediting the permitting processes under the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

- **Working with provincial economic regulators to approve expansions of innovative electricity programs.** Electricity projects must also receive approval from provincial economic regulators. Members are limited in their ability to expand programs by their ability to get them approved by provincial regulators, especially when expanding pilot programs.

CEA has raised this concern before and is in the process of identifying specific regulatory areas where improvements can be made. Ultimately, there is a need for policy direction from decision makers. Given the interjurisdictional nature of this problem, any solution must involve cooperation between the federal and provincial governments.

Given that provincial concerns are focused on controlling costs for ratepayers, the Federal Government should create a Regulatory Innovation Fund that can be used by provincial and territorial electricity regulators to minimize price impacts on customers while adopting new technologies. Such a mechanism was included as a suggestion from the Economic Strategy Tables convened by ISSED.

- **Modernize metering infrastructure legislation to facilitate electrification.** New Metering Infrastructure holds great promise in terms of enabling the commercialization of clean technologies that can deliver significant societal benefits and environmental outcomes. However, overly prescriptive acts such as the *Electricity and Gas Inspection Act* (EGIA) and *Weights and Measures Act* (WMA) stifle innovative metering technology and, in turn, impede the commercial deployment of technologies dependent on these, including Electric Vehicles, Demand Response Programs and Distributed Energy resources.

CEA encourages the Government to undertake a full modernization of Canada's legislative framework for electricity metering, with an eye to enabling innovative metering infrastructure and the clean technologies that it underpins.

Support Shovel-Ready Projects

It is important that government create a more efficient environment for investment and approvals, but there are also near-term investments that government can provide that will advance economic recovery while also improving the grid. They include:

- **Customer-Focused Energy Efficiency Programs:** These programs create local jobs, offer tangible benefits to families and businesses while also reducing the need for more expensive investments in the electricity system. These upgrades have clear economic multiplicative effects.



Canadian
Electricity
Association

Association
canadienne
de l'électricité

- **Improve grid reliability and efficiency by supplementing existing work:** There is ample routine electricity work that can be easily expanded if budget is available. This could include vegetation management, lighting and metering upgrades, and electrification expansions such as for EV infrastructure.

These measures can improve the grid by improving reliability and resilience. As an example, vegetation management and infrastructure hardening helps reduce vulnerability to damage from fires and extreme weather, including on transmission infrastructure, from risks that are beyond what was anticipated when constructed.

- **Advance Future Work and Expand Grid Capacity:** Some long-term projects, especially for things like transmission, can be accelerated by beginning the background engineering and evaluation work now. While not literally “shovels in the ground”, this is none the less essential work that creates good jobs and can be done in a socially distant manner. Getting this work done now will also allow for an earlier start on projects in the future.

Move Forward Projects to Support Net-Zero and Decarbonization Objectives

Supporting Grid Investments: There is a need to improve the backend of the grid, beyond wires and poles, to integrate and allocate new energy resources. Government cannot add new energy resources without adding capacity on the system operations side to integrate it. CEA's members support investments in electrification of transportation, including infrastructure for personal vehicles, commercial fleets, and public transportation. There are also system improvements needed to the electricity grid to support broader electrification of transportation.

Innovation: There are nascent technologies where government investment can help accelerate maturity of the technology for broader use. These include:

- Small Modular Reactors (SMRs)
- Energy Storage
- Hydrogen
- Carbon Capture and/or Conversion

Programs should be focused on developing these technologies so that they can be scaled commercially. This might include utility-scale battery storage and carbon capture/conversion pilots or implementing the SMR roadmap. Again, focus should be on efficient use of clean energy resources without creating adverse impacts on electricity prices and reliability of the system.

Cyber Security:

Digital threats remain a substantial concern for utilities in Canada, with an ever-evolving threat from



Canadian
Electricity
Association

Association
canadienne
de l'électricité

hostile actors. The risk for these threats will only grow as more distributed assets are added to the grid. Ongoing investments make the grid safer while providing employment. The Project Lighthouse pilot in Ontario is a tangible example of this. It provides improved situational awareness, and more meaningful and actionable threat intelligence. **The pilot should be expanded to other jurisdictions.**

Carbon-Reduction of Generation in Remote/Indigenous Communities:

Remote communities are powered predominately by carbon intensive diesel generation. There are opportunities to improve the electricity system in remote communities through investments in storage, distributed energy resources, renewable generation, efficient gas fired generation, transmission and other technologies. Small Modular Reactors also offer real opportunities.

This can improve reliability while reducing the use of diesel and its associated climate and health impacts. Sometimes, this can be paired with expansion of broadband service. Through equity partnerships in construction of transmission infrastructure CEA members can facilitate access to these essential services while partnering in the growth of these remote communities.

The Federal government should increase and prioritize efforts to improve reliability and reduce the use of diesel electricity generation in remote and Indigenous communities.