
CANADIAN ELECTRICITY ASSOCIATION

ACTIONS FOR ACHIEVING NET-ZERO GHG EMISSIONS BY 2050

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Canadian
Electricity
Association

Association
canadienne
de l'électricité

Preamble

The federal government plans to introduce legislation – the *Act to Amend the Sustainable Development Act* – that will likely come into force in 2021 and will guide future Federal Sustainable Development Strategies, committing Canada to net-zero emissions by 2050. As this discussion unfolds in light of COVID-19, it is critical that the electricity sector, as a key enabler of Canada’s net-zero goals, clearly articulates its role and what is expected of governments and regulators to transition to a net-zero economy over the next thirty years. This document outlines a set of foundational actions intended to guide the sector—including members, government interlocutors and other key industry stakeholders—towards the pursuit of achieving net-zero by 2050.

Introduction

The Canadian electricity industry is key to supporting Canada’s vision to be carbon neutral by 2050. The sector has already done more to decarbonize Canada’s economy than any other¹ economic sector. To achieve this national goal, Canada’s economy will have to balance any remaining greenhouse gas emissions (GHG) with initiatives that remove an equal amount of GHGs from the atmosphere. This will allow for broad deployment of existing technologies and increased investment in new and innovative ones while increasing jobs, protecting Canada’s socio-economic well-being and tackling climate change head-on.

The Canadian electricity industry is a key enabler of net-zero because it:



has a low and declining carbon footprint



is essential to the quality of life of Canadians



is a significant contributor to the Canadian economy



is crucial to decarbonizing other economic sectors of the economy

Thus, in support of Canada’s vision of a net-zero carbon future, the **electricity industry** is committed to pursuing the following broad actions:

¹ See Canada’s 2018 UNFCCC NIR (46% reduction in GHG emissions in the electricity sector between 2005-2018)

CLEAN GROWTH

1. **Prioritize Clean Energy Technologies:** prioritize new clean energy production and end-use technologies to meet customer needs based on economic value, feasibility, reliability, market trends, customer expectations and shareholder value, while ensuring existing assets are not stranded.
2. **Neutralize “Residual” GHG Emissions:** phaseout traditional coal-fired power plants as per existing regulations and equivalency agreements, use natural gas strategically to support renewable adoption, and fully offset GHG emissions from any remaining fossil fuel facilities operating beyond 2050 either through emissions credits or technology solutions.
3. **Help Scale-up Nascent Technology:** establish partnerships with industry partners to invest in utility-scale battery storage pilots, Small Modular Reactors (SMRs), micro-grids and other Distributed Energy Resources (DERs) to efficiently use clean energy resources and prepare for the grid of the future without creating adverse impacts on electricity prices or reliability of the system.

DELIVERY, RESILIENCE AND END USE

4. **Invest in “Delivery” Infrastructure:** seek opportunities, where appropriate, for transmission corridors for clean power, including to the United States, and continue to support the modernization and digitization of electricity distribution networks to ensure the quality and reliability of service provided to the customer.
5. **Plan for Climate Adaptation & Grid Resiliency:** invest in smarter, more flexible grids to ensure a resilient system will be paramount as the economy is electrified. The industry will work to identify local climate change impacts and collaborate with stakeholders to identify investment opportunities, recognizing that cost-effective resiliency may entail flexible solutions outside of traditional grid infrastructure.
6. **Support Electrification:** work with stakeholders and partners across Canada to identify and implement cost-effective electrification programs that can serve the behind-the-meter energy needs of customers while ensuring overall system integrity (grid management), GHG reductions and customer savings.
7. **Promote Efficient Use of Energy:** collaborate with national and local partners to update energy efficiency codes and standards to lower emissions, manage energy use and utilize existing infrastructure to maximize assets.

EMPLOYEES AND COMMUNITIES

8. **Invest in a Diverse and Skilled Workforce:** recruit and retain a diverse, inclusive and skilled workforce to meet changing customer expectations and demands through greater ingenuity and innovation.
9. **Develop Indigenous Clean Energy Partnerships:** engage with Indigenous communities to establish economic partnerships that ensure an equitable transition and catalyze new clean energy projects while reducing reliance on diesel.

The effective implementation of the above actions requires a commitment from the **federal, provincial and territorial governments** to the following:

CUSTOMERS

1. **Ensure Customer Affordability:** ensure that government policy frameworks do not inadvertently impact customer rates and affordability, especially those in low-income categories, recognizing the many variables associated with the price of electricity.
2. **Recognize Regional Diversity:** acknowledge the importance of regional specific approaches and inter-regional collaboration to ensure that the transition to a net-zero future is sustainable and considers specific market designs and impacts on the customer. Encourage the federal government to create regional task forces to identify region-specific opportunities for long-term emission reductions by 2050.

REGULATORY FRAMEWORKS & POLICIES

3. **Create an Efficient Federal/Provincial/Territorial Policy Environment:** identify duplicative project review and approval processes, and create a regulatory environment conducive to achieving net-zero by 2050 through forums such as the Canadian Council for Ministers of the Environment (CCME) and the Energy and Mines Ministers Conference (EMMC).
4. **Modernize “Provincial and Territorial” Regulatory Models:** address industry business model disruption, effectively deliver energy services to customers, modernize grid infrastructure, and support investments in long-term energy transformation initiatives. Electricity markets and rates are generally regulated by provincial/territorial regulatory commissions. The legislative frameworks for these must be updated to allow for electricity industry innovation and diversification of activities in support of electrification.
5. **Implement a National Electrification / Hydrogen Framework:** develop and implement a regionally appropriate electrification/hydrogen strategy that would guide Canada’s long-term approach to reducing GHG emissions in other economic sectors under the leadership of the federal government, in collaboration with stakeholders, industry and the provincial/territorial governments.
6. **Commit to National and International Emissions Trading:** endorse national and international emissions trading regimes and establish a transparent, cost-effective and verifiable credit creation system that conforms with 2050 goals.
7. **Promote Efficient Use of Energy:** engage with residential, industrial and commercial electricity customers and other stakeholders to support energy efficiencies, including updating of energy efficiency codes and standards.

INVESTMENTS TO SUPPORT THE TRANSITION

8. **Support Research, Development and Demonstration:** accelerate federal and provincial/territorial grants, tax credits and investments in new emerging electricity technologies and ancillary services to enable an intelligent electricity grid of the future.
9. **Accelerate Capital Cost Allowance Rates:** support the retirement of higher-carbon generation assets with accelerated capital cost allowance rates to incent early retirement of legacy generation assets. In addition, support for the re-training of workers affected by these retirements will be important.
10. **Invest in Climate Resiliency:** work with local governments and stakeholders to accelerate current efforts to understand long-term climate variability projections and facilitate utility investments in climate change adaptation and grid resiliency.

EMPLOYEES AND COMMUNITIES

11. **Support Skills Development:** support industry efforts on diversity and inclusion, including attracting non-traditional skilled workers to the industry to meet the energy needs of the future.
12. **Facilitate Economic Reconciliation with Indigenous Communities:** convene and catalyze partnerships between electricity companies and Indigenous communities on clean energy to reduce reliance on diesel and other fossil fuels in northern and remote communities.

Together, these industry and government actions can **help to decarbonize the Canadian economy and modernize the electricity system** to meet the evolving needs of customers in a sustainable, reliable and safe manner.

