



Canadian
Electricity
Association

Association
canadienne
de l'électricité

Canadian Electricity Association (CEA) Pre-Budget 2015 Submission to the House of Commons Standing Committee on Finance

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Executive Summary

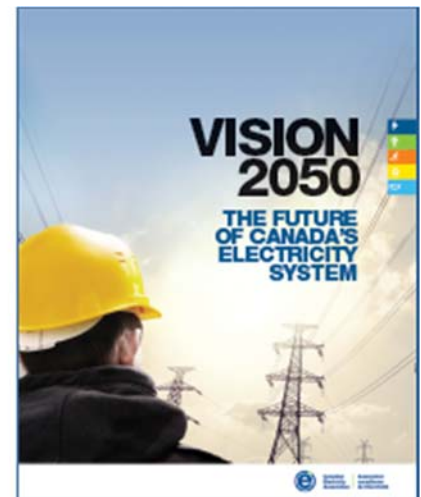
The Canadian Electricity Association (CEA) is the national voice of Canada's electricity sector representing over thirty of Canada's largest electric utilities and their subsidiaries that generate, transmit, distribute and market electricity to residential, industrial, commercial and institutional customers on a daily basis. Additionally, CEA has over 40 Corporate Partner Members from the full electricity value chain including manufacturers and suppliers of materials, technology and services.

Canada's electricity sector is entering a transformative period characterized by unprecedented capital investment to modernization Canada's electricity infrastructure. By 2050, the majority of existing electricity assets will have been renewed or replaced. The decisions made today will significantly impact what the system will look like in 2050.

Vision 2050: The Future of Canada's Electricity System

A recent CEA report *Vision 2050: The Future of Canada's Electricity System* sheds light on the urgent need for informed decision-making both in policy development and on-going infrastructure investment if Canada is to maintain a reliable, affordable and sustainable electricity system.

CEA's six recommendations for Budget 2015 are consistent with both the Finance Committee's key consultation themes and *Vision 2050* measures aimed at renewing Canada's electricity system so as to deliver maximum value to customers and citizens and contribute to a low-carbon economy.



CEA Recommendations for Budget 2015:

- I. A sustained and long term commitment to Energy Efficiency;
- II. Under the responsibility of Natural Resources Canada's Office of Energy Research and Development, renew funding for the Clean Energy Fund and ecoENERGY Innovation Initiative;
- III. Renew funding through Natural Resources Canada for the climate change Adaptation Platform;
- IV. Continue support for regulatory alignment with the United States to enhance the integrated North American electricity system;
- V. Establish targets for the integration of electric vehicles into the federal vehicle fleet and renew funding for Industry Canada's Automotive Partnerships Canada Program;
- VI. Enhance the protection of electricity Critical Infrastructure through increased funding for Public Safety Canada's Canadian Cyber Incident Response Centre and amendments to the Criminal Code to address the growing problem of copper theft from critical electricity facilities.

I. Recommendation 1: A sustained and long term commitment to Energy Efficiency

(Finance Committee Theme: Increasing the competitiveness of Canadian businesses through research, development, innovation and commercialization)

In addition to contributing to the bottom line of household budgets, energy efficiency increases the competitiveness of business and industry by reducing energy overhead and input costs, contributes to a robust economy by creating jobs and is widely recognized as a cost effective option for reducing emissions and producing tangible benefits for the environment.

Canadian electric utilities recognize that the effectiveness of energy efficiency activities can be maximized through an integrated and collaborative approach and value their ongoing partnership with Natural Resources Canada Office of Energy Efficiency (OEE). The OEE has provided leadership, tools and resources that enable electric utilities to effectively help their customers manage their energy use and consequently their bills. NRCan tools, methodologies, programs, regulations and training initiatives provide the platforms and infrastructure that utilities can use, augment and tailor to develop programs and incentives which address the particular needs of their service territory.



CEA recommends the continued support for collaboration around energy efficiency so that both the energy and non-energy - macroeconomic, jobs, industrial productivity and health and well-being - benefits continue to flow to Canadians from coast to coast.

II. Recommendation 2: Under the responsibility of Natural Resources Canada's (NRCan) Office of Energy Research and Development (OER&D), renew funding for the Clean Energy Fund and ecoENERGY Innovation initiative

(Finance Committee Theme: Increasing the competitiveness of Canadian businesses through research, development, innovation and commercialization)

From a technology perspective, the electricity sector as a whole needs to be investing in R&D; however, short term-cost pressures are threatening this critical piece of Canada's energy future.

As infrastructure replacement requirements push up electricity rates – a current reality in every Canadian province and territory - regulatory bodies push utilities to increase productivity in the short term by reducing expenditures on innovation and per-unit costs of components sourced from electrical equipment manufacturers (EEMs). This leads to diminished R&D budgets for utilities, EEMs and established industry consortiums.

Unfortunately, this reaction to near to mid-term cost pressures is undermining the investment in innovation required to ensure that the system of 2050 will be reliable, sustainable, and, paradoxically, affordable. The federal government can effectively fill this time-scale gap by co-funding strategic pilot projects that take a longer-term view of innovation investments. The Clean Energy Fund and ecoENERGY Innovation Initiative have been valuable tools for funding and advancing energy technology innovation R&D and demonstration projects.

CEA supports any R&D activity that supports the five capabilities of a modern grid infrastructure: demand response (DR), facilitation of distributed generation, facilitation of electric vehicles, optimization of asset use and problem detection and mitigation. Research activities that focus on green-house gas emission reductions should complement the work of Sustainable Development Technology Canada (SDTC), an agency that CEA continues to strongly support.



CEA recommends renewed funding for the Clean Energy Fund and ecoENERGY Innovation Initiative be included in Budget 2015 to continue R&D in areas that support the capabilities of modern grid infrastructure.

III. Recommendation 3 - Renew funding through Natural Resources Canada (NRCan) for the climate change Adaptation Platform

(Finance Committee Theme: Ensuring prosperous and secure communities, including through support for infrastructure)

With the overarching goal of equipping decision makers and key industries with the tools and information they need to adapt to a changing climate, NRCan's Adaptation Platform is a forum that brings together participants from federal departments, provincial and territorial governments, professional organizations and national natural resource industry associations to collaborate on climate change adaptation priorities.

Through its successful 2013 call for proposals, NRCan has successfully fuelled adaptation action across Canada including CEA's first industry-wide adaptation project entitled *The Impacts of Climate Change on Electricity Infrastructure Investments: A National Perspective* that seeks to identify ways to improve planned electricity infrastructure investments by incorporating adaptation considerations into investment projections.



CEA recommends funding renewal for the Adaptation Platform beyond 2016 be included in Budget 2015.

IV. Recommendation 4 – Continue support for regulatory alignment with the United States to enhance the integrated North American electricity system

(Finance Committee Theme: Improving Canada's taxation and regulatory regimes)

CEA applauds the ongoing work and progress of the federal government's efforts to institutionalize regulatory cooperation and alignment with the United States through the Canada-U.S. Regulatory Cooperation Council (RCC).

In view of the integrated nature of cross-border electricity systems and markets, a robust electric grid is not only essential to the prosperity of Canada, but to the broader economic health and competitiveness of North America. The Canadian and U.S. segments of the larger continental transmission network are already physically interconnected at over 35 points, and are set to

expand even further, with no less than half a dozen international power line (IPL) projects under various stages of development all along our shared border. And it is worth observing that all of these IPL projects will support the development of clean, non-emitting energy resources.

CEA has been particularly encouraged by the Government of Canada's receptiveness to pursuing this idea under the auspices of the RCC or through separate bilateral channels.



CEA recommends that Budget 2015 encourage continued action in of aligning permitting requirements for cross-border electric infrastructure and trade, and more broadly, continued support for the crucial work and the critical principle of regulatory cooperation reflected in the activity of the RCC.

V. Recommendation 5 – Establish targets for the integration of electric vehicles into the federal vehicle fleet and renew funding for Industry Canada’s Automotive Partnerships Canada Program (APC)

(Finance Committee Theme: Ensuring prosperous and secure communities, including through support for infrastructure & increasing the competitiveness of Canadian businesses through research, development, innovation and commercialization)

Vision 2050 recommends that proactive steps be taken by utilities and all levels of government to accelerate the electrification of the transportation sector through policy support and collaboration, coalition building and implementation of enabling infrastructure.

The federal government can lead by example in the early adoption of electric vehicles by establishing specific targets for EV integration in the federal vehicle fleet. In the absence of specific targets, current procurement practices that focus on short term financial savings are a barrier for EV's that are characterized by higher purchase prices but significant fuel cost savings over time.

A partnership between five federal research and granting agencies under Industry Canada, the APC has served as a catalyst for collaboration and innovation to enable \$145 million in federal R&D funding, including R&D in EV battery technology, drive trains, innovative design tools and next generation electrified powertrains.



CEA recommends that Budget 2015 establish specific targets for integration of electric vehicles into the federal vehicle fleet and renew funding for the APC.

VI. Recommendation 6 – Enhance the protection of electricity Critical Infrastructure through increased funding for Public Safety Canada’s Canadian Cyber Incident Response Centre and amendments to the Criminal Code to address the growing problem of copper theft from critical electricity facilities.

(Finance Committee Theme: Ensuring prosperous and secure communities, including through support for infrastructure)

The electricity sector is one of Canada's ten Critical Infrastructure sectors as identified by Public Safety Canada (PSC) who work closely with all levels of government in Canada, international partners and the private sector to protect physical and cyber assets essential to Canada's national security and economic prosperity. In its role as Canada's Cyber Emergency Response Team (CERT), PSC's Canadian Cyber Incident Response Centre (CCIRC) plays an integral role in the preparedness, prevention and response to cyber events through the research, facilitation of information sharing and partnerships. Increasing CCIRC's capacity and capability would enhance its ability to support the protection of CI facilities from growing cyber threats, in a threat environment the electricity sector sees as accelerating and becoming increasingly complex.

Theft of copper from electricity facilities is a growing problem that poses significant risks to public safety, particularly when copper grounds are removed from energized equipment.

While CEA members estimate these crimes cost the industry \$40 million annually, actual costs are significantly higher when downstream impacts are considered, particularly the costs of related outages to businesses, particularly in the manufacturing sector. A recent single incident in Ontario, in which thieves removed \$1800 worth of copper components resulted in \$30 million in damages and power outages that disrupted the production cycle of a major manufacturer in the territory serviced by the facility.

At present, only the market value of the stolen copper components can be considered when police lay charges against copper thieves. The result is that for the vast majority of incidents, the most common charge is theft under five thousand dollars, the same as for stealing a bicycle.



CEA recommends that Budget 2015 increase funding for Public Safety Canada's Cyber Incident Response Centre and amend the Criminal Code to create new sentencing options more proportional to the full range of impacts of copper theft from critical electricity facilities.

Conclusion

CEA's six recommendations for Budget 2015 will enhance federal support for the sustainable renewal of Canada's electricity infrastructure, enhance key policies that accelerate and integrate innovation and improve cross border integration and protection of the system.

It's time to modernize our electricity system for the next generation to ensure an even better electricity system and economy. Decisions made today will have a huge impact on what Canada's electricity system will look like in 2050.

CEA looks forward to discussing these recommendations in greater detail with Committee members.