



Canadian
Electricity
Association

Association
canadienne
de l'électricité

Speech Given to the Ontario Energy Network

By: Jim Burpee
President and CEO
Canadian Electricity Association
Toronto, Ontario
March 20, 2012

Thank you, Grant, for that kind introduction. It's nice to see so many familiar faces here today. While I know many of you from previous lives, for most it is our first meeting since I took on my new role with the Canadian Electricity Association.

Today I'm here to talk about the greatest challenge facing the electricity industry: infrastructure renewal. There is currently no greater challenge for the electricity sector than that of building infrastructure to renew Canada's existing system, accommodate load growth and meet the needs of electricity customers.

I would like to start with a story.

How many people here can remember where they were on July 4th, 1995? It was the final day of the CEA Summer Executive conference, held at the Deerhurst Resort in Muskoka. It was Independence Day in the States. And as it turned out, it was an independence day of sorts for the electricity sector in Ontario – with fireworks.

Maurice Strong was the second last speaker of the conference, and the room was packed to hear what he had to say, but few could actually believe what they heard.

Maurice was Chairman of Ontario Hydro at the time. He had strategically picked that speaking opportunity to publicly question the need for an ongoing role for Ontario Hydro. While internally there had been a number of documents suggesting a self-regulated Crown corporation might not be in the best interest of Ontario, he chose this moment to publicly let the genie out of the bottle. It was done in a manner that the recently-elected Harris government could not ignore.

This led to the MacDonald Committee, an Advisory Committee on Competition in Ontario's Electricity System under former federal energy minister Donald Macdonald. And if you take it to its logical conclusion, it is why we are here as part of the Ontario Energy Network today.

It is a moment that has stuck with me ever since – I have never seen so many people caught completely off guard.

There is a part two to the story, but I will get to that in my closing remarks.

For those who are not familiar with CEA, the association has changed significantly since that meeting back in 1995. Today we are an association focused primarily on advocacy. My staff of 25, based in Ottawa, focuses most of our activities on moving the federal government to support investments in electricity infrastructure by making changes to laws, regulations and policies. Also, CEA seeks to understand the customer's value proposition around electricity so that the electricity sector can earn their support.

CEA membership includes utilities – vertically integrated, wires-only, generation-only, provincially owned, municipally owned and investor owned – from coast-to-coast-to-coast. Our association also includes representatives from almost every aspect of the electricity value chain including power marketers, manufacturers and the suppliers of materials, technology and services that keep the industry running smoothly.

With such a diverse membership, in many ways, CEA is a microcosm of Canada – a partnership of many unique entities each representing distinct regional interests and challenges.

And while at times, like Canada, representing such a diverse set of interests has its challenges, CEA draws its strength from this diversity. When key decision makers in Ottawa want to know what the industry thinks, they know who to ask. And, if we have done our job effectively, they don't even have to ask.

Regulatory Reform

CEA's top priority, from which all work flows, is to clear the path for the renewal of Canada's electricity infrastructure.

As I said earlier, the electricity sector's greatest challenge is building infrastructure. Duplicative and often ineffectual federal regulation is one of the primary barriers to enabling needed electricity infrastructure investments.

To support our advocacy efforts on this front, in the past year, CEA has commissioned two reports from the Conference Board of Canada. Each report outlines and reinforces not only the

challenges and urgency of electricity infrastructure renewal, but the tremendous economic and job creation opportunities that await.

Some of the highlights from these reports include:

- \$347.5 billion (in current dollars) of electricity investment will be needed from 2011 to 2030;
 - The peak period of investment is now; 2011 to 2015;
- Labour requirements resulting from investments during the peak period will spike to 247,000 jobs annually;
- Over the longer period, the investments will create an average of 156,000 jobs per year;
- Direct, indirect, and induced impacts of investment will add an average of \$10.9 billion per year to real gross domestic product (GDP).

Recent reports from CIBC, Canada 2020 and the Canadian Chamber of Commerce have echoed these findings. Coupled with a growing chorus that includes other major industrial sectors such as mining and oil and gas as well, the consensus is growing.

If you have been following recent comments from federal Natural Resources Minister Joe Oliver, you will know that these messages are enthusiastically taking hold in Ottawa. Legislation amending the *Canadian Environmental Assessment Act*, to streamline the federal environmental assessment process, is expected this spring.

CEA will be a key player making sure the government gets it right and delivers on a principle that we have been advocating for: “one project, one assessment by the best placed regulator.”

While the federal government seems to understand the importance of streamlining federal regulation, they are obviously bolstered by the stability provided by a majority government mandate which has temporarily opened a window for reform at the federal level in Ottawa. But over the long term, unless the public has a better understanding of the role and value of electricity in their lives and the economy, and how the electricity grid functions and needs to evolve, we will continue to face many of the same barriers we do today.

Value of Electricity

CEA recently began work on a strategic campaign to understand how, as an industry, we can better communicate and educate the public on the value proposition of electricity.

Specifically, we are working toward building an understanding of the reality that electricity prices will rise as older assets are replaced and new technologies are adopted in order to maintain current levels of reliability. Creating conditions that allow the industry to successfully plan, build and deliver this infrastructure is critical to Canada's future economic success and the quality of life that Canadians have come to expect and enjoy.

However, the need to invest in electricity infrastructure has not yet become part of the set of expectations the public have of their governments. Unfortunately, we are not the only voice in this discussion and over the past few years, particularly in Ontario, electricity prices have become one of the hot political issues. The impacts of this have been significant.

The focus on price in the absence of a public dialogue on the value proposition that electricity presents to society means that Canadians' views are continuing to evolve without the necessary context.

Here in Ontario, the impacts of the *Green Energy Act* and the resulting controversy over wind farms and the regulations surrounding them likely contributed to the McGuinty government losing significant rural support, and arguably, a majority government.

In British Columbia, intense public resistance to BC Hydro's plan to install smart meters has led to a systemic review of power policy under the new premier who says her primary focus is on controlling pricing for families.

And most notably, in New Brunswick, the proposed sale of the province's primary utility was a significant factor in having a previously-popular Liberal government turfed from office.

Public opinion matters to politicians and it influences decisions. We all know that government decisions that change the fundamentals of our electricity system are felt well beyond election cycles.

In order to build public support for infrastructure requirements and an understanding of the critical importance of electricity to the economy, to jobs, and to the everyday lives of Canadians, the CEA recently launched a public opinion research initiative.

Our work is aimed at learning more about the attitudes, perceptions and beliefs that drive Canadian opinions and value perceptions of electricity.

From May to September, we will be conducting detailed public opinion research into the value proposition of electricity. The intent of this research is to inform a multi-year strategic communications and positioning campaign for the industry, focused on providing regional validation and support for infrastructure investment and renewal.

When I look back at the two Conference Board reports, they reflect an industry view, not a public view. The need for investment is known within the industry, but not understood by the public at large. While we have started in some regions to talk about the risk of not renewing aging infrastructure, we do struggle to explain the benefits in terms of long term price and environmental performance of a smarter grid.

But even as we do get this message out, we have a fundamental communication challenge. If we viewed these decisions from a commercial perspective and calculated it as a Net Present Value, we would reflect an upfront investment cost followed by years of benefits. As the benefits accrue in the later years, they are discounted, and the impact on NPV depends upon the discount rate used.

If you now look at this from an individual perspective, or as my wife always tells me, Joe Public (her term), the calculation is no longer simple. That is because as individuals, when we look at the impact on us of a price increase today versus benefits over many years into the future, we all use different discount rates. And our personal discount rate is subject to a number of intangibles, including our own value system.

I know with confidence today, we could create a great advertising campaign, which would make everyone here feel very comfortable that now the public will get it. But they won't.

Instead we will develop an advocacy campaign which will involve everyone here in this room today to carry forward our message. We need governments to provide leadership in this area, but they can't get there without us supporting, or perhaps pushing, every step of the way. But first, we have a lot of homework to do.

Labour shortages

Another major challenge currently facing the electricity industry across the country is the anticipated shortage of skilled labour required to build and renew electricity infrastructure over the next twenty years.

A compounding factor is the anticipated retirement of baby boomers in the short term. There will be massive retirements of skilled workers within the industry over the next four to six years, creating an urgent need to train a new workforce.

It is clear that Canada needs to prepare and plan, and put programs and incentives in place to attract new and skilled workers to the electricity industry.

Some examples of skills that will be in high demand include electrical power line and cable workers, power plant operators, engineers, utilities managers, contractors and auxiliary equipment operators.

Furthermore, according to the Conference Board, the labour requirements to accommodate the investment in electricity infrastructure will undoubtedly exert pressure on an already tight labour market.

The Construction Sector Council has already been suggesting the demand for construction workers is expected to exceed supply over the next decade. As a result, the electric power

generation industry may encounter supply constraints when adding new generation capacity or when refurbishing existing facilities.

This labour deficit will be further exacerbated, particularly with respect to trades people and transport and equipment operators, with the boom in the oil sands.

The Canadian Energy Research Institute estimates that about 800,000 incremental jobs, many of which are skilled trades, will need to be filled in the oil sands alone over the next 20 years; and that capital investment in the oil sands will exceed \$250 billion over that time frame.

Add to this the nearly \$350 billion the electricity sector will invest over the same period and you have the largest construction boom since the postwar period.

One piece of the puzzle is to engage in partnerships with colleges and universities. Another avenue is to increase the industry's outreach to under-represented groups, such as Aboriginal Canadians.

CEA is currently working with its members to put as many effective solutions on the table as possible.

Federal Immigration Minister Jason Kenney recently announced that the government will overhaul the immigration system to make it more responsive to economic needs particularly to attract skilled workers and supplement the aging workforce.

We look forward to engaging with the federal government on other ways Canada can curtail the looming labour shortage in our sector.

Measurement Canada is the Industry Canada agency responsible for the administration of the *Weights and Measures Act* and the *Electricity and Gas Inspection Act*. Measurement Canada is responsible for the regulation and enforcement of electricity meter accuracy.

Recent innovation in electricity distribution technologies, much of it spearheaded in Ontario, is changing the way electricity is delivered to customers and creating new options for rates and

tariff structures. Any federal legislative or regulatory changes that impact electricity distribution must reflect and support this new paradigm, not restrict it. CEA has a positive relationship with Measurement Canada and is working towards this goal.

While many think that CEA is simply a Canadian association focused on Canadian issues, we actually take a North American perspective. CEA's profile in U.S. policy discussions is as a strong, credible, engaged and effective voice, focused on opportunities for cooperation on challenges facing the North American electricity sector.

We regularly engage with the North American Electric Reliability Corporation (NERC), the Federal Energy Regulatory Commission (FERC), and the Department of Energy (DOE). We regularly participate, as the only Canadian member, on a U.S. electric sector cyber security coalition in an effort to influence relevant congressional legislation on cyber and grid security.

While the term "smart grid" is likely over-used, it is actually fulfilling one of the elements of Maurice Strong's speech back in 1995. His topic was Competition, Convergence and Customer Choice. At that time we thought customer choice was the ability of the customer to choose a retailer. However, with the implementation of smart meters in many jurisdictions, including my own house, it has become clear to me Customer Choice is now about our ability as customers to manage our electricity costs by managing our use of electricity.

And the opportunities presented by the smart grid are not just for us in the developed world. Over 1.5 billion people in the world do not have access to electricity. These people are unlikely to see electrification via large central stations and high voltage grids like we have here. They will most likely see electrification through the introduction of mini- or micro-grids.

In the tropics, biomass gasification engine systems could supply local needs and employ local people in the operation of these systems, including in the fuel cycle. With growth over time, the grids could start becoming interconnected.

But where is the tie to the smart grid? The utility model typically has customers paying in arrears, billed after usage. But how do you handle situations where people don't have bank accounts, and therefore don't have credit ratings? Interestingly enough, we can find the answer

in the telecom sector. In the Democratic Republic of Congo, less than 10% of the population has access to electricity. Yet, you see very large numbers of people with prepaid cell phones. The tie to electricity is this: the smart grid/smart meter concept can facilitate prepaid electricity cards.

My apologies, but over the past three years, working outside of Canada has considerably opened my eyes to the art of the possible, and I couldn't leave the podium without a bit of preaching.

In closing, I want to say that I appreciate the opportunity to speak here today.

The renewal of our electricity infrastructure is vital to Canada's prosperity and quality of life. The current economic downturn, while potentially causing a reduction in power consumption in some provinces in the short-term, is not expected to substantially affect long-term requirements. We need to remember that the economy will ebb and flow, but that electricity infrastructure is long-lived capital stock. Building and renewing the needed infrastructure is not just an Ontario issue, but a national one. We need a long-term vision and plan, **and** we need to stick to it.

The Canadian electricity industry faces numerous challenges and opportunities; however, we are determined to meet them with the support of stakeholders, including governments at all levels.

It is imperative that as an industry we understand the value proposition that drives public opinion. And it is imperative that governments, including the federal government, create the right policy conditions to support innovation and change.

We look forward to working with all stakeholders, including some of you in this room, to ensure Canadians continue to receive reliable, sustainable and cost-effective power in the years ahead.

I believe that a long-term plan for building and renewing our future electricity system will come, and that the needed support will be delivered, once we all understand the intrinsic value of electricity and the importance that the industry itself plays in our everyday lives. It is our

collective job to remind Canadians of the enormous advantage that a reliable, affordable and clean electricity system provides for all of us.

Thank you for your attention.