Canadian Electricity Association | Association canadienne de l'électricité

Electricity: A Strategic Asset for a More Prosperous Future

Presentation by
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Energy Fundamentals Meeting
October 27, 2016

Good morning, and thank you for that warm introduction. I'd also like to extend my thanks to Saint John Energy for inviting me here to address you today.

I never pass up an opportunity to speak to a committed group of people about the future of energy in Canada, and electricity specifically. Especially when considering the crossroads we are at as an industry, and as our country seeks to advance the national energy agenda.

Let me share my thoughts on a few of these so-called crossroad issues. There are four, to be specific.

First, it has become abundantly clear that tomorrow's economy will be built on a solid foundation of clean, sustainable energy and growth.

Growth that will drive new technologies, increase productivity, and create good jobs for Canadians.

The climate change agreement reached in Paris has the *potential* to be a clear turning point in those pursuits. I say "potential", because what we end up doing, matters more than what we say.

We must now move from the "poetry" of the Paris Agreement, to the "prose" of policy and politics.

But Canada does have some significant advantages. For example, Canadian electricity is already some of the cleanest in the world.

The sector has reduced emissions by over 40% since 2000. A trend that will continue through 2030 as traditional coal comes offline. No other industrial sector can boast those kinds of results. Today, some 83% of our electricity comes from non-GHG emitting sources.

Second, Canada's electricity sector must invest $350 billion over the next twenty years to renew our aging infrastructure.

The scale of investment will have implications for all consumers, home and business owners alike. But this need for renewal should also be seen as an incredible opportunity.

And not doing infrastructure the old way, replacing like with like.

On the contrary,

It's a chance to build an electricity grid that will power a new, rapidly-changing future for a very long time.

It's also an obligation.

A chance to leave future generations with a system that is as good and reliable as the one we were fortunate enough to inherit from our forbearers.

The process of grid modernization is already well underway. Our members have been investing some $13 -14B annually for the last number of years. But the need to rebuild electricity infrastructure is a national undertaking.

As such, we must ensure that the country as a whole does not simply build the *cheapest* system. Because if we do, we will get what we pay for, and jeopardize the *reliability* of the system for future generations.

Utilities must always be frugal with costs. Affordability is a key variable in the equation. Always must be. But we must also factor in the *value* that we place in this indispensable asset.

And come out with a blended rate that accounts for both hard costs, and the value-added proposition. Then we would have the right balance in moving forward.

Third, Canada's electricity sector continues to undergo unprecedented transformation and innovation.

Besides the overhaul and renewal of our infrstructure; traditional business models are evolving, distribution grids are becoming smarter, new technologies are challenging conventional forms, customers are more empowered today than ever before; and de-carbonization remains a "top of mind" issue.

How we respond to these challenges and opportunities will define whether electricity will be a catalyst for Canada's clean growth ambitions, or whether we will be disrupted by it.

We must thus unlock the promise of electricity.

These new processes and technologies will be increasingly important in lowering emissions, promoting economic growth, and propelling Canada to the forefront of a green, knowledge-based economy.

They will also help Canada's electricity system expand to accommodate new electricity uses; increase responsiveness and storage capabilities; build a two-way grid that Canadians can contribute to; and enable new forms of energy generation, such as wind, solar and tidal.

Energy companies are empowering customers with tools and information which will allow them to better understand and manage their energy consumption, and thus get a better handle on their ultimate bills.

They are, in fact, becoming “partners” in the electricity system. And our utilities need to become their “trusted energy advisors.”

Often, people think that the next big invention will come from those brilliant young people, toiling in their garages across Silicon Valley and elsewhere. But that is only part of the story.

Our members, many of whom have been around a long time, are also driving innovation.

For example:

- Out on the West coast, BC Hydro is leading a smart infrastructure initiative, working with partners to deliver a public network of EV charging stations.
- In Alberta, Genesee 3 and then Keephills 3, jointly owned by Capital Power and TransAlta, are the first Canadian facilities to use supercritical combustion technology.
- SaskPower’s Carbon Capture and Storage Project is the world’s very first commercial-scale installation in a coal-fired plant. Now operating near peak capacity, it captures more than 90 per cent of carbon dioxide and 100 per cent of Sulphur dioxide.
- Ontario Power Generation has converted coal to biomass. Its Atikokan Generating Station is the largest 100 per cent biomass-fueled plant in North America.
- And here in Atlantic Canada, Nalcor Energy’s Ramea Wind-Hydrogen-Diesel Project reduces diesel generation and associated emissions, and can have great commercialization potential for our remote and aboriginal communities in Canada.
- As well, work to harness the massive potential of tidal power in this region has only just begun.

These are all major projects backstopped by leading edge technologies, all designed to power a very different kind of future. A future I think we can achieve.

Finally, we need to deliver.

Governments – the one in Ottawa and the 13 in provincial and territorial capitals – are pursuing major, transformational policy objectives:

- Increasing innovation;
- Developing green sources of energy;
- Reducing GHG emissions across the economy;
- Sustainably developing our natural resources;
- Growing the middle class; and

- Building a more prosperous life for all Canadians, including our Indigenous Peoples.

All of these are major files, and heavy political lifts.

Moreover, if Canada is to achieve a 30% decrease in greenhouse gas emissions by 2030, an 80% decrease by 2050, and carbon neutrality by about 2070, then we must drive electrification.

Transportation, buildings, industrial activities… there are opportunities abound to reduce emissions while improving the quality of life for Canadians. Transportation alone represents nearly 25% of Canada's carbon footprint, so going electric cuts fuel costs while drastically reducing emissions.

I'm not saying full electrification of Canada's economy is going to happen overnight. I am not even saying it should. We need evolution, not revolution.

A gradual shift will allow electricity companies to better understand the impacts on the system and make the appropriate adjustments. It will also allow more time to find innovative solutions to the sticky technical issues that will undoubtedly arise.

But we must build the case for electrification now.

Barring a technological breakthrough that nobody has yet envisioned, the next 40 to 50 years of Canada's energy landscape is being formed today in national and provincial capitals, in corner offices and boardrooms across the country, and in rooms just like this one.

In closing, these 4 key issues, 4 words actually – **transition**, **invest, innovate and deliver** – capture the imperative that frames our electricity system.

Throughout our history, we have undertaken major projects. Think of the great railroads of the 19th century, or the highway, seaway and national broadcast systems of the 20th. Or, the Canadian-made arm that extended man's reach into space.

We were able to accomplish all these initiatives because we understood the *importance of looking ahead.* And each time we did, it was transformative. Uniting our country, facilitating the movement of people, goods, and services, and laying the foundation for economic prosperity for generations to come.

Today, we are again at one of those transformative moments.

A time to build something important. Something enduring.

And if we do it right – and if we do it together – your generation *will* build a brighter, greener, and better tomorrow. Thanks for your attention.