



Canadian
Electricity
Association

Association
canadienne
de l'électricité

Electricity: A Strategic Asset for a More Prosperous Future

Remarks by

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Introduction

Thank you Brent for that kind introduction, and for the invitation to address your Forum this afternoon.

I trust everyone is enjoying their lunch. Brent mentioned to me that the downside of my conversation slot is that I might miss the lunch, but really – I think I can afford to miss one meal? I'm afraid that I have reserves that will keep me going for a good while.

Quest's focus on "Smart Energy Communities" has proven to be an inspired mission. Imperative because it has become abundantly clear that tomorrow's economy will be built on a solid foundation of clean, sustainable growth.

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

Look at what the advent of the computer wave did for economies and jobs around the globe. Why should we not we embrace the climate wave with the same spirit, and with a similar expectation for transformational economic outcomes?

The climate change agreement reached in Paris has the potential to be a momentous threshold in regard to those pursuits. I say "potential", because what we end up doing, matters more than what we said.

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

Some have referred to it as the challenge of our generation.

However one defines the undertaking, it is a pressing and complex global imperative that will severely test our political resolve and ingenuity as a country and as an international community.

But we start with some advantages.

Canadian electricity, for example, is already among the cleanest in the world.

Our sector has reduced emissions by nearly 30% since 2005. No other sector can boast those reductions. And we will likely do another 30% by 2030, on account of the coal phase out.

Today, some 83% of our electricity comes from non-GHG emitting sources.





And Canada's electricity sector continues to undergo unprecedented transformation:

- Infrastructure is aging and needs to be replaced and modernized;
- 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.

As we collectively address that future, and as a way of offering a context to our subsequent conversation, I believe two critical issues lie at the heart of our sector and at the heart of this conference: the need to invest and the need to innovate.

The Need to Invest

First the need to invest.

Canada's electricity sector must invest \$350 billion over the next twenty years to renew our aging infrastructure. There's no way around this reality, and the US, Europe, and Japan are facing the same predicament.

The scale of investment will clearly have implications for all consumers, home, and business owners alike.

But it is also an incredible opportunity. A chance to build an electricity grid that will power a very different, rapidly-changing future, for a very long time.

It's also an obligation.

A responsibility 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 \$12 -14B annually for the last number of years.

But the need to rebuild the electricity infrastructure is a national undertaking.



And while the insistence by provincial political leaders and regulators to keep costs down is entirely understandable and legitimate, we must guard against a simple race to the bottom.

In other words, we must ensure that the country as a whole does not simply build the cheapest system.

Because if we do, then we run the real risk of sacrificing reliability and passing onto our children a second rate system of electrical power, which will adversely impact their quality of life and the competitiveness of their national economy.

Yes, we must always be frugal with costs, but we must strive to build the best and strongest system, from coast to coast to coast.

Need to Innovate

Second, the need to innovate.

We need to unlock the promise of electricity.

New processes and technologies will be indispensable 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.

Fortunately, there is recent success from which to build upon.

Often, people think that the next big invention will come from the brilliant young minds experimenting in their garages, in the Silicon Valley and elsewhere. And they are right to think that. But that is only part of the story.

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

Among others, 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.





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.

On the East coast, Nalcor Energy's Ramea Wind-Hydrogen-Diesel Project reduces diesel generation and associated emissions, and can have great commercialization potential for our remote communities in Canada.

This is so important because Canadians living in those remote communities, together with indigenous people, are no less deserving of the benefits of a low-carbon lifestyle and economy than the rest of us!

And here 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.

And the list goes on...

These are major projects, backstopped by leading-edge innovation.

Projects and innovation designed to power a very different kind of future.

Conclusion

In closing, throughout our history, Canadians have never shied away from undertaking 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 arm that extended mankind's reach out to space.

All these bold initiatives happened because we understood the importance and need 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 moment to build a cleaner economy and society, and healthier communities, by transitioning to cleaner energy.

I have no doubts that it will be an enduring feature and contribution of our never-ending obligation to nation building.

And in the process, to leverage one of our critical national assets --- reliable electrical power --- to help build that brighter, cleaner and better tomorrow.

I look forward to building that future with you, and Canadians across the country.

Thank you.

