



Canadian  
Electricity  
Association

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canadienne  
de l'électricité

# Electricity: A Strategic Asset for a More Prosperous Future

Keynote by  
The Honourable Sergio Marchi  
President and CEO of the Canadian Electricity Association

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## **Introduction**

Thank you Ray for your warm welcome, and good evening everyone.

At the outset, let me extend my thanks to Saint John Energy for their kind invitation to address you today.

I have had the opportunity to speak to a variety of different people and groups today, some of which I note are here this evening. I hope you found our conversations as fruitful as I did.

I will try not to repeat myself too much, but some issues are so critical that not repeating them would render my presentation less relevant. So, my apologies in advance.

Electricity has been called the “great enabler” of modern society, so let me touch on **four key issues** that I believe helps frame today’s electricity sector and our imperatives.

## **A Strategic Asset**

**First, electricity plays a critical role in our social and economic prosperity a nation.**

From the alarm that woke you up this morning to the traffic lights that guided your commute to work, electricity is central to our lives and to the efficient functioning of our society. In fact, I’d be hard pressed to think of any other public asset that provides more good, to more people, every single day.

But, if we are candid, I think it is fair to say that most Canadians have largely come to take electricity for granted. It’s out of sight, out of mind.

We just assume that it will always be there, literally at the flick of a switch. We tend to overlook its complexity – and more importantly, its reliability.

Yet, we really can’t live without this “magic”.

It has truly become **indispensable** to the quality of our lives, and to the competitiveness of our economy. And it is this very indispensability that makes electricity such a strategic asset for our country.

But like any asset, we must nurture it. And if we do, it can and will play a central role in a winning future.

Think about some of our major challenges and the transformational goals governments have set for our nation:

- A more prosperous life for all Canadians;
- Addressing climate change and reducing greenhouse gas emissions;
- Sustainably developing our natural resources;
- Promoting economic development in Indigenous communities;
- Developing clean and green sources of energy;
- Driving innovation.

All of these will undoubtedly shape our future. And in every one of them, electricity is central.

Now, as the Head of the Canadian Electricity Association, you might think I'm a little biased. As the old saying goes, "he who works with a hammer sees every problem as a nail". But, the essential point I am making is that when it comes to our electricity, it is critical for us to pivot from a **take-it-for-granted position** to one that's focused on **leveraging this strategic asset** for the betterment of Canadians, and our future.

### **Clean Energy: A Competitive Advantage**

**Secondly, the globe is marching towards a cleaner, greener future.**

In trying to take better care of our planet and our health as a species, the climate change agreement reached in Paris could represent a watershed moment. Its core message? That we simply must reduce the amount of carbon we produce, or else.

Our federal government, and their provincial colleagues, are clearly seized with this challenge, and they must now move from the "poetry" of the Paris Agreement to the "prose" of policy.

And in doing so, build a national consensus for a long-term plan with industry and other relevant stakeholders. All with the blessing of Canadians. Not an easy feat. 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 resolve and ingenuity as an international community.

But climate change isn't just an environmental matter. It is equally an economic and financial issue of immense magnitude. If we don't begin to take actions today, future generations will pay for it – figuratively and literally.

Some quick examples to illustrate this:

- According to the Insurance Bureau of Canada, the December 2013 Toronto ice storm resulted in \$200 million in insured losses and pushed that year's severe weather-related insured losses to over \$3 billion – the highest in Canadian

history.

- In addition, some 60% of insurance claims in Canada are now due to flooding, with an average cost of \$20-\$25K per claim, and severe weather-induced damage can and do lead to mortgage defaults, which only augments the magnitude of the related financial risks.
- Moreover, in the United States, severe weather is now the leading cause of power disruption, costing their economy between \$18 and \$33 billion every single year.

That is one of the reasons CEA has consistently supported an economy and continent-wide price on carbon. We require a level playing field in Canada, and in North America, if we are to not penalize utilities and companies on the competitive front.

### **Strategic Advantage**

**Third, as we contemplate that global match, we need to recognize that electricity is Canada's clean energy solution.**

Our electricity sector is already among the cleanest in the world. Some 83 percent of our electricity comes from non GHG sources. Of the total Canadian carbon foot print today, electricity is responsible for only 11%. And by 2030, with the complete phase out of traditional coal, that figure will shrink to between 5-7%.

By comparison, Germany generates just 41 per cent of its electricity emissions-free. The United States? Thirty-one. And Japan, 15 per cent.

The point is that the costs to "green" our electricity system, while significant, will be much lower than those in many other nations.

The key to the electricity system of the future will be **innovation**. And our members, many of whom have been around a long time, are helping to drive that innovation.

As a result, Canada has already reached the goal set by President Obama for American electricity in his Clean Power Plan. We just did it 15 years sooner.

This is but one tremendous strategic advantage clean electricity gives Canada; an advantage that should be leveraged in favour of a cleaner environment, and a more prosperous future.

As part of this plan, our country also needs to develop and drive an **electrification strategy**.

Transportation is an obvious place to start, since this sector alone represents almost

one quarter of Canada's carbon footprint. But there are also opportunities to be had in our industrial processes and in our cooling and heating processes.

By some estimates, there could be as many as 500,000 electric vehicles on our highways by 2018 – and more hybrids than that.

In fact, to appreciate a sense of this momentum, when Tesla started taking reservations for their new Model 3 car, they received more than 325,000 reservations, which corresponded to about \$14 billion in implied future sales. This made it the single biggest one-week launch of any product ever!

This is all good news for the environment and our health.

But whether you buy one to save money or to save the planet, the bottom line is the same – we'll need more electricity to power to run those vehicles.

Studies show that your smartphone can use more electricity than your fridge. And those vast computer-servers that make cloud computing possible? One server room, at one data centre, can use enough electricity to power 18,000 homes.

And as the cloud grows, as more and more devices are networked, as we develop the "internet of things", the demand for electricity will soar.

The role of consumers is also dramatically changing. New technologies are allowing people to manage how they use energy in ways that were unimaginable even a few years ago. Transforming all of us from passive consumers to engaged partners in the electricity system. And ushering in a fundamentally different relationship between utilities and their customers. And that goes for all customers, regardless of where they live.

An exciting time and future indeed.

### **The Need for Renewal**

**Finally, we will not embrace the promise of that future without renewing our electricity infrastructure across the country.**

There is no getting around this reality.

Many of Canada's electricity assets are reaching the end of their lifecycle. As a result, our members are stepping up to the plate and investing aggressively.

In 2014 alone, they ploughed more than \$13 billion into infrastructure renewal and modernization. But more will be required.

The Conference Board of Canada estimates that from 2010 until 2030, we'll need to invest some \$350 billion in our electricity system to renew it, and to meet the demands of a growing population and new technologies.

The other challenge is that our lead times are long – often measured in decades. So while the future may seem a long way off, it's really only an electric heartbeat away.

We just don't have the luxury of waiting, if we're going to build the electricity system Canadians want and need.

And by the way, Canada's not alone in having to invest in its electricity system.

The infrastructure life cycle has also caught up in Europe, where it's estimated that they'll need to invest more than \$2 trillion, between now and 2035. In the United Kingdom, another \$100 billion pounds by 2020. And in the United States, it's \$2 trillion by 2030.

Building the electricity system of the future will come with a cost. And no one likes paying more for their electricity. Homeowners don't like it and neither do businesses.

And when you have unhappy consumers, you have a perfect storm for political inaction, or immediate, short-term thinking.

I was a former politician, I get that. But I'm also a realist. So let's look at it from a different perspective.

What if we don't make these investments? What if we simply muddle along, kicking the can farther down the road?

Well, I think the consequences would be quite significant.

There will be less than-reliable electricity. A corresponding loss in quality of life. Squandered economic opportunities. And a less competitive economy.

All because of the potential for more disruptions caused by increased brownouts and/or blackouts.

In other words, our asset would become diminished.

Think to the most recent major storm to rock the Atlantic coast. The leftover from Hurricane Matthew, earlier this month, left many without power. Those that were affected likely have a keener view of the importance of electricity and what happens when it is taken away.

Although, the storm didn't impact the coast directly, it left a swath of destruction and flooding in its wake.

Take those images and project them ahead ten, twenty years down the road, if we don't upgrade our systems. Quite simply, failing to invest now will bring other – and greater –

costs down the road.

And while it might be tempting to simply build the cheapest system available, we really need to invest in and build the strongest system possible.

Of course, we need to keep costs as low as we can. But we can't be like the cynic who knows the price of everything and the value of nothing. We need to recognize and price the value that electricity plays in our lives and in the economic life of Canada, and invest accordingly.

I am confident that if we do that, our children and grandchildren will inherit a system that is **at least as reliable** as the one our forefathers and mothers built for us.

## **Conclusion**

In closing, these issues capture the imperative that is electricity. A future imperative.

And the future is always worth investing in because, as I just mentioned, it's about our obligations to our children and their kids, and the kind of Canada we leave them.

That's something Canadians instinctively understand.

As I mentioned to some of you this morning, throughout our history, we have undertaken major projects. Think of the great railroads of the 19<sup>th</sup> century, or the highway, seaway and national broadcast systems of the 20<sup>th</sup>. Or, the Canadian-made arm that extended mankind'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 to leverage one of our critical assets --- reliable electrical power --- to build a brighter, cleaner and better tomorrow.

Let's build that future together.