



The skyline of downtown Toronto. When the lights went out in a cold snap last Christmas, it brought the importance of electricity home to Torontonians. Policy photo

Electricity: Canada's Physical Heartbeat

Sergio Marchi

Canada will need to invest \$350 billion by 2030 to renew the country's electricity system that is so vital to the country's prosperity and very way of life. Canada's reputation as a clean electricity country is one of the best in the world. Fully 80 per cent of the Canadian grid is non-greenhouse gas emitting, compared to only 31 per cent in the US. Renewing the Canadian system, writes the President of the Canadian Electricity Association, is a nation-building challenge.

Electricity has been called “the great enabler” of modern society. It is central to our lives and our country. In a word, *indispensable*.

The question, however, is how do we ensure its sustainability and reliability for generations to come? In addressing this concern, let me touch on five inter-related factors;

First, Canada's electricity grid is at an inflection point today.

The decisions we make—or fail to make—will have repercussions for

many years. And that's because many of Canada's electricity assets are reaching the end of their lifecycle, which can range from 30 years for a utility pole, to as much as a century for a power plant. Quite simply, much of the system built a generation ago, now needs to be replaced or refurbished.

As a result, we'll need to make significant investments just to maintain the reliability we enjoy today. Moreover, the lead times are measured in decades. We therefore don't have the luxury of waiting, if we're going to build the electricity system Canadians want and need.

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That's a lot of money. And a major rebuild. But Canada is not alone in confronting this challenge. Europe, for example, will need to invest more than \$2 trillion, between now and 2035, and the United States, \$2 trillion by 2030.

Second, no one likes paying more for their electricity. Homeowners don't like it and neither do businesses. And when you potentially have unhappy consumers, you have a perfect storm for political inaction, and short term thinking.

I'm a former elected official. I get that. But I'm also a realist. So let's look at it from a different perspective. What

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if we *don't* make these investments? What if we just kick the can further down the road?

The consequences of that choice are quite clear and significant. There will be less than reliable electricity; a loss in quality of life; foregone economic opportunities; and a less competitive economy. All because of the potential for more disruptions caused by increased brownouts or blackouts.

Think about the 2013 ice storm in Toronto and what it was like for thousands of people trying to cook their Christmas turkeys on the barbecue—or seniors trapped in homes without heat.

Ask them about the importance of electricity. About taking it for granted. Then, project those images ahead 10, 20 years, if we don't upgrade our system. Not a very pleasant thought.

Failing to invest now will bring other—and greater—costs down the road.

Third, rather than only looking at the *costs* of electricity—which is a significant variable—we must also consider its *value* to Canadians. We need to consider both, and when we do, I would argue it's a very compelling value proposition.

According to Statistics Canada, electricity costs amount to about \$3.59 per day for most Canadians—which is under 2 per cent of all household spending. A very modest cost for something that is absolutely critical to our modern lives. How does this cost stack up internationally? The International Energy Agency submits that Canadian residential prices are lower than those in Japan, the U.K., and the U.S.

Governments and regulators have the justifiable role of protecting the consumer. As well, Canadians have certain priorities for—and expectations of—their utility companies. They want them to listen to their needs as customers and run their operations efficiently.

I have no difficulties with this whatsoever.

However, protecting the consumer is not only about procuring the cheapest-priced equipment and systems. If that is the sole driver, then the future dependability of our electricity will be jeopardized. Instead, we must *also* protect the consumer from a reliability standpoint, and that means building well and smart.

Fourth, the design of an electricity and energy strategy, cannot be divorced from environmental considerations and obligations. Energy and the environment must be one seamless policy framework.

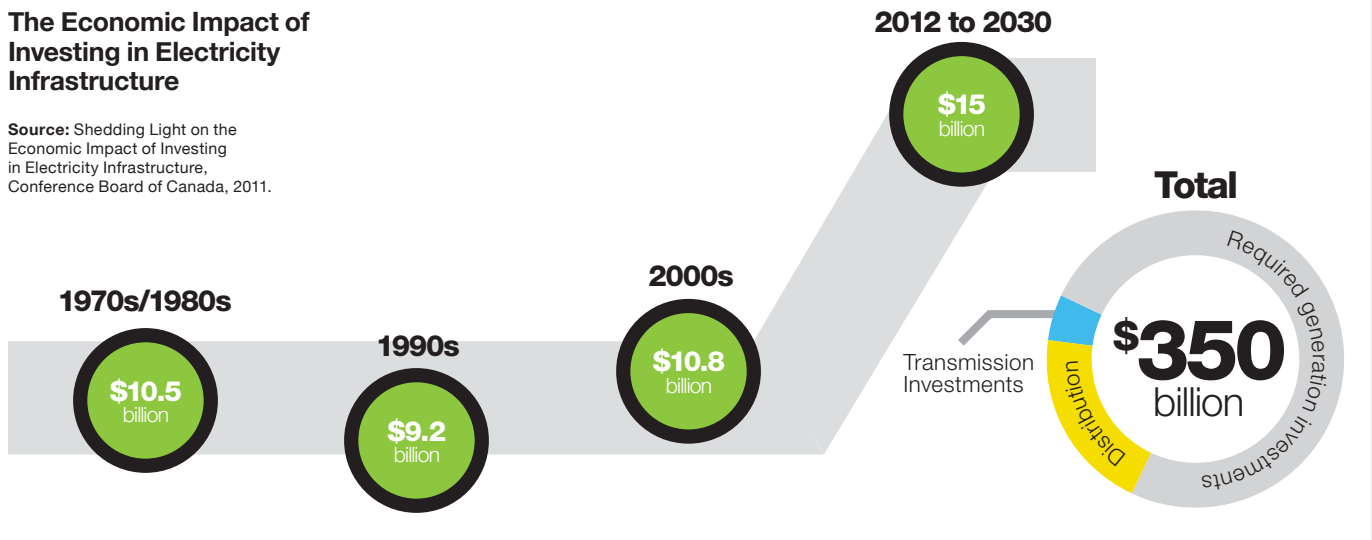
When it comes to the environment, CEA is proud of its accomplishments. Indeed, Canada's electricity industry is one of the cleanest in the world. Nationally, more than 80 per cent of our electricity is non-greenhouse gas emitting. By comparison, the International Energy Agency reports that the corresponding figure in Germany is 41 percent; the US 31 percent; and Japan, 15 percent.

We are also well positioned to decarbonize other sectors of the economy, such as transportation, which accounts for nearly one quarter of our carbon footprint.

Naturally, other challenges, such as the continuing impacts of cli-

The Economic Impact of Investing in Electricity Infrastructure

Source: Shedding Light on the Economic Impact of Investing in Electricity Infrastructure, Conference Board of Canada, 2011.



mate change, including more severe weather events, continue to test us. According to the Insurance Bureau of Canada, the December 2013 ice storm in Toronto 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. Consequently, our electricity system has to be more robust and resilient to better respond to weather events.

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On the eve of the UN Climate Change meeting in Paris, our provincial and federal governments must find common ground. Industry needs policy coherence and certainty, and one that is economically responsible. And Ca-

nadians want their leaders to join other nations in constructively tackling the threat this global challenge poses.

Finding this common ground is a natural segue to the final factor—political and policy leadership.

It is said that all politics is local, and the marathon federal election we just went through played largely to script. I say *unfortunately*, because elections should also be an opportunity to debate big issues; to define national ambitions; and to shape long-term horizons.

One of those *big* issues that Canada’s new Liberal majority government must urgently tackle is the development of a Canadian energy strategy.

Canada is blessed with an abundance of natural resources, accounting for about 20 per cent of our GDP, and supporting almost two million jobs. Yet, we are not leveraging those assets for maximum economic benefit.

Someone once said that natural resources is Canada’s “family business”, which is an interesting way to frame it. But a family business *without* a business plan is not smart, and very risky!

Demand for energy, especially from emerging nations, will continue to surge. But the global competition to supply those countries will be fierce, and Canada cannot afford to bring

anything less than its “A” game.

It is therefore essential for PM Trudeau to harness our energy assets for the benefit of all Canadians. This will require an era of closer federal-provincial cooperation.

He should be willing, as promised in his campaign, to use the First Ministers’ Conferences as a platform to facilitate the development and implementation of a national energy strategy, so as to complete the work the premiers have so ably begun through the Council of the Federation. From an energy policy perspective, our country cannot afford discord between our two senior levels of government.

In this process, the federal government must develop an engaging relationship with the private sector, and forge a genuine partnership with Aboriginal communities. Both must be built on mutual trust.

As well, electricity cannot be treated as a second class energy ‘cousin’. It needs and deserves equal billing. As important as the oil and gas sector is, our national economy cannot function effectively without reliable electricity. Governments must therefore approach electricity policy-making in a comprehensive and strategic fashion.

Furthermore, while electricity is provincially wired constitutionally, the federal government plays a sub-

stantial role. Besides its financial and political muscle, over 30 federal departments and agencies—34 to be exact—have a direct impact on electricity policy. This is no small undertaking. On the contrary, it is a mandate responsibility that requires policy coherence and political leadership at the senior echelons of the federal government.

In closing, electricity is the physical heartbeat of Canadian society.

Electricity is indispensable to our way of life, contributes to a low-carbon future, and is delivered through a vast, sophisticated national grid, for a relatively low cost. I think that's real value, and something worth investing in.

But there's one final reason we should make these investments—and that's our obligation to the future. We need to leave our children and grandchildren a system *at least* as good as the one our parents built.

Throughout our country's history, Canada has undertaken major infra-

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structure projects. Think of the great railways of the 19th century, or the Trans-Canada Highway, St. Lawrence Seaway and CBC in the 20th century. We have understood the importance of investing today for a better tomorrow, of adopting a pan-Canadian vision.

And each time we did, it was transformative—uniting our country, facilitating the movement of people, goods, and services, and laying the foundation for future economic prosperity.

It's called nation building.

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

to build something important and enduring.

I believe the responsibility and benefits are clear. And I believe the time is now.

Let's invest today, for sustainable, reliable electrical power tomorrow. **P**

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