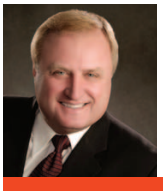
Transformational Infrastructure: **The Work of Nation Building**



By **Hon. Sergio Marchi**
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Since their election and flowing from their ambitious election platform, the Federal Liberal government has laid out a number of broad public policy goals that align with electricity sector priorities – investing in green infrastructure, commitment to renewables and clean technology, and addressing climate change.

Additionally, the Government of Canada has promised a significant robust investment in the renewal of the country's infrastructure, beginning with Budget 2016, and has set a number of priorities to govern decisions about allocating that investment. One of those priorities was long term, transformational projects.

The Canadian Electricity Association (CEA) believes there are strong public policy drivers to make electricity infrastructure eligible for government investment. The benefits are consistent with priorities identified by the government, beginning in the election campaign through to the present. In fact, the Liberal Party said as much in responding to a CEA federal election questionnaire that was forwarded to all political parties.

Currently, CEA is looking to partner with the federal government to develop an integrated proposal that explores how best to make targeted, longer term investments in electricity infrastructure. We would propose that it do so by focusing on significant "gaps" that currently persist in our governance structures. Let me explain.

Identifying Gaps in the Current System

The primary jurisdiction over electricity is provincial and most investment in electricity infrastructure is funded on a user-pay basis, passed on to ratepayers after approval by arm's-length provincial regulators.

However, there is also a significant federal role in the sector. Be it through the 34 federal departments and agencies with policymaking responsibility and influence or through a historic, though time limited, engagement in accelerating the electricity system's transition to a low-carbon future.

In the past, this division of roles has meant that provincial regulators have tended to focus on immediate costs and needs in order to keep rates to the consumer as low as possible, linking them closely to existing or immediately foreseeable requirements.

In practice, the result has been a 'ratepayer gap', essentially an overall reluctance by regulators to support experimental pilot projects, innovative technologies, renewable and/or green technologies and extension of service to areas without sufficient ratepayer critical mass such as Northern Canada.

Yet, these are all legitimate and significant public issues. Moreover, government agendas are promoting these very aspirations. We should not allow investment and R&D into transformational projects in the production, transmission and distribution of electricity to fall between the cracks.

So, how do we bridge the gap between government ambitions and regulatory decisions? And who should do it?

On the critical, over arching issues facing the country, federal/provincial collaboration and cooperation must prevail. The new federal government has laid out a set of high ambitions – investing in green infrastructure, commitment to renewables and clean technology, and addressing climate change.

It has also demonstrated its willingness to engage the provinces in addressing them. At the 2015 U.N. Conference on Climate Change (COP 21) and following the Paris Agreement, we have seen a concerted national effort to support further de-carbonization. This includes the electrification of transportation which contributes some 25 per cent of the carbon footprint, and greater resilience of critical infrastructure to severe weather impacts.

N.Ed. IEEE Canada members interested in furthering their understanding of the impact of policy decisions on Canada's electricity grid may wish to register with the upcoming IEEE Electrical Power and Energy Conference (EPEC 2016), to be held October 12-14 in Ottawa. One of the 18 mini-symposia will be on the topic of Government Initiatives, Policies and Smart Grids.

Policy Development to Support Energy Transformation

The public policy need and the political will being exhibited in Ottawa presents an opportunity for the federal government to use its spending power to join with provinces in funding (through tax dollars, not ratepayer charges) non-typical and transformative infrastructure projects to fill the gaps. There may also be a role for the private sector in addressing these challenges.

In his Davos speech in January, Prime Minister Trudeau recognized the historic and economic role of electricity:

> **"If we didn't build the public infrastructure in the early 20th century to support mass electrification, only the wealthy would have had heat and running water. And with that, the creation of the middle class – the base of resilient economies – would never have happened"**
>
> **– Prime Minister Trudeau,**
> Davos/World Economic Forum, January 20, 2016

CEA agrees with the Prime Minister's take of history of how our forefathers built for the future.

The Conference Board estimates that we will need to invest some $350B over 20 years to renew Canada's aging electricity systems. Canada is far from alone in confronting this challenge, the US, Europe, and Asia face the very same pressures.

In tackling this obligation, we must embrace innovation as an enabling force that will facilitate our success in securing a reliable and sustainable source of power for Canadians well into the future. We must envision transformational projects and technologies that could be deployed at scale. We must look for new ways to bridge long-standing gaps.

In other words, infrastructure investment with a different mindset, new partnership, and a spirit of national enterprise. We encourage the Prime Minister and other Canadian leaders to recognize, and act on, this historic nation building opportunity. To build a green future for generations to come. ■

About the CEA

Canadian Electricity Association members generate, transmit and distribute electrical energy to industrial, commercial, residential and institutional customers across Canada. Members include integrated electric utilities, independent power producers, transmission and distribution companies, power marketers and the manufacturers and suppliers of materials, technology and services for the industry. ***http://www.electricity.ca/***