

CONSEIL CANADIEN SUR L'ÉLECTRICITÉ RENOUVELABLE

September 16, 2016

The Hon. Amarjeet Sohi, P.C., M.P. Minister of Infrastructure and Communities Minister of Infrastructure and Communities 180 Kent Street Suite 1100 Ottawa, Ontario K1P 0B6 infc.minister-ministre.infc@canada.ca

Dear Minister Sohi:

On behalf of the Canadian Council on Renewable Electricity, please find enclosed our recommendations for how the second phase of federal infrastructure investment can—as described in Budget 2016— help build "a more modern, cleaner economy," and do so "hand in hand with the transition to a low-carbon economy."

As you know, Canada is a global leader in using renewable electricity to power homes, businesses and our economy at large. With more than 65 percent of our electricity coming from renewable sources, we are a leader amongst the G7 group of countries. Now, more than ever, the world is looking for ways to decarbonize our global economy, and renewable electricity will play a crucial role in this shift.

As illustrated in our recent report, **Powering Climate Prosperity: Canada's Renewable Electricity Advantage**, ensuring our electricity grid is powered by clean, renewable electricity offers a key climate change solution. And the more we electrify our economy—from transportation, to industry to buildings—with

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renewable resources, the faster and deeper we can cut greenhouse gas pollution and ensure Canada stands out as a climate change leader.

As representatives of Canada's renewable electricity sector, we look forward to collectively supporting your government's efforts—including through strategic infrastructure investments—to increase use of all renewable electricity resources and deliver low-carbon solutions to Canadians. Sincerely,

Jacob Irving, Canadian Hydropower Association John Gorman, Canadian Solar Industries Association Robert Hornung, Canadian Wind Energy Association Elisa Obermann, Marine Renewables Canada

Encl. Canadian Council on Renewable Electricity Recommendations for for Phase 2 of Federal Infrastructure Investment

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## **Canadian Council on Renewable Electricity Recommendations for** for Phase 2 of Federal Infrastructure Investment

Climate change science clearly states that greenhouse gas emissions reductions of 80% or more will be required by 2050 if the climate change targets agreed at COP 21 in Paris are to be met. Given the critical role energy production, transmission, distribution and use plays in the generation of greenhouse gas emissions, any serious effort to decarbonize Canada's economy must have enhanced energy productivity as the first priority.

In addition, there is a broad consensus that any credible climate change plan seeking to meet the level of ambition agreed to in Paris must have at its heart the continued decarbonization of electricity generation—replacing existing fossil fuel generation with zero-carbon power over time, and ultimately producing all electricity with non-emitting sources of generation. Just as importantly, Canada's broader energy system must also increase its reliance on electricity—fuel switching away from fossil fuel sources to clean, renewable power in a variety of energy end uses.

It is only by taking these actions together that Canada will be put on a path to achieve the scale of emission reductions needed to meet both our national 2030 target and put our economy on the right trajectory to achieve the much deeper reductions required by 2050—all while creating new and expanded economic and social benefits.

Fortunately, from coast to coast to coast Canada is blessed with abundant and diverse renewable energy resources and can build on a strong foundation to become a global leader in the transition to a low carbon economy. With its diverse mix of renewables—including hydro, marine, solar and wind—we have the opportunity to create an electricity system, and an energy system,

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dominated by clean renewable energy. From utility scale to distributed, baseload to variable generation, Canada can deliver a clean, reliable and affordable electricity system to power our future prosperity.

To ensure Phase 2 infrastructure investments deliver "a more modern, cleaner economy," and do so "hand in hand with the transition to a low-carbon economy,"—as envisioned in Budget 2016—we recommend prioritizing and/or granting preference to prospective infrastructure investments that contribute to achieving one or more of the following objectives:

- (1) Enhancing energy productivity. E.g. energy efficiency retrofits in homes and small buildings.
- (2) Enabling and facilitating achievement of national targets for electricity generation that move us close to 100 per cent zero-carbon electricity by 2050. E.g. smart grid and/or storage projects.
- (3) Supporting clean electrification in remote and northern Indigenous communities and industrial facilities. E.g. integrated renewable power generation and storage projects.
- (4) Enabling increased use of electricity in our energy system to achieve a target over 50 per cent of all energy used in Canada by 2050.<sup>1</sup> Such projects would facilitate fuel-switching from fossil fuels to electricity for transportation, industry and buildings, consistent with the following sectoral targets:
  - a. Transportation: Increasing the use of electricity for transportation to meet 10 per cent of energy needs in 2030, and over 30 per cent

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<sup>&</sup>lt;sup>1</sup> The Pathways for Deep Decarbonization in Canada analysis has shown that Scentieghthe: greenbdeserbasizatission gedouctiones required bin 2050 will require



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of energy needs in 2050. E.g. electric vehicle fast-charging infrastructure along highways.

- b. Industry: Increasing industrial use of electricity to meet 45 per cent of energy needs in 2030, and over 50 per cent of energy needs in 2050. E.g. Hardware and software systems to optimize energy use at industrial parks.
- c. Buildings: Increasing the use of electricity in buildings (residential and commercial) to meet 80 per cent of energy needs in 2030, and 100 per cent of energy needs in 2050. *E.g. home electrification (home charging for EVs, switching to electric heat pumps).*

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