

**Written Submission for the Pre-Budget  
Consultations in Advance of the Upcoming  
Federal Budget**

***By: International CCS Knowledge Centre***

## **Recommendation**

**Recommendation** – That the Government of Canada introduce a carbon capture tax credit.

August 7, 2020

The Honourable Wayne Easter, MP  
Chair of the House of Commons Standing Committee on Finance  
House of Commons  
Ottawa ON K1A 0A6

**Re: Pre-Budget Consultation in Advance of the 2021 Budget**

Mr. Easter:

The International CCS Knowledge Centre appreciates the opportunity to provide a submission and articulate our recommendations for the 2021 federal budget.

**Canada is losing its global position as a leader in carbon capture deployment. To re-invigorate progress, Canada should look at introducing a carbon capture tax credit to incentivize front-end investments to kickstart capital intensive carbon capture projects.**

**Background:**

The International CCS Knowledge Centre places high value on contributing to CCS deployment as a means on managing greenhouse gas emissions by aiding in the reduction of cost and risk associated with new CCS projects around the world. We focus on the advancement, understanding and use of large-scale carbon capture and storage (CCS) through our in-house experts who were instrumental in the development and operations of the Boundary Dam 3 CCS Facility (BD3).

We support Canada's 2030 emissions reduction goal and 2050 net-zero emissions commitment. In addition to other mitigation opportunities across the economy, including in industry, transportation and buildings, we see CCS (pre-combustion capture, post-combustion capture, direct air capture, and permanent sequestration of CO<sub>2</sub>) as critical elements to meeting Canada's climate objectives.

Canada has been recognized as a global leader in CCS. In particular with large emission reductions projects at BD3, Weyburn oil fields, Shell Quest, and recently the Alberta Carbon Trunk Line, and new promising technologies like Carbon Engineering's direct air capture, and other capture technology ventures.

A thriving carbon capture sector benefits a host of stakeholders.

- It benefits emitters, Canadian industry and corporate leaders in energy, power generation, cement and other sectors seeking to reach net-zero emissions, by making a suite of emissions reduction options available. By comparison, the current U.S. projects in development span sectors including ethanol production, biofuels, petrochemical, hydrogen, cement and industrial gas processing;
- It benefits Canada's energy-producing provinces by creating new low-carbon fuel opportunities for oil and gas development that are in line with Canada's 2050 net-zero commitment and clean growth strategy.
- It benefits Canada's equipment and material sectors which will be expected to supply lower-carbon projects. It also benefits the energy sector, which has expertise and equipment that can

be applied to build CCS/DAC projects. And it benefits the labour sectors which will build these projects.

- Finally, it benefits all Canadians. Analysis has shown as we move toward achieving our climate targets, Canada's GDP grows faster if we have carbon capture and carbon removal options than if we do not.<sup>1</sup>

Canada has the right knowledge, technical, industrial, and policy ingredients to enable a thriving CCS sector. **It lacks, however, a tax crediting mechanism that is proving key to making carbon capture projects financeable in the United States.**

### The U.S. Experience:

Canada is implementing carbon policies that may support the business case for carbon capture once in full force; however, examination of the U.S. example suggests such policies alone may be insufficient to drive investment in the near term. The U.S. has high-value and mature systems, notably the Renewable Fuel Standard, California's LCFS and cap-and-trade program, and a strong pre-existing EOR sector, which can transport and inject CO<sub>2</sub> from new-build capture projects. Despite such policies being in force for 10-plus years in parts of the U.S., **most of the 27 carbon capture projects currently in development did not commence until the current 45Q tax crediting system was enacted.** The International CCS Knowledge Centre was happy to aid the Senate offices in the development of the 45Q system. And while recreating 45Q in Canada is not necessarily the right policy, the U.S. lesson remains that multiple policy measures are required to enable commercial financing of carbon capture.

### Potential uptake and savings to Canadian companies

We hear from Canadian companies frequently from many sectors with large emissions – power generation, cement, hydrogen, fertilizers and many investors - who could readily deploy CCS projects over the next 10 years in response to a tax credit and the continued development of the Pan-Canadian Framework on Clean Growth and Climate Change. For one hypothetical scenario, the Canadian Carbon Capture Tax Credit Coalition, of which we are a member, examined a six-plant deployment scenario, which — over the initial 10 years — **drew roughly \$1.4 billion in tax credits to drive \$5.5 billion into the sector. Absent a tax credit, development would be limited to those select few projects able to secure funding support through other mechanisms.**

### Stimulus Benefit

The construction of carbon capture can spur significant Canadian stimulus to local, national and international businesses. At BD3, construction produced 5 million person-hours of employment and contributed \$1.5 billion in capital costs alone, and numerous spillover benefits, to the economy.

---

<sup>1</sup> Internal analysis from Navius Research building off this modeling <https://www.naviusresearch.com/wp-content/uploads/2020/05/2020-05-12-Abatement-opportunities-in-Canada-website.pdf>, further details available upon request

As CCUS is currently the only option for many industries (cement, mining), deployment is critical. The International CCS Knowledge Centre released its results of a second generation feasibility study that revealed when compared to the Boundary Dam 3 CCS Facility (BD3), a CCS system at Shand could see capture capital cost reductions of 67% per tonne of carbon dioxide (CO<sub>2</sub>) captured as well as 92% in potential savings to power plant integration capital cost.

Additionally, a recent analysis suggests that each direct air capture facility can create over 3,000 construction phase jobs, and hundreds of ongoing jobs within the operation and supply chains of the project.<sup>2</sup> Overall, CCS the facilities and their associated storage / enhanced oil recovery projects are major stimulators of high-quality job creation.

Also, many of Canada's regions have resources that make them advantageous areas to host carbon capture. B.C., Alberta and Saskatchewan have geological resources for underground sequestration. Alberta in particular is able to lease pore space to carbon capture proponents, avoiding potential legal bottlenecks that exist in other jurisdictions.

## Conclusion

Canada also has many of the right strengths and assets necessary to lead the world once more in CCS – we are asked to help those countries based on our practical hands on knowledge. Canada is home to technology leaders in both flue-gas and atmospheric CCS, and an energy sector capable of financing and executing complex mega-projects. Further, Canada already has, and continues to enhance, leading provincial and federal climate change policies and tools, including a price on carbon, that can be used to advance CCS. It also has the Canada Infrastructure Bank that, with its notable mandate in clean energy, has the potential to be analogous to the US Department of Energy Loan Guarantee program. **The final ingredient, which Canada currently lacks, is a tax credit mechanism that would see the benefits of deployment the was the U.S. is realizing with 45Q.**

If Canada successfully implements a tax incentive mechanism for capture, CCS project developers and technology providers will be able to replicate in Canada the success that is now taking place in the U.S.. Such success – a fleet of flue-gas and atmospheric carbon capture facilities, built and replicated with well-established project finance structures – would deliver emissions reductions, jobs, economic growth and increased innovation to Canada. **In the absence of a CCS tax incentive, Canada risks losing those carbon capture-related benefits to the U.S..**

Sincerely,

C. Beth (Hardy) Valiaho BA, LLB, LL.M

Vice President, Strategy & Stakeholder Relations  
+1-306-565-5663 / M: +1-306-519-8332  
198 – 10 Research Drive  
Regina, Saskatchewan, Canada S4S 7J7  
[bvaliaho@ccsknowledge.com](mailto:bvaliaho@ccsknowledge.com)