

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

By: *Industrial Climate Solutions Inc.*

Calgary, Canada

Recommendation

- **Recommendation** – That the Government of Canada introduces a carbon capture tax credit similar to the Section 45Q tax credit in the United States.

August 4, 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:

Industrial Climate Solutions Inc. appreciates the opportunity to provide this submission and articulate our recommendations for the 2021 federal budget.

Carbon capture deployment has slowed in Canada. To re-invigorate progress, Canada should look at introducing a carbon capture tax credit similar to the Section 45Q tax credit in the United States.

Background:

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 carbon capture (pre-combustion capture, post-combustion capture, and direct air capture – hereafter referred to as “carbon capture”) as critical elements to meeting Canada's climate objectives.

Canada has what it takes to be a global leader in carbon capture, as well as in low and potentially carbon-negative commodities, hydrogen, and hydrocarbons. Canada places fourth globally in terms of generating patented novel carbon capture and utilization (CCUS) technologies, is home to 27 of the world's 181 carbon utilization ventures, and to one in five of all commercial-scale CCUS projects¹.

A thriving carbon capture sector benefits a host of stakeholders.

- It benefits Canada's leading technology developers like Svante, Carbon Engineering, Shell, Carbon Cure, Industrial Climate Solutions, and others who get to deploy their technologies into the domestic market;
- 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. The current U.S. projects in development span sectors including ethanol production, biofuels, petrochemical, hydrogen, cement, steel, 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.

¹ The Pembina Institute, “CO2 Capture, utilization, and storage; a snapshot.” (Nov 15, 2018)
<https://www.pembina.org/pub/CCUS-factsheet>

- It benefits Canada's equipment and materials sectors, which expect to supply lower-carbon projects. It also benefits the energy sector and associated manufacturing and services, which has expertise and equipment that can be applied to build CCS/DAC projects. And it benefits the skilled trades and professional 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.²

Canada has many of the right technical, industrial, and policy ingredients to enable a thriving carbon capture sector, including leading provincial and federal climate change policies. **It lacks, however, sufficient aligned financial incentives, including 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, the 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 Enhanced Oil Recovery (EOR) sector, which can transport and inject CO₂ 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 U.S. lesson is that multiple policy measures are required to enable commercial financing of carbon capture.

Potential uptake and savings to Canadian companies

We could envision a handful of Canada's existing players in energy and power generation, and new proponents, successfully financing carbon capture 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.**

In addition, the development of carbon management clusters, with shared transportation infrastructure, will both serve to mitigate system-wide economic and

² 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

technical risks and will reduce the economic barriers to participation, especially for smaller- to intermediate-scale industrial emission sources to participate.

Stimulus Benefit

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.³ Similar numbers are reasonable for carbon capture projects also.⁴ Overall, the facilities 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. Also, Canada's eastern provinces have clean electrical grids that could energize the utilization of captured carbon.

Conclusion

Canada also has many of the right strengths and assets necessary to lead the world in carbon capture. Canada is home to technology leaders in pre-combustion, flue-gas, and atmospheric carbon capture, 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 carbon capture. It also has the Canada Infrastructure Bank that, with its notable mandate in clean energy, has the potential to be analogous to the U.S. Department of Energy Loan Guarantee program. **The final ingredient, which Canada currently lacks, is a similar tax credit mechanism to Section 45Q.**

If Canada successfully implements a mechanism that is similar to Section 45Q, project developers and technology providers from the carbon capture sector will be able to replicate in Canada the success that is now taking place in the United States. 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 Canadian 45Q equivalent, Canada risks losing those carbon capture-related benefits to the U.S.**

Sincerely,

³ Rhodium Group, *Capturing New Jobs: Growth Opportunities from Direct Air Capture Scale-Up*, 15 (2020). <https://rhg.com/wp-content/uploads/2020/06/Capturing-New-Jobs-Employment-Opportunities-from-DAC-Scale-Up.pdf>

⁴ Carbon Capture Coalition, *Carbon Capture Jobs and Project Development Status*, 4 (2020). <https://carboncapturecoalition.org/wp-content/uploads/2020/06/Carbon-Capture-Jobs-and-Projects.pdf>

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