



May 5, 2022

M. Alexandre Longpré  
Clerk, Standing Committee on Environment  
and Sustainable Development  
House of Commons  
Ottawa, Ontario K1A 0A6

**Subject: ENVI study on fossil fuel subsidies**

The Chemistry Industry Association of Canada (CIAC) appreciates the opportunity to share its perspectives with the House of Commons Standing Committee on Environment and Sustainable Development as it undertakes its study of fossil fuel subsidies in Canada.

CIAC is the Association for leaders in Canada's chemistry and plastics sectors. Our members are innovators, solution providers, and world class stewardship pioneers. Representing an \$85 billion industry, and supporting nearly 200,000 jobs, our members transform raw materials into the building blocks needed to manufacture some 70,000 products that we depend on every day.

Despite the COVID-19 pandemic, demand for chemistry products has not slowed down — in fact, the need for our sector's products has never been greater. The chemistry and plastics sectors are bedrocks of global manufacturing and will provide the critical products needed to lower emissions in other sectors. It is estimated that by 2050, chemical production globally will need to triple in volume to address future economic challenges and address emissions reduction and circular economy targets. The low carbon future will need more chemistry, not less.

Canada is in a unique position among its peers in that the chemistry we produce is enabled by our low carbon natural gas liquids ensuring that our products are among the lowest carbon in the world. The government must be careful in not mislabeling any investment-related supports that enable Canada's industry to invest the billions of dollars needed to transform to near zero carbon chemistries as "fossil fuel subsidies". In collaboration with industry, Canada's net zero emissions plan has the potential to strengthen Canada's chemistry and plastics sector and contribute to making Canada's economy more resilient and competitive.

**Pathways to Net-Zero**

The pathways to net-zero can and will take many forms – deploying the newest, lowest emissions technologies is one option. In an alternative scenario, closing facilities, ceasing emissions, and importing the needed chemistry and plastics is another pathway, though this may simply lead to

greater global emissions from countries without the same low-carbon feedstock or environmental standards as Canada. Indeed, Canada already leads the world in low-carbon chemistry and plastics production with further opportunities for emissions reductions.

For instance, Canada's electro-chemistry sector is already close to achieving net-zero production thanks to our low emissions electricity grid. This sector produces important products to maintain safe drinking water and treat municipal wastewater. It also provides important inputs to key industrial sectors such as forestry, mining, and agriculture.

However, Canada's chemistry sector is energy intensive and many of our members currently rely on fossil fuel-based feedstocks – primarily from the natural gas value chain (methane, ethane, propane, and butane) but also crude oil.<sup>1</sup> Lowering the process emissions in our sector is crucial to ensuring our chemistry products remain among the lowest carbon intensive products globally.

Hydrogen is expected to be an important decarbonization pathway and our sector is well placed to contribute to the supply given the link with chemical industrial processes. Hydrogen is often a by-product during chemistry production processes which can be used as fuel for heat, as a feedstock in chemical production or captured and used for other industrial processes. Lowering the carbon content of our goods will help Canada stand out as businesses and consumers become more carbon conscious of the products they buy and the lifestyles they lead.

As such, CIAC was pleased to see several measures in the 2022 Federal Budget released on April 7<sup>th</sup> that will assist in attracting investments for the net-zero and circular economy transformation of Canada's chemistry and plastics sector. To succeed, our sector will need to attract **hundreds of billions of dollars** of new investments in the coming decades.

### **Carbon Capture Utilization and Storage**

Governments in Canada have already adopted several policy drivers to help achieve the country's net-zero goals including carbon pricing and fuel carbon intensity standards, but targeted policies are required for specific technological pathways such as Carbon Capture Utilization and Storage (CCUS) to be widely deployed. CCUS will play an important role in lowering emissions from chemicals manufacturing. The International Energy Agency has estimated that nearly 38 per cent of CO<sub>2</sub> emissions in the chemistry sector could be captured with a wide deployment of CCUS.<sup>2</sup> In order to realize these potential reduction opportunities, it is critical that policy makers are aware of the intricacies of Canada's chemistry sector, the complex manufacturing processes utilized,

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<sup>1</sup> Low carbon fuels such as blue hydrogen and renewable methane could be used in chemistry processes to lower emissions but the market for these fuels is small at present.

<sup>2</sup> International Energy Agency, "[Transforming Industry Through CCUS](#)," May 2019

commercial arrangements that are common in our industry, and the importance of economic competitiveness that underlies all business decisions in the sector.

CIAC welcomed the federal government's CCUS Investment Tax Credit (ITC) which respects and accounts for carbon capture equipment, transportation, and storage infrastructure, and includes investments that utilize captured carbon in new processes. A tax credit of this breadth enhances the business case for retrofitting existing facilities, designing, and building new facilities with CCUS and for building a new economy that uses captured carbon as a feedstock.

### **A Circular Economy for Plastics**

Chemistry and plastics enable our modern and sustainable way of life and are key to developing a prosperous economy for Canada. With the global population projected to grow 28 per cent by 2050, the demand for plastics will increase. It is crucial to develop a circular economy for plastics so we can responsibly embrace the benefits of plastics, ensuring plastics remain in the economy and out of the environment.

Today in Canada, due to inadequate sorting, contamination, limited end markets and not employing all the technologies available, 86 per cent of all post-consumer plastics end up in landfills— three million tonnes annually. Traditionally, a variety of recycling challenges have resulted in poor recycling rates across the country (e.g., technical challenges, lack of infrastructure, poor consumer behaviour, limited end-markets). By treating post-consumer plastic as a waste rather than a resource, the lost opportunity cost of plastic not being recovered is \$7.8 billion per year and is expected to grow to \$11.1 billion per year by 2030.

Achieving a circular economy for plastics will require collaboration among governments, businesses, academics, and scientists to develop solutions that will enhance recycling systems, support innovation, and expand end markets for plastics. Circular economy strategies for Canada's plastics and chemistry sectors would also deliver significant GHG emissions savings and help Canada realize its policy objectives for net-zero by 2050.

As advanced manufacturing sectors, chemistry and plastics are foundational inputs to other sectors (e.g., buildings, aerospace, automotive, food and beverage) with their ability to innovate and deliver low carbon solutions to downstream customers. CIAC supports the federal government's investment to increase plastic circularity and has advocated for circular plastics innovation funding to facilitate a new pan-Canadian industry-led consortium focused on advanced manufacturing solutions in the chemistry and plastics value chain in support of a circular economy.

Such funding could develop a national ecosystem of SMEs, companies, governments, industry investors, and research institutions to align stakeholders and partners and commercialize and scale circular economy innovations. Priority areas for private-public investment in innovative solutions would include:

- Recycling Infrastructure – Modernizing Canada’s sortation and mechanical recycling infrastructure would create national resiliency for a high-demand resource and significant GHG emissions reductions by recycled plastics in products, compared to prime (virgin) plastics. Investment in technology and infrastructure could create economies of scale in distinct recycling hubs in Ontario, Alberta, Québec, and British Columbia.
- Technology Acceleration for Advanced Recycling – Scale-up and commercialization of advanced recycling technologies offer significant environmental benefits. These technologies can transform post-use plastics back into their molecular building blocks that make them indistinguishable from prime (virgin) plastics. Their deployment is critical to achieve zero plastic waste and continuously re-circulate plastics in the economy.
- Industrial Decarbonization Technologies across the Plastics Value Chain – Developing technology innovations that will lead to reduced CO<sub>2</sub> emissions along the plastics value chain, from resin manufacturing to advanced recycling, including the projects noted above. This will position Canada as the leading low-carbon resin and recycled plastics producer providing an unbeatable global advantage for manufacturers using recycled plastics.

The development of sustainable solutions within the chemistry/plastics value chain and across market segments and sectors would help Canada meet its net-zero by 2050 targets. The result would be to create a low carbon advantage for all manufacturing sectors across Canada that use and sell plastic products nationally and internationally.

## **Conclusion**

Chemistry products are the building blocks of the modern economy. Ninety-five per cent of all manufactured goods – from appliances, to automobiles, to safe and sanitary plastic food packaging and hand sanitizer – rely on chemistry. Chemistry and plastics will play an essential role in Canada’s net-zero emissions and a circular economy future. The chemistry industry will invest billions of dollars in these areas in years to come. Creating the conditions to encourage new investment (and the expenditure of private capital) to take place in Canada rather than in other jurisdictions supports government’s economic and environmental public policy goals.

Ensuring that Canada can attract the investments should remain top of mind. Governments across Canada know this and are recognizing the sector’s potential. However, there is more work to be done as investment in Canada has lagged other world leading jurisdictions the last few years. Policy makers are aware of these challenges. We have seen Alberta, through the Alberta Petrochemicals Incentive Program, recognize the value added that chemistry and plastics bring to the economy. We have seen Ontario and Quebec acknowledge the vital role that chemistry will play in advanced battery manufacturing. All levels of government are aware of the unique role that hydrogen will play as an energy carrier in a low carbon future. Canada can be at the forefront of chemistry’s adoption of CCUS and the recent investment tax credit in Budget 2022 is a step in the right direction. The world will need more low-emission Canadian chemistry and plastics and it

is crucial we attract these investments to Canada where climate change and environmental considerations are a priority.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bob Masterson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Bob Masterson  
President and CEO