

April 30, 2021

Mr. Francis Scarpaleggia, M.P.
Chair, Standing Committee on Environment and Sustainable Development
Sixth Floor, 131 Queen Street
House of Commons
Ottawa ON K1A 0A6
By E-mail: ENVI@parl.gc.ca

Submission to the Standing Committee on Environment and Sustainable on the Study of Single Use Plastics

Dear Mr. Scarpaleggia,

Enerkem would like to take this opportunity to provide comments for consideration by the Standing Committee on Environment and Sustainable Development as part of the current study you are conducting on single use plastics.

Our proprietary clean technology produces a growing range of low carbon transportation fuels and chemicals from non-recyclable waste and woody residues. Several of these circular chemicals can be used in place of their fossil-derived counterparts, to produce plastic.

Everyday, at our facility in Edmonton, the first commercial-scale facility in the world to produce advanced biofuels and chemicals from non-recyclable municipal solid waste, we demonstrate the potential Canada has to divert plastics from landfills and incinerators and turn them into circular products. Enerkem is now building a similar facility in Varennes, Quebec where non-recyclable waste that would otherwise be disposed of in landfills and woody biomass will be used as a feedstock. We are also expanding globally, with the development of a facility in Rotterdam in partnership with Nouryon, Air Liquide, Shell and the Port of Rotterdam and another in Tarragona, Spain in partnership with SUEZ and Repsol.

Enerkem believes the Canadian government should focus on the following recommendations to quickly and efficiently move towards a more circular economy using the most practical tools at its disposal:

Support the recovery of plastics through robust recovery and recycling initiatives

Despite significant efforts by Canadians, recycling rates remain very low. Currently, according to a recent study by Deloitte, only 9 % of plastics are recycled at their end of life in Canada. By introducing national recycling requirements, this Government would provide much needed consistency and clarity for municipalities and provinces across the country that until now, have been left to manage this momentous challenge on their own. Enerkem recommends that the Canadian Government set forth an action plan that will provide municipalities with the knowledge and resources required to put into place:

- 1- A robust plan to educate Canadians on what can and can't be recycled based on the technology in that jurisdiction.
- 2- Efficient sorting facilities that will remove contaminants from recycling streams and ensure each type of recyclable is preparing for recovery using the most advanced technology available.
- 3- Promote the development of domestic capacity for mechanical AND chemical recycling across Canada that will allow for the extensive recovery of recyclables using the best technology available eliminating recyclables being shipped overseas, disposed of in landfilled or incinerated.

One of the key challenges with recycling is that until recently, mechanical recycling was the only technology available to address this challenge. With the commercialization of technologies like Enerkem's thermochemical gasification process, plastics can be recycled without compromising on performance or quality.

By setting a recycling mandate coupled with an adaptable action plan that incorporates these three key components, the Canadian Government has the opportunity to provide a clear trajectory towards a circular economy that will create jobs across the country while reducing waste. Furthermore, a national action plan would provide economies of scale to support advanced material sorting and recycling to help keep these materials out of the environment.

Enact a recycled content law

By mandating that certain new products and packaging contain a percentage of recycled material, the government is helping to stimulate investment in domestic recycling infrastructure which is required to effectively increase capacity and promote a domestic circular economy.

Without such a mandate, the higher cost of implementing these innovative technologies makes it a hard sell to producers who have two main objectives: cost-savings and product quality. A technology such as Enerkem's can convert traditionally non-recyclable wastes into a chemical such as Ethylene that can then be used to produce plastics of near-virgin quality. But this innovative technology still comes with a higher price tag than fossil-based Ethylene. Even the best-intentioned producer is not able to justify the additional cost without regulatory drivers. By creating a mandate, an intrinsic value is added to the circular chemicals needed to produce these plastics.

Though we have seen a significant increase in voluntary mechanisms put in place by producers including some of the world's largest companies, these generally can only work well if prices of virgin materials are high, but as several examples in the UK and the EU have demonstrated, when the price of the material drops, producers are often forced to abandon their voluntary commitments.

Incorporate financial support mechanisms to support the transition to a Canadian circular economy

Canada is at a critical point in its shift away from a linear economy to a more circular economy. Regulatory drivers will need to be combined with fiscal support measures in order for innovative technologies to help with this transition. For this reason, Enerkem recommends that Canada support the establishment of a Plastics Technology Innovation Fund (PTIF) to further research and development of ground-breaking plastic technology applications as well as the commercialization of these technologies across Canada. The quick rollout of these facilities will help Canada achieve a world-class, self-sufficient, sustainable waste management system beneficial to all Canadians for generations to come.

Conclusion

Enerkem's technology represents a Canadian cleantech success story and is the result of more than 20 years of sustained efforts to scale-up our technology from a lab in Sherbrooke, Quebec to the world's first non-recyclable waste-to-low carbon transportation fuels and chemicals facility in Edmonton.

Our recommendations aim to transition Canada to a circular economy in a cost-effective way that will stimulate innovation and create new domestic jobs by accelerating the solutions required to divert plastic waste from landfills and provide effective measures to prevent leakage into the environment.

We are committed to helping Canada reach its GHG reduction targets, eliminating plastics from landfills and the environment and moving swiftly towards a circular economy. We urge the government to take action. Our recommendations will reduce the amount of plastic entering the environment, reduce greenhouse gases emissions, and greatly improve the recovery of resources from products and packaging at the end of their useful life while bolstering the green economy.