



Comment submission in response to ERO #019-7649 [Proposal for regulatory amendments to clarify program requirements and improve program efficiency for Emissions Performance Standards (EPS) and GHG Reporting programs.]

By: OMNI Conversion Technologies

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About OMNI Conversion Technologies Inc.

OMNI Conversion Technologies Inc. (OMNI) is a Canadian company based in Eastern Ontario that has developed proprietary technology to convert solid energetic material into OmniSyngas, which can be used to produce low-carbon clean fuels including renewable natural gas (RNG), hydrogen, and renewable liquid fuels for the circular economy. OMNI's robust and efficient Omni200 provides unique solutions to manage waste, produce clean fuels at scale, and help industry and governments achieve decarbonization goals. The patented process was successfully demonstrated at the company's demonstration plant from 2007-2014.

OMNI applauds the MECP's recent proposal on regulatory amendments to clarify program requirements and improve program efficiency for Emissions Performance Standards (EPS) and GHG Reporting programs. As an advanced technology provider of equipment for clean fuel production, including RNG, we would like to present the following comments on the MECP's recent ERO #019-7649.

Comments in response to ERO #019-7649

OMNI does not have any specific comments regarding the first two questions for discussion in the proposal.

***Question for Discussion #3:** Should RNG procured by an EPS facility and injected into the Ontario natural gas system be eligible to be considered as if it is being used directly at an EPS facility? Are there any circumstances where this approach would affect the integrity of the EPS program?*

OMNI strongly agrees that RNG procured by an EPS facility and injected into the Ontario natural gas system should be eligible to for consideration, as if it is being used directly at an EPS facility.

This accommodation would spur innovation and broaden market opportunities to produce and sell RNG within Ontario. As covered in this submission's introduction, OMNI's innovative technology directly addresses Ontario's mandate to reduce GHG's and increase the production and use of clean fuels, like RNG, while also tackling the province's landfill capacity issues and associated methane emissions.

Additionally, GHG emissions from the combustion of RNG produced by the gasification of municipal solid waste should be deducted from the EPS facility's verified emissions in full, including RNG produced from the non-biogenic portion of this waste. The profile of OmniSyngas, even when considering the non-biogenic component results in a net negative CI score (much lower than most biomass fuels which are currently fully exempt).

Municipal solid waste (MSW) has more than 50 per cent biogenic content. Our technology harnesses this trapped energy source to produce green fuels and avoid the problems methane poses by diverting waste from landfills, proactively tackling emissions from the source. Since methane has 25-times the GHG effect of CO₂¹, our technology allows us to produce these fuels with a negative carbon footprint.

Currently, Ontario is falling behind. In February 2023, the EU specified a methodology for assessing GHG emissions savings from renewable liquid and gaseous transport fuels of non-biological origin and from recycled carbon fuels. Similarly, in the United States, both the State of California and the Inflation Reduction Act embrace

¹ <https://www.epa.gov/gmi/importance-methane>

full life cycle impacts in determining carbon intensity (CI) scores and emissions calculations. **We have active RNG projects in the United States and Europe, but none in Ontario due to the gaps or restrictions in the current legislation.**

Ontario can promote innovation and substantial GHG emission reductions by permitting the full deduction of RNG produced from the gasification of municipal solid waste from a facility's verified emissions, ensuring that the Emissions Performance Standards do not inadvertently hinder advanced technological and environmentally superior solutions.

Ontario has the target of achieving a 30 percent reduction in greenhouse gas emissions below 2005 levels by 2030 and ensuring that Ontario does not deter solutions that divert waste from landfills is essential to achieving this target. MECP can advance this goal by not only ensuring that GHG emissions from the combustion of RNG can be deducted from the EPS facility's verified emissions, but also ensuring that RNG produced through the gasification of municipal solid waste is included in that deduction.

This proposed change would also enable energy autonomy and job creation for the province by allowing waste-to-RNG solutions like OMNI's to be located across Ontario for purchase and use by heavy industrial users looking to reduce their carbon emissions.

About the Omni200

The Omni200 is a thermal chemical conversion system which has been proven at an industrial scale. It is a complete integrated system, delivered in large modules rather than stick-built at site. It receives and converts at a rate of 200 tonnes per day (~70,000 tonnes per year) a wide variety and mix of minimally prepared energetic wastes into clean, consistent syngas with a predictable heating value and composition. The H₂/CO ratio and other parameters can be tailored to a variety of applications. Multiple units can be readily combined for larger plants.

Background

Each year, Ontario sees eight million tonnes of waste accumulate in landfills. Ministry of Environment, Conservation and Parks data from 2022 suggests that the ratio of closed to open landfills is nearly 3 – 1², highlighting the unsustainability of the current way we handle and process waste. Emissions from these landfills accounted for 5% of Ontario's total GHG emissions in 2020. Nationally, these sites were responsible for approximately 1,401 kilotonnes (kt) of methane generated and 885 kt of methane emitted, which is equivalent to 22 Mt of CO₂.

OMNI's developed-in-Ontario technology offers a solution: waste is converted into clean syngas instead of being disposed in landfills to rot and emit methane. Importantly, the carbons contained in the waste are converted into syngas, which can then be used to produce multiple low carbon fuels.

² <https://data.ontario.ca/dataset/ontario-landfills/resource/b7c52570-83bd-40a7-939a-8eb3742c4140>

According to the State of the Environment Report 2023, the province's current landfill capacity can only accommodate waste for thirteen more years³. OMNI is eager to be a collaborator with a government that is pursuing innovative solutions to tackle environmental challenges, while ensuring Ontario's economy grows and prospers.

OMNI has developed a patented process that converts any solid energetic material into OmniSyngas to produce RNG, clean green hydrogen, biofuels, or electricity for the circular economy. Our technology harnesses this trapped energy source to produce green fuels and avoid the problems methane poses by diverting waste from landfills, proactively tackling emissions from the source and producing fuels with a negative carbon footprint. We can do this not only with MSW, but can convert any form of solid energetic material, including common industrial waste, pulp and paper waste, and other waste sources that would otherwise contribute to GHG emissions.

OMNI's robust and efficient [Omni200](#) provides a unique, made-in-Ontario, solution to achieving decarbonization targets. OMNI believes the most effective way to reduce Green House Gas (GHG) emissions is through circular solutions that prevent GHGs, such as CO₂ and methane (CH₄), from entering our atmosphere. In order to abate emissions, the most effective GHG reducing projects – particularly those focused on abating methane emissions – should be considered in the creation of regulatory environments. OMNI's technology is uniquely positioned to help Ontario produce the clean fuels it requires to support industries like steel and oil and gas production in reducing their carbon footprint and to build the circular economy required to get to net-zero.

Conclusion

OMNI thanks the MECP for this proposal and opportunity to comment. We believe that the proposed accommodations will increase Ontario's production and use of RNG and will not only drive a positive environmental impact but also foster innovation, job creation, and economic growth within the province.

At OMNI, we are proud to offer cutting-edge technology that can be applied across various industrial uses, further supporting Ontario's transition towards a greener economy. By embracing and supporting the adoption of our technology, the government can help create a more prosperous and sustainable future for all Ontarians.

Sincerely,



Natalie Cutler
Director, Communications
OMNI Conversion Technologies

³ [The State of the Environment in Ontario \(auditor.on.ca\)](https://www.auditor.on.ca)