



BACKGROUND

Massive waste incinerator expansion proposed for Brampton

Prepared by: Toronto Environmental Alliance and Environmental Defence Canada
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Summary:

Emerald Energy from Waste Inc in Brampton is seeking approval from the Ontario government for a massive expansion of its 30-year-old waste burning facility in Brampton (Peel Region). Even before completing the environmental assessment process, the government has promised \$2,990,000 to the facility to experiment with making hydrogen by burning garbage.¹

If successful, Emerald would own the biggest incineration facility in Canada, and one of the biggest in North America – capable of burning 912,000 tonnes per year. For context, approximately 850,000 tonnes of waste is incinerated in all existing incinerators every year across Canada.² The existing Brampton facility is currently approved to incinerate up to about 200,000 tonnes per year.

The expansion is not yet approved and is currently going through a new streamlined provincial Environmental Assessment process. There are mounting concerns that the environmental impacts of the additional air pollution and greenhouse gas emission burden from this incinerator expansion are not being properly considered or communicated to the surrounding community.

Proposal details

Emerald Energy From Waste - 7656 Bramalea Road, Brampton, ON L5S 1C4

According to Emerald's publicly shared information (some are available here:

<https://emeraldefw.ghdengage.com/documents/>) they plan to submit their proposal in the next few months - and this incinerator could be approved by spring 2024.

¹ [Ontario Investing in Hydrogen to Fuel Province's Growing Economy](#)

² [National Waste Characterization Report](#) - Canada 2020

Air pollution impacts

An expansion of this size would result in a significant increase in toxic burdens for nearby residents. Emerald's self-reported data to the federal government show that the incinerator is one of Brampton's largest industrial emitters of nitrogen dioxide,³ a toxic air pollutant that causes asthma and chronic lung disease.

Air pollution from the incinerator is most likely to impact residents and workers in Bramalea, Malton and Rexdale (northwest Toronto). The facility is in an industrial area, but close to predominantly racialized neighbourhoods that already face a high cumulative pollution burden from many nearby industrial facilities, including a gas-fired power plant, as well as multiple 400-series highways, Pearson airport, and other nearby sources of pollution.

Climate change impacts

Emerald contends that the massive waste-burning facility will be a source of clean energy. However, claims that solid waste incineration is a form of "renewable" or "clean" energy have been largely debunked, as garbage is not a 'renewable' energy source. Incinerators have been found to emit more greenhouse gas emissions and other toxic air pollution per unit of electricity produced than fossil gas.⁴ In fact, generating more energy from garbage in Ontario will make our electricity grid dirtier than it is today.⁵

Emerald's proposal claims to aim to generate "clean hydrogen" from incinerating plastic and other waste. However, producing energy and hydrogen from plastic is a carbon intensive, high-temperature process powered by fossil fuels. This process does not offer a net-positive energy balance – meaning it consumes more energy than it generates. Hydrogen from this facility would not be considered "green hydrogen," which is generally produced using renewable energy sources (eg. solar and wind power) to generate the electricity for electrolysis to extract hydrogen from water.⁶

Alternative options for waste management

Waste incinerators are an outdated, expensive and toxic way to manage waste. They rely on a high proportion of combustible materials, namely plastics, in order to generate energy. More than half of what is in the average garbage bag destined for landfill or incineration today is recyclable or compostable.⁷ This includes plastic packaging and beverage containers, food scraps and paper. The province must focus on eliminating waste wherever possible and diverting what remains instead of landfilling or burning it.

³ [National Pollutant Release Inventory data search - Canada.ca](#)

⁴ [Waste incinerators undermine clean energy goals | PLOS Climate](#)

⁵ Studies show waste incineration releases an average of 580g CO₂e per kWh of energy produced, while natural gas releases 340g CO₂e per kWh ([Zero Waste Europe_ The-impact-of-Waste-to-Energy-incineration-on-Climate](#)); Ontario's grid releases an average of 34g CO₂e per kWh ([Canada Energy Regulator - Provincial and Territorial Energy Profiles](#))

⁶ [Hydrogen made from waste - is it green or is it red? - GAIA](#)

⁷ <https://thecif.ca/wp-content/uploads/2023/03/CIF-Year-6-Residential-Waste-Composition-Study-Feb-2023.pdf>

Instead of approving a massive new waste burning facility in Brampton, Ontario should:

- Ban organics from landfill and incineration, ensuring that all organic waste is safely composted;
- Regulate and enforce high waste diversion targets for industrial, commercial and institutional sectors that currently generate the vast majority of the waste shipped to landfills and incinerators and that are not held to any requirements for diversion of organics and recycling;
- Implement deposit-return for non-alcoholic beverage containers;
- Set a target for reuse of packaging, which is responsible for significant waste in Ontario.

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