

Letter:

Lewisporte Plastics to Liquid Fuels and Biomass Power Plants  
Will Provide Growth with Minimal Environmental Impact

This letter is in response to the questions raised by the Mercy Centre for Ecology and Justice regarding the Synergy World Power (SWP) liquid fuels and power plant facility proposed for Lewisporte. We appreciate the questions and concerns expressed in the letter and are taking this opportunity to respond to each question, in the order posed, with accurate information.

**Air Quality:** The Lewisporte plant will be designed, permitted and operated in strict accordance with [Newfoundland Provincial Air Emission and Ambient Air Quality Standards](#). SWP stack emission concentrations will be well within regulatory limits. Average ground level particulate from the plant, in the immediate vicinity of the plant, will be about 0.8% of the regulatory limit in ambient air. The concentration of particulates at ground level will drop off with distance from the plant.

**Energy Use:** The SWP plant will be a net generator of electrical energy and fuel from dry plastic and biomass, known as selected recovered fuel (SRF). It will require no energy from the grid and will generate mainly renewable power that will be available to the grid at a cost below that of current provincial power rates.

**Water Use:** The plant will obtain fresh water from a large pond on the SWP site. The water will be treated as needed for domestic and industrial use at the plant. Wastewater and stormwater from the plant will be treated to surface water standards.

**Long term environmental risks to water soil and air:** The plant will be designed built and operated to strictly comply with all applicable environmental regulations.

**Other countries where these plants have been accepted for use:** The Sustane Technologies plastics liquids fuels (PTLF) plant in Nova Scotia produces 9,000 liters of liquid fuel per day. SWP will be obtaining its core PTLF technology from a company that has at least 10 sites where their pyrolysis plant designs are being used for recovering oil, not only from plastics, but also oil well drilling mud, oil refinery sludge, waste tires and tar sands. A facility in Norrkoping Sweden is an example of a plant that makes electrical power and fuel from wrapped bales of imported SRF.

**Financial security:** The SWP facility in Lewisporte will be built solely with private investment, without the need for sovereign guarantees. SWP will not be seeking financial subsidies from the Government.

**Community Support:** SWP has seen a very positive response to the project in our initial meetings with local community leaders in Lewisporte and Grand Falls Windsor, as well as from the ministries that will be involved in permitting and regulating plant operation.

**Transport of materials, the possible introduction of toxic species:** . Clean dry plastic, paper, cardboard and wood (SRF) will be baled and wrapped in plastic to prevent fugitive material from leaving the ship while underway or the site while in storage. This system has been used in Europe for decades and we are unaware of any toxic species being transferred by this method, as illustrated below.



Dry plastic and biomass (SRF) is baled, wrapped in plastic and loaded onto bulk carriers.



At the new dock on the south shore of Burnt Bay, bales will be unloaded and stacked outdoors. As needed bales will be moved indoors to be further sorted prior to final processing to make liquid fuel or electrical energy.

**Carbon footprint:** Life cycle assessment (LCA) carbon footprint calculations show operation of the SWP plant will result in a smaller carbon footprint by approximately 530,000 metric tons of greenhouse gas equivalent (GHGe) emissions per year when compared to the alternative, which is to burn the plastic components of SRF as a fuel for a cement kiln in Europe. Converting the plastic to fuel instead saves about 96% of the total energy that would be required to make the same amount of fuel from crude oil.

**Disposition of stored material in case of plant failure:** SWP will have full financial responsibility to properly store, process and dispose of this material.

**Thorough Independent Environmental Assessment prior to approval:** As a component of the permitting process, an independent international engineering firm, with offices in St. John's, will prepare an Environmental Impact Statement for the project, as required by Provincial law. As a component of this effort, an environmental baseline study will be conducted to serve as a control to determine the environmental impact of the plant going forward and ensure that it is operating in accordance with all applicable environmental regulations.

**Synergy World Power** was founded by environmental engineering and energy professionals who hold environmental stewardship as a core value. We find that our corporate culture is shared within Newfoundland and supported by Provincial laws and regulations. More information is available at [www.synergyworldpower.com](http://www.synergyworldpower.com).

Respectfully,

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**Link to the SWP Letter to the editor as published in The Telegram.**

<https://www.thetelegram.com/opinion/local-perspectives/letter-lewisporte-plastics-plant-will-provide-growth-with-minimal-environmental-impact-363014/>