

## Grande Prairie Mkt Study: Plant to Mfr Renewable Biofuels from Local Wastes

David Swan, CEO is pleased to announce launching a market feasibility study for a new Plant to make & distribute Renewable Diesel and Hydrogen (RB) Fuels in Grand Prairie, AB. eco-Options Energy is a multi-stakeholder, for-profit, business Cooperative, operating within both the Canada Clean Fuel and BC Renewable & Low Carbon Fuel Acts. A supplier of sustainable fuels since 2011, eco-Options is now expanding into renewable biofuels (diesel, hydrogen and propane) and associated by-products for use in heavy-duty transport, equipment and buildings in both domestic and International markets. Due to the effectiveness of RB in reducing both costs/litre & air pollution, the company intends to build a network of 20-Plants each with 50 Fuel Depots across Canada to supply Members. All infrastructure will be majority owned, operated and controlled by local Community Members, producing RB fuels for their own use from local waste feedstock (wood, plastic & methane) that:

1. reduce transport emissions well below those produced by fossil diesel in similarly powering trucks and equipment,
2. lower the cost per litre of diesel fuel compared to fossil alternatives, projected to be between 15% and 50%
3. lower the risk of forest wildfires, and
4. improve the economic resilience of rural communities with new product & service revenues & full-time quality jobs.

Our goal is to empower commercial diesel users (Truckers, Loggers, Miners, Farmers, Mariners and Aviators) to switch from fossil diesel fuel to Renewable Biofuels from Trees (RBT), thereby to meaningfully reduce their fuel costs & improve air quality.

Environmental scientists have determined that the Carbon Intensity of RBT is 97% lower than its fossil equivalent. How? As a tree grows, it absorbs carbon atoms from the atmosphere. After the tree is harvested for timber, its bark, branch, root and sawdust residuals are left behind. When those wood wastes are manufactured into fuel and then combusted in diesel engines, the carbon returns to the atmosphere – completing the process of recycling. Alternatively, carbon atoms in fossil diesel have been sequestered by nature deep underground for millions of years and when combusted, only add to the total quantity of carbon floating in the atmosphere – hence are called carbon emissions. Adding carbon has a higher intensity than Recycling.

Thus, eco-Options Energy is a climate adaptation initiative to build widespread Member collaboration via fuel use. To assure consistently-high quality and reliability, we both import and manufacture fuel from three waste streams: Cellulosic wood and plant waste, Industrial Waste Plastic and stray methane gases (from wells & landfills). Renewable diesel is available in blends from 0% to 100%. Equipment is designed, built and warranted by independent manufacturers to produce fuel conforming to worldwide standards (ASTM D975) so that our staff can concentrate on supporting Members operating anywhere in Canada!

Each local plant is designed for zero-waste, low/negative-emissions operations to serve markets within 250 Km by:

- gathering and processing about 200K dry tonne/yr of wet waste (wood, plastic, methane) into clean & sized feedstock
- that is manufactured into about 70M litre/yr of renewable diesel or hydrogen fuel and by-products at each of Plant
- and is sold to Domestic and International Members via a distribution network of private tank/cardlock dispenser sites.

As a 'drop-in' fuel, RBT displaces a similar volume of fossil diesel and equal or better engine-to-wheel performance.

Each eco-Options Energy Plant integrates feedstock processing, fuel manufacturing and fuel distribution tank farm, tree seedling nursery, ancillary & support, infrastructure & staff office/residential/recreational buildings, that:

- has a starting capital cost for a Stage1 Plant/Fuel Depot of about \$25M ranging up to full production to \$500M
- supports a direct and regional workforce of at least 80 and up to 250 full-time positions, and
- generates an economic impact in each host community of over \$200M/yr.

Our goals are to actively serve all our Members to accomplish significant, widespread climate impact, growing year-by-year. We operate in a "high-touch" manner teaching, guiding, showing & collaborating in our "**Green Fuel, Healthy Food and Clean Air**" theme, in which climate change is not to be feared, but embraced, since it opens up a whole new world of opportunities:

- a) building more plants scaling their size to 1,000% in proportion to local waste supply and fuel demand;
- b) reducing carbon emissions from medium and heavy-duty diesel engines in trucks and equipment;
- c) shrinking wildfire risk by using forest wood waste as feedstock (in fact, it is now a wildfire fuel load);
- d) creating many, new, high-quality, skilled, full-time jobs;
- e) producing new earnings (GDP) for both Communities and Members; and
- f) adding a new & small but growing tax base to provide for supportive public services.

eco-Options Energy Cooperative intends to operate 20 modular plants across Canada by 2043, all patterned on the 128-year proven business success & values model of Coca-Cola! Each will draw on recycled wastes from nearby abundant forest, farm, & other resources while also being uniquely tailored to local needs and maximizing Member benefits to power their work in Boreal Forest businesses across Canada with "**the Renewable Fuels that can refresh our air!**"

**This is a strong, resilient recovery opportunity for AB, Canada & the World!**