

ABOUT US

Arbokem Canada, founded in 1983, is an independent technology management and R&D company.

We collaborate with our partners and clients to develop innovative solutions.

We specialize in sustainable and non-polluting projects that can benefit local communities both socially and economically.

Our current focuses are:

- Biomass and green energy
- Utilization of agricultural fibres for the manufacturing of paper and paperboard

Reduce, Reuse, Recycle; Make best use of renewable resources; Preserve our environment via technology innovation

Disclaimer: The data in this brochure are provided as preliminary information ONLY. An in-depth analysis (e.g., a feasibility study) is recommended as the next logical step, followed by the preparation of a comprehensive business plan, prior to investment decision.

If you are interested in the 2G bio-diesel technology, please contact:

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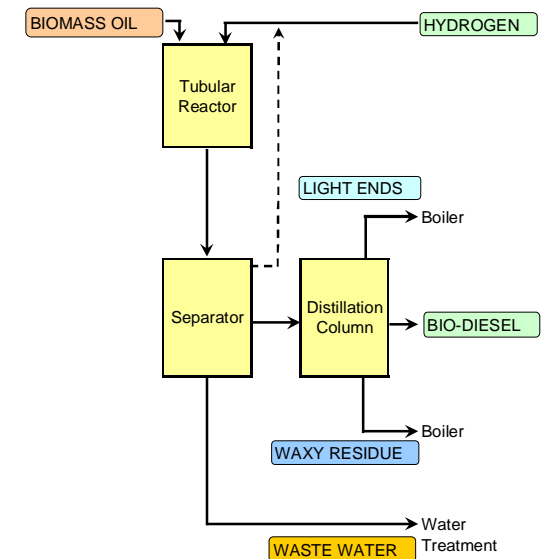
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Manufacturing of Bio-diesel from Used Cooking Oil



BIO-DIESEL TECHNOLOGY

The first-generation (1G) technology involves the esterification of vegetable oil with methanol. Some of the deficiencies of the ester bio-diesel are its relatively low storage stability and its increased emission of particulates.

The second-generation (2G) technology is based on hydrogen treatment of biomass oil feedstock, similar to that in petroleum refining. The yield and quality of end products would be dependent on, among other things, feedstock composition, type of catalyst used and operating conditions deployed. The new 2G bio-diesel is essentially a superior "low-sulphur petro-diesel containing virtually no problematic aromatics".

Some of featured benefits of the 2G technology include:

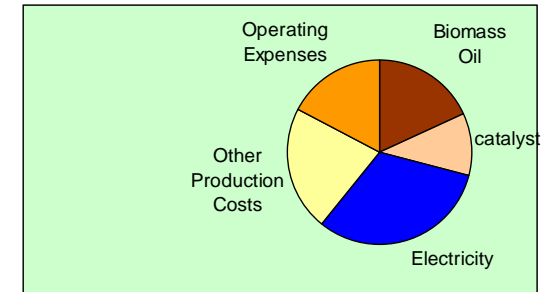
- High Cetane number for higher combustion efficiency
- Lower exhaust emissions, nitrogen oxides, carbon monoxide and particulates
- No storage stability problems

Arbokem Canada has exclusive access to the Canadian BioCetane™ 2G technology. Arbokem Canada has been collaborating with Natural Resources Canada, (a ministry of the Government of Canada) in the continued technical advancement and commercial development of 2G Bio-diesel technology since early 1990s. Road tests with a fleet of postal trucks over a 10-month period in Vancouver have demonstrated that BioCetane™ provided an average 8% better fuel economy than standard petro-diesel, and 5% better than Ultra-Low Sulphur petro-diesel.

CAPITAL INVESTMENT

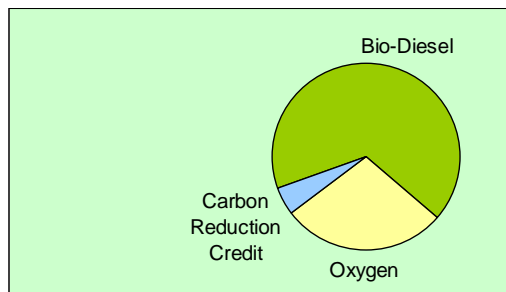
For a 2G Bio-diesel capacity of 20 million litres per annum, the cost of a factory situated at a southern China coastal location (excluding cost of land, infrastructure upgrade and site improvement) is budgeted to be: € 10 million ± 25%

Used cooking oil (UCO) is the example feedstock, but other biomass oil can be used in its place or in mixture with UCO.



REVENUES PROJECTION

Projected revenues: € 11 million from sales of 2G Bio-diesel (BioCetane™), oxygen and carbon reduction credit.



EXPENSES ALLOCATION

Estimated expenses: € 5 million, primarily for the purchases of biomass oil feedstock, chemicals, catalysts and electricity.

GROSS PROFIT

The base case scenario would have a gross profit of € 6 million, with UCO priced at € 38 per tonne. The simple payback time (investment/ gross profit) is about 18 months.

Availability and cost of feedstock is the underlying critical issue for the establishment of viable biodiesel businesses. The following chart shows the simple payback at different cost of feedstock.

