Techno Economic and Life Cycle Analysis of Milking of *B. Braunii* for Renewable Fuel Production

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**Background and Methodology**

*Botryococcus braunii* is a microalgal species with unique properties;

i. It produces extra cellular hydrocarbons.

ii. Its extracellular hydrocarbons can be extracted non destructively (without killing the algae and damaging its cells and colonies).

iii. It can produce the new hydrocarbons after non destructive extraction of the previous.

The repeated extraction of hydrocarbons from *B. braunii* is called milking. My PhD aims to carry out the techno economic and life cycle analysis of *B. braunii* milking to identify its potential for renewable fuel production.

**Methodology Highlights**

- Aspen Custom Modeler
- Superstructure optimization
- Discounted cash flow analysis

**Process model in ACM V8.4**

Note: Dashed lines show the intermittent flows.

