

Analyzing Algae as a Source of Fuel 2016

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Abstracts

Algae fuel or algal biofuel is an alternative to fossil fuel that uses algae as its source of natural deposits. The allure of using algae to power the world's vehicles has been at the heart of many business plans over the years. Solazyme was one of the first firms to focus on the alternative chemicals and personal care markets, developing a small but steady revenue stream as it braced itself for the difficulty of churning out its algae oil at a scale and cost that can compete with oil for transportation.

Algae production has the potential to outperform other potential biodiesel products such as palm or corn. For example, a 100-acre algae biodiesel plant could potentially produce 10 million gallons of biodiesel in a single year. Experts estimate it will take 140 billion gallons of algae biodiesel to replace petroleum-based products each year. To reach this goal, algae biodiesel companies will only need about 95 million acres of land to build biodiesel plants, compared to billions of acres for other biodiesel products. Since algae can be grown anywhere indoors, it's a promising element in the race to produce a new fuel. However, finding a market for biodiesel is another issue. If algae-based transportation fuels were offered at service stations today, the cost would be quite expensive making it a less attractive option than petroleum fuels.

The possibilities of algae as an all-inclusive biofuel are literally infinite. Whereas most other biofuels must be slowly developed, and can only be harvested at particular times of the year, algae can double in volume overnight and can be harvested day after day. They also utilize carbon dioxide and are nearly 50% oil (whereas palms are only about 20%).

Aruvian Research presents its research report *Analyzing Algae as a Source of Fuel 2016* – which covers the huge potential of Algae to serve as fuel for the energy-hungry world we live in. The report explores the technologies involved in the process of converting algae into biofuel, the advantages and disadvantages of algae, the

challenges facing the industry in commercializing this technology and much more. A section on algae and carbon capture along with the scenarios of regulated versus unregulated carbon marketplace is further included in this research report.

The report also takes a look at the potential competition that algal development faces in this particular field, that is, from petroleum, unconventional fossil fuels, and other biofuels.

A profile of the leading players in this emerging field who are making waves in technological developments is included in the report. Also of interest are three case studies – one on using algae as jet fuel in the future; one of the Maalaea Power Plant based in Hawaii and how it is deriving power from algae; and one on the relationship between algae and coal.

Basic information about algae is also provided in the report.

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W. LEADING INDUSTRY CONTRIBUTORS

- W.1 A2BE Carbon Capture
- W.2 Algae Floating Systems Inc
- W.3 AlgaeLink
- W.4 Algaewheel
- W.5 AlgoDyne Ethanol Energy Corporation
- W.6 Aquaflow Bionomic Corporation
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- W.8 Blue Marble Energy
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