

Algae Biodiesel: Opportunity and Market Development in Romania

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Abstract

By 2050 the demand for energy could double or even triple as the global population grows and developing countries expand their economies. All life on Earth depends on energy and the cycling of carbon. Most of the present demand in the world is met by fossil and nuclear power plants. A small part is met by renewable energy technologies, such as the wind, solar, biomass, geothermal and the ocean. Among the renewable power sources, biomass has experienced a remarkably rapid growth in the past 10 years.

Romania has great potential in biomass rated at about 7600 toe / year so it is by far the cheapest way to obtain not just energy but clean energy from biomass. Although biomass is one of Romania's major renewable energy resources, most of the green energy comes from hydroelectric resources.

In the summer of 2009 Romania faced a great challenge with sea algae in all the major seaside resorts. Every year almost 14.000 tons of algae lay waste on the beaches of Romania producing visual pollution and unpleasant smell. Those algae are let to waste. But the algae can be harvested and turned into bio-diesel. The biggest advantage of algae is that the specific production of algae is 30 times more than corn or soybean. Bio diesel industry from algae can recover Romania from the economical crisis, can create jobs for the unemployed and will sustain production of renewable energy.

Key Words: Biodiesel, biomass, sea algae