

Commercialization of Algae Production for Biofuels

Session B2

TUESDAY MAY 19, 2009

10:00AM – 11:00AM

Presented By:

Thomas Foegen

COO

Byrne & Company, LTD

Presentation Abstract

Interest in second generation biofuels has heightened significantly due to skyrocketing crude oil prices. “Peak oil” has been discussed for many years and it is evident that in the near future, we will run out of fossil fuels. There must be another solution or a combination of solutions. Lastly, it is clear that it is not possible to have biofuels compete for the food crop. Biofuels must be derived from non-farm lands.

Microalgae can be one potential solution to this dilemma. They are a promising new source of oil feedstocks for biofuels. It is estimated that microalgae can produce up to 10,000 gallons of oil per acre compared to 48 gallons per acre for soybeans, which is a common oil feedstock biofuels today. Microalgae are single cell photosynthetic microorganisms that utilize CO₂, nutrients and sunlight to produce algae consisting of up to 40 percent oil by dry weight. Algae are grown on non-farm land and do not need fresh water.

This presentation will very briefly cover the history of microalgae research but quickly move into the process that is taking place to make microalgae to biofuels a commercial reality. The commercialization part of the presentation will cover the requirements to move this to mainstream. Technically, the discussion will cover: strains of algae commonly used, types of growing devices such as open pond and photo-bioreactors, harvesting and processing techniques. From a business point of view, the topic will cover: development of markets for algae products, what the investment community needs to see to get a project financed, and how to create a financial model of the revenues and costs of an emerging technology.

The talk will conclude with a discussion of a specific photo bioreactor technology the company is involved in, which will move algae production from a farming operation to a manufacturing process.

Speaker Biography

Thomas Foegen received his Bachelor of Science Degrees in General Business and Accounting, from Winona State University. His experience dates back to 1981 where he began his career as an accountant, then as President of a mid-sized manufacturing company, later becoming a consultant to the biofuels industry.

Byrne & Company Limited has worked on many successful projects for clients, offering a broad array of services. These services include feasibility studies; business plan preparation; organization of equity meetings; structuring and negotiating debt with public and private financing organizations, from raising capital to the completion of the project; and applications for federal and state grant incentives.

