

## **Frost & Sullivan Lauds Algenol Biofuels for its Radically Different Bio-ethanol Production Technology That Addresses Top Industry Challenges**

MOUNTAIN VIEW, Calif. — December 18, 2009 — Based on its recent analysis of the North American bio-ethanol market, Frost & Sullivan recognizes Algenol Biofuels, Inc. with the 2009 North American Frost & Sullivan Award for Product Differentiation Excellence. While the target market for Algenol Biofuels and its key competitors is similar – the various fuel blends for automobile consumption and chemical industries – Algenol Biofuels take a radically different approach to producing its bio-ethanol, addressing many of the challenges that plague the industry.

Using food crops such as corn and wheat for producing ethanol is believed to be one of the major reasons for the increase in food prices, since more use of agricultural lands for growing ethanol feedstock has a direct impact over the food production. Further, the high consumption of fresh water for producing ethanol results in water scarcity. To use less land to grow feedstock for ethanol, the yield per acre has to be increased as well.

“Food versus fuel is a primary concern that should be addressed, as the rise in food price has a direct impact over the economy,” says Frost & Sullivan Senior Research Analyst Vignesh Sundaram. “Unlike its competitors, Algenol Biofuels saves the lands used for food crop cultivation.”

Algenol Biofuels does not use food crops as its feedstock. Instead it has developed Direct-To-Ethanol® technology that uses algae to produce ethanol. The algae are fed with sunlight, carbon dioxide, and sea water to produce oxygen, fresh water, and ethanol. Thus, Algenol Biofuels uses sea water instead of fresh water for ethanol production. In addition, Algenol Biofuels grow algae in closed and sealed photobioreactors on arid and desert lands that are not suitable for food crops.

“To top all this, Algenol Biofuels’ technology offers much higher yield per acre per year than its competitors, generating a competitive edge in terms of the production cost per acre,” notes Mr. Sundaram. “The algae used in Direct-To-Ethanol® technology has the yield per year up to 6,000 gallons per acre compared to its corn-based competitors, who have yields per year of up to 370 gallons per acre.”

Despite being a comparatively new market participant competing with companies that have vast industrial experience in ethanol production, Algenol Biofuels has stood its ground. In 2009, Algenol Biofuels entered into partnerships with both Dow Chemical Company and The Linde Group. This is expected to garner higher brand recognition for Algenol Biofuels.

For pioneering a technology that overcomes the main challenges of its industry, Algenol Biofuels is the worthy recipient of the 2009 North American Frost & Sullivan Award for Product Differentiation Excellence in the bio-ethanol market. Each year, Frost & Sullivan presents this award to the company for an innovative product or technology that is outstanding in terms of features, functionality, quality, complexity and value to customers. The award recognizes the uniqueness of the brand and its value to the target market.

Frost & Sullivan Best Practices Awards recognize companies in a variety of regional and global markets for demonstrating outstanding achievement and superior performance in areas such as leadership, technological innovation, customer service, and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analysis, and extensive secondary research in order to identify best practices in the industry.

### **About Algenol Biofuels, Inc.**

Algenol Biofuels, Inc., a privately owned company, was founded in early 2006. Algenol Biofuels is an industrial biotechnology company using blue-green algae. It uses tools of molecular biology to produce low-cost and environmentally safe ethanol. The company has the most advanced third generation biofuels technology called Direct-To-Ethanol® that produces ethanol directly from algae. It is the only end-to-end commercial process that stabilizes and reduces carbon dioxide levels. In June 2009, Dow Chemical Co. and Algenol Biofuels announced a plan to build and operate a pilot-scale algae-based integrated biorefinery at Dow's Freeport, Texas site that will convert carbon dioxide into ethanol. In November 2009, The Linde Group and Algenol Biofuels announced a joint development project in order to identify the optimum management of carbon dioxide and oxygen for Algenol's unique algae and photobioreactor technology. This cooperation will see the companies join forces to develop cost-efficient technologies that capture, store, transport and supply CO<sub>2</sub> for Algenol's proprietary process for the production of third-generation (3G) biofuels out of carbon dioxide, salt water and algae, as well as remove oxygen from the photobioreactor.

### **About Frost & Sullivan**

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Contact:  
Jake Wengroff  
210.247.3806  
[jake.wengroff@frost.com](mailto:jake.wengroff@frost.com)