Dow & Algenol To Build Algae-Based Ethanol Pilot Plant

MIDLAND, Mich. PRNewswire — The Dow Chemical Company (NYSE: DOW) announced today that it plans to work with Algenol Biofuels, Inc. to build and operate a pilot-scale algae-based integrated biorefinery that will convert CO2 into ethanol. The facility is planned to be located at Dow's Freeport, Texas site.

"This project and the innovative technology involved offers great promise in the battle to help slow, stop and reverse the growth of greenhouse gas emissions," stated Andrew N. Liveris, Dow chairman and chief executive officer. We are very excited to be part of this ground-breaking alternative energy project, which is a good example of Dow's holistic approach to CO2 capture and storage by adding value through chemistry."

Algenol's technology uses CO2, salt water, sunlight and non-arable land to produce ethanol. Dow, National Renewable Energy Laboratory (NREL), the Georgia Institute of Technology (Georgia Tech) and Membrane Technology & Research, Inc. are contributing science, expertise, and technology to the project. Their combined expertise offers new and innovative technology, with the opportunity for creating a breakthrough process for ethanol production.

Algenol submitted its formal request last week to obtain a grant from the U.S. Department of Energy for financial support to successfully conduct the pilot. Upon approval of the grant, Dow and the other collaborators will work with Algenol to demonstrate the technology at a level to sufficiently prove that it can be implemented on a commercial scale.

In addition to leasing the land for the pilot-scale facility, Dow plans to develop the advanced materials and specialty films for the photobioreactor system. In addition, Dow will also provide the technology and expertise related to water treatment solutions and will provide Algenol with access to a CO2 source for the biorefinery from a nearby Dow manufacturing facility. The CO2 will be supplied to the algae in the photobioreactors and will serve as the carbon source for the ethanol produced. The result is a CO2 capture process which converts industrially derived CO2 into more sustainable fuels and chemicals.

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