U.S. DEPARTMENT OF ENERGY

Secretary Moniz Announces New Biofuels Projects to Drive Cost Reductions, Technological Breakthroughs

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WASHINGTON – During remarks at the Energy Department's Biomass 2013 annual conference, Secretary Moniz today highlighted the important role biofuels play in the Administration's **Climate Action Plan** to increase our energy security and reduce greenhouse gas emissions from the transportation sector. Secretary Moniz also announced over $22 million in new investments to help develop cost-competitive algae fuels and streamline the biomass feedstock supply chain for advanced biofuels.

"By partnering with industry and universities, we can help make clean, renewable biofuels cost-competitive with gasoline, give drivers more options at the pump and cut harmful carbon pollution," said Energy Secretary Ernest Moniz.

In the United States, the transportation sector accounts for two-thirds of total U.S. oil consumption and one-third of our nation's total greenhouse gas emissions. Cellulosic and hydrocarbon-based biofuels made from non-food feedstocks, waste materials and algae can directly replace gasoline and other fuels in our gas tanks and refineries. The research projects announced today build on the Energy Department's broader efforts to bring next generation biofuels online, with the goal of producing cost-competitive drop-in biofuels by 2017 and algae biofuels by 2022.

Algae Biofuels Research and Development

Today, Secretary Moniz announced nearly $16.5 million to four projects in California, Hawaii and New Mexico aimed at breaking down technical barriers and accelerating the development of sustainable, affordable algae biofuels. The projects will help boost the productivity of sustainable algae, while cutting capital and operating costs of commercial-scale production. The projects include:

- **Hawaii Bioenergy** ($5 million DOE investment): Based in Lihue, Kauai, Hawaii Bioenergy will develop a cost-effective photosynthetic open pond system to produce algal oil. The project will also demonstrate preprocessing technologies that reduce energy use and the overall cost of extracting lipids and producing fuel intermediates.

- **Sapphire Energy** ($5 million DOE investment): Headquartered in San Diego, California, Sapphire Energy will develop a new process to produce algae-based fuel that is compatible with existing refineries. The project will also work on improving algae strains and increasing yield through cultivation improvements.

- **New Mexico State University** ($5 million DOE investment): For its project, New Mexico State University will increase the yield of a microalgae, while developing harvesting and cultivation processes that lower costs and support year-round production.

- **California Polytechnic State University** ($1.5 million DOE investment): California Polytechnic State University will conduct research and development work to increase the productivity of algae strains and compare two separate processing technologies. The project will be based at a municipal wastewater treatment plant in Delhi, California that has six acres of algae ponds.

Streamlining the Feedstock Supply Chain

At the Biomass 2013 conference, Secretary Moniz also announced a new project led by Columbus, Ohio-based FDC Enterprises to reduce harvesting, handling and preprocessing costs across the entire biomass feedstock supply chain. The project will receive a nearly $6 million Energy Department investment.

One of the largest costs for the advanced biofuels industry comes from harvesting its raw material or feedstock – the wood, grass or agricultural waste it converts to fuel – and delivering it from the field or forest to a biorefinery. Over the past three years, the Energy Department has supported industry partnerships to test prototypes for commercial harvesting equipment that balance the needs of land owners, feedstock suppliers, equipment manufacturers and biorefineries – while reducing costs and achieving greater process efficiencies.

The FDC Enterprises project will work with independent growers and biofuels companies in Iowa, Kansas, Virginia and Tennessee – including POET, ADM, Clariant International and Pellet Technology USA – to develop new field equipment, biorefinery conveyor designs and improved preprocessing technologies. The project will also develop and deploy feedstock quality-monitoring tools to reduce sampling and analysis costs, and conduct real-time analysis of feedstock characteristics such as moisture content and particle size.

Learn more about the Energy Department's **biofuels investments** are helping create jobs in rural America, reduce our dependence on foreign oil and protect our air and water.