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USDA and DOE Award Biomass Research and Development Grants to Reduce America's Reliance on Imported Oil

Projects will help develop sustainable, renewable biofuels in the U.S.

WASHINGTON - As part of the Obama Administration's comprehensive plan to address rising gas prices, U.S. Agriculture Secretary Tom Vilsack and U.S. Energy Secretary Steven Chu today announced a total of $47 million to fund eight research and development projects that will support the production of biofuels, bioenergy and high-value biobased products from a variety of biomass sources. These investments in clean, sustainable transportation fuels will help reduce U.S. oil imports, support economic development in rural America, create clean energy jobs for U.S. workers, and protect American families and businesses from future spikes in gas prices. The advanced biofuels produced through these projects are also expected to reduce greenhouse gas emissions by at least 50 percent compared to fossil fuels.

"Permanently reducing our dependence on foreign oil and getting a handle on out of control gas prices will require our brightest scientists, our smartest companies, and strategic investments in research. The projects that we are announcing today will spur innovation in bioenergy by developing renewable resources that produce energy more efficiently and do so in a sustainable way," said Agriculture Secretary Tom Vilsack. "Advances made through this research will help boost rural economies by developing and testing new processing facilities and profitable, energy-rich crops that U.S. farmers and foresters will grow."

"The projects selected today will help produce affordable, renewable biofuels right here in the U.S. to power our cars and trucks," said Energy Secretary Steven Chu. "President Obama set a bold national goal to reduce America's oil imports by one-third in a little more than a decade. By developing and commercializing advanced biofuels, we will create new economic opportunities for rural communities, provide consumers with new options to fuel their vehicles, and reduce our dependence on foreign oil."

The projects are funded through the Biomass Research and Development Initiative and will help increase the availability of alternative renewable fuels and biobased products to diversify the nation's energy resources. Funding is provided through USDA's National Institute of Food and Agriculture (NIFA) and DOE's Biomass Program. Each award was made through a competitive selection process.

Grant recipients are required to contribute a minimum of 20 percent of matching funds for research and development projects and 50 percent of matching funds for demonstration projects. Awardees must pursue projects that integrate science and engineering research in three areas: feedstocks development, biofuels and biobased products development, and biofuels development analysis.

The following projects have been selected for awards:

- **Cellana LLC**, Kailua Kona, Hawaii, $5,521,173. Cellana will work to develop a protein supplement from algae as a byproduct of algal biofuels production, by demonstrating its nutritional and economic value in livestock feeds. The project will characterize types of algae, assess the nutritional values of algal proteins, assess the potential for algal proteins to replace soybean meal, and develop algal protein supplements.
- **Domtar Paper Company, LLC**, Fort Mill, SC, $7,000,000. This three-year project will work to build a demonstration plant using two technologies to convert low-value byproducts and wastes from paper mills into higher-value sugar, oil, and lignin products.
- **Exelus, Inc.**, Livingston, N.J., $5,185,004. Exelus will work to develop energy crops with improved tolerance to drought and salt stress to enhance yields on marginal lands. The project will also redesign a process to make hydrocarbon fuels using new catalysts and chemistry that avoids the high temperatures and large energy inputs required by current processes.
- **Metabolix, Inc.**, Cambridge, Mass., $6,000,001. Metabolix will enhance the yield of bio-based

products, **biopower**, **or** fuels made from switchgrass. The project will use high temperature conversion to produce denser biomass and other products that can be further processed to make fuels such as butanol, chemicals such as propylene and other materials to improve the economic competitiveness of future biorefineries.

- **University of Florida**, Gainesville, Fla., $5,430,439. The purpose of this project is to improve the production and sustainability of sweet sorghum as an energy crop. The University will identify genetic traits in sorghum associated with drought tolerance through genetic mapping and will select strains that produce high biomass yields and can be easily converted to fermentable sugars.
- **University of Kansas Center for Research**, Lawrence, Kan., $5,635,858. The purpose of this project is to demonstrate a novel, sustainable technology at a pilot scale that produces diverse products, including advanced fuels, industrial chemicals and chemical intermediates.
- **University of Kentucky**, Lexington, Ky., $6,932,786. The purpose of this project is to improve the economics for biorefineries by using on-farm processing to convert biomass to a mixture of butanol, ethanol, acetone and organic acids. The product can then be easily transported to a biorefinery for further processing. The project will integrate input from experts in a variety of disciplines, including plant and soil scientists, horticulturists, chemical engineers, and economists.
- **U.S. Forest Service, Rocky Mountain Research Station**, Missoula, Mont., $5,309,320. This project will develop an integrated approach to investigate biomass feedstock production, logistics, conversion, distribution and end use centered on using advanced conversion technologies at existing forest industry facilities.

Through federal funding and leadership for research, education and extension programs, NIFA focuses on investing in science and solving critical issues impacting people's daily lives and the nation's future. For more information, visit the National Institute of Food and Agriculture website (http://www.nifa.usda.gov/) .

DOE's Biomass Program works with industry, academia, and national laboratory partners on a balanced portfolio of research in biomass feedstocks and conversion technologies. For more information on DOE's Biomass Program, please visit the Biomass Program website (http://www1.eere.energy.gov/biomass/) .

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