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For Immediate Release

March 4, 2008

USDA, DOE to Invest up to \$18.4 million for Biomass Research, Development and Demonstration Projects

WASHINGTON, DC - U.S. Department of Agriculture (USDA) Secretary Ed Schafer and U.S. Department of Energy (DOE) Secretary Samuel Bodman today announced that combined, USDA and DOE will invest up to \$18.4 million, over three years, for 21 biomass research and development (R&D), and demonstration projects. These projects specifically aim to address critical barriers to making production of biomass more efficient and cost-effective, in an effort to advance the Bush Administration's strategy of bringing online more clean, bio-based products and biofuels to help reduce our dependence on oil from unstable parts of the world and mitigate climate change. Secretaries Schafer and Bodman made today's announcement while delivering remarks at the Washington International Renewable Energy Conference 2008 (WIREC).

"These grants help fund the innovative research needed to develop technologies and systems that lead to the production of bio-based products and biofuels," Schafer said. "Funding new technologies will help make biofuels competitive with fossil fuels in the commercial market, putting America on the path of reducing its dependence on foreign oil."

"Continued investments in biomass are critical to furthering the President's goal of making available clean, abundant and domestically produced biofuels for widespread use," Secretary Bodman said. "Increasing supplies of renewable energy and using more energy efficient technologies must continue to play an indispensable role in reducing greenhouse gas emissions and meeting the rapidly growing demand for energy."

Projects announced today are integral to furthering President Bush's Advanced Energy Initiative, which aims to change the way this nation powers its cars, homes and business by increasing energy efficiency and diversifying energy sources in effort to increase energy, economic and national security. Funding for these projects will be provided through the Biomass Research and Development Initiative, a joint USDA-DOE effort established in 2000 to develop the next generation of clean, bio-based technologies.

Grant recipients are required to raise a minimum of 20 percent matching funds for R&D projects, and 50 percent matching funds for demonstration projects. Of the \$18,449,089 announced today, USDA will provide up to \$13,225,554, and DOE will provide up to \$5,223,535 (Fiscal Years 2007-2009). Grants are subject to negotiation and will begin immediately, and funding is subject to appropriations from Congress.

WIREC 2008, held in Washington this week, aims to garner broad, high-level international support for developing and deploying clean, renewable energy technologies as a key mechanism for increasing energy security, mitigating climate change, improving air quality and promoting sustainable development. In addition to raising political support for, and public awareness of the importance of renewable energy, WIREC also includes broad market opportunities for agricultural producers in the rural sector worldwide. WIREC 2008 is the third global ministerial-level conference on

renewable energy, following events in Beijing in 2005 and Bonn in 2004. Learn more information about [WIREC 2008](#).

The following entities have been selected as grant recipients:

RESEARCH & DEVELOPMENT PROJECTS:

Rutgers, The State University of New Jersey (NJ) – up to \$971,799

Grant Purpose: To develop a U.S. native grass breeding consortium to identify regional optimum biomass productivity on marginal lands and switchgrass performance in specific U.S. regions.

Agrivida, Inc. (MA) - up to \$982,589

Grant Purpose: To study altered plant compositions for improved biofuel production. This will include analysis of rice straw, sorghum, and switchgrass performance in specific U.S. regions.

University of Florida (FL) - up to \$866,576

Grant Purpose: To address genetic engineering of sugarcane for increased fermentable sugar yield from hemicellulosic biomass in Florida.

Ceres, Inc. (CA) - up to \$839,909

Grant Purpose: To identify and characterize plant genes involved in biosynthesis and deposition of cellulose and hemicellulose in plant cell walls, with a focus on switchgrass throughout the U.S.

Ceres, Inc. (CA) - up to \$883,290

Grant Purpose: To evaluate herbacious and woody crops for use in thermochemical processing, specifically examining willow and switchgrass species grown throughout a wide range of geographies in the U.S.

Regents of the University of Colorado (CO) - up to \$1,000,000

Grant Purpose: To develop rapid solar-thermal chemical reactor systems for conversion of biomass to synthesis gas.

North Carolina State University (NC) - up to \$999,889

Grant Purpose: To develop advanced technology for low-cost ethanol from engineered cellulosic biomass.

Regents of the University of Minnesota (MN) - up to \$975,676

Grant Purpose: To develop a microwave-assisted pyrolysis system for conversion of cellulosic biomass to bio-oils.

Regents of the University of Minnesota (MN) - up to \$715,340

Grant Purpose: To develop pathways to achieving U.S. bioenergy policy goals, develop economic costs and environmental impacts, and identify potential technological bottlenecks.

Regents of the University of Minnesota (MN) - up to \$576,368

Grant Purpose: To research and analyze lignin as a facilitator during saccharification by brown rot fungi.

University of Kentucky Research Foundation (KY) - up to \$999,964

Grant Purpose: To develop advanced ceramic materials for the separation and recovery of high-value pentose derivatives from cellulosic biomass using molecular imprinting.

Battelle Memorial Institute, on behalf of DOE's Pacific Northwest National Laboratory (WA) - up to \$1,000,000

Grant Purpose: To address catalytic conversion of biomass to fuels and chemicals using ionic liquids.

Packer Engineering (IL) - up to \$1,000,000

Grant Purpose: To research and develop on-farm conversion of biomass to synthetic gas, combined heat and electric power, and fertilizer.

Kansas State University (KS) - up to \$690,000

Grant Purpose: To demonstrate pelletizing forage crops and perennial grasses in the field to increase cellulosic ethanol production.

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The University of Akron (OH) - up to \$743,904

Grant Purpose: To research and develop supercritical methods for biorefinery of rubber-bearing guayule biomass.

Purdue University (IN) - up to \$1,000,000

Grant Purpose: To develop a low-cost, high-yield process for direct production of high energy density liquid fuel from biomass. Synergistic use of solar hydrogen with biomass will be explored.

Iowa State University (IA) - up to \$944,899

Grant Purpose: To develop catalytic production of ethanol from biomass-derived synthesis gas.

Cornell University (NY) - up to \$998,943

Grant Purpose: To develop more effective enzymatic conversion processes through nano-scale elucidation of molecular mechanisms and kinetic modeling.

GE Global Research (NY) - up to \$820,035

Grant Purpose: To integrate biomass gasification with catalytic partial oxidation for tar conversion.

DEMONSTRATION PROJECTS:

Texas Engineering Experimental Station (TX) - up to \$600,000

Grant Purpose: To provide a demonstration of commercial feasibility of anaerobic fermentation of biomass for the production of carboxylate salts and their conversion to keytones.

Washington State University (WA) - up to \$839,909

Grant Purpose: To provide product diversification strategies for a new generation of biofuels and bio-products.

Read more about President Bush's [Advanced Energy Initiative](#).

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