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Univenture, Inc. Technology Selected By Department Of Energy (DOE) As A Transformational Technology

Department of Energy's ARPA-E (Transformational Energy Research Project) selects Univenture (Algaeventure Systems) to pursue breakthroughs that could fundamentally change the way we use and produce energy.

Marysville, Ohio – October 26, 2009—Described as a “potentially transformative innovation”, the Department of Energy announced today major funding for continued development of Algaeventure Systems HDD dewatering technology. Univenture’s Algaeventure Systems was formed to explore technology barriers for algae to energy and has been spun into a separate company.

Often described as the greatest cost barrier to algae’s viability as an energy solution, the HDD system reduces the energy costs of dewatering microalgae by over 90%. “The recognition and credibility that ARPA-E provides to our breakthrough technology is extraordinary”, says Ross Youngs, Algaeventure Systems Founder and CEO. “Our technology can be transformational to meeting our nations energy and national security needs.”

Of the \$151 million in funding being awarded through the DOE's recently formed Advanced Research Projects Agency-Energy (ARPA-E), Univenture is slated to receive \$5.9 million, the seventh highest award of over 37 highly selected recipients. ARPA-E's mission is to develop nimble, creative and inventive approaches to transform the global energy landscape while advancing America's technology leadership. This is the first round of projects funded under ARPA-E.

Inspired by the Defense Advanced Research Projects Agency (DARPA), ARPA-E was created to support high risk, high reward energy research that can provide transformative new solutions for climate change and energy security. ARPA-E was originally established under the America Competes Act of 2007. In April of this year, President Obama announced \$400 million in initial funding for ARPA-E through the American Recovery and Reinvestment Act.

In announcing the selections, Secretary Chu said: "After World War II, America was the unrivaled leader in basic and applied sciences. It was this leadership that led to enormous technological advances. ARPA-E is a crucial part of the new effort by the U.S. to spur the next Industrial Revolution in clean energy technologies, creating thousands of new jobs and helping cut carbon pollution."

ARPA-E seeks to bring together America's brightest energy innovators to pioneer a low cost, secure, and low carbon energy future for the nation.

The first ARPA-E solicitation was highly competitive and oversubscribed, with over 3,600 initial concept papers received. Of those, approximately 300 full applications were requested and ultimately 37 final awardees through a rigorous review process with input from multiple review panels composed of leading U.S. energy science and technology experts and ARPA-E's program managers. Evaluations were based on the potential for high impact on ARPA-E's goals and scientific and technical merit.

The DOE expressed that Univenture's (Algaeventure Systems) "application was among those of the very highest scientific and technical merit, and is part of an ARPA-E portfolio of high impact projects that have great potential to revolutionize the U.S. energy sector."

Lead Research Organization: Univenture, Inc.

Partner Organizations: Rockwell Automation, Ohio University, Case Western Reserve University

DOE Grant Amount

\$5,992,697

Lead Organization Location

Marysville, OH

Project Description

Biomass Energy / Direct Solar Fuels A novel algae harvesting system that could dramatically reduce the energy cost necessary to harvest, dewater, and dry algae by using a novel absorbent moving belt harvester. This technology offers the potential to transform the economics of algae-based biofuel production by removing a major barrier to large-scale commercialization.