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Four Oregon Companies Selected to Receive Oregon BEST Commercialization Grants

Funds support Oregon small businesses working with university researchers to commercialize new products

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PORTLAND, Ore. – The Oregon Built Environment & Sustainable Technologies Center (Oregon BEST) has named four Oregon business-university teams to receive its inaugural round of Commercialization Grants.

The funding is aimed at fast-tracking development of some of the state's most promising renewable energy and sustainable built environment products and technologies so that companies can move them to market more rapidly, creating new clean-tech jobs for Oregonians while making available some of the latest solutions to global energy and natural resource issues.

The selected businesses will work closely with Oregon BEST researchers at university labs to test and further develop technologies ranging from low-cost thermal window inserts and poplar wood processed to attain the strength of old growth fir to an enzyme that could dramatically lower the cost of biofuel production and a control system for a hybrid gas-electric urban commuter vehicle.

"Oftentimes a modest investment that boosts R&D at the right time can help a company move a great idea from lab to market much faster," said David Kenney, president and executive director of Oregon BEST. "These grants target technologies developed in Oregon, and will help companies--through collaboration with Oregon university research labs--to more quickly succeed and hire additional employees."

The grant will enable one of the selected companies, Corvallis Tool Company in Philomath, to employ two new engineers immediately.

Oregon BEST launched the Commercialization Grant Program last summer aimed at Oregon-grown technologies that address the challenges of climate change, fossil fuel dependence, environmental impacts of energy generation and building materials production, and the quality of indoor environments. The program is distributing approximately $250,000 in grants, thanks in part to a recent $1 million i6 Challenge Grant received from the U.S. Dept. of Commerce (shared by ONAMI and OTRADI). The remaining funding comes from a strategic investment strategy by the Oregon legislature via the Oregon Innovation Council.

Oregon BEST's 12-member Commercialization Advisory Board, made up of venture capital and corporate investors, recommended the four industry-university teams that were selected to receive the grants:

Indow Windows http://indowwindows.com
The Portland developer of a low-cost alternative to double-pane windows will work with the Green Building Research Lab, a signature research facility of Oregon BEST located at Portland State University, to test thermal and acoustical performance of its product in a wide range of simulated environmental conditions. The company and Oregon BEST researcher David Sailor at PSU will also install the windows at four pilot homes around Portland, then monitor and gather data for a year. Indow Windows are sheets

of acrylic glazing edged with a patent-pending spring bulb, that presses into place on the inside of a window frame, providing a tight seal against drafts without any fasteners.

"This grant from Oregon BEST will accelerate Indow Windows' market acceptance by demonstrating the energy savings customers can expect over the course of a year," said Sam Pardue, CEO and founder of Indow Windows. "We expect the pilots will encourage utilities to incorporate Indow Windows into their energy conservation programs."

Corvallis Tool Company http://www.corvallistool.com
The Philomath, Ore. company designs, manufactures, and installs custom industrial machinery and control systems for wood product manufacturers. The company designed a prototype Viscoelastic Thermal Compression (VTC) tool for the Green Building Materials Lab, a signature research facility of Oregon BEST located at Oregon State University. VTC is an OSU-patented process that applies pressure, heat and steam to dramatically increase the density of wood (such as low-density hybrid poplar) so it possesses the strength and stiffness required for building construction. Because VTC wood uses no chemicals and poplar is sustainably grown, it qualifies as a green building material. CTC and OSU researcher Fred Kamke will use the grant to develop engineering design plans for three commercial-scale VTC production systems. Oregon State University's Venture Development Fund will contribute an additional $75,000 to the project.

"This joint project with OSU, CTC and Oregon BEST will immediately put two engineers to work at CTC," said Ed Landis, vice president of production at CTC. "CTC is extremely pleased to be involved in the VTC commercialization project and is very excited about the long term business potential which could result from this."

Trillium FiberFuels, Inc. http://www.trilliumfiberfuels.com
The Corvallis, Ore. company is developing process technology and equipment for converting cellulosic feedstocks into ethanol, with emphasis on regional agricultural residue from grass seed and wheat production. Collaborating with OSU researcher Christine Kelly, the company will work to develop a unique enzyme for use in its novel cellulosic ethanol fermentation process. If successful, the project could revolutionize the biofuels industry because it would enable the use of conventional yeast with proven vigor and reliability in industrial applications, substantially reducing the cost of production. The proposed approach to the commercialization of the fermentation-compatible enzyme would reduce operational expenses and make the technology competitive. Revenue would come from the installation of equipment and the regular sale of enzymes and other consumables.

"Production of this new enzyme in industrial quantities will dramatically change the cost effectiveness of Trillium technology and allow us to transition from a few niche applications to widespread feedstocks such as wheat straw," said Chris Beatty, president and cofounder of Trillium FiberFuels.

"We are excited about the Oregon BEST support of the collaboration between OSU and Trillium, which will leverage our complementary strengths and expertise towards advancing the potential to economically produce transportation fuels from Oregon biomass," said OSU's Kelly.

Green Lite Motors http://www.greenlitemotors.com
The Portland, Ore. company has developed a two-seat, hybrid gas-electric, three-wheeled vehicle that delivers ultra-high efficiency (attaining 100 miles-per-gallon) but offers the safety features and comfort of a standard passenger car. Green Lite Motors was selected as one of the three most promising clean-tech start-ups in the Pacific Northwest through the Clean Tech Open competition in 2009. The company will be working with Oregon BEST researchers James Long, Hugh Currin, and James Zipay at the Oregon Institute of Technology to research and develop the electronics, software, and hardware that will enable the vehicle's existing electric motor and gas engine to work in combination off a single throttle to optimize efficiency and performance. This is the last critical element in creating a fully functional prototype, and will position the company to obtain private investment capital for commercialization.

"Our team is excited to work with OIT to apply their control systems and hybrid drive experience," said Tim Miller, President and CEO of Green Lite Motors. "With Oregon BEST's support, we'll develop this key piece of our innovative vehicle and be on the path toward job creation here in Oregon."
"This project with Green Lite Motors will realize a commercialization opportunity resulting from five years of applied research," said professor James Long of OIT. "With help from Oregon BEST and Tom Chester of the Oregon Renewable Energy Center, we will move into the electric vehicle arena with a positive contribution to the Oregon Economy."

***About Oregon BEST**: The Oregon Built Environment & Sustainable Technologies Center (Oregon BEST) brings together Oregon's significant R&D strengths in the key innovation clusters of renewable energy and sustainable built environment products and services, with the goal of increasing research and accelerating public/private partnerships to transform that research into on-the-ground business opportunities and Oregon jobs. Since being established by the Oregon Legislature in 2007, Oregon BEST's 190 member faculty have generated more than $38 million in research revenue from federal, industry and foundation sources to Oregon. At its four partner universities (Oregon Institute of Technology, Oregon State University, Portland State University, and University of Oregon), Oregon BEST has established a network of seven shared-user research facilities that specialize in research ranging from solar and wind energy to high-tech building insulation, windows, architecture, eco-districts, and more. http://oregonbest.org*

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