

Forest Concepts Awarded USDA SBIR Contract to Improve Biomass Drying Efficiency

August 3, 2015 - Auburn, WA - Forest Concepts, LLC was notified today that it has been awarded an SBIR research contract from the U.S. Department of Agriculture, National Institute of Food and Agriculture. The two-year \$499,997 contract will support development of advanced model-predictive control systems for biomass dryers used in the biofuel and bioproducts supply chain. Innovations and technologies resulting from this project can immediately be implemented in current wood pellet and solid biofuel production facilities as well as future second generation thermochemical biorefinery facilities producing liquid transportation fuels and chemicals.

Producers of solid and liquid biofuels need to reduce both capital and operating costs to achieve unsubsidized cost parity with fossil fuels and long-term economic sustainability. A variety of biomass feedstocks destined for conversion or combustion must be dried, however, the capital cost for dryers is high due to long residence times and the operating cost is high due to system inefficiencies. Consistent and reliable operation of biomass dryers is problematic across emerging and rapidly expanding biofuel firms due to inexperience of operators and lack of knowledge about the drying characteristics of their feedstocks.

This project is important in that it enables improvements in energy efficiency by developing a biophysics based model-predictive control technology which will result in significant cost savings. In addition to control systems, the project will publish new knowledge about the biophysics of moisture movement within biomass particles across a range of important species. At the conclusion of the project, licensed automation providers will be able to install state-of-the art control systems on existing and new biomass dryers.

About Forest Concepts:

Forest Concepts is a global leader in the development and deployment of new technologies throughout the bioenergy feedstocks supply chain. Innovations simplify logistics, reduce costs, save energy, and improve feedstock utility for conversion to biofuels, biochemicals, and biopower. More than twenty-five U.S. patents have issued to the company since its launch in 1998. Revenues accrue via production and sale of technical biomass products (mostly wood based), equipment sales, contract research, and licensing intellectual properties.

For more information, visit www.forestconcepts.com.

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