



2009 WISCONSIN

Renewable Energy Summit

Renewables, Sustainability, Energy Efficiency,
Social Responsibility, and Green Energy Practices

Bio Industry Energy

Session #1-4

Date:

Session 1-4:

Time:

Session Presenters:

Thursday, March 26, 2009

Biomass to Fuels, Chemicals and Power Generation

2:00pm – 3:45pm

Biomass: The Convenient Solution to Global Warming, Air and Water Pollution, Flooding and Farm Income Loss

Brett Hulsey, Better Environmental Solutions

Green Power Generation: How to make the Transition to Biomass

Jeff Binkley, Weston Solutions

Randy Young, Weston Solutions

The transition to the use of biomass (plant or animal derived matter, wood wastes or energy crops) from the use of fossil fuels for power generation provides an opportunity to reduce one's carbon footprint and reduce or divert biomass from the waste stream. Biomass combined heat and power (CHP) is a proven, highly efficient method to generate power and steam to heat buildings and produce electricity. This presentation will discuss a conceptual approach for making the transition to biomass, and demonstrates that the use of biomass for power generation is a viable method to "green" your business. Depending on site-specific factors, lower costs are also achievable. Biomass energy production can help achieve compliance with Wisconsin's Energy Efficiency and Renewables requirement for 10% of electricity to be from renewable resources by 2015.

The presentation will examine each of the factors affecting project viability and the logistics of assessing a conversion project or development of a new plant. Key criteria include: procurement of a biomass fuel supply, securing power purchase agreements for the profitable transmission of steam and electricity, determination of energy needs and evaluation of equipment size, real estate needs, project financing, economic incentives, and navigation of environmental regulations.

Exploring Biomass Feedstocks & Wisconsin's Most Viable Options

Pam Porter, P-Squared, LLC (invited)

This session will provide an overview of the new Wisconsin Fuels for Schools and Communities (Community-Scale Biomass Heating) program. The goal of this program is to build 10 model biomass systems by Fall 2009. Similar programs have been developed in seven states. This new program is meant to help build the biomass market and assist Wisconsin schools and communities save hundreds of thousands of dollars in energy costs by switching from natural gas to heating with

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wood or other biomass. A recent study funded by Focus on Energy and conducted by the Biomass Energy Resource Center (BERC), "Heating with Biomass: A Feasibility Study of Wisconsin Schools Heated with Wood," found that as many as 25 percent of Wisconsin schools would be economic candidates. The session will discuss progress to date on this new statewide initiative that encourages, educates and assists a number of schools and communities to move through feasibility, planning and construction phases in a manner that takes advantage of economies of scale and a shared learning process.

Catalytic Conversion of Plant Sugars to Gasoline, Diesel, Jet Fuel, and Other Hydrocarbons

Mary Blanchard, Virent

Virent's advanced biofuel technology converts plant sugars into hydrocarbon fuels such as gasoline, diesel, and jet fuel that match petroleum fuels in composition, functionality, and performance. Virent's high-quality, premium fuels can be used at high blends in today's engines and fuel pumps and offer significant green house gas emissions reductions. The technology provides more net energy and is a scalable, cost-effective alternative to traditional biofuel technologies.

See presenter
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Presenter Biographies:

Jeff Binkley

Mr. Binkley has 22 years of technical and managerial experience in the environmental field including serving as the team leader for a client biomass retrofit project. He served as the integration point among the many project stakeholders, including the client, state regulators, and the surrounding community, and also assembled WESTON's technical experts to complete the comprehensive consulting project. Mr. Binkley has presented at national meetings on a variety of topics in the environmental consulting field, and has conducted presentations for regional leadership meetings relating to development of renewable energy resources and energy saving solutions.

Randy Young

Mr. Young has over 31 years of professional experience with expertise in air emissions and process operations. He has in depth knowledge of air pollution control equipment, emissions testing support, development of compliance strategies, and cost-effective environmental compliance. Mr. Young has presented technical papers at many forums including the Technical Association of the Pulp and Paper Industry, the National Council for Air and Stream Improvement (NCASI) and the American Society of Limnology and Oceanography. He has developed and presented courses for a major International manufacturer and at NCASI conferences. He has also authored or co-authored chapters for textbooks and multiple peer-reviewed technical journal articles.

Pam Porter

Ms. Porter is BERCS's Midwest office director in Madison and project manager for this project. She leads the organization's Midwest efforts to install biomass systems to produce heat and/or electricity at schools, communities, colleges, and businesses. She has over 20 years of experience in public policy, government relations and business development and has managed over 25 grant-funded projects and programs. She has recently co-authored "Heating with Biomass: A Feasibility Study of Wisconsin Schools Heated with Wood," and "Growing Wisconsin Energy: A Native Grass Pellet Bio-Heat Roadmap for Wisconsin." She is the former Executive Director of Wisconsin's Environmental Decade (now Clean Wisconsin) and has an M.S. in Agronomy from the University of Wisconsin Madison, on the use of Switchgrass.

Mary Blanchard

Mary Blanchard is Director of Marketing at Virent Energy Systems in Madison, Wisconsin where she is responsible for marketing, public relations, and government relations initiatives. Mary currently serves on the Midwestern Governor's Association Bioeconomy and Transportation Advisory Group and the State of Wisconsin Legislative Council Special Committee on Domestic Biofuels. Prior to Virent, Mary worked in international and domestic marketing and product management at Tellabs, Inc., a global telecommunications equipment manufacturer. She earned a BS, Electrical Engineering, and a BA, English, from the University of Notre Dame, a MS from the London School of Economics, and a MBA from Northwestern University.