

The INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, Inc.

Eastern Idaho Section

Lunch Speaker

TOPIC: Uniform Feedstock Supply System Design for Lignocellulosic Ethanol Production

SPEAKER: Chris Wright, Ph.D
Research Engineer, Idaho National Laboratory

DATE: Friday, January 25, 2008

TIME: 12:00 Noon

PLACE: Aussie Eats (was JB's Restaurant), 850 Lindsay Blvd., Idaho Falls ID, (208) 522-

7384

MENU: No host lunch, please order from the menu. The first 5 IEEE members who show their membership card will have their lunch purchased by the Eastern Idaho Section.

COST: Approximately \$10, depending on menu selection.

Abstract:

The feedstock supply system encompasses all operations necessary to move biomass from the land to the biorefinery. These operations include harvest, collection, storage, preprocessing, handling, and transportation. The logistics associated with these operations represent one of the largest challenges to the lignocellulosic biorefining industry. The most significant of these challenges is economically managing the diversity and complexity of lignocellulosic feedstocks and feedstock supply system configurations needed to achieve both near-term (produce 6 billion gallons of ethanol by 2017) and long-term (displace 30% of transportation fuels with renewable fuels by 2030) biofuel goals. These goals equate to moving 70 million tons of lignocellulosic biomass annually in the next 10 years, and between 500 and 700 million tons annually in 20 years. To accomplish such a rapid expansion of the industry cannot be accomplished with many diverse, custom-designed feedstock supply system infrastructures and conversion facilities. Instead, these facilities must operate on a standardized supply system infrastructure, similar to the grain ethanol facilities of today. As such, a significant element needed for rapid biorefinery facility replication is the development of a uniform feedstock format supply system infrastructure.

Speaker information:

Christopher Wright, a research engineer for the Idaho National Laboratory's Bioenergy Program, has over 9 years of experience in applied solid mechanics, fluid dynamics, thermal hydraulics, and two-phase flow.

Dr. Wright's work includes investigating the flow separation process of agricultural residues in agricultural machinery. His work has been applied to formatting characteristics of biomass feedstocks for use in a cellulosic biorefinery. Dr. Wright's work supports the bioenergy effort to demonstrate a cost and quality effective feedstock assembly system for the emerging cellulosic ethanol industry. His research is demonstrated through integrated feedstock supply chain analysis and demonstration.

***** VISITORS AND NON-MEMBERS ARE WELCOME *****