

Biomass CHP and Thermal Systems Short Course

Penn State Bioenergy Short Course Series 2010

March 17-18, 2010
Penn Stater Hotel and
Conference Center
State College, PA



Biomass heat and CHP (Combined Heat & Power)

systems are a tremendous opportunity for providing clean, renewable, affordable energy for buildings and facilities. However, it is necessary for designers and developers to understand the unique aspects of biomass energy systems if they wish to create systems that are efficient, productive, and cost effective.

Engineers, architects, researchers and project developers are encouraged to register for this 1.5 day short course in which national leaders in the research, design, and manufacture of biomass energy present the latest in advanced biomass energy systems. A special breakout session will be held on Day 2 that focuses on the design of commercial and institutional thermal biomass systems.

Speakers:

An extensive group of nationally known experts and practitioners from the fields of engineering, science, and natural resources will provide the newest developments in this fast-developing field. The list of speakers includes:

Jim Babcock – Advanced Recycling Corp
Richard Bain – National Renewable Energy Lab
Daniel Ciolkosz. – Penn State Ag and Biol. Engineering
John Cuttica – US Department of Energy
Carl Dunaway – Nexterra
Jim Freihut – Penn State Architectural Engineering
John Karakesh – Resource Professionals Group
Larry Klope – Bioenergy Alternatives
Mike Palko – Pennsylvania DCNR
Chuck Ray. – Penn State Forest Resources
Joe Orlando – Mid Atlantic CHP Application Center
Steven Rendos – Cannon Boiler Works Inc.
Rich Sweetser – Exergy Partners
Tom Wilson – Wilson Engineering

Topics include:

Feedstock availability and sustainability
Effective fuel storage and handling systems
Combustion and gasification systems
Steam turbine systems and Organic Rankine Cycles
Carbon footprint and emissions
Opportunities for cofiring
Market and economic aspects
CHP vs SHP
Overcoming barriers to biomass development
Design configurations for commercial biomass systems
Cost effective design for biomass systems

Registration Information:

Online registration opens on Oct. 1, 2009. Program and registration information, including driving directions and lodging, will be available online at:

<http://www.bioenergy.psu.edu/shortcourses.asp>

Registration includes event admission, informational packet, buffet lunch, coffee, tea and evening reception.

“Exhibitor” registration is available for companies wishing to provide a display.

If you have questions, please contact:

**Daniel Ciolkosz at dec109@psu.edu, 814-863-3484 or
James Freihaut at jdf11@psu.edu, 814-863-0083.**

This short course is sponsored by the Penn State Biomass Energy Center, the Penn State Architectural Engineering Department, and the Penn State Agricultural and Biological Engineering Department in conjunction with the U.S. Department of Energy's Mid Atlantic Clean Energy Application Center.
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