



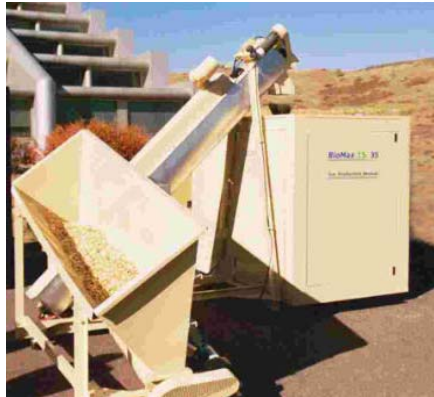
# Biomass Program

## Micro-Modular Biopower System for Cooling, Heating, and Power

This Congressionally-mandated project seeks to test a micro-modular biopower system for use on the Mount Wachusett Community College (MWCC) campus. The system will be used to provide cooling, heating, and power to an on-campus daycare center.

The micro-modular biopower system will use a Community Power Corporation 50 kWe Biomax® gasifier. Biomax® uses a downdraft gasifier to convert high bulk density fuels such as woodchips and nut shells to produce both heat and power.

The partnership with MWCC is part of a product validation program Community Power Corporation is undertaking in conjunction with the U.S. Forest Service and the U.S. Department of Energy. The 50 kWe micro-modular biopower system will be tested to gather information on its technical and economic viability.



The micro-modular biopower system is based on the BioMax® system, shown above.

### R&D Pathway

MWCC will test and evaluate the micro-modular power system at a daycare facility on the community college campus. During the two year R&D program, researchers will: (1) monitor the performance and measure the electrical energy displaced by the system; (2) compare and document the integration of various prime mover options; (3) determine energy conversion efficiencies of the modular system; (4) evaluate the use of different feedstocks; and (5) begin developing an education outreach program.

## Congressionally Directed Bioproducts R&D

### Benefits

- Generate electricity, heat, and cooling using renewable biomass feedstocks

### Applications

Viable modular biopower systems will enable small customers to convert biomass residues to heat and power.

### Project Partners

Mount Wachusett Community College  
Community Power Corporation

### Project Period

FY 2004 – FY 2007

### For more information contact:

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Visit the Web site for the Office of the Biomass Program (OBP) at  
[www.eere.energy.gov/biomass.html](http://www.eere.energy.gov/biomass.html)

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