Released April 19, 2011

MSCC's Renewable Energy Center to Feature Geothermal Heating/Cooling

In keeping with its name, Mid-South Community College's Renewable Energy Center will feature a patented geothermal heating/cooling system that utilizes a naturally-sustainable energy source. An added benefit of the system is dramatically lower utility bills.

"It is very appropriate that the Mid-South Renewable Energy Center includes a state-of-the-art HVAC system that will significantly reduce energy costs," said Dr. Gibson (Sunny) Morris, Arkansas Delta Training & Education Consortium Liaison for Special Projects. "This new building will be at the forefront of technology in many different ways."

"Geothermal energy is one of the most intriguing renewable energy sources in this area," added Chris P. Barnoud, Renewable Energy Technology faculty member at the college. "The heating and cooling system for our new building will take advantage of the moderate soil temperature (60 degrees) a few feet below the ground's surface."

Construction workers install tubing/piping that will help distribute geothermal heating and cooling in Mid-South Community College's $9 million Renewable Energy Center.

"A special geothermal heat pump will perform its job at peak efficiency day and night, regardless of the season, for a fraction of the cost of operating an 'old tech' system. We anticipate that our heating and cooling bills will be one-fourth to one-fifth of what a traditional unit would cost us."

Hydro-Temp Corporation, based in Pocahontas, Ark., installed the heat-exchange system that is designed to offer year-round comfort and high efficiency performance under almost any design condition, said Henry Gross, Steve Hudson, and Mike Jones who own and manage the company.

"The Hydro-Temp Earth Coupled Heat Pump is a down-to-earth heating, cooling, and hot-water system designed to tap the earth's stored energy," Jones explained. "Geothermal energy located beneath the earth's surface is ideal for heating and cooling since its temperature remains the same year round, regardless of outside air temperature extremes."

In colder weather, warmth from the ground will be used to heat the building's concrete slab.

"The system produces radiant heat that warms objects rather than the air," Jones pointed out. "The problem with only heating air is that it rises and ends up near the ceiling, where it doesn't do much good. The heat from this system is utilized more efficiently, and any compressor can generate more BTUs than its rating."

Hydro-Temp, founded in 1976, has also provided heat-exchange technology locally for the Evening Times/Crittenden Publishing building and the First Baptist Church of Marion.

MSCC's $9 million Renewable Energy Center will include general purpose classrooms, a large meeting room, renewable energy technology training equipment, diesel maintenance/service bays, a biofuel production facility, a biofuel testing facility, and a comprehensive engine testing center that will support state and regional biofuel and transportation industries.

The facility will focus on developing a well-trained, highly-skilled labor force for the transportation, agriculture, and heavy construction industries, but will also serve as a center for university research.

"The REC will be a resource for the entire region that will support technician training for the transportation industry, applied research on biofuels and their effect on engines, and a career pathway in diesel technology from high school through a baccalaureate degree," Dr. Morris said.

"We are involved in ongoing conversations with people from the University of Memphis, and their Engineering Department will have a presence in the building because they recognize there's nothing like this engine test facility anywhere in Arkansas, west Tennessee, north Mississippi or Missouri. This new building will place Mid-South Community College and the entire region at the forefront of the nation's efforts to reduce the use of and dependence on petroleum-based fuels."

"We have developed a second generation Micro-Biodiesel Refinery that will be housed in MSCC's new Renewable Energy Center and will be used as a production, research, and workforce development tool," explained Dr. Srikant Gir, founder of Green Infinite Renewable Energy and Co-Director, Research & Technology, for The Center for Biofuel Energy and Sustainable Technologies at the University of Memphis. "We are also working on a fully-integrated biomass-based biofuel refinery to produce gasoline and jet fuel by 2013."

MSCC received $2 million grant from the U.S. Department of Commerce's Economic Development Administration to assist in the construction costs.

"Completion and implementation of this project will add a great deal of nationwide credibility and research capacity to our technology programs," said MSCC President Dr. Glen Fenter. "This grant will help us contribute to the transformation of the agriculture industry by creating an alternative fuel training and education capacity to support enhanced production and to foster the development of the alternative fuel industry."

"The Renewable Energy Center will become a powerful force in terms of changing and improving our region's economy."

For information about high-tech learning opportunities at the college, call the (870) 733-6728, visit the campus at 2000 West Broadway in West Memphis, or see the website at www.midsouthcc.edu.