

# around the nation

## Biomass Plant Economic Answer to Rising Energy Prices

BY REBECCA ADAMUS

**G**ARDNER, Mass. — Dr. Daniel M. Asquino, president of Mount Wachusett Community College, wants his school to be a premier center for renewable energy resources in the future.

“Our vision is to put in place what I hope will be a natural resource technology building,” Asquino said. “Just about everything that we manufacture has at some point generated electricity. I

want to get to the point when someone thinks about an idea or invention ... they think about making that [invention] energy efficient.”

The college is well on its way. Three years ago, Mount Wachusett converted to a biomass energy plant that burns wood chips to heat its main 450,000-square-foot building.

As a result, the college has slashed its electricity costs almost

in half. It has also reduced greenhouse gas emissions by nearly 20 percent over the past three years, according to the Massachusetts Executive Office of Environmental Affairs.

Biomass is any organic matter that can be used as fuel for energy needs.

Before the biomass plant, the college spent \$1 million annually on electricity bills. About \$400,000 of that went towards heating the

campus. Last year the college spent a mere \$31,000 for the wood chips.

“What’s important about this is that when we were spending the \$400,000, that was being generated by foreign oil,” Asquino said.

The amount spent on wood chips may be small, he added, “but it’s staying here, in the United States. It will bring us to energy independence, oil independence.”

The biomass initiative started 10 years ago, with college leaders

who were concerned about rising energy costs and willing to push for a green, but little-tested, alternative source.

Board advisors for the college’s Forest and Woods Product Institute learned that the wood chip industry, a major player in the local economy, was plowing excess wood chips back into the ground because no one was using them.

Someone suggested using them  
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for fuel. The concept wasn't met with immediate applause. "Everyone looked at this person strangely," Asquino said. "We were laughed out of some offices," in the beginning.

But U.S. Rep. John Olver, D-Mass., believed in the idea and helped the college secure a \$1 million federal grant. The college also applied for a \$750,000 grant from the Renewable Energy Trust Fund to get the project going. The remaining amount needed for the investment, a little more than \$2.5 million, was covered by a loan.

Mount Wachusett has saved \$661,000 in the last two years, said Asquino. And the college's annual savings will increase six years from now, when the loan is paid off.

"It means we can put that money in the classroom," Asquino said, crediting biomass with keeping student fees level over the past few years.

The biomass plant also provides hands-on learning for students in the school's natural resources technology program. Next year, the college plans to add

a new elective course on renewable energy sources and how these can solve current environmental and economic problems.

Asquino wants to do more. Mount Wachusett was recently awarded funds to test its potential for using wind energy, a popular alternative energy source in many Midwestern states. The school is also in partnership with a Colorado energy company to develop and test the capability of generating both heat and power from biomass feedstock.

State agencies in Massachusetts are trying to reduce pollution under a climate protection plan that aims to reduce greenhouse gas emissions 25 percent by 2012. Mount Wachusett's progressive energy program is quickly making it a model institution in the state.

Business and education leaders from across Massachusetts are coming to Mount Wachusett, Asquino said.

Richard Roney, head of facilities at North Shore Community College in Danvers, Mass., was among the recent visitors.

"If both my campuses were



**Pres. Daniel M. Asquino,  
Mount Wachusett  
Community College**

combined, I would love to build a plant like that," Roney said. One of North Shore's two campuses is in an urban area, which makes hauling wood chips an unfeasible option.

Instead, Roney has a plan to replace some of the school's outdated air conditioning units with newer, energy-efficient ones.

"They'll pay for themselves by being energy efficient," he said. "We'll do better and do less polluting." ▲