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News Release

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NMCC breaks ground on new biomass boiler that will provide energy savings, environmental benefit, and experiential learning opportunities for students

Aroostook County – Work to install a new 900 kilowatt biomass boiler at Northern Maine Community College that will provide heat for nearly 70 percent of the square footage of campus buildings is now underway.

An official groundbreaking on the \$1 million project was held today and state, regional and campus officials took the opportunity to talk about the many benefits of the initiative. They range from significant annual energy cost savings and positive environmental impact, to the regional economic boost and new hands-on learning opportunities afforded to students taking alternative energy courses at NMCC.

"This project is expected to reduce heating costs on our campus significantly and replace more than 65 percent of our fuel oil consumption with a local, renewable energy source. The changeover to wood pellets will also serve as the equivalent in reducing carbon emissions to more than 100 cars taken off the road," said NMCC President Timothy Crowley. "Given all of these benefits, perhaps the most unique to NMCC is the opportunity this will provide our students enrolled in alternative energy programs and courses to experience this technology firsthand."

The biomass boiler adds to the recently purchased equipment housed in both the NMCC wind power technology lab and the Northern Maine Center for Excellence in Alternative Energy Training and Education, a college facility opened last spring near the campus in the Skyway Industrial Park. The equipment supports training and reflects new curriculum at NMCC in several areas in alternative energy and energy conservation, including wind, solar, biomass, and weatherization.

The new wood pellet heating plant will be located in the Mailman Trades Building, which houses classroom and lab space for many of the college's trade and technology programs. It will replace the more than 30-year-old boiler in that building, and will also be connected via underground piping to the Christie Complex, NMCC's largest building, where most of the classrooms and campus offices are located.

Altogether, the boiler will provide 85 percent of the heating load for 170,275 square feet of building space between the two facilities. Early projections estimate a total savings of more than \$43,000 in utility costs annually, and the replacement of an estimated 47,000 gallons of fuel oil with local pellets.

The project was made possible, in part, through a \$500,000 grant funded by the United States Forest Service under the American Recovery Act of 2009 and administered by the Maine Forest Service. Thomas Wood, senior planner with the Forest Service in Augusta, participated in the groundbreaking ceremony and told attendees how the NMCC project was a win-win for all involved.

"What makes this project special is NMCC's incorporation of their new wood fired boiler system into their alternative energy curriculum. NMCC not only talks the talk, they walk the walk. By doing so they will be giving hands-on experience in wood fired systems from fuel delivery to combustion to all of the related monitoring and control systems to their students," said Wood. "It is good for the College, it is good for the students, and when the students take their skills into the market place, it is good for the community."

Also attending the ceremony were several members of the Mobilize Northern Maine Renewable Energy Cluster. The group has been working toward the goal of transitioning the region to utilizing 45,000 tons of locally-sourced and manufactured biomass for residential and commercial heating by 2015, capturing 50 megawatts of locally-generated energy and realizing 50 or more jobs per year linked to renewable energy.

Robert Clark, executive director of the Northern Maine Development Commission, member of the cluster group, and vice chair of the Maine Community College System Board of Trustees, talked about how the biomass boiler project at NMCC and the related work on campus in the area of alternative education is key to the overall effort region-wide.

"Aroostook County has the assets and talent to create a regional renewable energy economy, especially from biomass. Our work with Mobilize Northern Maine has brought together many stakeholder businesses, organizations and educational institutions, such as NMCC, to realize the significant economic opportunities that biomass conversion projects like this can have on our local economy," said Clark. "Our region is expected to see significant increases in the demand for skilled workers in the renewable energy industry. The efforts being undertaken here at NMCC in alternative energy training and education will be critical to meet this rising demand," said Clark.

In addition to new curriculum, the green transformation of facilities at NMCC over the past few years has been significant. More than \$3 million has been invested to make the campus more energy efficient. The scope of the work completed ranges from building and lighting upgrades to mechanical renovations and insulation and building controls installation.

Construction on this latest project will continue through April. The existing Mailman Trades Building boiler room will be re-used to house the new wood pellet boiler. A pellet silo (fuel storage) will be installed on a concrete pad just outside the boiler room.

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Officials break ground at Northern Maine Community College for the underground piping that will soon connect the Mailman Trades Building to the Christie Complex, pumping heat from a new biomass boiler that will be installed in the trades building in the coming months. Turning the ground are (left to right) Barry Ingraham, NMCC director of facilities and information technology, NMCC President Timothy Crowley, Thomas Wood, senior planner with the Maine Forest Service, and Robert Clark, executive director of the Northern Maine Development Commission and vice chair of the Maine Community College System Board of Directors.