

Energy-efficient water heater comes home for more testing

ASHEVILLE — The prototype for a water heater and dehumidifier that recently won praise from President Bush for its energy-saving technology is back on campus at Asheville-Buncombe Technical Community College for more tests.

The Etowah manufacturer who's been working on the project wants to build 20 more of the units for further testing in the field over the next year in an ongoing effort to bring the new technology to market.

"We've still got some bugs to work out. When you make something like this, you have to make it manufacturing-friendly," explained Steve McNabb, president of American Carolina Stamping, the manufacturing partner in the project.

The original idea was developed at Oak Ridge National Laboratory in Tennessee. U.S. Rep. Charles Taylor, a Brevard Republican, secured a \$420,000 grant from the U.S. Department of Energy to see if the water heater/dehumidifier could be commercially manufactured.

Western Carolina University and A-B Tech teamed up with American Carolina Stamping in Etowah to produce the prototype and shipped it to Columbus, Ohio, to coincide with the president's visit on March 9.

Bush called the project an example of the "creative technologies" the nation must use to decrease its dependence on foreign energy sources. The president saw a prototype of the water heater at Battelle, a technology development company.

"It's really pretty simple," said Aaron Ball, associate professor of engineering technology at Western. "There are two byproducts of a dehumidifier —moisture and heat. The system transfers the heat energy generated by the dehumidifier circuit to heat water in a standard electric water heater tank."

Consumers save money by using less electricity. "You get two appliances for the energy cost of one," said Frank Miceli, chairman of the electronics engineering technology department at A-B Tech.

A-B Tech students and faculty wired and tested the prototype. "We actually do all the instrumentation and we build all the electronics," Miceli said.

At Carolina American Stamping, McNabb estimates it would cost about \$800 to manufacture the water heater/dehumidifier at this point, but he still wants to drive down the costs. "I think that's still too high. If it could pay for itself in a year or two with energy savings, you could get your money back" as a consumer, McNabb said.