



Advancing Greener Careers and Campuses

## **Nash Community College Rocky Mount, North Carolina Green Jobs Training**

### **SCHOOL**

Nash Community College, public, 2-year, Rocky Mount, North Carolina.

### **ABSTRACT**

With the increase in popularity of solar hot water heaters, the demand for technicians qualified in their installation and maintenance will also rise. Nash Community college wants to expose its students to these systems by constructing and housing a mobile solar thermal hot water heater in its engineering and manufacturing program.

### **GOALS AND OUTCOMES**

#### **Goals**

Students in NCC's Industrial Systems Technology, Environmental Systems, Architectural Technology and Continuing Education HVAC classes will use the mobile training unit to learn first-hand about constructing, installing and maintaining solar thermal hot water heaters. Students will receive hands-on training in designing the system with factors like available solar resource, projected solar energy needs, and target system efficiency taken into careful consideration. Each class will assemble and disassemble the system to allow them to gain an understanding about each of its components. Students will also learn to install the water heating system according to specifications. Over the course of the semester, students will be responsible for maintaining the water heating system. They will monitor, repair and replace parts, inspect the system and remedy the effects of scaling and corrosion. Construction trades classes at area high schools will be able to use the unit for demonstration purposes and lessons in their classes.

#### **Challenges and Responses**

The Welding Technology and the Industrial Systems Technology programs at Nash Community College were both moved to new locations during the summer of 2011. This entailed relocating and reinstalling all the equipment planned to be used in construction of the Solar Thermal Mobile Training Unit. This move was unanticipated at the outset of the project and has created a considerable delay in construction.

The construction has been delayed for several months but is back on track for completion by May 2012. The solar water heater is currently being assembled and tested and this phase is 70% completed. The construction of the trailer has experienced the most significant delay, but preliminary design is complete and fabrication has been initiated.

### **ENGAGEMENT AND SUPPORT**

#### **Funding and Resources**

This project received a Greenforce Initiative grant.

## **CONTACT INFORMATION**

### **Contacts**

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