

OCtech adding turbine as part of green technology project

By DALE LINDER-ALTMAN, T&D Staff Writer, Monday, March 22, 2010

Orangeburg-Calhoun Technical College is moving ahead in its "Career Pathways for a Green South" project with the addition of a wind turbine to the college's energy park.

Two people can easily put the turbine together in a couple of hours, said Dr. Jim Payne, director of the National Science Foundation Grant Program at OCtech. The construction of the turbine is just the beginning of a green technology project involving students.



Photo caption: Dr. Jim Payne, director of the National Science Foundation Grant Program, points out the generator on the new wind turbine that will be installed in OCtech's new energy park. Construction of the turbine is just the beginning of a unifying green energy project designed to give the students hands-on involvement. (DALE LINDER-ALTMAN/T&D)

The project was developed by the faculty of the Computer, Engineering & Industrial Technology Department and will be used in various academic areas such as the production of alternate energies and instrumentation.

Along with solar panels and a solar collector, the turbine will be used to provide power and training for various programs, including the creation of biodiesel fuel. Students will be involved in collecting the energy created by the turbine and solar panels. The energy will then be stored in batteries and the fuel will be made from it, Payne said.

Creating biodiesel fuel is basically the old process of making lye soap, according to Payne. The students take oil or fat, heat it with the energy they've collected and add chemicals.

"You will literally get soap out of it when you do," he said.

Students in the instrumentation program will also be learning from the project -- how to do remote programming, monitoring and repairing of turbines at a distance, Payne said.

The National Science Foundation Advanced Technological Education pays for the remote part of the programming, but OCtech pays for the rest of the program, he said. The grant's goal is to increase the number of students taking science technology, engineering and mathematics,

The development of the energy park serves as recruitment by giving high school students something to look at and think about in terms of choosing a career, Payne said. It also provides an opportunity for school children to learn about alternative fuels.

"Career Pathways for a Green South" is a multistate project designed to create a new green technology work force throughout the South based on the expectation that jobs in manufacturing and energy production that promote energy efficiency and ensure environmental sustainability will continue to grow in South Carolina. In addition, renewable energy production, which now includes nuclear technology, is predicted to produce high-growth, high-wage, and high-demand jobs in the state.

OCtech is offering training in these program areas, and funds are available to help approximately 200 students pay for tuition and books. An information session is being held on Monday, March 22, at 5 p.m. in Building R, Roquemore Auditorium.

Most programs will begin training in August 2010, but bridge programs for students who need upgrades in math or science will be available this summer.

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