Clemson launches $98M wind facility

THE JOURNAL STAFF

NORTH CHARLESTON — Clemson University broke ground Thursday at what will be the world's largest wind-turbine drive-train testing facility, and in doing so marked another milestone in South Carolina's burgeoning wind-energy industry.

Members of the South Carolina Legislature, the state's congressional delegation and industry executives joined university officials at the Clemson University Restoration Institute in North Charleston to mark the official start of construction of the $98 million project.

The testing facility will be housed in a former Navy warehouse adjacent to existing rail and ship-handling infrastructure. Planning and construction of the facility is under way, and it is expected to begin operating in 2012.

It will be capable of full-scale highly accelerated testing of advanced drive-train systems for wind turbines in the 5-megawatt to 15-megawatt range with a 30 percent overload capacity. A drive train takes energy generated by a turbine's blades and increases the rotational speed to drive the electrical generator, similar to the transmission in a car.

Clemson University President James F. Barker told more than 500 people who attended the groundbreaking that the facility is the perfect example of collaboration at work.

"South Carolina can combine the strengths of its top-ranked research university with its manufacturing sector to catapult the state into a leading role in the nation's emerging and important wind-power industry," he said.

In November 2009, the Restoration Institute and its partners were awarded a $45 million U.S. Department of Energy grant, which was combined with $53 million of matching funds, to build and operate the large-scale facility. The award was the largest single grant ever received by Clemson University and was made possible by the American Recovery and Reinvestment Act of 2009.

The university's partners are: the Charleston Naval Complex Redevelopment Authority; the S.C. Department of Commerce; the state of South Carolina; South Carolina Public Railways, the S.C. State Ports Authority; and private partners RENK AG, Tony Bakker and James Meadors.

John Kelly, executive director of the Clemson University Restoration Institute and Clemson's vice president of economic development, public service and agriculture, said the testing facility places one of the most important sites for wind energy research and development in South Carolina.

As the wind-energy market evolves, South Carolina is strategically positioned to serve as an industrial hub for this evolving industry, he said.

"It's difficult to overstate what this facility represents for South Carolina," Kelly said. "From an economic development standpoint, the testing facility will bring statewide benefits."