



## James Madison University Wind System Stimulates Educational Program, Promotes Virginia Wind Industry

*The Virginia wind industry is getting a much-needed breath of fresh air.*

James Madison University recently installed a 120-foot-tall wind turbine as part of its Small Wind Training and Testing Facility, an educational initiative launched by the Virginia Center for Wind Energy (VCWE). The system is capable of producing 10,000-12,000 kWh of energy a year when operating at average annual wind speeds of 5 m/s, which is enough to power an average-sized house for a year.

“Our goal is to cultivate a community that is educated in wind energy; therefore, we need to inform decisionmakers, members of the public and local students about wind power development initiatives in Virginia,” said Dr. Jonathan Miles, professor in the College of Integrated Science and Technology, coordinator of the International Masters Program and director of the Virginia Center for Wind Energy at JMU. Because of its expertise, Baker Renewable Energy was brought in to install the wind turbine. A small solar array will also provide clean power to JMU’s College of Integrated Science and Technology library. Wind instruments on the tower will measure wind flow to provide VCWE with data on area wind patterns. The 7.5 kW Bergey turbine has a total rotor diameter of 23 feet, which, when added to the 120-foot-tall, ROHN selfsupporting lattice tower, places the total height of the system at 131.5 feet. The project was funded by a grant from the state, donations and a partnership with JMU’s Facilities Management.

“We are very proud to have been a part of the project team here at JMU. Their consistent momentum forward in developing the groundwork for the renewable energy industry as a whole is undeniable,” said Jason A. Epstein, executive vice president of Baker Renewable Energy. “This is definitely a great way to train people and get them excited. By combining wind initiatives with homeruns like solar PV and solar thermal, JMU will quickly become the desired school to go to for advanced renewable energy education in the region.” VCWE conducts teaching, training, research and development on siting, safety, installation and operations, with the goal of cultivating a community educated in wind energy. This particular initiative will allow the organization to provide educational outreach about wind power development initiatives in Virginia to JMU students, area entrepreneurs and local K-12 schools. Professors can use the facility as a teaching tool geared toward student entrepreneurs who may be interested in wind power-oriented business. Such a curriculum, and the advancement of the wind industry in general, will help bring economic development, high environmental quality, and reliable and affordable energy to the Commonwealth.

### About Baker Renewable Energy

Baker Renewable Energy offers a full line of turn-key design and installation services for commercial, residential and institutional customers along the Eastern Seaboard. With expertise in solar photovoltaics, solar thermal, wind energy and solar hot air, Baker Renewable Energy serves customers through offices in North Carolina, South Carolina and Virginia. Baker Renewable Energy is a division of Baker Roofing Company, founded in 1915.

