The Virginia Center for Wind Energy at James Madison University (VCWE@JMU) provides wind-related services to local governments, state agencies, landowners, nongovernmental organizations, businesses, and the academic and educational communities. These services include wind resource assessments, economic modeling, education & outreach, energy policy analysis, assessment of technical specifications, Geographic Information Systems (GIS) analysis, all to support the strategic deployment of wind power throughout the Commonwealth and beyond. Below are more detailed descriptions of some of the main programs and research areas supported.

**State Based Anemometer Loan Program (SBALP)**

SBALP is designed to empower landowners by leveraging their interest in wind energy through assistance with loans of meteorological (MET) towers instrumented with sensors and data loggers. The SBALP inventory includes four 50-meter and two 35-meter met towers. Each deployment at a given location runs for at least one year. For more information about SBALP contact Kenny Howell at 540.568.8754 or at howellkr@jmu.edu or visit http://sbalp.cisat.jmu.edu.

**Tools for Sighting & Analysis**

VCWE has developed tools that can be used for siting wind turbines and/or analyzing areas for feasibility of wind power development. The NextStep calculator provides Virginia landowners with a comprehensive set of analysis tools that can be used to assess their personal wind resource and potential for wind energy production. This tool can be accessed at http://nextstep.cisat.jmu.edu.

The Landscape Classification System (LCS) is a GIS-based data suite used to enhance wind turbine siting by layering environmental information over the wind resource map. Additional information about the LCS is available at http://vwec.cisat.jmu.edu/gis_lcs/gis_lcs.html.

The Virginia Renewable Siting Scoring System (VRS³) is a screening tool designed to help land use decision-makers evaluate the suitability of land within their jurisdictions for wind energy installations. It incorporates land use and environmental criteria as well as community development topics. The VRS³ is accessible at http://vrs3.cisat.jmu.edu.

**Community Outreach**

The VCWE@JMU houses the office of the Virginia Wind Energy Collaborative (VWEC). VWEC was formed to educate the public and inform decision makers about wind power development in the Commonwealth. VWEC aims to identify and address key barriers to the deployment of wind energy. Both the culture and political climate in Virginia with respect to wind power has changed during the past decade. We encourage residents who wish to engage in wind education, outreach, and development within the Commonwealth to e-mail us at vwec@jmu.edu. For more information about our outreach efforts in Virginia visit http://vwec.cisat.jmu.edu.

**Wind for Schools**

It is understood that Virginia’s wind resource is very good but variable, and is most favorable along mountain ridges and within coastal and offshore regions. When a wind installation is designed to primarily increase awareness and education, the economics of the program become less important. We encourage schools that wish to initiate a conversation about renewable energy to consider installing a wind turbine as a teaching tool at their school. The Wind for Schools program engages schools that have previously installed wind turbines, schools that want to install wind turbines, schools that wish to participate by collecting wind data, and museums. For more information about the Wind for Schools program and resources and information on wind education visit http://aeer.cisat.jmu.edu.

**Small Wind Installer Education**

VCWE@JMU is now developing a Small Wind Installer Education Center that aims to provide proper training to established or aspiring installers looking to brush up on their skills or learn more about the project development process – from wind resource assessment to safety to operation and maintenance. Established installers as well as novices will soon be offered courses on specific topics to
polish their skills or to acquire new skills that address the proper and safe installation of small wind systems. Courses will align with the qualifications required to sit for the National Board of Certified Energy Professionals installer certification exam.

The VCWE@JMU’s high bay space at Technology Drive will house tower sections that will be used for indoor climbing and safety training. In addition, the Small Wind Training and Testing Facility (SWTTF) is now under construction on the east campus of JMU. This facility will be used for training small wind installers as well as testing small wind turbine designs. It will support the assessment of the local wind resource and the evaluation of performance of new and modified designs. A 7.5 kW turbine was installed on the east campus of JMU in April of this year and classes will be offered starting in Fall of 2012. To learn more visit http://wind.cisat.jmu.edu/installer_training.html.

**Offshore Wind**
The Virginia Coastal Energy Research Consortium (VCERC) published its final report entitled *Virginia Offshore Wind Studies, July 2007 to March 2010* in April 2010. This report presents a feasibility-level design and economic assessment of an offshore wind project and presents preliminary mapping of suitable areas and an evaluation of the economic development impacts. In April 2011, JMU was awarded a $1.1 million research contract to continue the work plan of the VCERC Wind Team. The goal of this research is to advance the economic viability of offshore wind and establish appropriate mechanisms to attract industry, as well as to align Virginia with the U.S. Department of Energy (DOE) Strategic Work Plan for Creating an Offshore Wind Industry in the United States as established for fiscal years 2011-2015. The primary tasks are to analyze the feasibility of offshore wind turbine test and/or demonstration pad sites; to characterize the wind resource and meteorological ocean design environment at these sites; to perform due diligence on environmental and community acceptability; and to prepare the documentation that would be needed to proceed to permitting of proposed test/demonstration turbine locations. For more information about offshore wind research in Virginia visit http://vcerc.org.

---

**Virginia Center For Wind Energy**

at JAMES MADISON UNIVERSITY.

Jonathan Miles, Director
milesjj@jmu.edu
540.568.3044

Dane Zammit, Data Analyst
zammitdo@jmu.edu
540.568.8770

Deanna Zimmerman, Outreach Coordinator
zimmerdl@jmu.edu
540.568.8768

Remy Pangle, Associate Director/Curriculum Coordinator
panglerm@jmu.edu
540.568.8768

Kenny Howell, Facilities and Logistics Coordinator
howellkr@jmu.edu
540.568.8754

Taylor Moellers, Project Facilitator/Education Coordinator
moelletm@jmu.edu
540.568.8768

Cindi Smead, Administrative Assistant
smeadca@jmu.edu
540.568.8770

Contact:
VAcenter4windenergy@jmu.edu

**FUNDING AGENCIES**

**PARTNERS**

540.568.8770  VAcenter4windenergy@jmu.edu  windpowerVA.org  April 2012