

## **Renewable Energy**

MU continues to implement sustainable and cost effective energy sources to serve its utility needs. MU's renewable energy portfolio of biomass, wind, and solar supplies near a third of the campus annual energy needs, helping the campus its sustainability goals. See the [Energy Facts and Figures](#) page for the latest renewable energy values.

### **Sustainable Biomass**

MU is leading the way in developing sustainable biomass fuels for its Combined Cooling Heat and Power ([CCHP](#)) plant. In 2013, MU expanded the use of renewable biomass energy with the installation of a 100% biomass fueled boiler. This biomass boiler provides steam for the highly efficient CCHP process. The boiler uses over 100,000 tons of wood residue biomass annually, mostly sourced from regional wood mills.

Plant staff and campus researchers collaborated to develop biomass sustainability sourcing standards to help ensure the long-term health and viability of Missouri's forests and natural resources. Wood residue biomass supplied from wood mill residue, forestry management, and discarded shipping pallets supports economic development in Missouri in addition to providing MU with cost effective renewable energy.

### **Wind Energy**

MU uses wind generated electricity from an on-site 20 kW wind turbine and an offsite wind farm. The on-campus wind turbine generator provides a great education tool for MU students and faculty. The off-campus wind electricity is contracted from a utility scale wind farm.

### **Solar Energy**

The campus sources both heat and electricity from the sun. A 34 kilowatt solar photovoltaic (PV) panel array at the CCHP plant provides electricity and a solar thermal system, using evacuated heat tubes, efficiently collects heat and transfers it to the plant's boiler make-up water system. Additional PV panels have been installed at the campus research reactor and solar heating systems were added to MU's newest residential halls, Gateway and Brooks, to heat domestic hot water.

### **Renewable Energy Education**

The on-campus renewable technologies are available to MU students and faculty to see and learn firsthand how these technologies are applied in Missouri.

Energy Management has a long history of partnering with MU's academic and research communities to collaborate on energy technologies and research. Energy staff routinely partner with MU's top researchers on various research projects to support the development and improvement of sources of sustainable energy.

MU joined the **EPA's Green Power Partnership** as a leader in using renewable electrical energy on its campus. For more information about EPA's Green Power Partnership program and MU's success in the in green power go to <http://www.epa.gov/greenpower/partners/partners/universityofmissouri.htm>