



Mizzou Advantage

University of Missouri

Sustainable Energy

Sustainable Energy addresses energy issues broadly, building on the work at MU's Research Reactor; MU's biomass power plant; research in biofuels, biomass and energy efficiency; the College of Engineering; and education programs in nuclear and other kinds of energy. This initiative also examines policy and its implications, business models, environmental impacts and the cultural and social consequences of energy uses and production.

Examples of MU's Sustainable Energy assets are:

Plant Sciences

- MU has 21 research farms, centers and forests statewide comprising more than 14,500 acres.
- MU consistently ranks in the top ten nationwide in plant sciences funding from the National Science Foundation.
- MU is home to some of the world's top plant scientists.

Local Energy Systems

- MU Power Plant is one of only three plants to receive the 2010 Energy Star CHP Award and is currently in the process of installing a bubbling fluidized bed boiler that runs on 100 percent biomass.
- Boone Electric Cooperative is a not-for-profit electric utility providing electricity and other services to 24,000 homes, farms, businesses and industries.

Arts, Humanities and Social Sciences

- MU is home to the Harry S Truman School of Public Affairs, the Food and Agricultural Policy Research Institute (FAPRI) and the Rural Policy Research Institute (RUPRI), which make objective contributions to state and national public policy.

Nuclear Energy Technology Workforce Center

- The Center focuses on the development of Web-based curricular resources for instructor-led course delivery to help meet the significant need for well-trained technical specialists in fields supporting the current and next generation fleet of nuclear power plants, medical facilities, national laboratories and other research facilities.

Educational Opportunities

- MU offers study abroad opportunities to the continents of Africa, Asia, Australia, Europe, North America and South America.

Missouri Water Resources Center

- The Center offers advanced technology solutions to water use and treatment issues and environmental problems. It includes the federally supported Institute for Environmental and Energy Technologies.

Additional expertise lies in the following areas:

- Biomass – includes conversion and utilization, production and logistics, algae, plant genomics, biogas, agroforestry and policy
- Solar – includes solar cells, efficiency of solar cells, design, nanotechnology, storage and water issues
- Wind – includes design, transmission, storage and materials
- Geothermal – optimizing system efficiency
- Nuclear – largest university research reactor in the nation, conversion, low temperature physics and waste reprocessing
- Energy storage – includes ceramic and carbon-nanotube capacitors, highly nanoporous activated carbon, MEMS storage and pressurized storage
- Energy efficiency – Department of Energy (DOE)-funded Industrial Assessment Center, DOE-funded MAESTRO (Missouri Agricultural Energy Savings Team, A Revolutionary Opportunity)
- Center for Sustainable Energy –dedicated to developing sustainable, affordable and renewable solutions for energy
- Energy economics and policy – includes biomass resource management; balancing of energy, economics, and the environment; carbon credits and trading; value chain economic analysis for biomass and biofuels; renewable resource law and policy; FAPRI and RUPRI



To learn more, visit MizzouAdvantage.missouri.edu or contact Facilitator Cerry Klein at kleinc@missouri.edu.