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Visit KREC members and friends on **facebook** to share information, discuss ideas, ask questions or post items of interest to the renewable energy community and help get the word out about what's happening in renewable energy and energy efficiency in Kentucky.

Make Plans Now to Attend KREC's June Quarterly Meeting

Join Us for a Very Special KREC Meeting

On Wednesday, June 29 KREC will hold its year-end quarterly meeting. The meeting will provide KREC-funded researchers an opportunity to report on the final results of their research projects.

The meeting will be held from 11:30 a.m. to 2:30 p.m. ET at the PNC Club Suite in Papa John's Cardinal Stadium on UofL's Belknap Campus and will feature presentations from KREC researchers on their project summary and findings. Research posters will be on display during the meeting.

Our 2008 - 2011 KREC researchers and their projects -

- M. Keith Sharp - *Investigation of Cooling Season Performance of a Solar Heat Pipe System*
- Mark McGinley - *Cost Effective Energy Efficient School Design-Applied Research-Energy Efficiency*
- Mahendra Sunkara - *Large Size, Lithium Ion Batteries for HEV Applications*
- Eric Berson and Keith Davis - *Production of High Value Cellulase Enzymes from Tobacco Biomass*
- Don Colliver - *Optimal Energy Usage Control for Residential Solar Photovoltaic Systems*
- Mahendra Sunkara & Paul Ratnasamy - *Development of a Solid Catalyst-Based Technology for Production of Biodiesel from Waste Vegetable Oils*
- Vijay Singh - *Nanostructured Device Designs for Enhancing the Performance of Thin Film CdTe/CdS and CIS/CdS Solar Cell Devices*

A special buffet-style lunch will be provided and will feature a keynote luncheon speaker. All attendees will have an opportunity to discuss the research projects and ask questions of researchers about their work and the future of renewable energy research.

[Registration](#) is required and can be completed online. If you are unable to register online, you may call (502) 852-0965 or [e-mail](mailto:KREC@kppc.org) us.

Contribute an Article to REnews!

KREC would like to publish your thoughts on renewable energy and energy efficiency in Kentucky in the "Members' Forum". Please send your opinions, articles or news about RE happenings in the Commonwealth to KREC@kppc.org. A short piece is preferable (300 or fewer words work best).

Make your voice heard – we want to give KREC members a forum to spread the word about renewable energy efforts and issues.

A Brief History and the Future of KREC



KREC's June quarterly meeting will mark the end of funding for the program from the U.S. Department of Energy. KREC began in 2005 as the Kentucky Rural Energy Consortium with a federal direct appropriation to the University of Louisville. In 2008, KREC again received funding from the DOE to continue its mission and grant competition program. Since 2005, KREC has awarded more than \$2 million through its competitive grants program to 14 research projects at the University of Kentucky and the University of Louisville. One of the original KREC-funded researchers, Dr. Sue Nokes, professor in the University of Kentucky Biosystems and Agricultural Engineering Department, is principal investigator for a biofuels project that was recently awarded a \$6.9 million DOE grant (see story below).

During its six year history, KREC has won numerous awards, including the 2009 Southern Growth Policies Board Innovator Award, the USDA Grand Challenge Award and the National Pollution Prevention Roundtable's Most Valuable P2 Publication Award. KREC also published the [25x'25 Roadmap for Kentucky](#) and hosted two forums and four town hall meetings across the Commonwealth. Membership in KREC has grown from fewer than 60 to more than 500 since it began.

KREC is administered by KPPC - Kentucky Pollution Prevention Center. KPPC believes that continuing KREC's communications and outreach activities beyond DOE's funding period is important to support renewable energy initiatives that are crucial to Kentucky's energy future. After July 1, 2011, KPPC will provide KREC with the resources needed to continue communications and networking activities including REnews, [Facebook](#) and the [KREC website](#).

All KREC members will continue to receive the e-newsletter each month and will have access to online resources through the KREC website at KPPC. We encourage your participation in KREC in 2011 as we seek new funding opportunities for future KREC initiatives.

KPPC is Kentucky's primary resource to help businesses, industries and other organizations develop environmentally sustainable, cost-saving solutions for improved efficiency. Based at the University of Louisville J.B. Speed School of Engineering, KPPC provides technical information and assistance that is free, confidential and non-regulatory.

Information contained in this newsletter is a service of KPPC and is offered solely as a general reference. The University of Louisville, KPPC, their employees, sponsors and all technical sources referenced in this correspondence do not: (a) make any warranty or representation, expressed or implied, with respect to the accuracy, completeness, or usefulness of the information; and (b) assume any liabilities with respect to the use of or for damages resulting from any information contained in this correspondence. Mention of trade names, commercial products, or services does not constitute endorsement or recommendation of use.

UK Wins Biomass Grant from DOE



The University of Kentucky has been awarded \$6,932,786 by the U.S. Department of Energy for research and development of biofuels. UK's grant award was part of a total of \$47 million that went to fund eight research and development projects that will support the production of biofuels, bioenergy and high-value biobased products from a variety of biomass sources. The advanced biofuels produced through these projects are also expected to reduce greenhouse gas emissions by at least 50 percent compared to fossil fuels.

Principal investigator Sue Nokes, professor in the [UK Biosystems and Agricultural Engineering Department](#), says the bulk of the grant will be used to study the process of growing switchgrass and miscanthus to create biofuel for farm machinery. Switchgrass and miscanthus are commonly used as feed, but it's already known that those plants can be grown, stored and used for fuel. This grant will allow researchers to see whether they can be used on a large scale.

"Permanently reducing our dependence on foreign oil and getting a handle on out of control gas prices will require our brightest scientists, our smartest companies, and strategic investments in research" said Agriculture Secretary Tom Vilsack. "Advances made through this research will help boost rural economies by developing and testing new processing facilities and profitable, energy-rich crops that U.S. farmers and foresters will grow."

The projects are funded through the [Biomass Research and Development Initiative](#) and will help increase the availability of alternative renewable fuels and biobased products to diversify the nation's energy resources. Funding is provided through USDA's National Institute of Food and Agriculture (NIFA) and DOE's Biomass Program. Each award was made through a competitive selection process.

New USDA Rural Renewable Power Report Available

The U.S. Department of Agriculture recently issued a report that identifies and discusses the wide array of renewable power opportunities available to producers in rural America. The report, titled *Renewable Power Opportunities for Rural Communities*, is intended to serve as a summary and guide to assist rural utilities that may be considering investing in a renewable electricity generation project and for policymakers who may be considering how to encourage such investments.

The report is designed to assist local and state government leaders,



rural farmers and business operators, rural-based utilities and their leadership and rural residents whose interests are focused on renewable power, distributed generation and rural economic development. The report discusses a rural utility's opportunities for investing in renewable electricity generation capacity.

Utility staff can use the report to learn about transmission access for renewable electrical power, system regulation, transmission expansion paths for renewable energy including modernization and a smart grid, future electricity demand, electric utility business models, and developing/financing strategies of renewable energy. In addition, a large number of renewable electric power developments in rural America are highlighted.

The report was prepared under the direction of USDA's Office of Energy Policy and New Uses (OEPNU) and the Office of the Chief Economist, and produced under a cooperative agreement with the State Utility Forecasting Group at Purdue University, West Lafayette, Indiana.

A complete copy of the report is available at the USDA's [website](#). Marvin Duncan, a Senior Economist in OEPNU, is the primary USDA contact for the report. He can be reached at 202-401-0532 or by [e-mail](#).

