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KREC Needs Your Input - Please Take Our Survey to Help Us Plan Future Activities

KREC needs your input. Please take a few minutes to complete the [survey](#) on our website. Your answers will help us set priorities and pursue future funding opportunities for the Consortium. We will compile all your responses and will share results in the September issue of REnews.

If you can't complete the KREC survey, please [e-mail](#) us with your ideas for how KREC might continue to be a valuable resource, open forum and clearinghouse for information and discussions on renewable energy in Kentucky.

KREC Will Not Hold September Quarterly Meeting

KREC will not hold a final September quarterly meeting. Instead, we are asking members to complete the [member survey](#). In addition, work is underway to complete the final report to the U.S. Department of Energy that will bring the DOE funding to a close. A comprehensive version of the final report will be made available on the KPPC website to all KREC members and the public as soon as it is completed.

KPPC will provide resources for as long as possible to continue KREC's communications and networking activities including *REnews*, [Facebook](#) and the [KREC website](#), while seeking new funding opportunities for future KREC initiatives. We encourage your continued participation and support.

Green-Living Symposium

The Green River Area Development District (GRADD) is partnering with sponsors from across the region to present the first ever Green-Living Symposium at scenic Mount St. Joseph, located in Daviess County on September 28, 8:30 a.m.-4:00 p.m. CT. The goal is to educate local government, business/industry, organizations and individuals about [environmental sustainability and to equip them to affect positive change](#)



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.

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.

in their communities. This event will feature guest speakers, information sessions led by industry experts, exhibitors, demonstrations and door prizes. KPPC's Executive Director Cam Metcalf will be the keynote speaker.

Registration and additional information is available on the GRADD [website](#).

Registration is Open for the 2011 Governor's Conference on Energy & the Environment



Online registration is underway for the 35th annual Governor's Conference on Energy and the Environment. This year's two-day event will be held on September 26 and 27 at the Lexington Convention Center.

Registration for the conference is accepted online only at the registration [website](#). The Governor's Conference on Energy and the Environment accepts

American Express, Discover, MasterCard, Visa and ACH debit transactions.

Conference Fees

Before September 16, 2011:

Full conference fee -- \$175

Day one only -- \$110 (includes awards luncheon)

Day two only -- \$85

After September 16, 2011, fees increase to:

Full conference fee -- \$200

Day one only -- \$125

Day two only -- \$100

Conference questions can be addressed to Karen Wilson at 502-564-3350 or Tammy Hurst at 502-564-2150, ext. 121.

Exhibit Booth Information

For information about exhibiting at this year's conference, [email](#) or phone Tammy Hurst at 502-564-2150.

Kentucky Energy Leadership Awards

The Kentucky Energy Leadership Awards are presented each year at the Governor's Conference on Energy and the Environment. The awards recognize those in the energy field who have had a tremendous impact on Kentuckians by promoting energy efficiency and the exploration and use of alternative energy sources. Please fill

out and return the nomination form to nominate a person, company or organization that has made these kinds of contributions. The form can be downloaded from the Conference [website](#).

You may submit the nomination form by fax to Ashley Thomas at 502-564-7484; by [email](#) to Ashley.thomas@ky.gov; or by mail to the Kentucky Department for Energy Development and Independence, 500 Mero St., Frankfort, KY 40601.

The deadline for nominations is September 15, 2011. For additional information on the award, you may call Ashley at 502-564-7192.

Biomass Coordinating Council Submits Unified Definition of Biomass to Members of Congress

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.



From an August 22 e-mail to KREC from the ACORE Biomass Coordinating Council (BCC):

Dear BCC Members,

A big step has been taken in support of biomass by the [Biomass Coordinating Council](#). On Friday, after almost a year of hard work – soliciting feedback, processing revisions and editing drafts, ACORE and the BCC Biomass Definition Subcommittee (BDS) submitted a unified Definition of Biomass to selected Members of Congress. This is the first major step towards submitting this to a broader base of members in both the House & Senate for consideration. We have attached the documents included in the package that went out to Members of Congress for your records and review [the [documents](#) are posted on KREC's website].

ACORE and the BCC see this effort as a critical initiative, paving the way for enhanced opportunities for biomass and bio-related industries across the full spectrum of biomass as envisioned by the Biomass Wheel. This paired with exciting developments such as the launch of the Biomass Caucus by Representatives Charlie Bass (R-NH) and Peter Welch (D-VT), and the transition of the BCC from an ACORE Committee to a full ACORE Program. We are now better positioned to encourage all biomass industries, large and small, to work together collaboratively in "Service to America" in these troubled times.

The stage is slowly being set in the RE/EE world for biomass to step to the forefront and do the heavy lifting it is capable of. We must take advantage of this momentum and work together to enhance opportunities for technology innovations, project development, and investment. And, importantly, we must commit ourselves to optimized land use, vitalized soil and water conservation to ensure adequate

supplies of biomass while enhancing the environment and wildlife habitat.

Please stay tuned for an agenda and Save the Date for our upcoming BCC Meeting on Tuesday, September 20th at RETECH 2011 in Washington, D.C. and our Side Event called "Small and Integrated Energy Solutions" taking place Monday, September 19th, 2011.

The Biomass Coordinating Council (BCC) is formed under the auspices of the American Council On Renewable Energy (ACORE), a non-profit organization based in Washington, D.C. BCC is working to accelerate the adoption of renewable biofuels, biopower, and biobased products into mainstream American society through work in policy initiatives, convening, networking and communications.

Single, Key Gene Discovery Could Streamline Production of Biofuels

KREC's initial research award grants in 2005 included a project from Dr. Sue Nokes at the University of Kentucky called "Differentiating Microbial Pathway and Membrane Adaptations for Enhanced Performance in Extreme Environments". Dr. Nokes studied *C. thermocellum* to explore adaptations that would allow it to tolerate more ethanol in fermentation. Now, a team of researchers at the Department of Energy's [BioEnergy Science Center](#) (BESC) have pinpointed the exact, single gene that controls ethanol production capacity in a microorganism. This discovery could be the missing link in developing biomass crops that produce higher concentrations of ethanol at lower costs.

The discovery of the gene controlling ethanol production in a microorganism known as "*Clostridium thermocellum*" will mean that scientists can now experiment with genetically altering biomass plants to produce more ethanol. Current methods to make ethanol from a type of biomass found in switchgrass and agricultural waste require the addition of expensive enzymes to break down the plant's barriers that guard energy-rich sugars. Identifying this gene is a key step towards making the first tailor-made microorganism that produces more ethanol.

Although scientists have studied *Clostridium thermocellum* for decades, the genetic basis for its ability to tolerate higher concentrations of ethanol had not been determined. Rather than using just one technique or one approach, the research team that made the discovery was able to draw upon multiple experts spanning several scientific disciplines to contribute a broader set of analyses because of the BESC partnership.

BESC is led by [Oak Ridge National Laboratory](#) and is one of three Bioenergy Research Centers established by the DOE's Office of Science in 2007. The centers support multidisciplinary, multi-institutional research teams pursuing the fundamental scientific

breakthroughs needed to make production of cellulosic biofuels, or biofuels from nonfood plant fiber, cost-effective on a national scale.

The team's results were published in the *Proceedings of the National Academy of Sciences*. The invention is available for licensing.

DOE's Office of Science is the single largest supporter of basic research in the physical sciences in the United States, and is working to address some of the most pressing challenges of our time. For more information, please visit the DOE Office of Science [website](#).

University of Tennessee Biomass Field Day



From the 25x25 weekly Resource newsletter -

The University of Tennessee Institute of Agriculture will demonstrate its expertise in biofuels production and processing research with a new, two-day field day event geared for farmers, industry representatives, and the general public. Day one, October 25, is organized as a traditional field day and will be held at Color Wheel Farm, in

Monroe County, where owners Brad and Kim Black, recipients of the 2010 Tennessee Farmer of the Year Award, are participants in the University's switchgrass production program. The Blacks' East Tennessee farm will have 183 acres of established switchgrass available to view by field day visitors. The second day of the event will be on the site of the new Tennessee Biomass Innovation Park operated by UT partner and field day co-sponsor [Genera Energy, LLC](#).

The event is structured so that each day will operate independently, with attendees welcome to attend either day, or both days. During the first day of the event, visitors will be introduced to switchgrass production methods and will have the opportunity to review and compare varieties, including improved varieties from field day sponsor and energy crop company, Ceres, Inc. Crop harvesting and transportation logistics and other aspects of biomass production will also be featured. In-field equipment demonstrations are scheduled, weather permitting. Attendees should gain first-hand knowledge that will position them to capitalize on the developing industry.

The second day of the event will be geared toward biomass processing and transportation logistics for products. Exhibits, demonstrations and presentations about the latest in biomass preprocessing and handling will be held at the Tennessee Biomass Innovation Park, which is located on the shores of Tellico Lake near Vonore. Day two also will feature an outdoor exhibition on the site of the nearby DuPont Danisco Cellulosic Ethanol biorefinery, one of the world's first pre-commercial cellulosic ethanol biorefineries.

Attendance to each day of the event is free; however pre-registration is



strongly recommended. Lunch will be sponsored for attendees to Day one who pre-register. Unregistered attendees may purchase lunch onsite for \$10, based on availability. Day two will feature refreshments for purchase. Reservations may be made and more information, including parking and lodging, is available at the event [website](#), or by calling Genera Energy at 865-974-8258.