



Kansas Natural **Resource Council**

Summer 2007 Journal

Environmental Stewardship **and Sustainability**

By Larry Erickson
KNRC Vice-President

Many of the members of KNRC have a growing interest in sustainability. Global climate change is already affecting the weather in many ways. There is an expectation that weather events may become more intense (greater extremes, both hot/cold and drought/flood). These changes will impact all of us. In Kansas, global climate change, renewable energy, water, energy conservation, and sustainability of communities are important issues.

The large snow event in southwest Kansas this past winter is an example of an intense weather event. While we are not able to predict all that might happen in Kansas because of global climate change, we can take a precautionary approach and work together to reduce greenhouse gas emissions by advancing renewable energy, sequestering carbon, and conserving energy.

In Kansas wind energy has great potential, and the amount of installed wind power capacity has been increasing. Western Kansas has a great opportunity to become a major provider of electricity generated by wind. Our state would be a good location for the manufacture of windmills as well.

Water is an important resource that is in short supply in many parts of Kansas. There is a growing need to move toward sustainability with

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respect to water use. This will require a reduction in water use in some locations. The increased cost of pumping water has led toward greater efficiency. Water conservation and efficient use of water are high priorities.

Energy conservation can be advanced through green buildings, insulation of homes, energy efficient appliances and lights, the construction and use of bike paths and sidewalks, and changes in how we live. With modern communications, there are more opportunities to work from home rather than driving to an office. Kansas communities can add "work from home" jobs if they have high speed internet connections and provide services that make their communities attractive as a place to live and raise a family.

The move toward sustainability is rich in economic development opportunities. We can find new manufacturing, construction, and service opportunities associated with the shift toward renewable energy and conservation.

Each of us can take action that moves us toward sustainability. We can plant trees to sequester carbon, use efficient lighting, reduce motor fuel consumption (drive less, use an electric or hybrid vehicle, ride a bicycle, walk), conserve water, and learn more about sustainability

Recently KNRC became a consortium partner organization in the Consortium for Environmental Stewardship and Sustainability, (CESAS) which has its headquarters at Kansas State University. For more info, see: <http://www.engg.ksu.edu/CHSR/sustainability/>

The University of Kansas has recently established a Center for Sustainability, which promotes and facilitates interdisciplinary research, learning opportunities, and practices that address environmental improvement, economic prosperity, and social responsibility. Through the development of research teams, student research projects, service learning courses, and a campus-wide network of sustainability ambassadors, the center is working to build a more sustainable future for KU, the region and beyond.

In January 2008, Kansas State University will host a class/workshop on sustainability. This event will be added to the internet site mentioned above after additional planning has taken place.

For further information on CESAS or the workshop, please contact Larry E. Erickson
e-mail: lerick@ksu.edu
phone: 785-532-4313

Community Forum on Kansas Environmental Issues

By Kathy Riordan
KNRC Board Member

The fifth annual Community Forum on Kansas Environmental Issues was held in Prairie Village on October 12, 2006. The Community Forum is sponsored by KNRC and the Prairie Village Environmental Committee. The event begins with exhibits showcasing major environmental organizations working to improve and preserve natural resources in Kansas. A community supper of locally grown foods catered by the Blue Bird Bistro follows the exhibits.

After supper there is a presentation on a timely Kansas environmental issue. The 2005

presentation was on energy. In 2006 it was about food. The topic for 2007 will be water.

The 2007 Community Forum on Kansas Environmental Issues will be held on Thursday, October 4th at 5:30 p.m. at the Village Presbyterian Church in Prairie Village, Kansas. For information on the Community Forum contact Kathy Riordan at kfriordan@kc.rr.com

A Sustainable Energy Future for Kansas

By Scott White
KNRC Board Member

Over 3,000 MW of new coal-combustion power plants are currently proposed for Kansas and the immediate vicinity.¹ There is growing evidence and scientific consensus that anthropogenic emissions of carbon dioxide are affecting climate change and leading to an overall warming of our planet. Kansas and the United States need to act now to curb the additional combustion of coal for our electrical use by adopting measures to de-carbonize our electrical system.

Reducing demand should be the first step. Neither Kansas nor the U.S. can significantly address the climate change issue without first reducing demand for fossil fuels. That is – this is not a problem we can solve by simply building more power plants or drilling more oil and gas wells. In Kansas, before a utility is allowed to build a new power plant, they should be required to take serious measures to first reduce demand.² Since 1999, when the Kansas Electric Utilities Research Program was dissolved, there has been little to no emphasis on demand-side management from most Kansas utilities. This needs to be reversed. Westar currently has a docket (07-WSEE-616-PRE) before the KCC on energy efficiency and conservation. Early reports from other conservation groups indicate that the utility is not overly ambitious in their conservation goals.

Improving the energy efficiency of buildings can make a significant impact on energy consumption. Many retrofits for existing homes are cost-effective, including adding insulation

and replacing older furnaces and appliances with more efficient ones. Making buildings energy efficient during construction is the most cost effective. The State can enable this by adopting building standards that make buildings more energy efficient (i.e. “optimal” insulation rather than “minimal”). The state could also lead the way by mandating that new State-owned buildings meet LEED (Leadership in Energy and Environmental Design) standards.

Tapping into renewable resources in an environmentally sustainable manner should be a goal. Kansas has a massive non-depleting wind resource, which could eventually provide more than 25% of U.S. electricity, and all U.S. wind could provide three times the U.S. electric power consumption.³ There are still a few locations in the eastern half of Kansas that can be tapped in locations that do not have untilled prairie. Western Kansas is largely wide open to wind power, but will require new and upgraded transmission lines to move the power to population centers in the East. Westar currently has an RFP (Request for Proposals) for up to 500 MW of wind and it is expected that KCP&L will also have an RFP in the foreseeable future for an additional 400 MW.

Community wind facilities can have an impact on the rural areas they serve without requiring new transmission lines. Two thirds of the 62 western-most counties in Kansas already have internal-combustion or small gas-turbine electric generators, and therefore the distribution capabilities to take community wind facilities.

Kansas has an excellent solar resource, especially in the Southwestern part of the state. Solar photovoltaics for individual or commercial use will work well anywhere in the state. Southwest Kansas could also house a central station solar facility. These types of renewable energy developments (wind and solar) create 2.5 times more local jobs than a comparable expansion of coal plants,⁴ and can stimulate other economic development throughout the state as well through new manufacturing facilities and side-industries that grow to support the new facilities.

To stabilize these intermittent resources, energy storage technologies, such as Compressed Air Energy Storage (CAES) could be tapped.

Central Kansas has suitable geology for CAES in the salt seams that lie below. Excess energy produced in non-peak hours can be used to pump air into the subsurface caverns, which would be removed during peak hours, thereby stabilizing the intermittency of these technologies and increasing their ability to dispatch power – a common criticism of solar and wind. Should the hydrogen economy come to fruition, using excess power to make hydrogen will also be an energy storage method.

Existing coal-fired power plants can co-fire using biomass, reducing the amount of coal combusted. Using native grass species such as switchgrass will have environmental benefits that also include soil stabilization and a reduction of fertilizers and pesticides if grown in place of other crops. And when it's time to upgrade or replace these coal plants, IGCC (Integrated Gasification and Combined Cycle) coal technology should be considered in those areas that have carbon sequestration potential. The CO₂ can be captured from the stack and stuck in the ground. In favorable sites, it could also be used for enhanced oil recovery (EOR) to maximize the amount of oil produced from existing wells.

Individuals need to be encouraged to produce their own power from renewables. Policies such as net-metering, sales-tax forgiveness (for systems purchased in-state), and rebates are good starts. Net metering in some form is currently available in 35 states, but not Kansas. Home power systems won't have a huge impact on the overall energy picture (our rural electric co-ops need to be reminded of this), but it does allow individuals with the means and desire to make the change to do so, and it should be encouraged by the State of Kansas.

REFERENCES

1. Kansas City Power & Light plans to build the 900 MW Iatan II coal-fired plant down-river from Atchison on the Missouri River.
2. See Energy Conservation plan approved by the KEC in December, 2006.
3. See http://www.awea.org/pubs/factsheets/Wind_Energy_An_Untapped_Resource.pdf
4. S. Tegen, Technical Report NREL/TP-500-37720, May 2006.
www.nrel.gov/docs/fy06osti/37720.pdf

News from the 2007 Legislature

by Jim Mason

KNRC Secretary & Webmaster

Once again, the landfill siting bill failed to pass. The bill number this year was **SB 145**. The bill was heard in the Senate Natural Resources Committee but that is all that happened. Sen. Carolyn McGinn, the committee chair, said she wanted to move the bill but didn't have the necessary votes to get it out of committee. She hopes it can fare better next year.

Likewise, legislation to repeal Kansas' antiquated laws regarding prairie dogs went nowhere. The bill this year was **SB 257**, and it also died in the Senate NR committee.

Sen. McGinn can take a large measure of credit for passage of a Conservation Reserve Enhancement Program (CREP) for the upper Arkansas River basin. This measure will permanently retire water rights in the alluvium along the river in western Kansas, using funds from the settlement of the lawsuit Kansas won against Colorado. This proposal had support from the Farm Bureau and Kansas Livestock Association in addition to Green groups and passed the Senate 37-3. Nonetheless, the measure drew fire in the House from special interests such as seed dealers, grain elevators and Seaboard, none of whom want to see less grain production in the area. The CREP became less than half a loaf in subsequent negotiations, but as it stands now there is a potential to buy out up to 40,000 acre-feet of irrigation rights. Without Sen. McGinn's efforts, we wouldn't even have that.

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A significant player this year was the Kansas Energy Council, an advisory body to Gov. Sebelius. The Governor appointed Lt. Governor Mark Parkinson as co-chair of the KEC in 2006, indicating its importance to her. The KEC developed an ambitious energy policy agenda this year along with a slate of bills. Check the KEC website at <http://kec.kansas.gov/> for upcoming meetings (always held in Topeka) and watch in December for their 2008 Kansas Energy Plan to get an idea of what they will be supporting in the next session.

Here are some other highlights of this session.

- **HB 2526** will require KDHE to begin monitoring atmospheric mercury deposition at a minimum of six sites statewide. When a 2-year moratorium on new coal plants did not pass, this bill came along in its wake to address one aspect of the concern over siting of more coal plants in our state. The data will be published on the internet, so be watching the KDHE website for that.
- Real estate agents and homebuilders will be required to disclose the energy efficiency of dwellings to prospective buyers as a result of **HB 2036**.
- A 10 year property tax break for Wolf Creek 2 (if it happens) was passed in **HB 2038**. Tax incentives for certain renewable energy and waste-to-energy facilities were included in this bill also.
- \$1M was included in the Governor's budget to help build new electric transmission lines in western Kansas, which will be vital for development of wind power in that area.
- **HB 2033** will enable electric utilities to charge ratepayers for Construction Work in Progress (CWIP). Amazingly, this bill passed with wide margins in both houses. New nuclear power plants were excluded from this bill, which is small consolation to all the ratepayers that will now become involuntary investors in power plant construction.

KNRC monitors the state legislature and sends periodic email alerts to members via the Kansas Legislative Update on the Environment (KLUE). If you have email and want to receive the KLUE report, drop a note to jmason15@cox.net

Remembering Bob Haughwout

by Jim Mason

KNRC Secretary & Webmaster

KNRC lost a stalwart supporter on May 7 when Bob Haughwout succumbed to a brain tumor. Bob was a member of the Board for more than 13 years, serving as President since October 2001 and Secretary for several years prior to that. A dedicated friend of the Kansas environment, Bob also worked with Wichita Citizens for Recycling and had been a member of the Vulcan community involvement group.

As fellow Wichitans, Bob and I usually carpooled together to Board meetings. In addition to Board business we also discussed anything and everything else as we buzzed up the turnpike to Emporia (the usual place for meetings). Bob always brought his sharp wit and good sense of humor to any topic. These same qualities were always in play in his role as Board President also, and were a great help in working our way through difficult deliberations.



In the small world department, Bob and I were only two years apart at Wichita West High School, although we didn't know each other at the time. Had we been in the same class we doubtless would have become acquainted because we were both advocates for the environment during those years. I helped put together some displays at West for the first Earth Day celebration in 1970, and had Bob not graduated the year previous I am sure he would have been active in that effort as well. We both went to KU after high school, but our paths never crossed there either, and that's a shame.

KNRC has always drawn dedicated, pragmatic individuals to its ranks, and Bob was certainly one of them. I know he would join me in encouraging all who read this to carry on the good fight on behalf of the Kansas environment. His untimely departure from the Board leaves a gap that needs filling. Any KNRC member who wishes to serve on the Board is encouraged to step up and help. (see election ballot below)

Memorial contributions may be made to KNRC, Botanica, the Great Plains Nature Center and Wichita Citizens for Recycling.

Board Election

The following individuals have agreed to serve on the KNRC Board. Per our Bylaws, they are hereby presented to the general membership for a vote. Please fill out this ballot and mail it in to:

Jim Mason, Secretary KNRC
1145 Jackson
Wichita, KS 67203

Jerry Lonergan – 3 year term	<input type="checkbox"/>
Larry Erickson – 3 year term	<input type="checkbox"/>
Scott White – 1 year term	<input type="checkbox"/>
_____ (write-in)	<input type="checkbox"/>
_____ (write-in)	<input type="checkbox"/>

Annual Dinner

KNRC will hold its 2007 annual dinner at The Beaumont Hotel on Saturday Sep. 22.

The agenda is:

- 1-2 PM: Hors d'oeuvres, social hour
- 2-5 PM: Tour of wind farm on Pete Ferrell's ranch just south of town
- 5-6:30 PM: Dinner (Entrée: Choice of Roasted pork loin w/ scalloped potatoes, Creamy chicken w/ rice or Vegetable quiche)

If you wish to attend, please send the name(s) of those coming with a check for \$40 per person to Jim Mason at the address above. Make your checks out to "KNRC" and indicate your menu choice(s). Rooms for Friday or Saturday night may be reserved by calling 620-843-2422. For more info: <http://www.hotelbeaumontks.com/>