



# Kansas Corporation Commission Kansas State Energy Office 2004 Annual Report

## From the Chair

The Annual Report presents the results of the State Energy Office's successful efforts to encourage energy conservation and promote the use of clean, renewable energy. The energy office funds projects that directly reduce the amount of energy used in Kansas. This provides an immediate boost to the economy since less energy has to be imported.

The "new" Facility Conservation Improvement Program (FCIP) is a shining example of the energy savings that can be realized.

It provides a mechanism to increase the energy efficiency of Kansas' schools and municipalities, in addition to state agencies. Other energy programs look to the future. In FY04, funding was provided for a study evaluating the economic impact of wind farms and tourism in the Flint Hills. Over the past year, there has been a spirited debate concerning the balance between protection of the tallgrass prairie and the right of landowners to install wind turbines. Studies, such as this, provide additional information, which may be utilized in the process of determining public policy.

The energy office continues to foster the partnering of state and local governments with local and regional business communities. Through these partnerships, with the pooling of knowledge, experience, and resources, much is being accomplished to further the awareness, need, and implementation of good stewardship of all our energy sources through energy efficiency, conservation measures and the development and enhancement of renewable energy. Energy grants and educational programs, funded by the energy office, along with matching funds and in-kind contributions play a critical role in assuring reasonably priced, reliable, and environmental friendly energy for all Kansans – now and in the future.

Thank you to all of the grantees and the staff of the energy office for another excellent year.

*Brian Moline, Chair  
Kansas Corporation Commission*

## Overview of the Kansas Energy Office

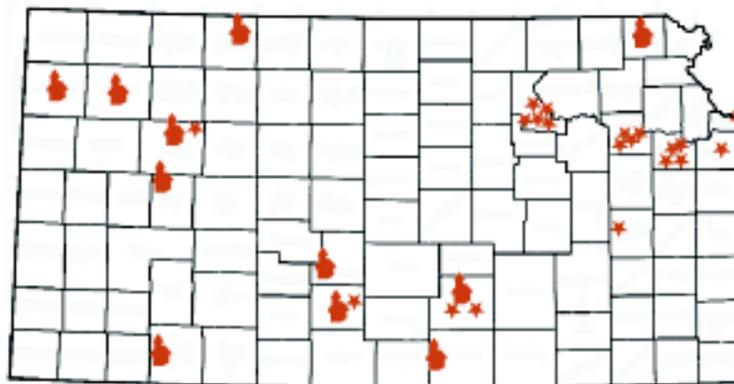
The State Energy Office (SEO) addresses Kansas energy priorities and funds programs to deploy emerging renewable energy and energy efficiency technologies and provide educational forums on these topics. Office personnel also answer citizens' questions, give them guidance on energy related matters and keep Kansans in touch with the latest developments in the energy field. The SEO also partners with other state and federal entities to provide Kansans with improved access to

their programs. This year, the SEO co-hosted workshops with USDA Rural Development to instruct interested Kansans about monies available for renewable energy and energy efficiency projects in the U.S. Farm Bill. This year's ICP grants administered by the SEO provided an estimated \$100,000 in annual savings in utility bills to eleven Kansas school districts.

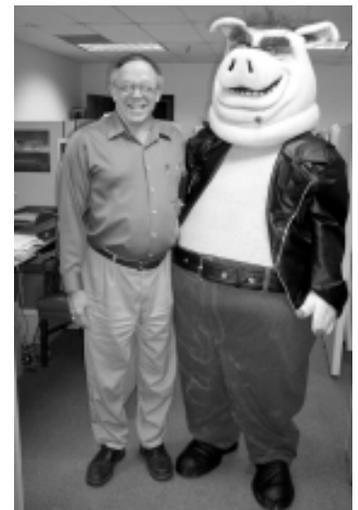
Next year, the SEO is introducing the Facilities Conservation Improvement Program. It will provide energy savings and relief

from high utility bills to a much broader constituency. Assistance for energy efficiency, renewable energy projects and energy education will be continued by the SEO (see page 16 for program guidelines).

The SEO provides assistance for projects as diverse as solar lighting for state parks and rural libraries to funding studies for careers in renewable energy for Kansas students. The SEO is also the primary sponsor of the popular Renewable Energy Conference held every fall at venues around the state. The SEO's numerous ventures help move Kansas toward achieving Governor Sebelius' goal of promoting policies to encourage renewable energy and energy efficiency in Kansas.



★ Grants  
★ Institutional Conservation Program



*The new spokessvillian for energy waste, the Energy Hog, visits Energy Office Manager, Jim Ploger.*

# State Energy Grants

## Energy Education

### Formula Sun Raycing

*New Resources Group  
Freeman, MO 877-840-5511*

For the past eight years, the State Energy Office has been a major sponsor of Formula Sun Events. The Formula Sun Week of Solar Raycing has featured both solar bikes and solar cars in two separate sub-events since 2000.

In 2004, Solar Bike Rayce USA finished its tenth year with improved statistics all around. Over forty teams from both coasts of the U.S. and everywhere in between came to Topeka to race on the 1.8-mile course at Heartland Park. Nine teams were from Kansas. Finishing in a record time of 2 hrs. 8 min., the pedal classes (A, B & X) was won by a rookie team from St. Thomas Academy of Minnesota, topping the old record by several minutes. The Old Rocket Men from the Kansas City Area and the Psychloholics of Bloomington South HS in Bloomington, IN won second and third overall in the A, B & X classes, respectively. All but two of the pedal class entries finished the whole 100-kilometer event in the time allowed, which shows that teams were very prepared for the challenge offered.



*Teams enjoy camaraderie and a group picture at the Formula Sun Rayce in Topeka.*

### Volunteer

Volunteers are always needed for the Formula Sun Rayces at Heartland Park, Topeka. Come out, have a good time, and enjoy the raycing. Call 877-244-7727 to volunteer.

Of the thirteen S-class (solar only) teams, five finished the 100k Challenge, a new record. The S-class competition was won by St. Thomas Academy of Minnesota, with an average speed of over 32 mph. This was the first time ever for the same school to take top honors in both AB&X and S-class events. Second place went to Los Altos HS of Los Angeles, California and third was taken by Avon HS of Avon, Indiana. Check out the website, [www.solarbike.org](http://www.solarbike.org), for more information, or call 800-458-2898.

The Formula Sun Grand Prix featured twelve university teams, primarily from the Midwest. The winning entry, University of Missouri at Rolla, drove more than eight hundred-fifty miles over a rain spattered and partially cloudy three-day period beating the nearest competitor, the University of Minnesota, by ten laps at the end of raycing. Further information can be found at [www.formulasun.org](http://www.formulasun.org), or call 800-606-8881. The events will be held in Topeka again in early spring 2005.

### Solar Powered Electric Cars

*Kansas ElectroRally, Inc.  
785-235-3008*

The Energy Office sponsored the experimental class race of the Kansas ElectroRally. The ElectroRally is the nation's largest high school electric car race. The experimental class consists of cars partially powered, and the battery charge retained during racing, using solar power. The ElectroRally had another exciting two-race series in the experimental Class. Eight different Kansas high school teams competed with a total of thirteen cars using solar electric (PV) panels. Jeff Simpson of SunLectric provided technical support to the teams and managed the two-race series consisting of the Aquila Showdown in Great Bend and the Touchstone Energy ElectroRally in Topeka.

The increased weight of the vehicles caused by the PV panels challenged the students. In theory, 60 watts of PV panels could add ap-

*I guess you know how hard it is to keep some of these kids interested in school. That is why I'm sold on vocational club and the electric car. I have students that don't try for other teachers (and haven't tried hard for me in the past), but because they have that common goal to finish the car and have worked long hours, they will do the work and their behavior in class is better. One student has told me in times past that he doesn't plan on being there very long anyway, so why should he do anything. But once we got to working on the electric car, and I emphasized his need to get his grades up, he did it! He would come in all times during the day trying to figure out how to fix something, or how to change something to make it better. He would also hound me to go work on it. You can't go wrong with the Kansas ElectroRally.*

*...Kansas ElectroRally Instructor*

proximately 10% in additional power to the maximum 64-pound battery pack of the student-built electric cars. Several teams overcame the increased weight and achieved a net gain in total distance traveled in a one-hour race. Also, many of the teams used the PV panels to charge their batteries prior to the race and reported better charging performance compared to standard plug-in (110 volt) chargers. All race results and complete information can be found at [www.kansaselectrorally.org](http://www.kansaselectrorally.org).

## **KSU Solar Car** *KSU Foundation* 785-532-5506

The Kansas State University Solar Car Team has grown over the years and is attracting students from all majors throughout the university. This diverse group of people has spent their free time making the car and team a success. Some do research and design to produce a high technology vehicle, while others work to keep the team running like an effective business and work with sponsors. From all this effort, the team produced a \$300,000 vehicle that has traveled 7500 miles on the roads throughout America.

During racing, the car has traveled from Chicago, Illinois to Claremont, California twice. While on these drives, the car has been displayed to thousands of people. The team is able to share their knowledge of solar energy with these people, who all seem very excited to see young students working on problems of the future. The team does public showings throughout the state of Kansas quite frequently. These range from car shows to parades to society meetings to the renewable energy conference.



*Examining K-State's CATalyst without its solar panels.*

The KSU Solar Car excels at track racing. Raycing takes place at Heartland Park in Topeka, Kansas. Over the last two years they have placed both second and third with the car, CATalyst, and first place with the car, Apollo. CATalyst has also done well in the cross-country races. Catalyst has placed both fifth and eighth out of thirty teams on the last two cross-country races, and it was the only car to race in both races. The Kansas State University Solar Car Team has become very successful over the last few years with the help of the grant from the Kansas Corporation Commission. Not only has the experimental vehicle fared well in racing, but the team has shared knowledge about solar energy and other alternative energy sources with the public.

## **Communities of the Future** *City of Manhattan* Manhattan 785-587-2412

The City of Manhattan received a Community of the Future grant from the U. S. Department of Energy in 2002. The City received an extension until September 2004 to facilitate an Energy Audit program. The Energy Audit program consisted of offering home energy ratings to homeowners and builders within the City of Manhattan. Each participating homeowner or builder would work with a certified energy rater to obtain an energy rating, along with recommendations to make their home more energy efficient.

In the beginning of 2004, it was decided that around 100 energy ratings would be completed. This would include both new construction projects and existing houses that were single and two-family in nature. The announcement that applications were being accepted for free energy ratings was posted in early March. Energy ratings were assigned to qualified energy raters soon thereafter. Contracts were e-mailed to the energy raters for each house address. By responding to the e-mailed contract, the energy rater accepted the responsibility of performing a Home Energy Rating for that house. Energy ratings continued to be assigned as energy reports and requests for payment were received.

The program received a positive response from the raters, the citizens, and the builders. A total of 128 energy audits were completed; six were new construction and 122 were existing homes. Because of this special grant, the community learned how to save money by conserving energy and making their homes more energy efficient.

## **Energy Annual Report** *Pinnacle Technology, Inc.* Lawrence 785-832-8866

Pinnacle Technology was hired by the Energy Office to prepare the Annual Report that you are currently reading. The Energy Office asked Pinnacle to collect information from all the grantees during fiscal year 2004, summarize the activities of the grantees, and produce an easy-to-read report highlighting all the activities undertaken by the Energy Office during the year.

# State Energy Grants

## **CFL Voucher Redemption Campaign**

*Lawrence Waste Reduction & Recycling  
Lawrence 785-832-3030*

Lawrence Waste Reduction & Recycling (LWRR) conducted a campaign to increase awareness and usage of energy-saving compact fluorescent light bulbs (CFL) in the community. To prepare for the campaign, local retail partners were first established. The retail partners were comprised of local hardware, lumber, grocery and department stores. Planning for the Lawrence Home Energy Conservation Fair (HECF) and Sustainable Homes Tour consisting of contacting exhibitors and speakers, preparing advertising and distributing flyers was completed. Vouchers for CFLs and shelf-talkers for store displays were developed.

The campaign was launched at HECF 2003. Vouchers were first made available to the public at the Fair. LWRR purchased a stock of CFLs to sell at the Fair for \$2 each, with a voucher to attendees. Attendance at the Home Energy Conservation Fair and the Homes Tour was very good; approximately 300 people attended. Response to the LWRR booth focusing on light bulb efficiency, proper disposal, and the sale of CFLs was very favorable, and the bulbs sold out. The remaining vouchers were then distributed throughout the campaign through local neighborhood and housing or service agencies, as well as through public response to articles and other publicity on the campaign.

Articles regarding HECF & Sustainable Homes Tour and/or the Voucher Redemption Campaign were published in Kaw Valley Business Monthly, the Lawrence Journal World, the Lawrence City Connection (Lawrence Area Neighborhood Newsletter), the Phoenix (city employee newsletter) and the Lawrence Housing Authority newsletter. Advertising was published in the Lawrence Journal World, the Merc News, HRES Booklet, and Lawrence Home Builders Publication. Additionally, a local retail partner and a vendor from the Fair each built in-store demonstration cases comparing the energy use of incandescent bulbs versus CFLs.

The campaign resulted in 251 out of 1118 (22%) of distributed vouchers being redeemed by Lawrence citizens, the majority of which were redeemed at the HECF kickoff event. LWRR feels that had there been another large citizens' event, such as Earth Day in the Park, celebrated in Lawrence in April, to distribute the vouchers and offer immediate redemption opportunities, the redemption rate would have been even higher.

If the citizens who purchased CFLs use them an average of four hours/day for the next 3 years, they will have saved a combined 84,312 kWh of electricity, compared to using 100-watt light bulbs. At \$0.08/ kWh that equals \$6,745 in savings. Additionally, the new awareness of CFLs and the energy education gained by at least 1,100 Lawrence citizens is significant for future energy savings.

## **Kansas Energy Information Network**

*KU Energy Research Center  
Lawrence 785-864-2073*

For the past three years, the Kansas Energy Information Network (KEIN) has provided a first stop on the Internet for energy information relevant to Kansans. The regularly updated web-site provides links to news, information, and events that effect Kansas energy consumers and producers.

In FY'03 KEIN began hosting the web-site and reports of the State Energy Resources Coordination Council (SERCC - now known as the Kansas Energy Council, KEC), which has led to the highest activity on the web-site to-date. The number of unique visitors each month nearly doubled in FY'04 from FY'03, while the average daily hits to the web-site nearly tripled in the same time period.

The relationship with KEC had the largest impact on the web-site's activity. KEC issued several key reports in FY'04, including the "2004 Energy Plan" and the "Wind and Prairie Task Force Report", which drew the attention of a large number of people. These reports and regular KEC press releases which listed KEIN's URL also had an impact on the number of users. High gasoline and natural gas prices this past year also seemed to spur interest in energy issues.

Other activities in FY'04 included taking on the maintenance and administration of the Kansas Renewable Energy Working Group's web-site. For more information, please visit the web-site: [www.kansasenergy.org](http://www.kansasenergy.org).

## **Deanna Rose Children's Farmstead**

*Overland Park Foundation  
Overland Park 913-897-2360*

The Deanna Rose Children's Farmstead is a 12-acre park in southern Overland Park that lets children experience nature and frontier life. It opened in 1978 and was renamed in 1985 to honor Deanna Rose, an Overland Park police officer who was killed in the line of duty. With their grant, the Farmstead installed working examples of various forms of renewable energy production. Billboard displays also chronicle the history of wind energy from 6<sup>th</sup> century Persia to present day. A geothermal heat pump produces both heat and air-conditioning for their one-room schoolhouse and the Kansa Indian encampment. A small solar panel and a light bulb demonstrate to children how electricity is produced directly from sunlight, and a windmill pumps water for the Farmstead's mining display, where children "pan" for brightly colored objects, just like old prospectors use to pan for gold.

The Farmstead's schedule made construction of the displays a challenge, since prime construction months were also the most heavily vis-

ited. The project had to be placed on a longer timeline than was originally anticipated. The Farmstead wishes to thank the Energy Office for their patience. The final outcome was worth the wait.

Deanna Rose Children's Farmstead is at 138<sup>th</sup> and Switzer in Overland Park. You and your kids will enjoy the farm animals, birds of prey, vegetable and flower gardens, one-room country schoolhouse, old-time fishing pond (yes, you can go fishing), horse-drawn wagon and pony rides, energy displays, and frontier life from April 1 – October 31. Admission to the Farmstead is free, but donations are gratefully accepted. Call 913-897-2360 for details.

## Renewable Energy Careers

*Kansas Board of Regents*

*Topeka 785-296-0620*

The Kansas Board of Regents (KBOR) Office of Career and Technical Education sponsored the first statewide postsecondary education/renewable energy industry developers' summit entitled "A First Step: Renewable Energy Careers" on January 30, 2004. The summit provided industry representatives, postsecondary educators, state agencies and other stakeholders with an opportunity to develop an educational model that will leverage the resources of industry, universities, community and technical colleges in an attempt to shape a growing segment of the Kansas and national economy. The Kansas Corporation Commission's (KCC) Energy Office hosted the summit at the KCC Hearing Room in Topeka, Kansas.



*Jim Ploger, Energy Office Manager, moderates a panel of postsecondary educators from state universities and community colleges at the Renewable Energy Careers Summit.*

Jerry Lonergan, President of Kansas, Inc., served as the emcee and Dr. Paul Osborn, Director of Technical Education, KBOR, provided the opening remarks. Dr. Kyle Wetzel, President of Wetzel and Co., Inc. of Lawrence, was the moderator of the Renewable Industry Panel. The panel was comprised of representatives from Aquila, Black & Veatch, Garrad Hassan & Partners, GE Wind Energy, JW Prairie Windpower and Kansas Wind Power. David McGee, Labor Market Information Services, Kansas Department of Human Resources, presented the Renewable Energy Industry Workforce Feasibility Study.

Jim Ploger, KCC Energy Office Manager, served as the moderator for the panel of Kansas postsecondary educators from Wichita State University, Fort Hays State University, Barton County Community College, Cloud County Community College, Johnson County Community College, Flint Hills Technical College and Manhattan Area Technical College. The panel presentations provided an opportunity for interaction between industry and higher education officials on topics such as the education and training needs required for this emerging industry. One recommendation from the group was to plan a follow-up meeting to discuss "next steps".

An outcome of the summit was an expression of support by industry and education representatives for the Associate of Applied Science degree program in Wind Power Technology, a collaborative effort by Cloud County Community College and Manhattan Area Technical College, that was submitted to and ultimately approved by KBOR on March 22, 2004.

A cost/benefits analysis was conducted to complete the Renewable Energy Careers Project. The results of the analysis and a summary of "The Renewable Energy Careers Project" can be accessed at [www.kansasregents.org/adult\\_ed/renewable.html](http://www.kansasregents.org/adult_ed/renewable.html). For additional information please contact Dr. Patricia Altwegg, Project Director, at (785) 296-0620, or e-mail your inquiry to [paltwegg@ksbor.org](mailto:paltwegg@ksbor.org).

## Homeowner Energy Conservation

*Community Action*

*Topeka 785-235-9561*

The Community Action Energy Education program has been most effective in their geographical coverage area. They have leveraged other grants to provide additional components, such as Winterization Kits. The kits contain window and door covering plastic, caulking, pipe wrap and instructions in their use. Attendance at an Energy Education Workshop is required to receive one of these kits. The workshops provided Community Action volunteers the opportunity to discuss energy conservation and give homeowners/tenants specific suggestions on what projects they can do, or actions they can take, themselves to improve their home's energy efficiency. The workshop was also used as an introduction to the state weatherization programs in which most of the attendees enrolled. The information disseminated has been invaluable in the reduction of energy costs to low-income families in Community Action's service area.

# State Energy Grants

## **Solar Library Project** *Jay Johnson Public Library* *Quinter 785-754-2171*

The old appliance store just isn't the same anymore. The Porter Trust donated the town's old appliance store to the city of Quinter for expansion of the Jay Johnson Public Library, which is located next door. The building required some remodeling before it could be used, and the Quinter librarian, Sharon DuBois, and community activists, Eric Johnson and Roger Ringer, were determined to make the building as "green" as possible. They felt this would save the city tax dollars in the long run, and set an example as to how an existing local building could be renovated to higher efficiency standards by incorporating renewable energy technology. With this in mind they spearheaded the Solar Library Project.

The donated building required a new roof (they used R45 insulation for maximum effect), so adding solar panels during construction could easily be accommodated. The 3 kW solar panels now provide enough electricity to power both the newer and older sections of the library during daylight hours, excluding air-conditioning. When surplus power is produced, it is sold back to the local utility, Midwest Energy, at wholesale.



*The solar array on the Jay Johnson Public Library in Quinter provides enough electricity to power all building functions, except air conditioning.*

The solar library is also going to be an educational experience. The library is on Main Street, so citizens see the solar panels when they drive down the street. In the words of Eric, "They can see it, get use to it, know what it is all about, and they will no longer be skeptical of it." An educational kiosk showing real-time power generation will be constructed at the library for patrons, and there will be a web site where anyone can go online to learn more about the library and its solar project. Tours are also being planned this year for Quinter grade school and high school science classes to learn more about solar energy.

The project has created quite a stir. Newspaper articles on the solar library have been written in the Salina Journal, the Hays Daily News, and the local paper, the Gove County Advocate. An article is also being written for publication in the Library Journal, the official publication of the American Library Association. Other libraries and senior centers around the region have been asking questions and gathering information for their own projects.

One of the most amazing things about the library project is that it was completed without local tax dollars. The entire project was funded by grants and donations. In addition to the energy grant, the library was able to obtain Kansas Community Service Tax Credits from the Kansas State Department of Commerce, whereby people who donated to the project were given 70% tax credits against their Kansas and federal income tax. This is an excellent example of what can be done in a community when dedicated citizens take it upon themselves to improve the community's quality of life.

## **Project Learning Tree**

### *Kansas Association for Conservation & Environmental Education (KACEE)* *Manhattan 785-532-3322*

Building on the strong network for environmental education in Kansas, KACEE introduced a new energy education curriculum to Kansas educators. *Energy & Society*, developed nationally through Project Learning Tree, offers PreK-8 grade formal and non-formal educators hands-on activities related to understanding energy, energy issues and their relationship to the environment.

Through this grant, KACEE was able to provide nearly 200 educators from across the state with *Energy & Society* training and materials. Educators participated and learned how to utilize great activities such as:

- "Renewable or Not" is a hands-on simulation that explores the ways we use our natural resources and helps students define and understand renewable and non-renewable resources.
- "Energy Sleuths" guide students in an exploration of energy sources and ways we use energy in our everyday lives.
- "Waste Not Want Not" is an activity designed to promote an un-

derstanding of energy conservation by conducting a school or home-based energy audit and then problem-solving to explore ways to conserve energy.

In addition, workshop participants explored the energy education materials and opportunities available through the Kansas Energy Education Foundation (KEEF) and looked at ways these materials could be incorporated into thematic energy-related teaching units.

KACEE utilizes a network of volunteer workshop facilitators to implement their environmental education programs. As a part of this grant, facilitator training was conducted in June 2003 for 12 participants. These participants were engaged in activities and explorations of how to conduct quality environmental education activities, development of facilitation skills and hands-on training on how to initiate, organize and host environmental education workshops. As a part of this facilitator training, the participants explored the new *Energy & Society* materials and ways in which these workshops could be implemented more broadly throughout the state.

For more information on this program, please contact: Beth Carreno, Coordinator of Education Programs (KACEE) at: 785-233-4721 or [bcarreno@swbell.net](mailto:bcarreno@swbell.net).

## Kansas Energy Extension Service

*Kansas State University  
Manhattan 785-532-6026*

In 2004, Energy Extension Service (EES) entered its 24<sup>th</sup> year of service to Kansas energy consumers. EES provides timely, factual, and unbiased answers to questions on energy topics ranging from production of renewable energy to energy conservation and air quality. EES answers hundreds of questions annually on topics ranging from home heating to the cost-effectiveness of renewable energy systems. EES produces original publications, maintains Web resources, and responds to telephone and e-mail energy questions.

High natural gas prices and the development of wind energy in Kansas set the tone for activities at the Kansas Energy Extension Service this past year. Natural gas prices have been inching up since a spike in 2000. With low gas-storage levels and a cold winter forecasted, staff at KEES began gearing up for the flood of questions on how to control heating costs. Fortunately, the weather was milder than expected in the populated East Coast regions, so prices, while higher than in past years, were not as high as forecasted.

Wind power development first hit Kansas near Montezuma in the western part of the state. While wind resources are excellent in those areas, a paucity of electric power transmission lines will limit wind power development there. However, wind energy resources are excellent in the environmentally sensitive Flint Hills region, where transmission is available. EES staff were drawn into the debate to provide accurate

and unbiased information on the economic potential of wind power development.

While these two topics dominated the discussions, KEES continued to provide state-of-the-art information and literature to assist the small energy consumer in making informed energy decisions. This was done through direct telephone assistance, often initiated by K-State Research and Extension staff; presentations at local meetings; media interviews and appearances; and through *Ask Energenie*, the weekly question-and-answer column on energy issues. Energenie first appeared in the 1981 Winter issue of *Energy Ingenuity*, a quarterly newsletter published by KEES. *Ask Energenie*, the weekly Q&A newspaper column on energy,



*The original Energenie logo. Energenie has been helping Kansans save energy for 23 years.*

continues to be a popular vehicle for dispensing current energy information. The column is distributed to 67 daily or weekly newspapers and all 105 county extension offices. County offices repackage the information for local newsletters for an even wider distribution.

In addition, the Energy Extension Service focused on providing education programs to the general public concerning energy, environmental, and economic costs and benefits associated with current and future usage of both fossil-based and renewable energy sources.

## Energy Hog

*The Advertising Council  
New York, NY 212-922-1500*

**Energy Hog** is a national public service advertising campaign designed to make children and their parents aware of energy efficient behavior through a new spokes-villain, the Energy Hog, an energy waster. The campaign was developed by the Advertising Council and Energy Outreach Colorado. Energy Hog is sponsored by the U.S. Department of Energy, various corpo-



# State Energy Grants

rations and organizations, and 19 state energy offices, including the Kansas Energy Office. The object of the campaign is to develop an appreciation for energy efficiency at an early age, and through children, encourage their parents to do the same.

The campaign includes television, radio and Internet public service announcements (PSA) primarily targeted at children between the ages of eight and thirteen. The Energy Efficiency Campaign will span several years and in future phases target parents and teachers. Per the Ad Council model, the PSAs will be distributed to media outlets nationwide and will run and air in advertising time and space that is donated by the media. Access Energy Hog at [www.energyhog.org](http://www.energyhog.org). It is fun for the whole family.

*The Advertising Council is a private non-profit organization that has been raising public awareness to critical social issues since its "Loose Lips Sink Ships" campaign of 1942.*

## Transportation

### Biodiesel Outreach & Education

*Kansas Soybean Association  
Topeka 785-271-1040*



*Customers queue up to purchase biodiesel in Topeka.*

The Biodiesel Outreach and Education program, coordinated with the United Soybean Board's Biobased Products Initiative and the Kansas Soybean Commission's biodiesel promotion program has resulted in a marked increase in the use of biodiesel blended with diesel fuel in

Kansas. The number of biodiesel retail outlets has increased as the first targeted user audience, the soybean farmers in Kansas, have been educated and have asked for B2 (2% biodiesel/ 98% diesel) or higher blends of the off-road fuel on their farms. Other general diesel consumers are now also asking for biodiesel to use in on-road applications.

As increasing the number of biodiesel retail outlets was the primary focus of this Kansas Corporation Commission (KCC) grant, its success can be shown in the increased number of off-road and on-road biodiesel blend retail outlets in Kansas. Over the term of the FY2004 program the number of off-road B2 or higher blend outlets has increased from 87 to 136 and on-road from 7 to 15. The first B20 (20% biodiesel) retail pump was opened in Kansas this year in Topeka by Capitol City Oil at 75 Highway and Lower Silver Lake Road.

### Wichita Regional Rideshare

*Wichita Transit  
Wichita 316-352-4807*

During FY'04, Wichita Transit continued to plan for and provide expanded customer services. State Energy Office funds were used to support those efforts in two very important areas: expanded options for customer convenience cards and the implementation and marketing of a new core area trolley service for the downtown and Old Town districts. In conjunction with the implementation of new electronic fareboxes and magnetic passes, a need surfaced for a single ride instrument (script tickets) which were purchased with this funding. In addition, those funds were used to support the development of promotional materials for the experimental "Q-Line" lunchtime trolley service. Both efforts were successful! The script tickets have become an invaluable tool for social service agencies in controlling allocated bus rides and the Q-Line experiment averaged over 50 and a high of 144 trolley trips for a single lunch period.

## Utilities & Power

### Public Benefit Study

*Energy Programs Consortium  
Washington D.C. 202-237-5199*

One of the key findings of the Kansas Energy Plan 2003 was that the state has become a net energy importer and that by 2007 could be importing more than \$2.5 billion worth of energy resources to meet its consumption requirements. The purpose of this report was to explore options for establishing a public benefit fund to support the delivery of energy efficiency and renewable energy programs to help reduce the state's need to import energy resources and thereby strengthen the state's economy. The recommendations are based upon a review of evolving

programs across the country (what is working, what is not), a review of Kansas' energy and economic development goals and an evaluation of possible programs and their potential benefits for the state. The recommendations are:

- 1) Kansas should establish a public benefits fund to help increase the State's energy self-sufficiency and restore Kansas to being a net energy exporter, which is one of the primary goals of the Kansas Energy Plan 2003.
- 2) A comprehensive program should be supported by the fund to help achieve the Kansas energy goals. This type of program would require a non-by-passable charge on the distribution of electricity to all customers at a rate of two mills per kilowatt-hour. A fund set at this level would be similar to other comprehensive state public benefits programs.
- 3) The Kansas Corporation Commission (KCC) should establish the public benefits fund through a proceeding engaging all potential stakeholders, since such an implementation approach would be the quickest option. To implement the program, the Kansas State Energy Office (SEO) should be selected as the public benefits fund administrator.
- 4) The public benefit fund structure should have the KCC as the governance entity, similar to the approach followed by most other state programs.
- 5) The Kansas SEO should develop a list of potential specific programs for consideration for funding.

The entire report is available from the State Energy Office. See the back page of this report for contact information.

## Wind & Biomass Conference

*Pinnacle Technology*  
*Lawrence 785-832-8866*

Over 300 people from 17 states attended a 1-1/2 day conference focusing on wind and biomass energy conducted by Pinnacle Technology Inc. on September 29-30 at the Wichita Airport Hilton for the Kansas Corporation Commission. The conference welcoming remarks and introductions were by Susan Duffy, Executive Director of the KCC. Dr. Lee Allison, Chairman of the State Energy Resources Coordination Council (SERCC), then presented the overview of Kansas' energy resources. This was followed by Alex Silver, Black & Veatch, giving the overview of renewable energy resources in Kansas. Next, Dr. Randy Swisher, American Wind Energy Association, and Dr. Helena Chum, National Renewable Energy Laboratory, gave talks about the state of the industry in wind and biomass energy, respectively. The first 1/2 day finished with a roundtable discussion of current renewable energy events by members of the House and Senate Energy and Agriculture committees. Monday evening, Polsinelli, Shalton, and Welte PC of Overland Park sponsored a reception for all attendees. Later that evening, attendees were invited to attend a special Halloween show at the Mosley Street Melodrama in Old Wichita.

The second day was devoted to parallel tracks in wind and biomass energy. Over fifty nationally and regionally recognized experts in wind and biomass energy presented at the conference. Some of the topics discussed were: what landowners need to know about leasing to wind developers; current ethanol plant development in Kansas; the 2003 U.S. Farm Bill; job creation in the wind industry, and; the current state of development of Kansas' wind potential. Conference attendees could also browse the exhibit hall where they picked up information and met and asked questions to the numerous exhibitors at the conference.

The conference educated landowners, city, county, and state officials, utility representatives, researchers and businesses as to realistic expectations for business development and job creation in renewable energy. This core group was encouraged to be proactive in the development of renewable energy within the state.

## Solar Lighting

*Kansas Department of Wildlife & Parks*  
*Pratt 620-672-5911*

Kansas Wildlife and Parks has been improving state campgrounds with solar power for over ten years thanks to grants from the State Energy Office. Originally, solar lighting was used to improve the safety of remote shower facilities where grid electricity was impractical to provide due to expense. Those early lights would stay on for 4-6 hours after dusk. Thanks to improvements in solar lights, the new lighting being installed now lasts for 9-10 hours, or almost all night. With the great success of solar lighting around shower areas, the program was expanded to light playgrounds, park signage, boat ramps, etc. This year, the vault (no water) toilets at Scott, Kanopolis and El Dorado



*Solar lighting adds safety and extends the hours for enjoyment for all Kansans in our state parks.*

# State Energy Grants

State Parks received illumination, and park entrances at Webster, that were previously difficult to see after dusk, now have solar lighting. Elk City's solar lights were installed at playgrounds to provide evening lighting for children's safety. These and past solar projects have increased visitation at Kansas state parks.

## Flint Hills Study

*Fermata*

*Austin, TX 512-472-0052*

*Fermata is an international nature tourism consulting group. It focuses on tourists searching for the natural, historical, and cultural heart of a region and how that tourism and economic development can take place without destroying its essence.*

The Tallgrass Prairie use to cover over 400,000 square miles of North America; now less than 1% remains, and it is primarily in the Kansas Flint Hills. Groups opposed to wind energy development in the Flint Hills have suggested that the economic benefits of tourism plus the pristine beauty of the Flint Hills outweighs the economic benefits of developing the Flint Hill's wind resources. The economic impact of wind energy development is relatively easier to estimate than the impact of tourism over an area as large as the Flint Hills with no one particular destination point. The Energy Office funded a White Paper by Fermata, Inc., Austin, TX, to determine the economic impact of each. The paper not only assesses current value of tourism, but also its future value with proper promotion, and suggests ways that wind farms and aesthetics can coexist. This is an extremely interesting paper that should be studied by people on either side of the Flint Hills wind energy issue. The document can be found at:

<http://www.fermatainc.com/kansas/index.html>

## Hydropower Education

*Bowersock Mills & Power*

*Lawrence 785-843-1385*

The turbines at Bowersock Mills & Power were the engines that drove the development of Lawrence in its early years. The turbines first provided mechanical power via a belt and pulley system, then DC power, and finally AC to run the milling and barbed wire industries that differentiated Lawrence from other frontier towns of the late 1800's. Today, the original plant still stands beneath the Massachusetts Street bridge. It now produces up to 2.5 MW of electrical power, enough for 1800 Lawrence homes.

To help educate people about hydropower and the rich history of Lawrence and Bowersock Mills & Power, several projects over the past three years have upgraded the facilities so tours can now be given to the general public. A web site was also created, [www.bowersockpower.com](http://www.bowersockpower.com). It gives historical background, shows current power production and is a contact point to schedule tours of the plant.

Plant tours have increased thanks to these special projects and, in particular, the web site. However, just being on the web is challenging. The plant is on the river, somewhat removed from the regular Sunflower Cable Network, and running cable to just one customer is economically unfeasible. This year, the Energy Office provided funding for Bowersock to have wireless access to the network. It was a small grant, but one that helps keep the citizens of Lawrence in touch with their roots. Group tours of the plant are available upon request.

## Buildings

### Home Energy Raters

*Kansas Building Science Institute*

*Manhattan 785-537-2425*

The purpose of the project was to help develop the market for home energy ratings by providing educational tools and resources for energy raters and by increasing builder awareness of the value of energy ratings.

Several web-based tools were provided for energy raters, including downloadable field data collection forms, a brochure to help them market energy rating services, and an on-line bulletin board to facilitate communication among raters. Also, technical tutorials for raters were developed and tested, including Understanding the HERS Reference House, Energy Efficiency Financing Options, and Calculating Building Geometries.

Homebuilders in the Kansas City and Manhattan markets learned how home energy ratings could help them market the energy efficiency features of the homes they build. Because of the widespread adoption of residential energy codes in the Kansas City metropolitan area, presentations conducted there as part of two Home Energy Rating Field Days in April 2004 emphasized how a home energy rating could provide a more flexible path to energy code compliance. Manhattan builders learned primarily how home energy ratings could help them market energy efficiency features in new construction as part of a February 2004 presentation.

Efforts also were undertaken to make information about energy efficiency mortgages (EEMs) more widely available to those who could benefit from them by purchasing new homes that score 80 or higher on the 100-point HERS scale. Low interest rates and strong housing markets have diminished interest in these financing tools during the past several years. Increases in interest rates, housing prices and energy costs likely will result in a stronger demand for energy efficiency features in new construction and ways to finance these features.

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## Special Projects

### Building Codes & Standards

*Kansas State University*  
785-532-6026

Kansas was the first state to adopt the International Energy Conservation Code of 2003. Since then, numerous other states have followed suit including our neighbor to the north, Nebraska. In addition to adopting the IECC 2003, Kansas added a Home Energy Rating residential compliance option. Any home that receives a Home Energy Rating of 80 or greater is deemed to comply with the IECC 2003.

Because of Kansas' continued leadership in adoption of building energy codes, it was singled out for a State Energy Program Case Study, *Building Confidence, A Story of Consensus in Kansas*. The four-page case study highlights the history of energy code adoption and enforcement in Kansas from initial code adoption and training in 1997 through this year's successes.

Activities undertaken this year as part of the Building Energy Code special project grant include training for engineers and architects on commercial provisions of *ASHRAE 90.1-2001*, Home Energy Rating Field Days for residential builders and allied trades, revision and expansion of the *Tips for Purchasing an Energy-Efficiency New Home* brochure, and fact sheets and cases studies to support ongoing efforts. While most of these activities have been completed, local building trade groups have requested additional training for their members later this fall.

### Tall Tower Wind Data

*Coriolis*  
Lawrence 785-841-1906

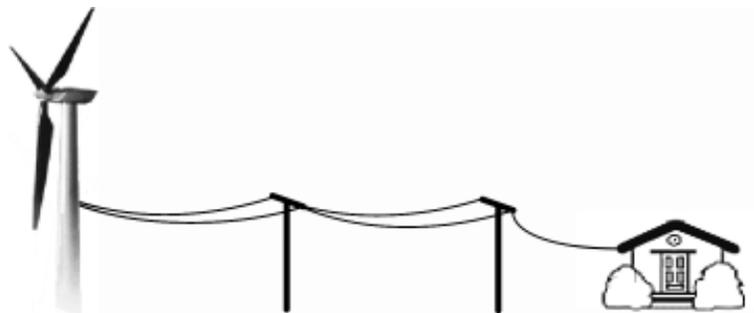
Wind energy is increasingly recognized as an important natural resource for Kansas and the Great Plains of North America. A keen understanding of when and how fast the wind blows is crucial to minimizing the cost of wind-generated electricity and maximizing its development potential. Kansas wind resources have been scrutinized for over three decades, but most measurements have been made at an elevation of 10 meters with a few sites evaluated at 40 or 50 meters. With early wind turbines that were seldom mounted above 60 meters this data was sufficient to estimate energy production, but with new larger turbines being installed at elevations of 80 to 110 meter or more, a better understanding of higher elevation wind characteristics is needed.

The Kansas Tall Tower Wind Resource Assessment Project is helping to fill this gap. With funding from the U. S. Department of Energy's Wind Powering America Program and the Kansas Energy Office, six guyed radio towers owned by the Kansas Department of Transportation were erected. Located in Sumner, Kearny, Logan, Ness, Ellsworth, and Jewell Counties each tower has a pair of anemometers and a direction vane located at 50, 80, and 110 meters, as well as other environmental sensors. Data was averaged over 10 minute intervals and downloaded via e-mail to project personnel in Lawrence and Manhattan. All six towers were in operation on July 1, 2003 and data collection continued for a full year with an additional year of data collection anticipated. This project focused on experimentation and analysis of observations. Objectives of this project were:

**Kansas is 18th in per capita consumption of energy among the fifty states.**

- 1) Generation of wind resource databases for six different sites in Kansas to identify areas with higher mean wind speeds with greater potential to generate energy
- 2) Accurate description of the wind shear coefficient at heights greater than 50m
- 3) Determination of factors that have the greatest impact on shear, such as wind speed, temperature, pressure, direction, time of day, etc.
- 4) Estimation of the wind energy resource with greater confidence, reduction of production uncertainty and associated financial risk.

The data collected represents the largest known public collection of wind resource information at these heights in the High Plains. It can be used to evaluate potential energy production of today's larger wind turbines, assess higher elevation regional wind resources, evaluate wind shear, and prospect for nocturnal wind jets.



# Institutional Conservation Program

## Argonia USD 359

*Argonia*

Estimated Annual Savings  
**\$12,545**

USD 359 procured the services of a mechanical engineer who conducted a needs assessment and assisted in filing the necessary paperwork to apply for ICP funding for a lighting renovation project.

Argonia has two school buildings that were built in the late 1950's and early 1960's. The needs assessment indicated that the district could improve energy savings by replacing the lighting in both buildings. New lights were installed in every room in both buildings. Not only does the school district benefit from the cost savings of this project, but their staff and students are enjoying greatly improved lighting in all work areas.

The new lights are energy efficient, the bulbs only need to be replaced once every five years, and the lights really brighten up the classrooms and hallways. The district would have been unable to fund this type of project without the assistance of the State Energy Office.

## Goodland USD 352

*Goodland*

Estimated Annual Savings  
**\$4,234**

The Goodland school district was very excited to be awarded an ICP grant, as most of the light fixtures in the high school were old and did a very poor job of disbursing light. The ballasts were old and very inefficient. Some of the fixtures had been in use since 1930. The ICP grant allowed the district to replace lighting fixtures and install occupancy sensors in restrooms and office spaces that were only intermittently occupied.

The district put out a solicitation for bids. Two local bidders and one out-of-town bidder, responded. USD 352 was actually able to replace more light fixtures than originally anticipated. They attributed this to the competitive bidding process. The final contract was awarded to a local contractor, who was also the low bidder. In an economy that had been depressed by drought, this was a win-win-win situation for Goodland: better lighting, improved energy efficiency, and job creation in the community. They are very pleased with the results of their project and thank everyone at the Energy Office for making it possible.

## Around the Office

It has been a busy year at the Kansas Energy Office. Energy Manager, Jim Ploger, still serves on the national Board of Directors of the Energy Services Coalition (ESC). The ESC is a public-private partnership between State Energy Offices and energy service companies (ESCOs) in 30 states promoting the use of energy savings performance contracting as a tool to make energy improvements in public buildings. Jim also serves on the Board of Directors of the Energy Programs Consortium (EPC), a Washington, D.C., based 501(c)(3) organization, which promotes energy conservation and efficiency programs.

Dale Worley, the Facility Conservation Improvement Program (FCIP) manager for Kansas, joined the staff in January. The FCIP program works with state and municipalities (including K-12 schools) enabling them to make energy conservation improvements using utility bill savings as collateral to finance energy conservation measures. The program has seen some \$80 million in projects begun across Kansas.

Jim Ploger and Jerry VanAllen, Assistant Energy Manager, attended the Department of Energy's National Conference for States & Communities conference in Minneapolis, MN, in May where the Kansas building energy codes program was featured as an exemplary State Energy Program Case Study. Jim and Jerry, along with Dr. Pat Altwegg of the Kansas Board of Regents and Randi Tveitaraas-Jack of the Kansas Department of Commerce represented the state at the Global Wind Conference in Chicago in March.

The Kansas Energy Office is one of 21 states participating in a National Ad Council campaign that began in the spring of 2004 promoting energy conservation. The program targets young people (ages 8-13) with a series of public service ads (PSAs) featuring some colorful cartoon characters known as Energy Hogs.

The Office staff is looking forward to next year with the same energy that propelled them in FY 2004.

# Institutional Conservation Program

## Colby USD 315

*Colby*

Estimated Annual Savings  
**\$19,221**

USD 315's declining enrollment, which means less local and state funding, coupled with rising energy costs does not make for a pretty financial picture in their rural setting. The award of the FY2004 ICP grant made it affordable for USD 315 to make the Colby Middle School more energy efficient and to extend the funds they have available for physical improvements.

Two cost-savings projects were completed: a lighting upgrade where existing fluorescent fixtures were replaced with high-efficiency fluorescent lamps and electronic ballast; and a Variable Air Volume Conversion modification where the amount of heated and cooled air mixing was reduced. The controls of this system were upgraded and interfaced to the existing Invensys Building Automation System. Implementation of these improvements will undoubtedly reduce future annual energy needs (over \$19,000/year at 2003 pricing).

The administration commented on the simplicity and overall pleasant experience of coordinating the ICP project and wishes to thank everyone involved.

## Variable Air Volume Systems (VAV)

**In a VAV the air temperature is held constant and the air volume is varied. Air flow is controlled by opening and closing certain dampers, and motor speed. Although the initial cost of installing a VAV system is a somewhat higher than a traditional constant air volume (CAV) system, due in part to special controllers used to control the fan speeds and the added complexity of the VAV terminal boxes, the money saved when these big fans are running below maximum speed quickly pays off.**

## Grainfield USD 292

*Grainfield*

Estimated Annual Savings  
**\$11,017**

Continually rising electricity and natural gas prices lead USD 292 to seek the assistance of the Kansas Energy Office to help them regain control of their utilities budget. They hired a technical analyst to iden-

tify their most potentially profitable energy savings projects. It was determined that retrofitting existing fluorescent fixtures and replacing other lighting would yield the most dividends. Both the high school and elementary school were included for updates. Planning and bidding for the project was completed during spring 2003. The actual work began as soon as school dismissed for the summer. The work crews and cleaning crews worked around each other with a minimum of contact, and the project was completed in time for school to begin in the fall.

The Board of Education is pleased with the overall results. Many lighting fixtures were retrofitted with no change in appearance. The new fixtures are both attractive and efficient. Everyone especially appreciated the new lighting in the gymnasium. The lights no longer required a long warm-up time and no longer buzz. The most noticed value-added aspect of the new lighting is the quality of light. Electricity savings have been in the range predicted, about 20%. This makes the project a big success for all concerned.

## Healy USD 468

*Healy*

Estimated Annual Savings  
**\$6,805**

Healy USD 468 used their matching ICP funds to improve the lighting in the building that houses both their high school and elementary school. The elementary school portion of the building was built in 1934 and the high school portion in 1987. Even in the newer high school area there have been such advancements in energy savings the last 20 years that upgrading the lighting was both feasible and profitable. Additionally, motion sensors were installed in infrequently occupied rooms to help those who occasionally forget to turn out the lights.

The Healy Activities Building (circa 1950), across the street from the main building, also got a lighting upgrade, plus a new furnace. It now stays cozy and comfortable during the cold Kansas winters, and the lighting is much improved and less expensive in both buildings.

The faculty and staff appreciate their new work atmosphere. "There was such an atmosphere change in the gym after the new lights were installed students were very excited. It made it look like a different place", noted the NVHS gym teacher. "When the improvements were partially complete, I could really tell a difference. The areas that were improved were much brighter which will result in a better learning environment. I will miss the program (ICP is being discontinued after this year)", said Superintendent Reece. The PE teacher reported, "Installing heat in the weight room was a must. Students weren't having much fun lifting (weights) in their parkas. Students now enjoy lifting even when the weather is bad."

# Institutional Conservation Program

\$6,805 per year may not seem like a great deal of savings for a school district, but consider this: There are only 2,375 people (1990 census) in Lane county. That translates into about \$3/year for every man, woman and child in the county. Johnson County would need to have \$1.5 million in utility savings each year to equal what USD 468 has accomplished this year.

## Hiawatha USD 415

Hiawatha

Estimated Annual Savings  
**\$10,026**

The ICP Grant that was awarded to Hiawatha USD 415 made it possible to make dramatic improvements to the interior lighting at the high school. All light fixtures were either replaced or retrofitted, allowing lighting improvements in classrooms, offices and most notably in the gymnasium, and hallways. New fixtures were added to the gymnasium, improving the lighting and eliminating shadows. The hallways received new fixtures, which improved the brightness as well as the appearance.

The classroom light fixtures were retrofitted, improving the brightness in the classrooms. Teachers have made many positive comments about the improved lighting in their classrooms. All teacher office areas and bathrooms were equipped with motion detectors to eliminate unnecessary consumption of electricity (Teachers sometimes forget to turn off the lights too!). It is estimated this lighting upgrade will pay for itself in 5.8 years. Without the ICP grant, this project would not have been attempted.

## Maize USD 266

Maize

Estimated Annual Savings  
**\$15,716**

USD 266 upgraded both the quality and energy efficiency of the lighting at Vermillion Primary School and Maize Elementary School. The initial estimate for the project was \$95,391. The district was very pleased when the work came in well under estimate at \$59,292, half of which was reimbursed to the district through the ICP grant. The final cost included all engineering, supplies, equipment and labor. With an estimated annual energy savings of \$15,716 it will take the district only 3 years and 9 months to recover the entire cost of the project. After that, all the energy savings will go towards improving the district's annual budget.

## Macksville USD 351

Macksville

Estimated Annual Savings  
**\$11,275**



*"Old Glory" flies proudly in the well-lit Macksville gymnasium after an energy savings upgrade.*

The USD 351 grant consisted of both a lighting project and a heating project. Lighting projects were completed in all rooms that met the ICP guidelines. Immediately upon completion of the project the faculty and staff noticed the improved brightness in the rooms and found the buildings more appealing. In short, a better educational atmosphere!



*Macksville hallways are brighter, warmer and more cheerful after the installation of new energy-efficient light fixtures and a new heating system.*

# Institutional Conservation Program

The new heating system also improved the educational atmosphere. The rooms were more comfortable and more evenly heated and the system was much quieter than the old one.

Superintendent Dunn reports the project has been a success in decreasing the district's energy bills and the entire grant process was pleasant and easy to follow.

**Energy-efficient lighting, daylighting and task lighting have been found to improve productivity in schools and offices and to boost sales in retail stores.**

## Northern Valley USD 212

*Almena/Long Island*

Estimated Annual Savings  
**\$4,631**

Northern Valley upgraded the lighting in their high school and grade school in Almena. Both buildings were built in the 1920's and were long overdue for updating. The ICP grant made the project possible. New energy efficient lights and ballast in classrooms, hallways and administration offices have improved the quality of lighting as well as lowering energy bills. The addition of exterior lights has also improved safety around the buildings.

An additional project completed at the same time was converting the heating in the Vocational Agriculture building from two overhead gas furnaces with blowers to radiant heating. Previously, VoAg students needed to jockey for positions in the warm areas of the room on cold Kansas winter days; now the room is evenly heated and comfortable. Superintendent Lowry is very pleased with the results of the project and very grateful to the Energy Office for its assistance.

**The United States imports more oil than any other country: 11 million barrels per day**

## Pratt USD 382

*Pratt*

Estimated Annual Savings  
**\$21,936**

Retrofitting of light fixtures and the replacement of thermostats and controls for the HVAC system at Liberty Middle School in Pratt was the ICP project for USD 382. The existing lighting fixtures were installed only 20 years ago, but were already outdated and inefficient by today's standards. The replacement of the old fixtures, plus adding motion sensors to infrequently used rooms, such as restrooms, faculty workrooms and storage areas will generate considerable energy savings.

The thermostats and controls for the HVAC were also circa 1984. They were replaced with controls that can be monitored from a single computer station, as well as at individual stations. Thermostat controls are limited to a specific temperature range for every unit in the building. This prevents extremes of temperature throughout the building and less stress on the HVAC system in adjusting for personal preferences. The computer station allows building maintenance personnel to determine system faults quickly and accurately. This saves valuable maintenance time as well as downtime on the system.

USD 382 expects an energy savings of \$21,000 per year at Liberty Middle School. These funds will be transferred from the utilities budget to the instruction budget.

## Southwestern Heights USD 483

*Plains*

Estimated Annual Savings  
**\$3,144**

This was the second ICP grant for USD 483. Their annual budget did not allow them to come up with the needed matching funds to do all the energy savings work they would have liked to in FY2003.

This year's ICP grant was used to complete the lighting systems renovations at Plains Elementary School. The new lights have been a welcome addition that has improved the illumination and aesthetics in the school building.

The energy savings experienced the first six months after completion of the project were very significant. The elementary school used 12,320 kWh less energy this year than during the same time period the previous year. The district administrators are obviously very pleased.

Superintendent Larrell Cook reports, "The entire process, from application to the final paperwork went very smoothly. The KCC representatives were very professional and offered many helpful hints that improved the overall process."

Kansas State Energy Office  
Kansas Corporation Commission  
1500 SW Arrowhead Road  
Topeka, KS 66604  
143-72

### **Facilities Conservation Improvement Program**

To allow more Kansas institutions to benefit from energy saving technologies, the State Energy Office has instituted the Facilities Conservation Improvement Program (FCIP). FCIP will include unified school districts, cities, counties, municipal hospitals, state colleges and universities and all state agencies. Big \$\$\$ savings on all future energy bills by program participants will translate into lower tax bills for all citizens.

The savings generated during the projects themselves fund FCIP. The Energy Service Company (ESCO) that does the energy audit of a building guarantees annual energy savings. These guaranteed savings are then used to pay off the traditional financing for which the organization/agency has previously arranged. Once the loan or bond amount has been paid, all future energy savings belong to the organization/agency and taxpayers.

As the FCIP program administrator, the SEO helps participants understand the measurement and verification process, coordinates the ESCO selection process, helps participants ask the “right” questions during the ESCO selection process, reviews the ESCO proposal for completeness and accuracy, monitors weekly construction progress, provides project oversight, helps resolve construction disputes, and monitors measurement and verification processes.

If you are interested in this program contact Dale Worley or Jerry VanAllen at the Energy Office, 785-271-3241 or 785-271-3184.

### **To Apply for SEO Funding**

Written SEO grant proposals, including budgets, are due at the Energy Office by March 15. All proposals must be submitted on the State Energy Program Assistance Budget Form available online at [www.kcc.state.ks.us](http://www.kcc.state.ks.us). For details, contact Jim Ploger at the contact points listed to the right.

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