Approved:	February 25, 2011
	Date

#### MINUTES OF THE HOUSE ENERGY AND UTILITIES COMMITTEE

The meeting was called to order by Chairman Carl Holmes at 9:00 A.M. on February 4, 2011, in Room 785 of the Docking State Office Building.

All members were present except:

Representative Tom Sloan-excused Representative Gail Finney-excused Representative Vern Swanson-excused

#### Committee staff present:

Matt Sterling, Office of the Revisor of Statutes Corey Carnahan, Kansas Legislative Research Department Renae Hansen, Committee Assistant

Conferees Appearing Before the Committee:

Ray Hammerlund, Kansas Energy Office Liz Brocius, Kansas Energy Office Janet Buchanon, Kansas Corporation Commission

Others attending:

Eighteen including the attached list.

Chairman Holmes asked for bill introductions and there were none. He noted this was the last day for bill introductions.

Chairman Holmes presented the committee with an article (<u>Attachment 1</u>), on nuclear energy being developed in China with the use of Thorium as the fuel instead of Uranium. He also noted that today the Department of Energy has noted they would approve of the second pipeline from Trans-Canada that would remove our dependency on oil from the Middle East.

Questions were asked and comments made by Representative: Don Hineman.

Kansas Corporation Commission (KCC), American Recovery Reinvestment Act (ARRA) Updates:

Statewide Building Code Utility Rate Restructuring Project Energy Efficiency Programs

Ray Hammerlund introduced the Kansas Energy office staff and their counterparts from the KCC.

Liz Brosius, Kansas Energy office, (<u>Attachment 2</u>) presented information on the Energy Efficiency Codes for residential and commercial buildings.

Questions were asked and comments made by Representatives: Annie Kuether, Don Schroeder, and Carl Holmes.

Ms. Brosius noted that one of the reasons for not adopting the 2006 rules were partly because of cost, and lack of staff resources, but also because builders in some areas are using the codes anyway when they are building. She noted that focus for the codes would be in nine counties: Butler, Douglas, Johnson, Leavenworth, Pottawatomie, Riley, Sedgwick, Shawnee, and Wyandotte.

Included in the testimony were other supporting testimony:

- Status of Residential and Commercial Building Codes in 55 Jurisdictions, (Attachment 3)
- Kansas energy Efficiency Disclosure Form, (Attachment 4)
- Efficiency Kansas partner Lenders and Partner Utilities Map, (Attachment 5)

Janet Buchanan, Senior Managing Research Analyst, KCC, (Attachment 2), spoke to the committee on the comprehensive utility rate design project. She noted there will be a workshop held at the KCC on February 24, 2011 where Christensen Associates Energy Consulting and several energy companies in Kansas will come together to discuss the results of some of these evaluations. She noted there is a draft

#### **CONTINUATION SHEET**

The minutes of the House Energy and Utilities Committee at 9:00 A.M. on February 4, 2011, in Room 785 of the Docking State Office Building.

report available for the committee members of the results of the beginning process of this evaluation. Ms. Buchanan also spoke to the committee on the ARRA State Electricity Regulators Assistance Grant Program.

Questions were asked and comments made by Representatives: Annie Kuether, Stan Frownfelter, and Carl Holmes.

Ryan Freed, Kansas Energy Office, (<u>Attachment 2</u>) gave the committee details on the ARRA state electricity regulators assistance block grants: renewable energy incentives grant, public projects grant, energy managers grant, and take charge challenge. He also spoke to the committee on the state energy program grant worth \$38,284,000. The testimony also includes an appendix that expands on additional state energy grants.

Questions were asked and comments made by Representatives: Don Hineman, Richard Proehl, Joe Seiwert, Mike Slattery, Forrest Knox, Nile Dillmore, and Carl Holmes.

The next meeting is scheduled for February 7, 2011 and will be a tour of the Topeka AT&T facility.

The meeting was adjourned at 10:22 A.M.

# HOUSE ENERGY AND UTILITIES COMMITTEE GUEST LIST

DATE: \_\_\_\_\_February 4, 2011

NAME	REPRESENTING
Liz Brosius	Kee
LANG BULLANAR	Kec
TOM DAY	vce.
RYAN FREED	Kee
RAY HAMMARLUND	Kcc
Melissa Word	Lun law Firm
Colin Curtis	Sandstone Carons
PAIL WAGES	KEPCO
Dave Holellans	KEE
Mark Schreiber	Westan
Phil Wares #2	KEPCo
Scott Jones	KCPC
JEN Mille	CHATTOL STEHTEGIES
Glemberly Svaty	GSPA

#### **Nuclear** matters

## China's nuclear power expansion is based on thorium

Published 2 February 2011

The thorium fuel cycles produce almost no plutonium, and fewer higher-isotope residuals; thorium is much more abundant than uranium, and the reduced plutonium output eases proliferation concerns; the energy output per ton is also attractive; China has committed itself to establishing an entirely new nuclear energy program using thorium as a fuel; six heavy-water thorium reactors are planned in India, which has the world's largest thorium deposits

China's Fangjiashen nuclear power plant during construction // Source: energytribune.com
China has committed itself to establishing an entirely new nuclear energy
program using thorium as a fuel, within twenty years. The LFTR (Liquid
Fluoride Thorium Reactor) is a 4G reactor that uses liquid salt as both fuel
and coolant. China uses the more general term TMSR (Thorium MoltenSalt Reactor).

The thorium fuel cycles produce almost no plutonium, and fewer higher-isotope residuals, the long-lived minor actinides. Thorium is much more abundant than uranium, and the reduced plutonium output eases proliferation concerns. The energy output per ton is also attractive, even though thorium is not itself a fissile material.

Thorium reactors are also safer, with the fuel contained in a low-pressure reactor vessel, which means smaller (sub-500GW) reactors may be worth building. The first Molten-Salt Breeder prototype was built at Oak Ridge in 1950, with an operational reactor running from 1965 to 1969. Six heavywater thorium reactors are planned in India, which has the world's largest thorium deposits.

The *Register* reports that the design has also had its champions in Europe, but planning restrictions and a continent-wide policy preoccupation with conservation and renewables have seen little commercial action. This might change.

A private company founded by Kazuo Furukawa, designer of the Fuju reactor, called International Thorium Energy & Molten-Salt Technology Inc. (iThEMS) aims to produce a small (10KW) reactor within five years. Furukawa is aiming for a retail price of \$0.11 per kWh.

HOUSE ENERGY AND UTILITIES

DATE: 2/4/7011

ATTACHMENT



phone: 785-271-3100 fax: 785-271-3354 http://kcc.ks.gov/

Thomas E. Wright, Chairman Ward Loyd, Commissioner

**Corporation Commission** 

Sam Brownback, Governor

### ARRA-funded Initiatives at the Kansas Corporation Commission

KCC Testimony to the House Energy and Utilities Committee, February 1, 2011

Energy Efficiency Codes for Residential and Commercial Buildings – Liz Brosius, KEO Educational Projects Coordinator

In 2009, Kansas received \$96 million in federal Recovery Act funds from the U.S. Department on Energy. The Kansas Energy Office (KEO), a division of the Kansas Corporation Commission (KCC), received \$47.7 million of this funding: \$9,593,500 through the Energy Efficiency and Conservation Block Grant (EECBG) and \$38,284,000 through the State Energy Program (SEP).

Like other states that received ARRA funds from the Department of Energy, Kansas was required to provide assurances (see <a href="http://kcc.ks.gov/energy/arra/assurances.htm">http://kcc.ks.gov/energy/arra/assurances.htm</a>) that the State would make progress on several initiatives, including the adoption of energy codes for residential and commercial buildings, as specified in H.R. 1, Section 410 (Appendix 1).

The state, or applicable units of local government, will adopt a building energy code for residential buildings that achieves energy savings equivalent to the 2009 IECC standards and, for commercial buildings, the ANSI/ASHRAE/IESNA 90.1-2007 standard.

The state will develop a plan for jurisdictions to achieve compliance within 8 years of the date of enactment in at least 90 percent of new or renovated residential and commercial building space.

To assist the State in complying with these federal building code requirements, the KCC established the Energy Efficiency Building Codes Working Group in May 2009:

Tim Ryan, Chair, City of Overland Park Randall Allen, Kansas Association of Counties Samuel Alpert, Construction Users Council of Greater Kansas City Trudy Aron, American Institute of Architects, Kansas Chapter Luke Bell, Kansas Association of Realtors Dorothy Barnett, Climate & Energy Project Bob Fairbanks, City of Hutchinson Sandy Jacquot, League of Kansas Municipalities Leslie Kaufman, Kansas Cooperative Council Jerry Mallory, Johnson County Contractor Licensing Tina Rakes, City of Baldwin City George Schluter, National Association of Home Builders Martha Smith, Kansas Manufactured Housing Association Bruce Snead, KSU Engineering Extension Chris Wilson, Kansas Building Industry Association Glen Wiltse, Sedgwick County

HOUSE ENERGY AND UTILITIES

DATE: 2/4/2011

ATTACHMENT 2-1

The KEO was assigned responsibility for coordinating the State's initiative to work with local jurisdictions and encourage the voluntary adoption of the targeted codes. The State's approach is firmly rooted in a respect for Home Rule privileges and designed to achieve the following goals:

By 2017, 90% of new and renovated residential structures meet the 2009 IECC standard.

By 2017, 90% of new and renovated commercial structures meet the ANSI/ASHRAE/IESNA Standard 90.1-2007.

To achieve the above goals, the KEO has committed to work with local jurisdictions to encourage voluntary adoption of the target codes, or their equivalent. Building permit data from 2008 suggests that the State can achieve the 90% goal, if codes are adopted by jurisdictions in about 9 counties (Butler, Douglas, Johnson, Leavenworth, Pottawatomie, Riley, Sedgwick, Shawnee, and Wyandotte).

To gain an accurate picture of the scope of the challenge, the KEO recently surveyed 55 local jurisdictions to identify the current residential and commercial building codes and any plans for adoption of the targeted codes. The KEO will maintain this information and update on a regular basis: <a href="http://kcc.ks.gov/energy/codes/EE\_Building\_Codes\_Summary\_January\_2011.pdf">http://kcc.ks.gov/energy/codes/EE\_Building\_Codes\_Summary\_January\_2011.pdf</a>.

The State's preliminary plan for achieving compliance includes the following actions:

- 1. Encourage voluntary adoption of targeted energy codes by larger jurisdictions and those with the most building activity or the development of an effective equivalency option such as third-party certification.
- 2. Develop easy-to-use enforcement checklist, building on the Existing Kansas Energy Efficiency Disclosure form (see Appendix 2).
- 3. Promote residential and commercial retrofits through statewide deployment of Efficiency Kansas, the Facility Conservation Improvement Program (FCIP), and the Weatherization Assistance Program.
- 4. Amend KSA 66-1227 to adopt the target energy codes as "applicable state standards" for new and renovated residential and commercial construction and to officially encourage voluntary adoption of such codes by local jurisdictions.
- 5. Amend KSA 66-1228 to update Kansas Energy Efficiency Disclosure Form for new residential construction using IECC 2009 standards. (At this time, the Working Group plans to introduce amendments to KSA 66-1227 and 66-1228 during the 2012 session.)

The KEO is working with key partners—including the League of Kansas Municipalities, the Mid America Regional Council (MARC), and the Regional Economic Area Partnership (REAP)—to establish regional advisory groups to assist in the development of effective strategies for the different regions of the state. As part of this effort, the KEO will also encourage the use of the Kansas Energy Efficiency Disclosure form in areas where it is not currently being used.

More information is available on the KCC website: http://kcc.ks.gov/energy/codes/.

### Comprehensive Utility Rate Design Project – Janet Buchanan, Senior Managing Research Analyst

#### Background

The Commission undertook efforts in two proceedings, Dockets No. 08-GIMX-441-GIV and 08-GIMX-442-GIV to establish parameters for encouraging and evaluating energy efficiency program proposals put forth by regulated utilities. These proceedings were opened in November 2007 and were completed in 2008 and 2009. In the context of these dockets, the Commission made several statements regarding the role of prices and education in encouraging consumers to use energy services more efficiently. Here are a few excerpts:

The Commission believes dynamic pricing is a critical component of energy efficiency programming. As noted, dynamic pricing has the potential to reduce peak energy demand.<sup>1</sup>

The Commission encourages utilities to continue to propose dynamic pricing programs as well as other rate design schemes that provide the proper incentives to utilize energy efficiently. Examples include time-of-use rates, critical peak rates, and seasonal price differentials.<sup>2</sup>

In their evaluation of [Demand Response or pricing] programs, the Commission will be mindful of their effect on elderly, low-income, or handicapped customers who may be unable to easily shift or curtail energy use. Utilities are urged to consider such effects in their program design and to be prepared to provide the Commission with the appropriate information and analysis.<sup>3</sup>

... the Commission sees the utility bill as a potentially effective means of providing energy efficiency information to consumers and even changing consumer behavior.... Of course, the utility bill plays an integral role in time-of-use pricing programs.<sup>4</sup>

To receive the maximum benefit from energy efficiency programs, the Commission believes programs should be implemented to educate consumers regarding the actual cost of providing energy to their homes and businesses. Educational programs should encourage customers to use a utility's capacity and energy in the most reasonably efficient manner. This may necessitate new rate design proposals which will provide consumers with greater information about the cost of energy. <sup>5</sup>

The Commission also is particularly interested in exploring the use of a utility's monthly bill to provide information to consumers that will allow them to make informed decisions regarding energy use. Providing information to encourage energy efficiency through bills is being considered by many utilities and has been discussed in the press.<sup>6</sup>

<sup>&</sup>lt;sup>1</sup> Docket No. 08-GIMX-442-GIV, "Order Setting Efficiency Policy Goals, Determining a Benefit-Cost Test Framework, and Engaging a Collaborative Process to Develop Benefit-Cost Test Technical Matters and an Evaluation, Measurement, and Verification Scheme," paragraph 57.

<sup>&</sup>lt;sup>2</sup> Id, paragraph 59.

<sup>&</sup>lt;sup>3</sup> Id, paragraph 62.

<sup>&</sup>lt;sup>4</sup> Id, paragraph 69.

<sup>&</sup>lt;sup>5</sup> Id, paragraph 29.

<sup>&</sup>lt;sup>6</sup> Id, paragraph 30.

With these policy goals in mind, the Commission determined that it would be prudent to utilize a portion of the funding the Kansas Energy Office received from the American Recovery and Reinvestment Act (ARRA) through the State Energy Program (SEP) to launch a comprehensive and informal investigation into efficient rate design and education for consumers about the actual cost of the energy they utilize. Additionally, the Commission recognized that changes rate design can have wide ranging ramifications as can decisions to deploy expensive metering technology. Thus, a comprehensive investigation would permit the Commission to gather as much information about potential rate design options as possible, in one setting, rather than in a piecemeal manner as applications came before it. The informal nature of the investigation would allow all interested parties to contribute and Commissioners would be able to participate and learn in a setting that is more conducive to education than the formal hearing process. The Commission set aside \$1 million to devote to this project.

On June 29, 2009, the Commission issued a request for proposals (RFP), PR Number 017298, through the Department of Administration. Mr. Galen D. Greenwood served as the Procurement Officer. Responses were requested by July 21, 2009. The term of the contract was to be the latter of September 15, 2009, or the date of the award of the contract through December 31, 2011. Once responses were received, a committee was formed to review the proposals and interview respondents. Ultimately, the committee agreed that Christensen Associates Energy Consulting (Christensen) was best suited to the project. The contract was awarded for \$333,333 plus the expense associated with bringing additional experts to participate in workshops. The remaining funds were to be placed in the Efficiency Kansas program upon approval from the Department of Energy.

Staff, CURB, Westar, Midwest Energy and KCP&L met with representatives of Christensen on January 11 and 12, 2010, to discuss the preliminary thoughts and reactions of each entity to rate design changes. Christensen then summarized those conversations and created a project plan.

Christensen then proceeded by creating a document describing various rate design options that would lead to more efficient use of energy. On April 15, 2010, interested parties were invited to a workshop at the Commission to review the rate design document and contribute additional rate design options to that list for discussion. Subsequently, Christensen summarized the comments from that workshop and suggested several rate design options to be reviewed with data from Kansas utilities. Westar, Midwest Energy and KCP&L were asked to provide Kansas specific data on their customers' current usage to Christensen. Christensen then reviewed this data and used it to model the effect of each revenue neutral rate design option on consumer usage and bills.

During the time that Christensen was gathering data and modeling results, the Commission proceeded with a discussion of education. A workshop was held May 18, 2010, and presentations were made by experts working in the field of educating consumers on energy efficiency issues and by experts reviewing data to determine the success of particular methods.

#### Current Status

Data from the utilities has been compiled and modeling is complete for analysis of various residential rate structures. Christensen provided a preliminary report on residential rate design

options and the associated effects to interested parties in December 2010. A workshop was planned for January 11, 2011, to discuss the preliminary results; however, the workshop was cancelled because of weather interfering with travel. The workshop is now scheduled for February 24, 2011. At this workshop, parties will be able to question the results and discuss the pros and cons associated with each rate design option. It is hoped that the workshops will provide the Commissioners and interested parties with tools to weigh the benefits of a particular rate design (reduced usage, more efficient usage) against the potential costs (increased costs associated with meters if needed, potentially increased bills, etc.).

#### Future Developments

Following the February 24, 2011, workshop, Christensen will proceed with evaluation of rates for commercial and industrial customers. A workshop will be held to discuss these results as well.

Christensen will also provide information about minimizing effects on consumers through transitioning from one rate design to another. While many utilities in other areas of the country plan pilot studies to examine rate designs, it is hoped that this process can provide similar information, for a greater number of rate design options, without creating disruption for the consumer. It is also expected that one or more additional workshops will be planned in 2011 to discuss education of consumers through bill format, technology, and other means.

Because this is an informal project, there will not be a formal Commission ruling that results from this project. Rather, it is hoped that all interested parties will have gained useful insight and data that can be used in proposing rate design changes within the context of individual utility applications before the Commission. It is expected that Christensen will create a final "White Paper" discussing the modeling results and the information presented at the workshops so that the Commission and other interested parties have a document that can be referenced as needed within individual formal proceedings as support for suggested rate changes.

#### ARRA State Electricity Regulators Assistance Grant

#### Project Background

The National Energy Technology Laboratory within the Department of Energy made \$821,422 available to the Kansas Corporation Commission (KCC) to ensure that the KCC will be able to meet the increased demands caused by the American Recovery and Reinvestment Act of 2009 (ARRA). This grant is known as the State Electricity Regulators Grant (SER).

The American Recovery and Reinvestment Act of 2009 (ARRA) will provide significant funding in the next few years to address a wide variety of electricity-related issues, both directly to utilities and in areas that will indirectly spur utility spending. In addition, electric utilities and other entities in the electric power sector will invest unprecedented amounts of their own money. The KCC anticipates a wave of filings and action in this arena that will require its oversight and approval. All of these investments, ultimately, will have an impact on the reliability, security, cost, and environmental impacts of electricity delivered to Kansas ratepayers and others in the region. Consequently, the KCC anticipates a substantial increase in workload stemming from this wave of federal and private sector investment which will add to our already full docket. The State Electricity Regulators Grant is allowing the KCC to manage this increased workload.

#### **Progress**

The Commission filed its application for funding on August 28, 2009. The SER was awarded in October 2009. Since that time, the KCC has hired an Advisory attorney and an engineer in the Utilities Division to address ARRA electricity-related issues. Additionally, the KCC hired an engineer specializing in reservoir analysis and carbon sequestration and storage to assist with issues in the Conservation Division. In September 2010, the budget was amended to hire an additional employee within the Utilities Division to address Smart Grid issues and monitor Westar's SmartStar project and KCP&L's SmartGrid demonstration project.

The ARRA funds are also being used to provide training for these new employees as well as existing employees to develop expertise to address emerging energy issues. The funds have been used to sponsor two training sessions in Topeka. The "Smart Grid and Energy Storage Roundtable" September 18, 2009. Current Commission employees, staff members of regulated utilities, Legislators, and other interested parties were invited to attend this training on Smart Grid and Energy Storage issues. In addition to presentations, smart grid vendors were present to demonstrate and discuss the capabilities of their smart meter systems. The funds were also used to sponsor the "Electricity Law Seminar: Rates, Prudence, Transmission, Demand Response and Renewables" on December 17 and 18, 2009. Current Commission employees, Legislators, and other interested parties were invited to attend this training session presented by Scott Hempling.

Many of the KCC's Utilities Division, Advisory Division, Litigation Division and Conservation Division employees have been able to attend other training sessions on monitoring and verification of carbon dioxide sequestration, underground storage issues, innovative renewable energy technologies, energy efficiency, wind energy, smart grid technology, rate design, etc. With the addition of another employee in September 2010, funds for training have been reduced for the remainder of the grant period.

Table 1: ARRA State Electricity Regulator's Assistance Grant Funding Profile

Budget Category	Actual Expenditures as of 6/30/10	Actual Expenditures 7/1/10 - 12/31/10	Projected Expenditures 1/1/11 - 6/30/11	Projected Expenditures 7/1/11 - 6/30/12	Total Budget
Personnel	59,634	98,727	107,200	207,467	473,028
Fringe Benefits	12,167	17,672	17,852	38,630	86,321
Training/Travel	11,470	24,944	35,000	61,123	132,538
Equipment	3,744	794	0	0	4,538
Supplies	1,140	201	1,830	1,829	5,000
Contractual					0
Other	10,387	13,119	36,000	60,491	119,997
Total Direct Charges	98,544	155,457	197,881	369,540	821,422
Indirect Charges	0		0	0	0
Total	98,544	155,457	197,881	369,540	821,422

#### Update on ARRA Programs – Ryan Freed, Energy Efficiency Programs Manager

The Kansas Energy Office received 2 separate Recovery Act grants, for a total of \$47.8 million. These grants were separated into the Energy Efficiency & Conservation Block Grant of \$9,593,000 and the State Energy Program Grant of \$38,284,000.

#### Energy Efficiency & Conservation Block Grant: \$9.5 million

The Energy Efficiency & Conservation Block Grant funds were distributed in 4 projects. Nearly all of the \$9.5 million has been contracted for. The Energy Office expects these funds will be fully spent by the end of this year, well ahead of the October 2012 deadline established by the U.S. Department of Energy.

#### Renewable Energy Incentives Grant

The KEO set aside \$2.5 million for mid- to large-scale renewable energy projects for eligible Kansas cities and counties. The Energy Office is working with projects in 10 communities across Kansas; only 2 projects are still awaiting approval from the U.S. Department of Energy. The Renewable Energy Incentives Grant includes 3 solar projects, 1 wind turbine, and 6 ground-source heat pumps.

#### Public Projects Grant

The Public Projects Grant was instituted to assist small cities and counties in making energy-efficiency improvements in their facilities. The KEO is working with 39 communities for this grant, for a total of nearly \$4 million. The KEO expects the bulk of construction to begin in the spring. The Energy Office has received approval of all of the projects from the U.S. Department of Energy.

#### Energy Managers Grant

While grants for energy-efficient upgrades provide needed improvements to facilities, the Energy Managers Grant provides coalitions of local units of government with in-house energy expertise. The KEO has approved 10 coalitions for this grant representing 37 local units of government. Energy managers will catalog energy use in the coalition's facilities, and spend time in the communities sharing their energy expertise. It is the goal of the KEO to create a statewide network of energy managers who can share ideas and information and continue to keep Kansas cities and counties at the forefront of energy efficiency.

#### Take Charge Challenge

The final block grant program at the KEO is the 2011 Take Charge Challenge. This challenge, operated by the Climate and Energy Project (CEP), encourages communities to compete against one another to save the most energy. The Energy Office provided nearly \$1 million to fund this year's events.

For the 2011 Challenge, 16 communities have agreed to participate, representing 4 separate regions. The kickoff events for these cities have been happening over the last several weeks, and will continue into the first few weeks of February.

Each of these communities has been given \$25,000 to promote the challenge in their communities. The winning city in each of the four regions will receive a \$100,000 award to implement energy efficiency or renewable energy projects in their city.

#### State Energy Program Grant: \$38,284,000

The SEP Grant funds were targeted mostly to the Efficiency Kansas loan fund, with the exception of funds set aside for a rate design project, which Janet Buchanan has described.

#### Efficiency Kansas

Efficiency Kansas was created to provide new and existing Kansas businesses an opportunity in the emerging energy efficiency market. With \$38 million in Recovery Act funds, the KEO created Efficiency Kansas, a revolving loan fund to provide low-cost financing for energy-efficiency improvements to homes and small businesses.

Prior to the start of Efficiency Kansas, the KEO could identify fewer than 10 energy auditors advertising their services in Kansas. As a result, the KEO provided \$100,000 to help create two energy auditor training sites, the Metropolitan Energy Center and Neosho County Community College. To ensure access to the training, the KEO also offered \$150,000 in tuition scholarships to the energy auditor trainings.

Today, there are over 70 energy auditors listed as participants in the Efficiency Kansas program. These auditors represent Kansans who saw an opportunity for a new business or a way to expand their existing business.

In addition to working with these businesses, the KEO has also teamed up with partner lenders and utilities to offer the financing. Today, there are more than 100 lender branches where Kansans can get an Efficiency Kansas loan. Kansans are also able to access financing through one of 22 partner utilities. With the addition of Westar Energy as a participating utility partner, well over half of Kansas households have access to meter-based financing for energy efficiency improvements. This makes Kansas the most successful state in the country with implementing meter-based financing for energy-efficiency improvements.

Through these partners, the KEO has made more than \$1.1 million in energy-efficiency improvements in Kansas homes and small businesses. These improvements are collectively saving more than \$85,000 a year.

Since the beginning of program, more than 900 Kansans have received an Efficiency Kansas energy audit. Nearly 800 of these have been in the last 4 months; and 250 of these customers are in the Westar Energy territory.

Before Efficiency Kansas, many Kansans hadn't heard of an energy audit, and their only exposure to energy efficiency was a barrage of advertising not customized to their needs. Thanks to the entrepreneurial spirit of Kansans, today there exists an energy-efficiency industry in Kansas with enormous potential for growth.

#### Appendix 1: H.R. 1, Section 410

SEC. 410. ADDITIONAL STATE ENERGY GRANTS. (a) IN GENERAL.—Amounts appropriated under the heading "Department of Energy—Energy Programs—Energy Efficiency and Renewable Energy" in this title shall be available to the Secretary of Energy for making additional grants under part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.). The Secretary shall make grants under this section in excess of the base allocation established for a State under regulations issued pursuant to the authorization provided in section 365(f) of such Act only if the governor of the recipient State notifies the Secretary of Energy in writing that the governor has obtained necessary assurances that each of the following will occur:

- (1) The applicable State regulatory authority will seek to implement, in appropriate proceedings for each electric and gas utility, with respect to which the State regulatory authority has ratemaking authority, a general policy that ensures that utility financial incentives are aligned with helping their customers use energy more efficiently and that provide timely cost recovery and a timely earnings opportunity for utilities associated with cost-effective measurable and verifiable efficiency savings, in a way that sustains or enhances utility customers' incentives to use energy more efficiently.
- (2) The State, or the applicable units of local government that have authority to adopt building codes, will implement the following:
  - (A) A building energy code (or codes) for residential buildings that meets or exceeds the most recently published International Energy Conservation Code, or achieves equivalent or greater energy savings.
  - (B) A building energy code (or codes) for commercial buildings throughout the State that meets or exceeds the ANSI/ASHRAE/IESNA Standard 90.1-2007, or achieves equivalent or greater energy savings.
  - (C) A plan for the jurisdiction achieving compliance with the building energy code or codes described in subparagraphs (A) and (B) within 8 years of the date of enactment of this Act in at least 90 percent of new and renovated residential and commercial building space. Such plan shall include active training and enforcement programs and measurement of the rate of compliance each year.
- (3) The State will to the extent practicable prioritize the grants toward funding energy efficiency and renewable energy programs, including--
  - (A) the expansion of existing energy efficiency programs approved by the State or the appropriate regulatory authority, including energy efficiency retrofits of buildings and industrial facilities, that are funded--
    - (i) by the State; or
    - (ii) through rates under the oversight of the applicable regulatory authority, to the extent applicable;
  - (B) the expansion of existing programs, approved by the State or the appropriate regulatory authority, to support renewable energy projects and deployment activities, including programs operated by entities which have the authority and capability to manage and distribute grants, loans, performance incentives, and other forms of financial assistance; and
  - (C) cooperation and joint activities between States to advance more efficient and effective use of this funding to support the priorities described in this paragraph.
- (b) STATE MATCH.—The State cost share requirement under the item relating to "Department of Energy; Energy Conservation" in title II of the Department of the Interior and Related Agencies Appropriations Act, 1985 (42 U.S.C. 6323a; 98 Stat. 1861) shall not apply to assistance provided under this section.
- (c) EQUIPMENT AND MATERIALS FOR ENERGY EFFICIENCY MEASURES AND RENEWABLE ENERGY MEASURES.—No limitation on the percentage of funding that may be used for the purchase and installation of equipment and materials for energy efficiency measures and renewable energy measures under grants provided under part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.) shall apply to assistance provided under this section.

HOUSE ENERGY AND UTILITIES

#### Status of Residential and Commercial Building Codes in 55 Jurisdictions

In order to better understand the status of building codes in Kansas, the Kansas Energy Office conducted a survey of 55 jurisdictions during the latter part of 2010. The table below summarizes this information and will inform the State's ongoing initiative to encourage voluntary adoption of energy codes for residential and commercial buildings: 2009 IECC and ASHRAE 90.1 (2007), respectively. The survey targeted 9 counties, and the cities therein, that collectively accounted for 90% of all building permits reported in the Kansas during 2008, as well as the other Cities of the First Class.

For more information about this initiative and the activities of the Energy Efficiency Building Codes Working Group, please visit the KCC website (http://kcc.ks.gov/energy/codes/) or contact Liz Brosius, Kansas Energy Office, 785-271-3264 / I.brosius@kcc.ks.gov.

Jurisdiction	Contact Info	Residential Building Codes	Commercial Building Codes	Plans for Future Codes Adoption	Additional Notes
Butler County 167 permits (2008)	Rod Compton, 316-322-4325 rcompton@bucoks.com	2003 IRC	2003 IRC	No firm plans, but some discussion of upgrading to 2009 ICC.	
Andover	Kirk Crisp, kcrisp@andoverks.com City Hall: 316-733-1303	2006 IRC	2006 IBC	No immediate plans to update.	
Augusta	Dan Allen 316-775-4505; 316-641-3868 (cell) dallen@augusta.gov.org	2003 IRC	2003 IBC	May adopt 2006 ICC codes.	Concerns about sprinkler provisions in 2009 IECC.
El Dorado	Kyle McLaren 316-321-9100 kmclaren@eldoks.com	2006 IRC; includes energy chapter	2006 IBC; includes energy chapter	No immediate plans to update codes.	
Douglas County 731 permits (2008)	Kanitha Davis, Zoning and Codes kdavis@douglas-county.com	1997 UBC	1997 UBC	Plans to adopt 2006 ICC codes, November 2010.	
Lawrence	Barry Walthall, Building Safety Manager, 832-3101 bwalthall@ci.lawrence.ks.us	2009 IRC, 2009 IECC	2009 IBC, 2009 IECC	2009 ICC codes adopted December, 2010; effective January 2011.	Take Charge Challenge participant in 2011.
Baldwin City	Tina Rakes	2003 IRC	2003 IBC	Plans to adopt 2012 ICC codes, including energy codes.	Take Charge Challenge participant in 2011.

Jurisdiction	Contact Info	Residential Building Codes	Commercial Building Codes	Plans for Future Codes Adoption	Additional Notes
Johnson County 1789 permits (2008)	Jerry Mallory 913-715-23333 jerry.mallory@jocogov.org	2006 IRC	2006 IBC	Plans to adopt 2012 ICC codes, including 2012 IECC.	REECS participant
De Soto	Steve Chick, Building Official schick@desotoks.us 913-583-1182 x 130	2006 IRC	2006 IBC	No immediate plans to adopt codes.	
Fairway	Bill Sandy 913-262-0350 x5203 bsandy@fairwaykansas.org	2000 IRC; 2000 IECC	2000 IBC	Plans to adopt 2006 code series in 2011.	
Gardner	compiled by Tim Ryan, Overland Park Code Administrator	2006 IRC	2006 IBC	No plans at this time.	Take Charge Challenge participant in 2011.
Leawood	Eirene Oliphant, Building Official 913-339-6700, ext. 171 eireneo@leawood.org	2006 IRC	2006 IBC	No immediate plans.	
Lenexa	compiled by Tim Ryan, Overland Park Code Administrator	2006	2006	Plans to adopt 2012 in 2012.	
Merriam	John Hollis johnh@merriam.org	2006 IRC; 2006 IECC	2006 IBC; 2006 IECC	No immediate plans; perhaps 2012 eventually.	REECS participant
Mission	Danielle Murray: 913-676-8360 dmurray@mission.ks.org	2006 IRC	2006 IBC	Plans to adopt 2012 ICC does, including energy codes.	Currently contracts with Jo. Co. for permit review and inspections.
Olathe	compiled by Tim Ryan, Overland Park Code Administrator	2000 IRC	2000 IBC	No plans at this time.	REECS participant
Overland Park	Tim Ryan, Codes Administrator, 913-895-6251 tim.ryan@opkansas.org	2006 IRC	2006 IBC	Attempted to adopt 2009, but were unsuccessful. Will attempt to adopt unamended 2012 code.	
Prairie Village	Jim Brown, Building Official 913-381-6464, x4202 jbrown@pvkansas.com	2006 IRC	2006 IBC	Plan to adopt 2012, but not sure of timeframe.	
Roeland Park	compiled by Tim Ryan, Overland Park Code Administrator	2003 IRC	2003 IBC	Next proposed code is 2012, but no immediate plans.	

Jurisdiction	Contact Info	Residential Building Codes	Commercial Building Codes	Plans for Future Codes Adoption	Additional Notes
Shawnee	Steve Thompson, Chief Codes Administrator, 913-742-6010 codes@cityofshawnee.org Ron Miller rmiller@cityofshawnee.org	2006 IRC - includes	2006 IBC - includes energy chapter	No immediate plans to update codes.	REECS participant
Spring Hill	Dennis Rodgers, Chief Building Inspector, 913-592-3664 rodgersd@springhillks.com Jim Hendershot, Community Development Director 913-592-3664 hendershotj@springhillks.com	2006 IRC, IPMC, 2005 NEC	2006 IBC, IFC, IPC, IMC, IFGC, 2005 NEC	No immediate plans for code update	
Leavenworth County 238 permits	Jeff Joseph, 913-684-0465	No codes	No codes	Buildings for commercial or public use are controlled by the State's guidelines. No immediate plans for adoptiong codes.	
Lansing	John Jacobson, Community Development Superintendent 913-727-2400 jacobson@lansing.ks.us	2003 IRC	2003 IBC	No immediate plans.	
Leavenworth	City Clerk, Karen Logan 913-684-0335 kjlogan@firstcity.org	1 '	· '	Just adopted 2006 ICC codes in Dec. 2009; no immediate plans.	
Tonganoxie	Kathy Bard, City Clerk 913-684-0335 cityclerk@tongie.org	2000 IRC	2000 IBC	No immediate plans to update; currently, no full-time building inspector	

Jurisdiction	Contact Info	Residential Building Codes	Commercial Building Codes	Plans for Future Codes Adoption	Additional Notes
Pottawatomie County 96 permits (2008)	Greg Webster, Office of Planning & Development gwebster@pottcounty.org 785-457-3551		No codes.	Although codes adoption has been discussed in the past, there are currently no plans for codes adoption.	
Wamego	Mac Campbell, codesofficer@wamego.org / 785- 456-9119	2000 IRC; 2000 IECC	2000 IBC; 2000 IECC	No immediate plans.	
Riley County 360 permits (2008)	Steve Higgins, Zoning Enforcement Office 785-537-6332, X 6437 shiggins@rileycountyks.gov Monty Wedel mwedel@rileycountyks.gov	No codes, but considering adoption.	No codes; follow state fire regulations in permitting.	Considering adoption of latest version (2009?) of IRC.	
Manhattan	Brad Claussen 785-587-4506 claussen@ci.manhattan.ks.us	2009 IRC 2009 IECC	2009 IBC 2009 IECC	Adopted 2009 ICC codes, 11/21/2010.	Take Charge Challenge participant in 2011.
Sedgwick County 1824 permits (2008)	Glen Wiltse, Dept. of Code Enforcement 316-660-1840 gwiltse@sedgwick.gov	2006 IRC	2006 IBC	Review codes at same time as Wichita. No plans to adopt 2009 codes.	County has inspection contracts with Andale, Cheney, Clearwater, Colwich, Maize, Valley Center.
Derby	Dale Wasinger, Building Trades Offical 316-788-6632 dalewasinger@derbyweb.com	2006 IRC	2006 IBC	Expect to follow Wichita's lead with updates.	
Haysville	Chad Bettles, City Inspector 316-529-5940 cbettles@haysville-ks.com	2003 IRC	2003 IBC	Plans to update to 2006 codes in the coming year; expect to follow County.	
Mulvane	Raymond Fleming, City Inspector: 316-777-9516 rfleming@mulvanekansas.com	2006 IRC	2006 IBC	No energy codes adopted to date; plan to adopt the 2012 codes when they become available.	



Jurisdiction	Contact Info	Residential Building Codes	Commercial Building Codes	Plans for Future Codes Adoption	Additional Notes
Park City	Darrell Boger, Director of Code Enforcement: 316-744-2026 dircode@parkcityks.com	2006 IRC, without energy, mechanical, plumbing, and electrical provisions.	2006 IBC	No immediate plans.	
Wichita	Darlene Hultman, 316-269-4700 dhultman@wichita.org	energy chapter		Do not plan to adopt 2009 ICC codes; will probably wait and adopt 2012.	
Shawnee County 428 permits (2008)	Barry Beagle, Planning Director 785-291-5410 barry.beagle@snco.us	No building codes.	No building codes.	No immediate plans to adopt codes.	
Topeka	Merriam Berke: 368-3801 mberke@topeka.org Craig Thornburg: 785-368-3704 cthornburg@topeka.org Braxton Copley: 368-3883 bcopley@topeka.org	2003 IRC	2006 IBC	Currently reviewing the 2009 IRC; not sure which version of the IBC will be considered (2009 or 2012).	
Wyandotte County 184 permits (2008)	See Kansas City, KS				REECS participant
Kansas City, KS	Greg Talkin, Unified Gov. Wyandotte County / KC,KS 913-573-8628 gtalkin@wycokck.org	2003 IRC	2003 IBC	Plans to adopt 2009 ICC Codes, including IECC.	
Bonner Springs	Brian Hunt, Building Inspector City Hall, 205 E. Second, (913) 667-1719 Fax: 913-441-8199 brianh@bonnersprings.org	2009 IRC, with energy code chapter	2009 IBC, with energy code chapter	Not sure they would adopt 2009 IEEC; possibly will adopt 2012 IECC along with other 2012 ICC codes in 2012.	



Jurisdiction	Contact Info	Residential Building Codes	Commercial Building Codes	Plans for Future Codes Adoption	Additional Notes
	Ado	litional Citie	s of the First	Class	
Atchison	Rick Fay, Building Official 913-367-5560 / rickf@cityofatchison.com	2003 IRC	2003 IBC	No firm plans at this time. No mechanical code adopted.	
Dodge City	Dan Stucker, Fire Marshall & Building Official dans@dodgecity.org 620-225-8100	2003 IRC	2003 IBC	Considering adopting 2009 codes in the near future; not sure IECC will be adopted during next update.	
Emporia	Martin Peres, Chief Building Inspector 620-343-4271 mperes@emporia-kansas.gov	2006 IRC	2006 IBC	Looking at International Existing Building Code.	
Fort Scott	Kent Hamlin, Code/Zoning Administrator 620-223-0550 khamlin@fscity.org	2006 IRC	2006 IBC	Looking at adopting 2009 ICC codes in the coming; willing to consider IECC.	Take Charge Challenge participant in 2011.
Garden City	Kaleb Kentner / 620-276-1120 / kkentner@garden-city.org	/ 620-276-1120 / 2003 IRC 2003 IBC Next code review coden-city.org (energy codes (energy codes when adoption of 2)		Next code review cycle is 2011, when adoption of 2012 International Codes will be discussed.	City has revolving loan fund for insulation, windows, doors, whole- house fans, thermostats
Great Bend	Lee Schneider, Building Inspector 620-793-4111 lee@greatbendks.net	2006 IRC	2006 IBC, including energy chapter.	Next code review cycle is 2011.	
Hutchinson	Nancy Scott, Director of Planning & Development 620-694-2638 nancys@hutchgov.com	2003 IRC	2003 IBC	Do not currently enforce energy provisions of codes.	

Jurisdiction	Contact Info	Residential Building Codes	Commercial Building Codes	Plans for Future Codes Adoption	Additional Notes
Junction City	Mark Karmann, Senior Inspector / Codes Administrator 785-238-3103 ext 182	2003 IBC	2003 IRC	In the process of adopting the 2006 IRC, IBC, including the 2006 IECC. Probably will consider updating codes again in 2 years.	
Liberal	Steve Guerrero, Building Inspector/Zoning Administrator (620) 626-2260 steve.guerrero@cityofliberal.org	1997 UBC	1997 UBC	In the process of adopting the 2006 IRC, IBC	Officals report that they are approving plans for new construction that is using 2006 IECC.
Newton	Mark Jenkins, Building & Zoning Administrator 316-284-6002 mjenkins@newtonkansas.com	2006 IRC	2006 IBC	Currently reviewing the 2006 IECC. May update to 2012.	
Parsons	Tom McLeod 620-421-7000 buildinginspector@parsonsks.com	2006 IRC	2006 IBC	No immediate plans to update codes.	Take Charge Challenge participant in 2011.
Pittsburg	Andy Huyett 620-231-4170 ahuyett@pittks.org	2003 IRC, with Ch. 11 deleted		Uncertain which version of codes will be considered for next update.	Take Charge Challenge participant in 2011.
Salina	Ron Michaelsen, Building Inspector ron.michaelsen@salina.org 785-309-5715	2006 IRC, with energy chapter amended out		Currently reviewing the 2006 IECC for residential and commercial.	

#### KANSAS ENERGY EFFICIENCY DISCLOSURE

As required by KSA 66-1228

Kansas law requires the person building or selling a previously unoccupied new residential structure which is a single family or multifamily unit of four units or less shall disclose to the buyer or a prospective buyer, at any time upon request or prior to the signing of the contract to purchase and prior to closing if changes have occurred or are requested, information regarding the energy efficiency of the structure. For new residential structures that are completed and suitable for occupancy, but unsold, the completed disclosure form shall be made available to the buyer or a prospective buyer by the builder or seller when the residence is shown and at any other time upon request.

Common Address or Legal Description of Residence:

\*\*\*\* Insert rated storage volume in gallons.

Part 1:	t 1: Builder must describe the following energy efficiency elements of this house:						
		Actual Value	2006 IRC/IECC* Zone 4	2006 IRC/IECC* Zone 5			
	Wall Insulation R-Value		R-13	R-19 (or R-13 cavity + R-5			
	Attic Insulation R-Value		R-38	R-38 insulated sheathing)			
	Foundation Insulation R-Value						
	Basement Walls		R-10/13**	R-10/13**			
	Crawlspace Walls		R-10/13**	R-10/13**			
	Slab-on-Grade		R-10, 2 ft depth	R-10, 2 ft depth			
	Floors over Unheated Spaces		R-19	R-30			
	Window U-Value	-	0.40	0.35			
		Actual Value		Current Federal Manufacturing Standards***			
	Water Heater						
	Gas or Propane (Energy Factor)			19 ×****) =			
	Electric (Energy Factor)		$0.97 - (0.00^{\circ})$	132 ×****) =			
	Heating and Cooling Equipment						
	Warm-Air Furnace (AFUE)			0.78			
	Air Conditioner (SEER)			13			
	Air-Source Heat Pump-Cooling (SEER)			13			
	Air-Source Heat Pump (HSPF) [Note: Federal standards for geothermal heat pu	ımps are not availa	ble.]	7.7			
t 2:	Builder may provide the following additional is	nformation abo	out this house:				
	This residence has been/will be built to meet the end (IECC 2006).	ergy-efficiency st	andards of the International	Energy Conservation Code of 200			
	This residence has received a Home Energy Rating accordance with the Mortgage Industry National Ho Residential Energy Services Network (RESNET).	(HERS) index some Energy Ratir	core of 100 or less based or g Systems Standards (July	n an energy audit performed in 1, 2006) by a rater certified by			
	This residence is an Energy Star Qualified Home ar RESNET-accredited provider.	nd has been verif	ied and field tested in accor	dance with RESNET standards by			
ler Si	gnature:		Date:				
	ame and Address:						
er Si	gnature:		Date:				

#### Information on Existing Standards and Explanation of Abbreviations

R-value = Thermal Resistance Rating of insulation materials. The higher the R-value, the better the material resists heat flow (i.e., the better it insulates).

U-value = Heat Loss Rating of windows. The lower the U-value, the less the window loses heat (i.e., the better it prevents heat loss).

Equipment Performance Ratings (the higher the number, the more efficient the equipment)

- AFUE = Annual Fuel Utilization Efficiency: used to rate gas or propane warm-air furnaces and small boilers.
- SEER = Seasonal Energy Efficiency Ratio: performance indicator for residential air conditioners and air source heat pumps.
- **HSPF** = **Heating Seasonal Performance Factor:** measures heating performance of air-source heat pumps.

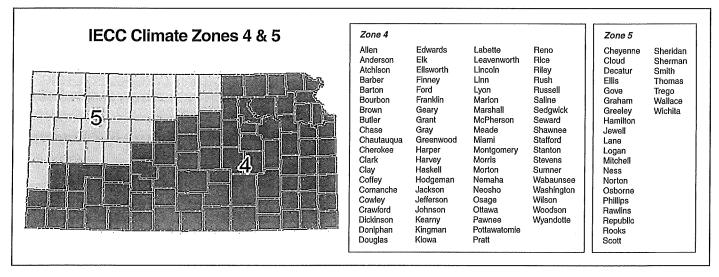
**Energy Star** qualified homes are at least 15% more energy efficient than homes built to the 2006 International Energy Conservation Code (IECC). Energy Star is a joint program of the U.S. Environmental Protection Agency and Department of Energy.

The International Energy Conservation Code (IECC), developed by the International Code Council, sets standards for energy efficiency in homes and commercial and industrial buildings. It is revised on a three-year cycle, with a supplement issue midway through each cycle.

The International Residential Code (IRC), developed by the International Code Council, brings together all building, plumbing, mechanical, fuel gas, energy, and electrical provisions for one- and two-family residences.

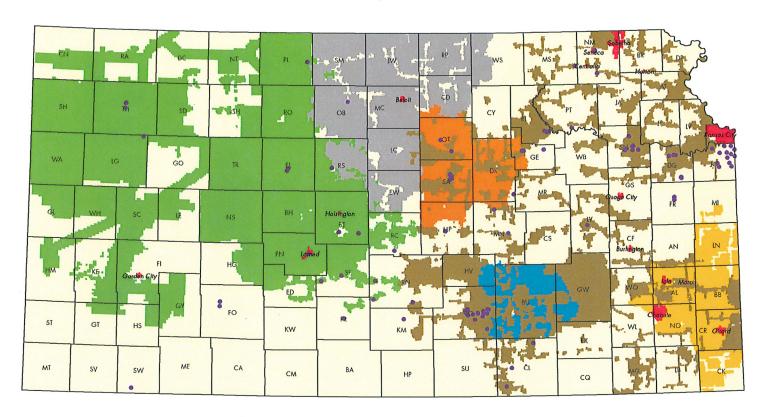
The HERS Index is a scoring system established by the Residential Energy Services Network (RESNET) in which a home built to the specifications of the HERS Reference Home (based on the 2004 International Residential Code) scores a HERS Index of 100, while a net zero energy home scores a HERS Index of 0. The lower the score, the more energy efficient a home is in comparison to the HERS Reference Home. Each 1-point decrease in the HERS Index corresponds to a 1% reduction in energy consumption compared to the HERS Reference Home. Thus a home with a HERS Index of 85 is 15% more energy efficient than the HERS Reference Home and a home with a HERS Index of 80 is 20% more energy efficient.

RESNET Standards ensure that accurate and consistent home energy ratings are performed by accredited home energy rating systems nationwide; increase the credibility of the rating systems with the mortgage finance industry; and promote voluntary participation in an objective, cost-effective, sustainable home energy rating process. This accreditation process will be used by the mortgage industry to accept home energy ratings and by the states to assure accurate, independent information upon which a state may recognize the home energy ratings as a compliance method for state building energy codes; as qualification for energy programs designed to reach specific energy saving goals; and as a way to provide its housing market the ability to differentiate residences based on their energy efficiency. The Mortgage Industry National Home Energy Rating Systems Standards (July 1, 2006) can be found at <a href="http://www.natresnet.org/standards/mortgage/RESNET\_Standards-2006.pdf">http://www.natresnet.org/standards/mortgage/RESNET\_Standards-2006.pdf</a>.



## Efficiency Kansas Partner Lenders and Partner Utilities

(As of February 1, 2011)



#### **Map Key**

- Partner Lenders
- Butler Rural Electric Coop. Assn., Inc.
- DS&O Electric Coop., Inc.
- Heartland Rural Electric Coop., Inc.
- Midwest Energy, Inc.
- Rolling Hills Electric Coop., Inc.
- Westar Energy
- Municipal Partners

#### Partner Lenders (100 branches)

Alden State Bank

Baldwin State Bank

Bennington State Bank

Capitol Federal

Citizens Bank of Kansas

Farmers & Merchants Bank of Colby

Farmers National Bank

Farmers State Bank of Oakley

First Bank, Sterling

First National Bank and Trust Company

of Junction City

Kansas State Bank Ottawa & Baldwin City

Mid America Bank

Mid American Credit Union

St. John National Bank

Sunflower Bank

#### **Partner Utilities**

Butler Rural Electric Cooperative Assn., Inc. DS&O Rural Electric Cooperative, Inc.

Heartland Rural Electric Cooperative, Inc.

Midwest Energy, Inc.

Rolling Hills Electric Cooperative, Inc.

Westar Energy

#### **Municipal Partners**

Kansas City Board of Public Utilities

City of Beloit

City of Burlington

City of Centralia

City of Chanute

City of Garden City

City of Girard

City of Hoisington

City of Horton

City of Iola

City of Larned

City of Moran

City of Osage City

City of Sabetha

HOUSE ENERGY AND UTILITIES

DATE:

4/2011

ATTACHMENT 5



KANSAS
CORPORATION COMMISSION
Kansas Energy Office