

MINUTES OF THE SENATE UTILITIES COMMITTEE

The meeting was called to order by Vice Chairman Pat Apple at 9:30 A.M. on January 17, 2008 in Room 526-S of the Capitol.

Committee members absent:

Senator Mike Petersen- excused

Committee staff present: Raney Gilliland, Kansas Legislative Research Department  
Tatiana Lin, KSU Legislative Fellow  
Mike Corrigan, Revisor of Statutes  
Ann McMorris, Committee Secretary

Conferees appearing before the committee:

Larry Bentley, Kansas Weatherization Assistance Program  
Christine Reimler, Kansas Energy Efficiency Program (KEEP)

Others in attendance: See attached list

Chairman Apple noted the committee would be hearing updates on the Energy Assistance Program and the KEEP Program.

Energy Assistance Program

Larry Bentley, manager for training and technical assistance in the Kansas Weatherization Assistance Program, testified about the benefits of weatherization to the citizens of Kansas. He noted the growth in this program since its inception in 1974 and how increased funding and experience have helped develop this now highly technical program. (Attachment 1)

Questions from the committee concerning the evaluations, how the program is monitored, how complaints are handled, the set up of the organizational structure and the funding.

Kansas Energy Efficiency Program (KEEP)

Christine Reimler, manager for KEEP, testified about energy efficiency loans for the citizens of Kansas. Information on this program has been provided through news releases to most of the newspapers in Kansas, a brochure is in the process of being printed and distributed, and a website can be accessed at [Kansashousingcorp.org](http://Kansashousingcorp.org) and the programs viewed. (Attachment 2)

Questions regarding who qualified for these loans, how could citizens contact the KEEP office, and could energy tests be requested even if the person did not want a loan.

Adjournment.

Ann McMorris, Secretary

Attachments - 2



**TESTIMONY OF KANSAS HOUSING RESOURCES CORPORATION  
TO THE SENATE UTILITIES COMMITTEE**

**PRESENTED BY LARRY BENTLEY, WEATHERIZATION ASSISTANCE PROGRAM  
REGARDING WEATHERIZATION ASSISTANCE  
JANUARY 17, 2007**

Mr. Chairman and Honorable Members of the Committee, my name is Larry Bentley and I am the manager for training and technical assistance in the Kansas Weatherization Assistance Program. I appreciate the opportunity to testify before you about the benefits of weatherization to the citizens of Kansas.

The first weatherization grant was awarded in Kansas 33 years ago for a total of \$15,000. Those funds were limited to what we now call "winterization": materials to weatherstrip doors, caulk cracks, and install plastic over windows. All work to install these materials had to be voluntary. Since the 1970's, weatherization has grown substantially in scope, yet funding the program has been up and down. In the 1990's, weatherization experienced severe funding cuts of 50 percent or more. Then in 2000, program funding started increasing slowly once again to an average of about \$4 million a year. In 2006, weatherization received a supplemental allocation of \$1.5 million from the federal government. We also received \$2 million from the State of Kansas. With these additional allocations, our 2007 program year funding increased to approximately \$7.2 million, which allows KHRC and our non-profit partners to continue building program capacity and deliver much needed weatherization services to deserving Kansas families.

Today's weatherization program is vastly different from 1974. With increased funding and over thirty years' experience on weatherizing homes and evaluating its effectiveness, it has evolved into a highly technical program. In 1994 we developed a training and certification program for Kansas weatherization inspectors that gained Kansas a good deal of attention in the 12-state region. Certified inspectors now look at the home as a total "system," recognizing that a home which is tighter and more energy efficient may be less healthy for occupants due to poorer indoor air quality. Because of that, inspectors make sure the combustion appliances (primarily the furnace) are safe before weatherization is started. Inspectors evaluate carbon monoxide, moisture, mold, lead levels, and they consider the life style habits of residents, such as smoking and having lots of plants or pets, which also affect indoor air quality.

Using high-tech home auditing tools as well as experience, weatherization staff determines the repairs needed, assuring they are cost-effective. Among the most common repairs are attic and sidewall insulation, along with sealing cracks where air infiltrates. Before any repairs are made to the building, the inspectors assure the furnaces are operating safely and efficiently, and unsafe furnaces may be replaced. Other energy-efficiency measures include basement or floor insulation, installation of ceiling fans, installation of compact fluorescent light bulbs, and minor repairs that protect the materials installed during weatherization. Weatherization reduces energy use in the average home by about 21 percent each year for 10 years; using average cost figures, this amounts to a saving of about \$350.00 annually per family for 10 years.

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Attachment 1-1

Weatherization services are distributed through a network of nine nonprofit organizations that provide energy efficiency information to Kansas homeowners across the state. These organizations recruit and process applications and they employ the certified inspectors/auditors who assess each home for needed repairs. Our partners completed weatherization on 1,282 homes in 2005, representing 2,131 Kansas residents. The 2006 weatherization program year is not completed yet, but we expect to finish 1,705 homes, serving 4,592 residents by the end of the program year. With the added funds from the State, we expect to weatherize approximately 2,000 homes, benefiting 4,800 low-income Kansas residents in 2007.

In addition to our non-profit affiliates, KHRC's partnership also includes utilities, such as Westar Energy, Kansas Gas Service and Midwest Energy. These utility companies provide valuable energy usage data which helps KHRC to evaluate the effectiveness of weatherization improvements made to Kansas homes.

I've attached some materials for your review, including the local weatherization agencies and areas served, and some pictures of work being done, with explanations.

We appreciate your support for the Weatherization Assistance Program. I'd be glad to answer questions at this time.

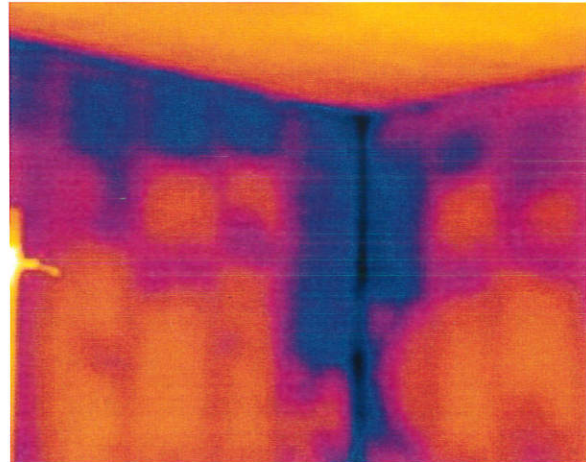
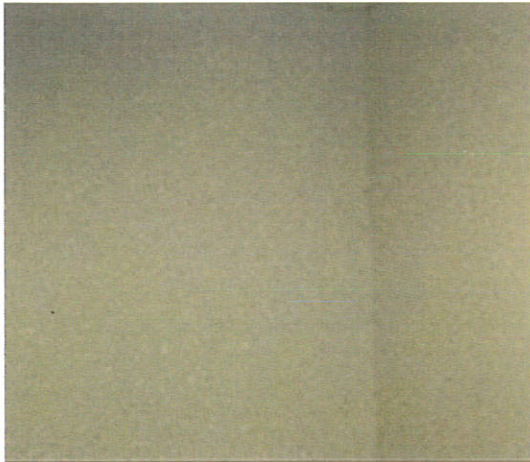
AGENCY	COUNTIES SERVED
<p><b><u>East Central Kansas Economic Opportunity Corporation</u></b>            Contact: Don Hobbs, Weatherization Director            1320 S. Ash Street, Suite 205 - PO Box 40            Ottawa, KS 66067-0040            Phone: 785-242-6413 FAX: 785-242-1081            Toll Free: 1-888-833-0832</p>	<p>Anderson, Butler, Chase, Coffey, Douglas, Franklin, Greenwood, Harvey, Lyon, Marion, Miami, Osage, Northern Wyandotte</p>
<p><b><u>Harvest America/Wyandotte County</u></b>            Contact: Nancy Esquivel-Gomez, Housing Coordinator            14th and Metropolitan, Kansas City, KS 66103            Phone: 913-342-2121 FAX: 913-342-2861</p>	<p>Southern Wyandotte</p>
<p><b><u>Northeast Kansas Community Action Program</u></b>            Contact: Jack Shaefer, Weatherization Director            PO Box 380, 1260 220<sup>th</sup> Street, Hiawatha, KS 66434-0380            Phone: 785-742-2222 (Ext. 143) FAX: 785-742-2164            Toll Free: 1-888-904-8159</p>	<p>Atchison, Brown, Doniphan, Jefferson, Jackson, Leavenworth, Marshall, Nemaha, Pottawatomie</p>
<p><b><u>Southeast Kansas Community Action Program</u></b>            Contact: Hoyt Johnson, Weatherization Coordinator            PO Box 128, 401 N. Sinnet, Girard, KS 66743-0128            Phone: 620-724-8204 (Ext. 148) FAX: 620-724-4471</p>	<p>Allen, Bourbon, Cherokee, Crawford, Labette, Linn, Montgomery, Neosho, Wilson, Woodson</p>
<p><b><u>Community Action, Incorporation</u></b>            Contact: Aaron Brucker, Housing Director            1000 SE Hancock, Topeka, KS 66607            Phone: 785-235-9296 FAX: 785-290-3200</p>	<p>Shawnee</p>
<p><b><u>Harvest America/Southwest Kansas</u></b>            Contact: Nancy Esquivel-Gomez, Housing Coordinator            116 E. Chestnut, Garden City, KS 67846-5441            Phone: 620-275-1619 FAX: 620-275-1762            Toll Free: 1-877-505-5150</p>	<p>Barton, Clark, Comanche, Edwards, Finney, Ford, Grant, Gray, Greeley, Hamilton, Haskell, Hodgeman, Kearny, Kiowa, Lane, Meade, Morton, Ness, Pawnee, Rush, Scott, Seward, Stanton, Stevens, Wichita</p>
<p><b><u>North Central Regional Planning Commission</u></b>            Contact: Margaret Cathey, Housing Director            PO Box 565, 109 N. Mill, Beloit, KS 67420            Phone: 785-738-2218 FAX: 785-738-2185            Toll Free: 1-800-432-0303</p>	<p>Cheyenne, Clay, Cloud, Decatur, Dickinson, Ellis, Ellsworth, Geary, Gove, Graham, Jewell, Lincoln, Logan, Mitchell, Morris, Norton, Osborne, Ottawa, Phillips, Rawlins, Republic, Riley, Rooks, Russell, Saline, Sheridan, Sherman, Smith, Thomas, Trego, Wabaunsee, Wallace, Washington</p>
<p><b><u>South Central Kansas Economic Development District</u></b>            Contact: Mike West, Weatherization Director            209 E. Williams, Suite 300, Wichita, KS 67214            Phone: 316-262-7035 FAX: 316-262-7062            Toll Free: 1-800-658-1742</p>	<p>Barber, Chautauqua, Cowley, Elk, Harper, Kingman, McPherson, Pratt, Reno, Rice, Sedgwick, Stafford, Sumner</p>
<p><b><u>Johnson County Human Services &amp; Aging</u></b>            Contact: <b>Len Paulie, Weatherization Director</b>            12425 W. 87th Street Parkway, Lenexa, KS 66215-4524            Phone: 913-715-6617 FAX: 913-715-6630</p>	<p>Johnson</p>



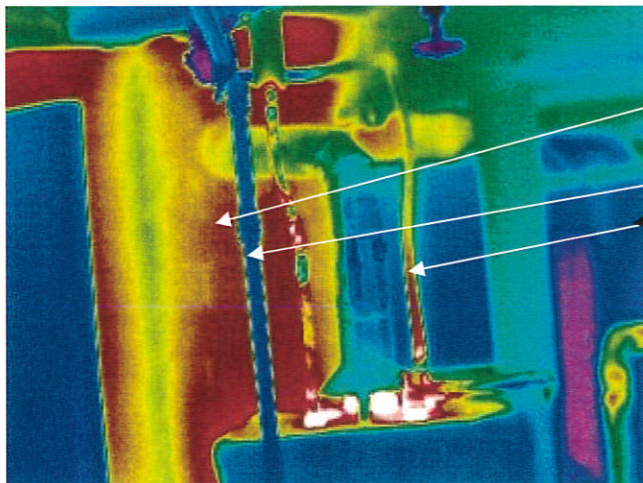


Kansas has 20 certified weatherization inspectors, with five pending successful completion of all training.

This inspector is demonstrating skills learned in building science and combustion appliance training. He is testing a furnace for carbon monoxide and for an appropriate draft for the furnace.

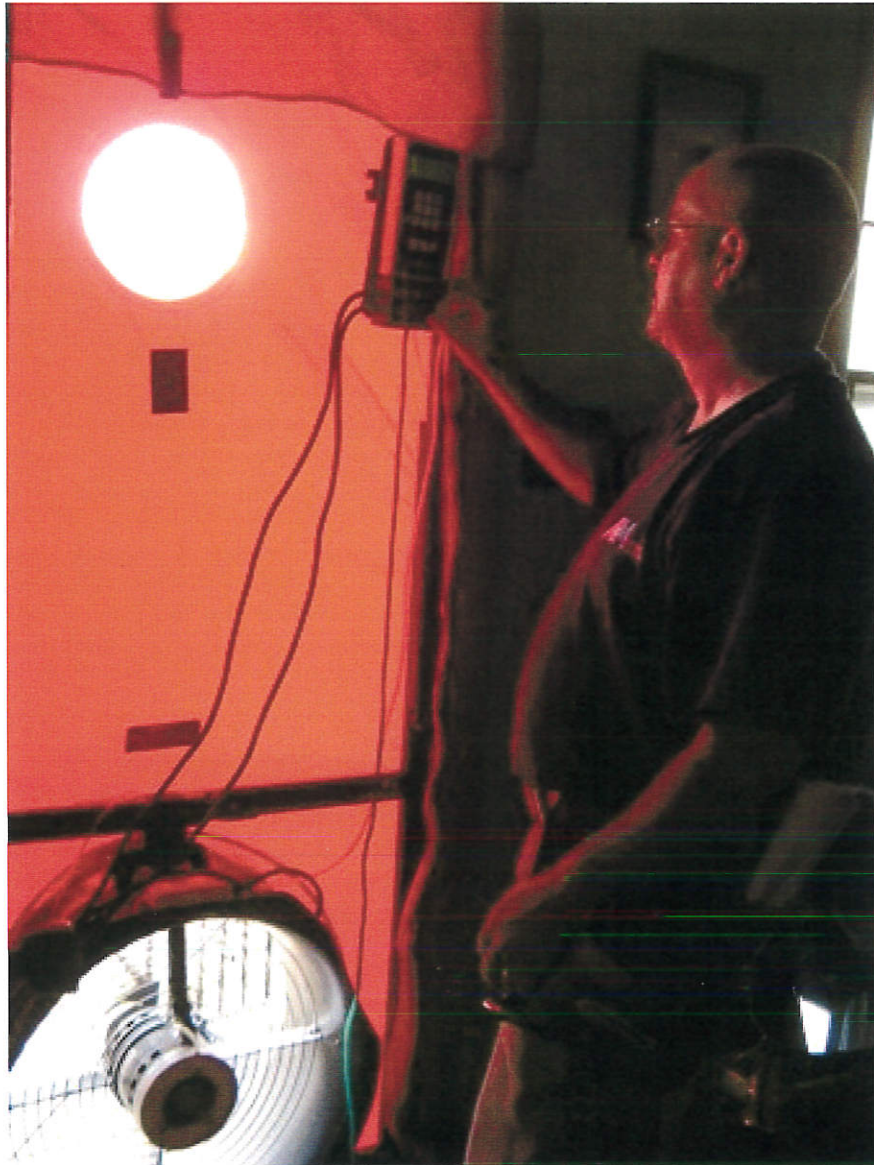


An infrared camera shows “hot” and “cold” areas in the home. The above pictures show a normal outer wall and then, through the infrared camera, the places in the wall that are not insulated (the blue areas). Using the infrared camera, the inspector can determine what areas need added insulation.



The infrared camera can also be used inside the house. This picture shows a chimney flue—notice the red color denoting heat. It also shows a cold water and a hot water line from the water heater.





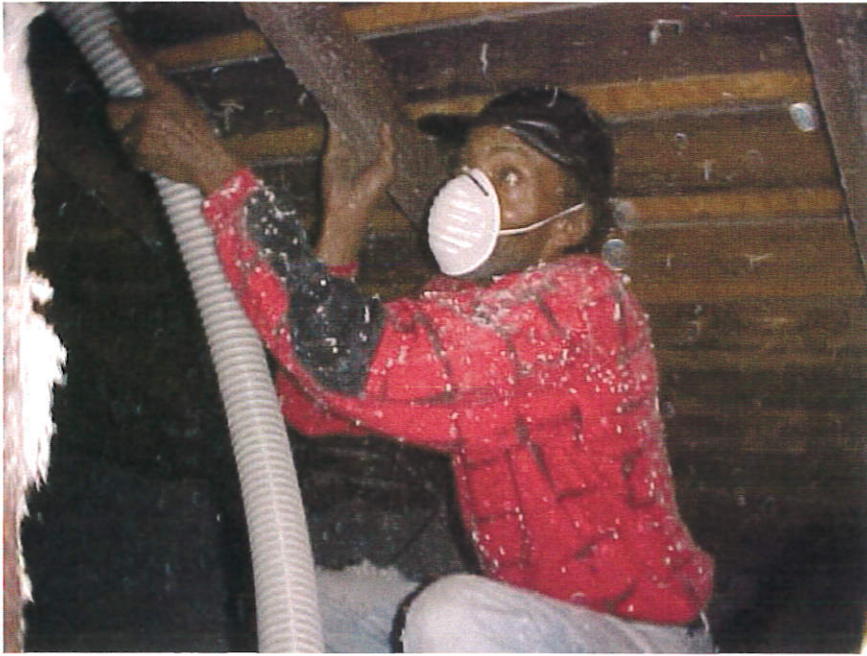
This inspector is conducting a blower door test, to identify air leakage from the house. The artificial door is fit into the door frame, and a fan and gauges are attached which identify the amount of air leakage.

Using other tools, such as liquid smoke and manometers, as well as experience, the inspector can tell where cracks and holes need to be sealed.

Using a manometer, the inspector also tests duct pressure throughout the house, detecting duct leakage.







This worker is installing attic insulation in a kneewall section of the attic.

Installation of attic insulation requires covering electric wiring and blowing up to 12 inches of insulation.

This installer is blowing dense-pack insulation into a sidewall. After the insulation is installed, the siding is re-installed.





**TESTIMONY OF KANSAS HOUSING RESOURCES CORPORATION  
TO THE SENATE UTILITIES COMMITTEE**

**PRESENTED BY CHRISTINE REIMLER, HOMEOWNERSHIP MANAGER  
REGARDING KANSAS ENERGY EFFICIENCY PROGRAM  
JANUARY 17, 2007**

Mr. Chairman and Honorable Members of the Committee, my name is Christine Reimler and I am the manager for the Kansas Energy Efficiency Program (KEEP). I appreciate the opportunity to testify before you about energy efficiency loans for the citizens of Kansas.

Two million dollars were awarded to Kansas Housing Resources Corp. to develop a program to provide low interest loans for energy efficient improvements to Kansans' homes. KHRC partnered with Sunflower Bank to develop a program, and KEEP was announced in November 2006.

KHRC funds half of the loan amounts, up to a maximum of \$7,500. Total loan amounts could be higher as determined by Sunflower. The zero interest rate on KHRC funds translates into a lower blended rate than obtained through a normal second mortgage loan.

Eligible families must have incomes at 100% or below of the statewide median income. For instance, a household of four could earn no more than \$65,777 to qualify. Examples of home improvements allowed under KEEP include: installing specified ENERGY STAR furnaces, central air conditioners, heat pumps, water heaters, ventilation systems, installing wall & floor insulation, new doors and windows and weather-stripping, air sealing, duct work and the purchase of certain ENERGY STAR appliances such as refrigerators, washers, dryers, dish washers and programmable thermostats.

Interested applicants apply for KEEP directly to Sunflower bank; they have 34 locations across the state. Sunflower underwrites, monitors the construction phase, and services the loans.

As of today, one KEEP loan in the amount of \$7,500 has been made. Sunflower currently has at least two loans pending and has received many requests for applications. To help publicize the program, KHRC is providing Sunflower Bank branches and our community action program agencies with KEEP brochures which explain the program and provide homeowners with basic energy conversation tips. Westar Energy is also excited to partner with KHRC and plans to promote KEEP to its customers by placing a promotional insert in utility bills and posting a link on the company's website about KEEP loans.

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Attachment 2-1

# Loan Program Approved Improvements

## Heating & Cooling, Energy Star Only

Forced Air natural gas or propane furnaces must be rated at 92 AFUE or higher.

Heat Pumps must be rated at 14 SEER 9.05 HSPF or higher.

Central Air Conditioner must be rated at 14 SEER or higher.

Boilers (residential hot water heat) must be rated at 90+ AFUE.

Install outdoor combustion air inlet duct

Install heat recovery ventilation system (heat exchanger)

## Insulation

Attic                      Knee Wall

Floor                      Foundation, minimum R-10

Walls

## High Efficiency Water Heater

Install high efficiency water heater; gas minimum .65 energy factor, electric .95 energy factor

Heat pump water heater, 2.2 energy factor

Install flow restrictors

Demand (Tankless or Instantaneous) water heater

## Air Sealing

Seal air leaks in thermal boundary

## Duct Work

Pressure test and or/seal ducts

Insulate duct work in unconditioned spaces

## Appliances, Energy Star Only

Refrigerators                      Dish washers

Clothes washer                      Programmable Thermostat

Clothes dryer

## Windows

Replace missing or broken glass/missing sash  
 Install storm windows  
 Replace entire window unit

**Minimum window standards:** The new window unit must meet certain requirements. The window must have **at least** two panes of glass, the space between panes must be filled with argon, or other gas and the window frame must be wood, vinyl or aluminum with a thermal break. The table below lists the requirements.

Performance	Construction features
Whole unit $R \geq 2.86$  Or  $U \leq 0.35$ Btu/hr-ft <sup>2</sup> -F	<b>Glazing</b> -at least two panes, at least one of which has low-emissive coating
	<b>Fill gas</b> - argon, krypton, carbon dioxide, SF <sup>6</sup> or some combination of these
	<b>Frame</b> - wood or vinyl, or aluminum with thermal breaks through all members

Look for the National Fenestration Rating Council (NFRC) label to determine the energy efficiency of a window unit. A copy of the bid and the NFRC labels or other manufacturer documentation must be included with the loan application. Note that there are separate NFRC labels for each manufacturer and for each model of window. The manufacturer(s) and model(s) must be indicated on the bid sheet and on the loan form.

The particular window(s) described on the example label(s) have a U factor of 0.32 (or 0.31 for the larger, nonresidential size). Since this is less than or equal to the required U factor of 0.35, these example units can be financed through the loan program.

## Doors

Add weather-stripping/and or thresholds.  
 Install new storm doors  
 Replace current solid core door with energy efficient solid core door.

**Minimum door standards:** The new door must meet certain requirements. Financing will not be approved to replace a solid core door with a glass door. The table below lists the requirements for energy efficient doors.

Performance	Construction features
System $R \geq 4.0$  Or  $U \leq 0.25$ Btu/hr-ft <sup>2</sup> -F	<b>Core</b> -material has insulating values of at least R-8.0
	<b>Lites</b> -double glazed (if any) and cover no more than 10 percent of the door surface area

Look for the National Fenestration Rating Council label on the new *glass door* to determine its energy efficiency. A copy of this label or other manufacturer documentation must be included with the loan application.



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**KANSAS HOUSING**  
RESOURCES CORPORATION

**Kansas Energy Efficiency Program**  
Statewide Median Income Limits

	1 Person	2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8 Persons	9 Persons	10 Persons
Median Income Limit -- 100%	\$34,204	\$44,728	\$55,253	\$65,777	\$76,301	\$86,826	\$88,799	\$90,772	\$92,746	\$94,719