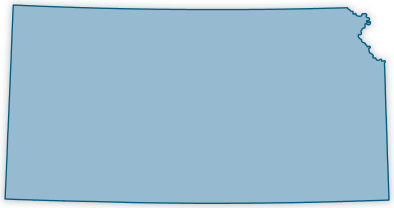
Department of Energy

Recovery Act State Memos

Kansas



For questions about DOE's Recovery Act activities, please contact the DOE Recovery Act Clearinghouse: 1-888-DOE-RCVY (888-363-7289), Monday through Friday, 9 a.m. to 7 p.m. Eastern Time

https://recoveryclearinghouse.energy.gov/contactUs.htm.

All numbers and projects listed as of June 1, 2010

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American Recovery and Reinvestment Act

U.S. DEPARTMENT OF ENERGY • KANSAS RECOVERY ACT SNAPSHOT

Funding for selected DOE projects: $179.3 million

DOE Recovery Act projects in Kansas: 39

Clean energy tax credits and grants: 5

For total Recovery Act jobs numbers in Kansas go to www.recovery.gov

Kansas has substantial natural resources, including oil, gas, biomass and wind power. The **American Recovery & Reinvestment Act (ARRA)** is making a meaningful down payment on the nation's energy and environmental future. The Recovery Act investments in Kansas are supporting a broad range of clean energy projects, from energy efficiency and the smart grid to geothermal and carbon capture and storage. Through these investments, Kansas's businesses, universities, non-profits, and local governments are creating quality jobs today and positioning Kansas to play an important role in the new energy economy of the future.

EXAMPLES OF KANSAS FORMULA GRANTS

Program	State Energy Program	Weatherization Assistance Program	Energy Efficiency Conservation Block Grants	Energy Efficiency Appliance Rebate Program
Award (in millions)	$38.3	$56.4	$25.5	$2.7
	The Kansas Corporation Commission has received $38.3 million to invest in state-level energy efficiency and renewable energy priorities.	The Kansas Housing Resources Corporation has received $56.4 million to scale-up existing weatherization efforts in the state, creating jobs, reducing carbon emissions, and saving money for Kansas's low-income families. Over the course of the Recovery Act, Kansas expects to weatherize more than 5,800 homes. The program also includes workforce training and education as part of the state's efforts to develop a green workforce.	Twenty-seven communities in Kansas received a total of $25.5 million to develop, promote, implement, and manage local energy efficiency programs.	Kansas Housing Resources Corporation has received $2.7 million to offer consumer rebates for purchasing certain ENERGY STAR® appliances. These energy efficient appliances reduce energy use and save money for families, while helping the environment and supporting the local economy.

EXAMPLES OF KANSAS COMPETITIVE GRANTS AND TAX CREDITS

Award	$19 million	$5 million	$2.6 million	$2.3 million
	Westar Energy was awarded **$19 million** through the **Smart Grid Investment Grant Program** to implement smart grid technologies in Topeka, including deploying 48,000 smart meters, grid management infrastructure and tools to empower consumers to reduce their energy use.	**The University of Kansas** in Lawrence was awarded **$5 million** for carbon sequestration site characterization in south-central Kansas.	**The University of Utah** has been awarded **$2.6 million** for deep saline sequestration research in Coffeyville, Kansas. One million tons of carbon dioxide per year will be captured, compressed, and transported.	**The University of Kansas Center for Research** was awarded **$2.3 million** to use advanced geological techniques to model a potential geothermal reservoir in Fish Lake Valley, Nevada.

Funding Allocation Table (Figure 1)

Total dollar amounts in this document are accurate as of June 1, 2010. Please note that Recovery Act Programs are ongoing and the dollar amounts are subject to change. Recipient locations are based on project sites rather than recipients' headquarters locations.

Recovery Act Pillar	Flagship Program Names & Funding Type[1]	Number of Selections	Selected Amount (in millions)[2]
Energy Efficiency	*Weatherization Assistance Program (F)*	1	$56.4
	State Energy Program (F)	1	$38.3
	Energy Efficiency and Conservation Block Grant (F)	27	$25.5
	Energy Efficient Appliance Rebate (F)	1	$2.7
	TOTAL Energy Efficiency	30	$122.9
Renewable Energy	*Geothermal (CM)*	1	$2.3
	TOTAL Renewable Energy	1	$2.3
Electric Grid	*Smart Grid Investment and Demonstrations Project (CM)[3]*	2	$19.8
	State and Local Energy Assurance and Regulatory Assistance (F)	2	$1.0
	Smart Grid Workforce Training (CM)	1	$0.7
	TOTAL Electric Grid	5	$21.5
Transportation	*Advanced Fuels (CM)*	1	$25.0
	TOTAL Transportation	1	$25.0
Carbon Capture and Storage	*CCS Projects (CM)*	1	$2.6
	Geologic Characterization Projects (CM)	1	$5.0
	TOTAL Carbon Capture and Storage	2	$7.6
TOTAL - DOE Programs[4]		**39**	**$179.3**
Tax Credits/ Payments[5]	*Payments for Renewable Energy Generation in Lieu of Tax Credits (1603)*	3	$1.1
	Clean Energy Manufacturing Tax Credits (48C)	2	$16.9
	TOTAL Tax Incentives	5	$18.0
TOTAL - DOE/Treasury + DOE		**44**	**$197.3**

[1]F=Formula Grant, CM=Competitive Grant, C=Contract

[2]"Selected" indicates DOE has selected a potential funding recipient, which begins the process of negotiating an agreement. This does not necessarily indicate that a final agreement has been reached.

[3]Projects may cross state boundaries, signifies HQ location.

[4]Total does not include administrative funds.

[5]Jointly administered by DOE and the U.S. Department of Treasury.

ENERGY EFFICIENCY – 30 projects totaling $122.9 million

Helping millions of American families cut utility bills by making homes and appliances more energy efficient, expanding the home efficiency industry in sales and manufacturing. For more information, visit http://www.energy.gov/recovery/energyefficiency.htm.

Award(s): $56.4 million, Weatherization Assistance Program (WAP)
Location: Statewide
The Kansas Housing Resources Corporation received $56.4 million to increase existing weatherization efforts in the state, create jobs, reduce carbon emissions and save money for Kansas's low-income families. Over the course of the Recovery Act, Kansas aims to weatherize more than 5,800 homes. The program also includes workforce training and education as part of the state's efforts to develop a green workforce. Prior to receiving this latest round of weatherization funding, the Kansas weatherization network—a collection of public and private nonprofit agencies, including community action agencies, a regional planning commission, a housing service agency, an economic development district and a county government—analyzed its staffing and equipment needs and increased its operations. The Kansas Weatherization Assistance Program also increased the number of training programs it is running in order to meet the increased demand for weatherization workers. Finally, Kansas is focusing on expanding its multi-family weatherization program to reach more low-income homes—particularly among the elderly, disabled and families with children.

Award(s): $38.3 million, State Energy Program (SEP)
Location: Statewide
The Kansas Corporation Commission received $38.3 million for investment in state-level energy efficiency and renewable energy priorities. Kansas is distributing its Recovery Act SEP funds to several initiatives that benefit overall energy efficiency for commercial buildings, increase financial options for investing in renewable energy and increase energy costs savings for individual home owners. The funding is also applied to the development a robust work force of energy auditors. Additionally, a portion of the funding will go toward the development of a new utility rate pricing plan as well as an energy audit rebate plan for home and small business owners. To improve the quality and breadth of the energy auditor industry in the state, Kansas will subsidize costly technical audit equipment and provide scholarships for professional training.

Award(s): 27 totaling $25.5 million, Energy Efficiency and Conservation Block Grant Program (EECBG)
Location: Statewide
Recipients: Butler County, Lawrence, Kansas Corporation Commission, Johnson County, Leavenworth County, Sedgwick County, Shawnee County, Cowley County, Crawford County, Hutchinson, Iowa Tribe of Kansas and Nebraska, Kickapoo Tribe in Kansas, Lenexa, Lyon County, Manhattan, Montgomery County, Olathe, Overland Park, Prairie Band Potawatomi Nation, Sac &Fox Nation of Missouri in Kansas and Nebraska, Salina, Shawnee, The Unified Government of Wyandotte County, Kansas City, Topeka, Wichita

Twenty-seven communities in Kansas received a total of $25.5 million to develop, promote, implement and manage local energy efficiency programs.

This project assists states, U.S. territories, Indian tribes, counties and cities to develop, promote, implement and manage localized energy efficiency programs through individual program grants. The

project funds programs which reduce fossil fuel emissions in a manner that is environmentally sustainable and maximizes cost savings, reduces the total energy use of eligible entities and improves energy efficiency in the transportation, building and other appropriate sectors. Examples of EECBGs include:

- **Kansas Corporation Commission, Topeka - $9.6 million**
  The Kansas Corporation Commission in Topeka received $9.6 million and is using these funds to implement a range of energy efficiency and renewable energy initiatives in the public and private sector. These include building retrofits, direct incentives for renewable energy projects and support for local government energy managers. Recovery Act funding provides direct grants to cities and counties encouraging broader participation in the state's existing Facility Conservation Improvement Program (FCIP), which helps local governments implement energy performance contracts with energy service companies. The state also encourages local communities to install alternative energy generating systems by offering competitive grants for up to 25 percent of the total cost. With the remaining funds, the state is allowing local units of governments to compete for funding to hire energy managers.

- **Environmental Services, Wichita - $3.5 million**
  Environmental Services in Wichita received $3.5 million and is creating a multiple approach strategy for improving energy efficiency and reducing carbon emissions in Wichita. Project goals are to increase the energy efficiency of municipal buildings, improve traffic flow and reduce emissions by providing alternative transportation.

- **Overland Park-$1.7 million**
  The community of Overland Park received $1.7 million for projects to increase options for bicycle and pedestrian travel, optimize traffic signalization and create alternative codes for higher-density development. These initiatives will save nearly 1.75 million gallons of fuel annually.

Award(s): $2.7 million, Energy Efficient Appliance Rebate Programs
Location: Statewide
The Kansas Housing Resources Corporation received $2.7 million to offer consumer rebates for purchasing certain ENERGY STAR® appliances. These energy efficient appliances reduce energy use and save money for families, while supporting the local economy. This funding assists state-level rebate programs by paying up to 50 percent of the administrative costs of establishing and executing these types of programs. Though states and territories determine the appliances which apply, typically those include clothes washers, dishwashers, refrigerators, freezers, room air conditioners and water heaters.

RENEWABLE ENERGY – 6 projects totaling $20.3 million

Developing the clean renewable resources in order to double our supply of renewable energy and boost domestic renewable manufacturing capacity. For more information, visit http://www.energy.gov/recovery/renewableenergy.htm.

Award(s): 3 payments totaling $1.1 million from DOE / Treasury, 1603 Payments for Renewable Energy Generation
Location: Arcadia, Lyons, Kiowa
* For current number of 1603 awards, see the weekly update at http://www.treas.gov/recovery/1603.shtml

Kansas received three 1603 payments for renewable energy generation totaling $1.1 million, which include wind and landfill gas projects.

- **Oak Grove Power Producers, LLC, Arcadia - $885,000**
  Oak Grove Power Producers, LLC, in Arcadia received $885,000 for a landfill gas project.

- **GT Wind, Lyons - $149,000**
  GT Wind in Lyons received $149,000 for a wind project.

- **RSI Corp., Kiowa - $17,000**
  RSI Corp., in Kiowa received $17,000 for a wind project.

Award(s): 2 totaling $16.9 million from DOE / Treasury, Clean Energy Manufacturing Tax Credits (48C)
Location: Newton

- **Tindall Corporation, Newton - $16.7 million**
  Tindall Corporation in Newton received a clean energy manufacturing tax credit of $16.7 million to build a facility for the manufacturing of concrete tower bases and concrete towers for wind turbines, which provide more efficient wind energy production.

- **Enertech, Inc., Newton - $158,000**
  Enertech, Inc., in Newton received a clean energy manufacturing tax credit of $158,000 for the expansion of its manufacturing plant to accommodate development, fabrication and assembly of two new small-scale wind turbine models utilizing innovate blade design and fabrication processes.

Award(s): $2.3 million, Validation of Innovative Exploration Technologies
Location: Lawrence
The University of Kansas Center for Research was awarded $2.3 million for Validation of Innovative Exploration Technologies to model a potential geothermal reservoir in Fish Lake Valley, NV.

MODERNIZING THE ELECTRIC GRID – 5 projects totaling $21.5 million

Harnessing clean energy sources and integrating them onto a modernized electric grid, while giving consumers better choices and more control over their energy use. For more information, visit http://www.energy.gov/recovery/smartgrid.htm.

Award(s): 2 totaling $951,000, Enhancing State and Local Governments' Energy Assurance
Location: Topeka, Manhattan
The cities of Topeka and Manhattan received $951,000 to focus on building regional energy assurance capabilities by enhancing inter- and intra-state coordination and cooperation during energy emergencies. This project funds states to update and develop State Energy Assurance Plans that incorporate new energy portfolios such as wind, renewables, biofuels, etc. This program also funds cities updating and developing Energy Assurance Plans within local areas. The funding is being used to hire or retrain staff in, building in-house expertise in the areas of Smart Grids, critical energy infrastructure interdependencies and cyber-security.

- **City of Topeka - $821,000**
  City of Topeka received $821,000 for State Energy Assurance Planning.

- **City of Manhattan - $130,000**
  City of Manhattan received $130,000 for the Local Energy Assurance Planning (LEAP) initiative.

Award(s): 2 totaling $19.7 million, Smart Grid Investment Grant Program (EISA 1306)
Location: Topeka, Hays

- **Westar Energy, Topeka - $19 million**
  Westar Energy in Topeka received $19 million for the Smart Grid Investment Grant Program (EISA 1306). This project includes the installation of Advanced Metering Infrastructure (AMI) meters, advanced distribution automation equipment and Smart Grid management software, as well as an introduction to web-based customer engagement tools.

- **Midwest Energy, Hays - $712,000**
  Midwest Energy in Hays received $712,000 for the Smart Grid Investment Grant Program (EISA 1306). This project involves the replacement of all Electromechanical Relays at Knoll Substation with Microprocessor-based Relays.

Award(s): $749,000, Workforce Development Program
Location: Pratt
Pratt Community College in Pratt, via the Kansas Community College Energy Consortium, received $749,000 for the Workforce Development Program. This project enhances electric power and information network training programs by utilizing Smart Grid technology. The project develops online and hybrid Smart Grid training modules, provides career pathways toward industry certifications and degrees (e.g. "stackable" credentials in clean energy), and enhances training with simulation software.

TRANSPORTATION – 1 project totaling $25 million

Investing in a new generation of advanced fuels and vehicles to reduce our dependence on foreign oil and revitalize domestic manufacturing. For more information, visit http://www.energy.gov/recovery/vehicles.htm.

Award(s): $25 million, Modify Integrated Biorefinery Solicitation Program for Pilot and Demonstration Scale Biorefineries
Locations: Colwich

ICM, Inc., in Colwich received $25 million for the Modify Integrated Biorefinery Solicitation Program for Pilot and Demonstration Scale Biorefineries. ICM, Inc., is working to construct, operate and validate an integrated cellulosic biorefinery. This biochemical platform is enhanced by energy recycling and process flow innovations to refine cellulosic biomass at a rate of ten tons per day into fuel ethanol with co-products of lignin / biomass for combined heat and power (CHP) production.

CARBON CAPTURE & STORAGE – 2 projects totaling $7.6 milion

Developing clean coal technologies so we can utilize America's coal resources sustainably. For more information, visit http://www.energy.gov/recovery/ccs.htm.

Award(s): $5 million, Geologic Sequestration Site Characterization
Location: Lawrence
The University of Kansas in Lawrence received $5 million for Geologic Sequestration Site Characterization. Site characterization focuses on the Paleozoic-age Ozark Plateau Aquifer System in south-central Kansas. The project integrates seismic, geologic and engineering approaches to evaluate miscible carbon dioxide-EOR and tertiary oil recovery potential in the Mississippian oil reservoir and carbon dioxide storage potential in the underlying Arbuckle Group saline formation.

Award(s): $2.6 million, Industrial Carbon Capture and Storage Applications
Location: Coffeyville
The University of Utah received $2.6 million for Industrial Carbon Capture and Storage Applications in Coffeyville, Kansas. More than 1 million tons of carbon dioxide per year is being captured from various industrial sources, compressed and transported via two new intra-state pipelines for carbon dioxide-enhanced oil recovery (EOR) and deep saline sequestration research in Kansas. Beneath each enhanced oil recovery target, a major saline aquifer spanning most of the State of Kansas will be used for carbon dioxide injection.

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Recovery Act Success Stories

Energy Empowers is a U.S. Department of Energy clean energy information service. Our team produces stories featuring the people and businesses that are fueling the energy transformation and economic recovery in America.
For more stories from your state, go to energyempowers.gov/Kansas

PAOLO

Kansas company reaps benefits of geothermal's growing popularity

Last year, 80 percent of Evans Energy Development's revenue came from installing geothermal loop systems, which cool and heat buildings by using the Earth's stable temperature.

Geothermal loop systems consist of pipes buried just below the ground that contain liquid. During winter, the liquid absorbs the Earth's heat and pumps it to a unit located inside the building. In summer, the process reverses as heat is moved from the building to the buried pipes.

Once the systems are installed, the cost of heating and cooling homes plummets 30 to 60 percent, according to Energy Savers.

"The past years of high energy prices makes people very conscious of cost," says Scott Evans, the drilling company's owner.

Scott says another factor enhancing geothermal's appeal is a federal tax-credit program. As part of the Recovery Act, residents who install geothermal heat pumps can receive up to a 30-percent tax credit with no cap. Commercial buildings can earn a 10-percent credit. Last year, half of Scott's business came from installing geothermal loop systems for commercial buildings.

"Geothermal was big before the tax credits and especially because of the tax credits," Scott says. "It's been a huge advantage."

Since geothermal power does not burn fossil fuels, it will play a starring role in the country's clean energy economy.

"Geothermal is a very green technology," Scott says. "It's the way everybody is heading."

The alternative power source's popularity is making America a global leader in geothermal energy. According to a report by the Geothermal Energy Association, about a third of the world's 10,000 megawatts of geothermal capacity is in the U.S.

That number is predicted to swell in the future. GEA estimates up to 6,442 MW of new geothermal power plant capacity is under development in America. Fourteen states have between 140 and 150 new geothermal projects in the works, and the industry is growing at a rate of 15 percent annually.

Help wanted at Kansas wind blade company

Last year, Israel Sanchez, a 31-year-old Newton, Kan., resident, was painting the blades of wind turbines for Enertech, Inc., a small-scale wind manufacturer. Now he's assembling the entire system.

"They promoted me," says Sanchez, taking a quick break from the assembly line in the 10,000 square-foot plant in Newton. "It's a new field for me, but I'm excited because it's all new experiences every day."

Sanchez is assembling Enertech's new wind models using an innovative blade design licensed from the National Renewable Energy Laboratory (NREL) in Golden, Colo., on its 40 kW turbines.

The small business, located about 15 miles from Wichita, Kan., received a 48C Advanced Energy Manufacturing Tax Credit worth over $157,000 to accommodate the development, production and assembly of the new models—which have designs similar to aircraft wings.

"Every little bit helps," says Dale Jones, president of Enertech. "[The federal tax credit] helped in two regards: obviously we are hiring people, like Israel, to build the blades and it also helps NREL with their endeavors to bring government-funded technology to the marketplace."

NREL's airfoil technology increases the aerodynamic efficiency of the blades and therefore energy output. Enertech, which has been in the small-scale wind business since 1971, makes systems for homes, farms, businesses and schools.

For the $500,000 project, the company called upon aviation engineers in Wichita, a city that has one of the largest aviation industries in the country, to help develop production methods and test the new blades at its facility.

A prototype was installed in May by the team and passed all the tests. Production of the new systems started this month.

With a goal of 300 units a year, the company needs to bring on more people to help produce them, Jones says.

- According to the American Wind Energy Association, small-scale wind systems can save residents and small businesses up to 20 percent on their utility bills, depending on wind speed in the area and how many systems are running.

- Enertech believes in recycling—even for wind turbines. The company uses decommissioned systems to construct new ones. The company's "44 Series" has new blades, controls and nacelles, but has rebuilt gear box and rewound generators.

Help wanted

"Enertech is hiring!" declares an electronic help wanted sign on the company's website.

The company has added six new employees in the last eight months, boosting its workforce to 20, and aims to hire six more workers soon.

Sanchez used to work at Bunting Mechanics, a manufacturer of metals and plastics, but moved over to Enertech late last year to help with blade painting. When Enertech's management realized the company was going to expand, they decided to train Sanchez on production. After weeks of mentoring, Sanchez was officially on the assembly line.

"I learn something new all the time, and I'm just glad that I got a chance to do this," Sanchez says. "It seems like a growing field, and I would like to stay in it."

Rebate program gives low-income Kansans a boost

Ginger Webber is thrilled with her new refrigerator, upright freezer and clothes washer. The Topeka resident got a voucher application in the mail, and figured it couldn't hurt to apply. She was surprised and very pleased when she qualified for the Kansas State Energy Efficient Appliance Rebate Program in January, and got her new

appliances in February.

"I was just amazed at how easy it was," says Ms. Webber. "I never had any new appliances before, and I was so excited to get the vouchers."

Administered by the Kansas Housing Resources Corporation, the state program provided $200-$800 vouchers for new ENERGY STAR-qualified room air conditioners, clothes washers, dishwashers, freezers and refrigerators to low-income residents replacing appliances at least 10 years old. Al Dorsey, Director of the Kansas Division of Housing with Supportive Services, says the program has made a big difference in people's lives.

"We thought that providing a 100 percent rebate on the new appliances would encourage low-income people to replace old appliances. It would be very difficult for them if we provided $100 with the expectation that they would come up with the other $600. Now their lower utility bills mean they can save money for other things, like food, prescriptions and transportation."

Kansas launched its rebate program in mid-December; the program proved so popular that funding, made available by the American Recovery and Reinvestment Act, was exhausted in mid-February. Kansas provided approximately $2.5 million in vouchers to nearly 3,800 households. As required, retailers recycled the old appliances.