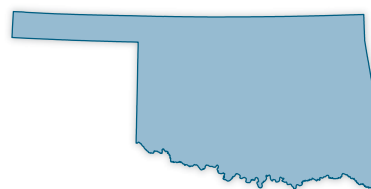




Department of Energy

Recovery Act State Memos

Oklahoma



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 • OKLAHOMA RECOVERY ACT SNAPSHOT

Funding for selected DOE projects: **\$312.6 million**

DOE Recovery Act projects in Oklahoma: **70**

Clean energy tax credits and grants: **5**

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

Oklahoma has substantial natural resources, including oil, gas, solar, wind, and hydroelectric 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 Oklahoma are supporting a broad range of clean energy projects, from energy efficiency and the smart grid to environmental cleanup and geothermal. Through these investments, Oklahoma's businesses, universities, non-profits, and local governments are creating quality jobs today and positioning Oklahoma to play an important role in the new energy economy of the future.

EXAMPLES OF OKLAHOMA FORMULA GRANTS

Program	State Energy Program	Weatherization Assistance Program	Energy Efficiency Conservation Block Grants	Energy Efficiency Appliance Rebate Program
Award (in millions)	\$46.7	\$60.9	\$36.5	\$3.5
	The Oklahoma Department of Commerce has received \$46.7 million in State Energy Program funds to invest in state-level energy efficiency and renewable energy priorities.	The State of Oklahoma has received \$60.9 million in Weatherization Assistance Program funds to scale-up existing weatherization efforts in the state, creating jobs, reducing carbon emissions, and saving money for Oklahoma's low-income families. Over the course of the Recovery Act, Oklahoma expects to weatherize more than 7,000 homes. The program also includes workforce training and education as part of the state's efforts to develop a green workforce.	Fifty-six communities in Oklahoma received a total of \$36.5 million for Energy Efficiency and Conservation Block Grants (EECBG) to develop, promote, implement, and manage local energy efficiency programs.	The Oklahoma Department of Commerce has received \$3.5 million for the Energy Efficient Appliance Rebate Program, which offers 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 OKLAHOMA COMPETITIVE GRANTS AND TAX CREDITS

Award	\$130 million	\$52.3 million	\$25 million	\$8.9 million
	Oklahoma Gas and Electric Company has been awarded a Smart Grid Investment Grant for \$130 million to deploy a smart grid network that will provide 771,000 smart meters to customers across the state.	Elk City Wind has received a 1603 payment for renewable energy generation of \$52.3 million for a wind generation facility.	Tronox, LLC , in Oklahoma City, was awarded \$25 million under the Title X Uranium/Thorium Reimbursement Program to accelerate the completion of cleanup programs and eliminate the environmental risks at sites that produced uranium and thorium during the Cold War era.	Climate Master, Inc. , in Oklahoma City, was awarded a clean energy manufacturing tax credit for \$8.9 million . The funds will be used to expand the capacity of manufacturing facilities that produce water-source heat pumps.

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	<i>Weatherization Assistance Program (F)</i>	1	\$60.9
	<i>State Energy Program (F)</i>	1	\$46.7
	<i>Energy Efficiency and Conservation Block Grant (F)</i>	56	\$36.5
	<i>Energy Efficient Appliance Rebate (F)</i>	1	\$3.5
	<i>Industrial Energy Efficiency (CM)</i>	1	\$0.1
	<i>Additional Programs (CM & C)</i>	2	\$0.5
	TOTAL Energy Efficiency	62	\$148.2
Renewable Energy	<i>Geothermal (CM)</i>	1	\$2.4
	TOTAL Renewable Energy	1	\$2.4
Electric Grid	<i>Smart Grid Investment and Demonstrations Project (CM)³</i>	1	\$130.0
	<i>State and Local Energy Assurance and Regulatory Assistance (F)</i>	2	\$1.4
	TOTAL Electric Grid	3	\$131.4
Carbon Capture and Storage	<i>Research and Training (CM)</i>	1	\$1.0
	TOTAL Carbon Capture and Storage	1	\$1.0
Environmental Cleanup	<i>Environmental Management Contracts (C)</i>	1	\$25.0
	TOTAL Environmental Cleanup	1	\$25.0
Science and Innovation	<i>Advanced Research Projects Agency - Energy (ARPA-E) (CM)</i>	1	\$3.0
	<i>Additional Programs</i>	1	\$0.6
	TOTAL Science and Innovation	2	\$3.6
TOTAL - DOE Programs⁴		70	\$312.6
Tax Credits/ Payments ⁵	<i>Payments for Renewable Energy Generation in Lieu of Tax Credits (1603)</i>	1	\$52.3
	<i>Clean Energy Manufacturing Tax Credits (48C)</i>	4	\$14.2
	TOTAL Tax Incentives	5	\$66.5
TOTAL - DOE/Treasury + DOE		75	\$379.1
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 – 62 projects totaling \$148.2 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): \$60.9 million, Weatherization Assistance Program (WAP)

Location: Statewide

Oklahoma received \$60.9 million in Weatherization Assistance Program funds to increase existing weatherization efforts in the state, create jobs, reduce carbon emissions and save money for Oklahoma's low-income families. Over the course of the Recovery Act, Oklahoma aims to weatherize more than 7,000 homes. The program also includes workforce training and education as part of the State's efforts to develop a green workforce. Grants are being awarded by the Oklahoma Department of Commerce to community action agencies which are assisting low-income families to weatherize their homes. The purpose of the Weatherization Assistance Program is to increase the energy efficiency of dwellings owned or occupied by low-income persons, thus reducing their total residential expenditures and improving their health and safety. The Weatherization Assistance Program is prioritizing those who are particularly vulnerable such as the elderly, persons with disabilities, families with children, high residential energy users and households with high-energy burden.

Award(s): \$46.7 million, State Energy Program (SEP)

Location: Statewide

The Oklahoma Department of Commerce received \$46.7 million in State Energy Program funds to invest in state-level energy efficiency and renewable energy priorities. Oklahoma is forming partnerships with municipal and investor-owned utilities to implement new building efficiency programs and conduct an advanced metering project to reduce energy costs for businesses and residents. Oklahoma is providing funding to businesses, educational institutions and non-profit organizations for a wide range of activities including building energy efficiency, education, energy demand management and renewable energy applications. Oklahoma is also putting SEP funds toward alternative fuel vehicle and infrastructure projects, which will save energy while improving air quality. The state is investing SEP Recovery Act funds to convert vehicles and buses to run on compressed natural gas (CNG) and provide equipment for CNG refueling stations. Oklahoma is also funding projects to address the need for training and outreach in order to develop a green jobs workforce.

Award(s): 56 totaling \$36.5 million, Energy Efficiency and Conservation Block Grants Program (EECBG)

Location: Statewide

Recipients: Oklahoma State Energy Office, Modoc Tribe, Eastern Shawnee Tribe, Shawnee Tribe, United Keetoowah Cherokee Council, Delaware Nation – Tribe, Fort Sill Apache Tribe, Otoe-Missouria Tribe, Kialegee Tribal Town, Tonkawa Tribe, Miami Tribe, Iowa Tribe, Seneca-Cayuga Tribe, Alabama-Quassarte Tribal Town, Wichita and Affiliated Tribes, Thlopthlocco Tribal Town, Ottawa Tribe, Ponca Tribe, Peoria Tribe, Kickapoo Tribe, Wyandotte Nation – Tribe, Pawnee Nation, Caddo Nation, Kaw Nation, Bartlesville, Seminole Nation – Tribe, Muskogee, Absentee-Shawnee Tribe, Wagoner County, Enid, Sac & Fox Nation – Tribe, Grady County, Carter County, Stillwater, Kiowa Indian Tribe, Comanche Nation, Creek County, Osage Nation – Tribe, Rogers County, Cheyenne and Arapaho Tribes, Moore, Citizen Potawatomi Nation, Oklahoma County, Midwest City, Tulsa County, Edmond,

Broken Arrow, Lawton, Norman, Chickasaw Nation, Choctaw Nation, Muscogee (Creek) Nation – Tribe, Cherokee Nation, Tulsa, Oklahoma City

Fifty-six communities in Oklahoma received a total of \$36.5 million for the Energy Efficiency and Conservation Block Grants Program (EECBG) to develop, promote, implement and manage local energy efficiency programs.

Oklahoma is using this funding to support various energy efficiency and renewable energy projects. The State is competitively awarding 60 percent of the funding to local cities and counties, prioritizing projects based on measures like energy and cost savings, job creation, renewable energy generation and carbon emissions reductions. EECBG funds also allow Oklahoma to upgrade the electrical distribution system in Waynoka, where the installation of new transformers will result in a 25 percent reduction in power consumption. The remaining funds are being used to install solar and wind technologies in jurisdictions across Oklahoma and enhance local recycling programs.

EECBG 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.

Award(s): \$3.5 million, Energy Efficient Appliance Rebate Programs

Location: Statewide

The Oklahoma Department of Commerce received \$3.5 million for the Energy Efficient Appliance Rebate Program, which offers 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, these typically include clothes washers, dishwashers, refrigerators, freezers, air conditioners and water heaters.

Award(s): 2 totaling \$484,000, Ground Source Heat Pumps

Location: Stillwater, Oklahoma City

- **Oklahoma State University, Stillwater - \$250,000**
Oklahoma State University in Stillwater is designing optimized sizing tools for surface water and standing column well (SCW) systems.
- **ClimateMaster, Oklahoma City - \$234,000**
ClimateMaster in Oklahoma City is building models to design and simulate the most common GHP configurations to allow potential GHP system customers to analyze the cost and performance of GHP systems.

Award(s): \$105,000, Industrial Assessment Centers and Plant Best Practices

Location: North Stillwater

Oklahoma State University in North Stillwater received \$105,000 to provide eligible small- and medium-sized manufacturers with no-cost energy assessments and serve as a training ground for the next generation of energy-savvy engineers.

RENEWABLE ENERGY – 6 projects totaling \$68.9 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): \$52.3 million from DOE / Treasury, 1603 Payments for Renewable Energy Generation

Location: Sweetwater

*For current number of 1603 awards, see the weekly update at <http://www.treas.gov/recovery/1603.shtml>

Elk City Wind in Sweetwater received \$52.3 million for a wind generation facility.

Award(s): 4 totaling \$14.2 million from DOE / Treasury, Clean Energy Manufacturing Tax Credit (48C)

Location: Oklahoma City, Muskogee, Tulsa

- **Climate Master Inc., Oklahoma City - \$8.9 million**
Climate Master, Inc., in Oklahoma City, received a \$8.9 million to expand the capacity of manufacturing facilities that produce water-source heat pumps.
- **Eagle Claw Fabrication, LLC, Muskogee - \$4.4 million**
Eagle Claw in Muskogee received \$4.4 million for manufacturing large wind turbine towers. Towers are typically 250 to 400 feet tall and are composed of sections approximately 100 feet long that weigh 50 tons.
- **ClimaCool Corp., Oklahoma City - \$692,000**
ClimaCool Corp., in Oklahoma City received \$692,000 for a project involving the establishment of a facility to manufacture modular chillers to be used in commercial and industrial HVAC applications. The modular chillers occupy a minimal foot print and utilize a smaller charge of environmentally friendly and non-ozone depleting refrigerant. Their electrical efficiency is approximately 32 percent higher than conventional chillers.
- **Ductmate Industries, Inc., Tulsa - \$192,000**
Ductmate Industries, Inc., in Tulsa received \$192,000 for a project expanding manufacturing and tooling capabilities for the production of energy efficient HVAC ductwork featuring self-sealing fixtures.

Award(s): \$2.4 million, Enhanced Geothermal Systems (EGS) Technology R&D

Location: Tulsa

Impact Technologies, LLC, in Tulsa received \$2.4 million to develop a cost-effective microhole drilling and completion technology with the Flash Abrasive Slurry Jet (ASJ) system. It is being optimized to maximize the efficiency of fluid circulation and heat removal for Enhanced Geothermal Systems (EGS). This approach is going to reduce costs for drilling and well completion, as well as increase the volume of hot rock from which heat can be extracted.

MODERNIZING THE ELECTRIC GRID – 3 projects totaling \$131.4 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): \$534,000, Enhancing State and Local Governments' Energy Assurance

Location: Oklahoma City

The Oklahoma Department of Commerce and Community Development in Oklahoma City received \$534,000 for State Energy Assurance planning. This project focuses on building regional energy assurance capability by enhancing inter- and intra- state coordination and cooperation during energy emergencies. The project funds states to update or develop State Energy Assurance Plans incorporating new energy portfolios such as wind, renewables and biofuels. The project also funds cities to update or develop Local Energy Assurance Plans. The two sets of funding are used to hire or retrain staff to build in-house expertise in dealing with Smart Grid technologies, critical energy infrastructure interdependencies and cyber-security.

Award(s): \$130 million, Smart Grid Investment Grant Program (EISA 1306)

Location: Oklahoma City

Oklahoma Gas and Electric Company in Oklahoma City received \$130 million for a Smart Grid Investment Grant to deploy a Smart Grid network that will provide 771,000 smart meters to customers.

Award(s): \$843,000, State Assistance on Electricity Policies

Location: Oklahoma City

The Public Utility Division of the Oklahoma Corporation Commission in Oklahoma City received a grant for \$843,000 to assist State Public Utility Commissions in addressing its Recovery Act electricity workload by hiring staff trained to facilitate the review of time-sensitive requests approving electric utility expenditures.

CARBON CAPTURE & STORAGE – 1 project totaling \$995,000

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): \$995,000, Geologic Sequestration Training and Research Grant Program

Location: Tulsa

The Petroleum Technology Transfer Council in Tulsa received \$995,000 to develop and deliver technology training for the Permian Basin through an established technology transfer network, online capabilities and a communications program accessible to a national and global audience.

ENVIRONMENTAL CLEANUP – 1 project totaling \$25 million

Creating jobs and reducing the legacy cold war footprint of the Department of Energy and clean up the polluted land and water resources in communities. For more information, visit <http://www.energy.gov/recovery/cleanup.htm>.

Award(s): \$25 million, Title X Uranium / Thorium Reimbursement Program

Location: Oklahoma City

Tronox, LLC, in Oklahoma City received \$25 million under the Title X Uranium / Thorium Reimbursement Program to accelerate the completion of clean-up programs and eliminate the environmental risks at sites which produced uranium and thorium during the Cold War era.

SCIENCE AND INNOVATION – 2 projects totaling \$3.6 million

Renewing our commitment to science and innovation to ensure global competitiveness in the future. For more information, visit <http://www.energy.gov/recovery/innovation.htm>.

Award(s): \$3 million, Advanced Research Projects Agency - Energy (ARPA-E)

Location: Norman

Phononic Devices in Norman, in partnership with the University of Oklahoma, the University of California Santa Cruz and the California Institute of Technology, received \$3 million to develop a completely new class of high efficiency thermoelectric devices and materials. The commercialization of this technology allows an existing power generation facility to improve efficiency by harvesting waste heat. The technology is similar to a solar cell except that it continues to produce clean energy by harvesting heat as opposed to sunlight.

Award(s): \$589,000, Computational Partnerships (SciDAC-e)

Location: Stillwater

Oklahoma State University in Stillwater received \$589,000 for a one-time stimulus of research efforts in applied mathematics and computer science. The funding is helping to establish the computational foundation and insight needed to advance the Department's mission across a wide range of areas, including developing Smart Grids and novel, renewable and / or ecologically friendly energy sources.

ENERGYEMPOWERS.GOV

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/Oklahoma

ANADARKO

Oklahoma tribe to install solar roof

The Delaware Nation, a federally-recognized tribe of about 1,400 people in Anadarko, Okla., will install solar panel roofs on two tribal government buildings as part of a larger effort to become more sustainable and bring new jobs to an area struggling with high unemployment.

“It’s the start of a green initiative,” says Theda McPheron-Keel, president of Wind Hollow Foundation, a nonprofit organization aimed at helping American Indians improve their lives. “It provides economic development, education, and preserves the culture. It all fits together.”

The new fully functioning roof and solar energy production plant will reduce consumption by 90,000 kilowatt hours annually and save the tribe about \$20,000 a year. Installation is set to begin in August.

McPheron-Keel, an enrolled member of the Southeastern Cherokee tribe, acted on behalf of the tribe to write the grant as part of their Going Green Initiative. “The Delaware Nation was interested in doing something in maintaining their heritage and preserving Mother Earth,” Theda says. “They decided they needed to lead the area in getting green.”

An Energy Efficiency and Conservation Block Grant worth \$250,000 from the Department of Energy will fund the project.

Theda wants the building’s latest addition to be an educational tool for American Indians and others in the rural community. “We want people to watch it, visit it, and learn about it,” she says. Theda and Delaware Nation president Kerry Holton hope the addition will be the first of many projects that create green jobs for the people in Anadarko.

Together, they are trying to develop a technology park to bring businesses that focus on energy efficiency and conservation to the area. More solar installations, as well as wind and biomass projects, are also being talked about.

“We want to revitalize the town, tribes and the south western part of Oklahoma,” Theda says.

TULSA

New sustainability office opens in Tulsa

The mayor of Tulsa formed a new sustainability office to oversee almost \$4 million of Recovery Act funds allotted for energy efficiency projects that city officials hope will help offset a \$10 million budget cut and rebuild its slumping economy.

Brett Fidler, who served as a special sustainability adviser for the mayor’s office, was chosen as director after Mayor Dewey Bartlett signed an executive order earlier this year to create the Office of Sustainability. Starting this spring, the new office will begin implementing a slew of sustainability initiatives that could save the city hundreds of thousands of dollars a year and create opportunities in an area once known as the energy capital of the world.

“We want to see this move forward,” says Brett, “and energy efficiency is a good place to start.”

In April, the city will begin replacing highway streetlights with light-emitting diodes (LEDs). Tulsa’s five most energy-consuming facilities will undergo energy audits this summer. A total of eight projects — including the development of a long-term sustainability plan and a low-interest revolving loan program to help small businesses perform energy upgrades — are under review now. Brett hopes at least six of the projects will be completed by the end of the year.

The Office of Sustainability will use \$1.4 million from the Energy Efficiency and Conservation Block Grant to retrofit the Oklahoma State University Medical Center. The improvements will save over \$210,000 a year.

The city is also proposing renewable energy feasibility studies of some government facilities to help cut energy costs.

“We are in dire need of budget cuts,” says Brett, who oversaw the writing of the grant for the mayor’s office. “We have to save money through energy efficiency.”

DURANT

Single mom loves work as energy educator

Wendy Van Zandbergen lost her job as a home healthcare manager when the job market went sour. The single mom felt anxious about how she would support her family, and she sold her house, exhausted her savings and emptied her retirement plan to stay afloat. When you’re a mom on your own, you’re bound to get creative in figuring out where to find a job, even more so if it’s for one on which you can actually live. And that’s exactly what Wendy did. Almost eight months without work can be a challenge, and it creates constant worry about what could be around the corner.

During these challenging times in the job market, there weren’t many good jobs left unfilled in Durant, Okla., a town of about 16,000. Thankfully, a friend let Wendy move in with her, where she made hunting for a job her full-time job. She cleaned up construction sites and painted houses part-time to scrape by.

Finally, Wendy heard about a job created through part of the Department of Energy’s portion of the Recovery Act. A friend told her about the weatherization efforts her local community action agency was undertaking.

Wendy is now an energy education trainer and a cheerleader for efficiency in her community. As a trainer, Wendy thinks her previous skills, everything from home healthcare management to interior design, are being put to good use. But she says it also helps that her personality fits the role.

Wendy says she shares tips on energy efficiency all the time now. She finds herself leaning over to folks at local sports events to talk to them about going green, and she can’t wait for someone to ask her what she does for a living, she says.

“As I talk to my neighbors and friends, and I tell them about how

excited I am in what I'm doing, it encourages them to take their first steps in pursuing energy-saving measures and to change their behaviors," Wendy says. "These are small steps, but it's where the journey starts. I'm spreading the word about how they can save money and do their part to make the country more energy-efficient because I think it's going to put money back in all our pockets."

For Wendy, getting back on her feet is only part of her new line of work. She says the real benefits of the job are how it's affecting others.

"These are small steps, but it is where the journey starts."

- Wendy Van Zandbergen, Durant, Okla.

"That's the reward for me, just being able to help people, and I think this program is just phenomenal for our community here and the country as a whole," she says. "My whole life, I've told everybody that I know I want a job where I can help people, and I am."

The Weatherization Assistance Program is funded by the U.S. Department of Energy. WAP funds the Oklahoma State WAP, which in turn funds Big Five for its weatherization program.

Aside from weatherization, Big Five provides a range of services to communities in southern Oklahoma, including credit counseling, services for the homeless and developmentally disabled and education- and transportation-related services.