



# Department of Energy Recovery Act State Memos

## Missouri



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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**RECOVERY ACT SUCCESS STORIES – ENERGY EMPOWERS**

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# American Recovery and Reinvestment Act



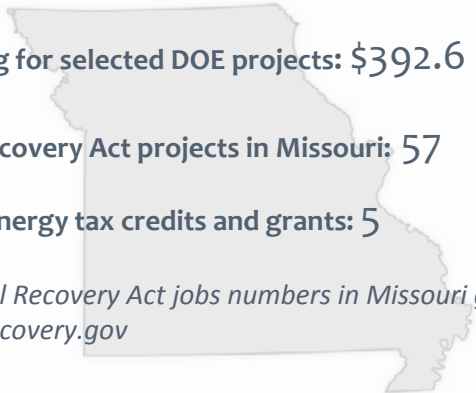
## U.S. DEPARTMENT OF ENERGY • MISSOURI RECOVERY ACT SNAPSHOT

Funding for selected DOE projects: \$392.6 million

DOE Recovery Act projects in Missouri: 57

Clean energy tax credits and grants: 5

For total Recovery Act jobs numbers in Missouri go to [www.recovery.gov](http://www.recovery.gov)



Missouri has substantial natural resources, including 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 Missouri are supporting a broad range of clean energy projects from energy efficiency and the smart grid to advanced biofuels and transportation electrification initiatives. Through these investments, Missouri's businesses, universities, non-profits, and local governments are creating quality jobs today and positioning Missouri to play an important role in the new energy economy of the future.

### EXAMPLES OF MISSOURI FORMULA GRANTS

Program	State Energy Program	Weatherization Assistance Program	Energy Efficiency Conservation Block Grants	Energy Efficiency Appliance Rebate Program
Award (in millions)	<b>\$57.4</b>	<b>\$128.1</b>	<b>\$43.8</b>	<b>\$5.7</b>
	The Missouri Department of Natural Resources has been granted \$57.4 million to invest in state-level energy efficiency and renewable energy priorities.	The State of Missouri has been granted \$128.1 million to scale-up existing weatherization efforts in the state, creating jobs, reducing carbon emissions, and saving money for Missouri's low-income families. Over the course of the Recovery Act, Missouri expects to weatherize more than 20,000 homes. The program also includes workforce training and education as part of the state's efforts to develop a green workforce.	Twenty-nine communities in Missouri were granted a total of \$43.8 million to develop, promote, implement, and manage local energy efficiency programs.	The Missouri Department of Natural Resources has been granted \$5.7 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 MISSOURI COMPETITIVE GRANTS, TAX CREDITS AND LOANS

Award	<b>\$5.9 billion</b>	<b>\$87.3 million</b>	<b>\$23.9 million</b>	<b>\$20 million</b>
	<b>Ford Motor Company</b> closed a \$5.9 billion loan arrangement under the Department of Energy's <b>Advanced Technology Vehicles Manufacturing</b> program to transform factories across Illinois, Kentucky, Michigan, Missouri, and Ohio to produce 13 more fuel efficient models. The company estimates the project will transform nearly 35,000 employees to green engineering and manufacturing jobs.	Missouri received <b>four 1603 payments for renewable energy generation</b> totaling <b>\$87.3 million</b> , which include wind and solar projects. For example, Farmers City Wind, LLC received \$85 million for a wind facility.	<b>Kansas City Power &amp; Light Company</b> in Kansas City has been awarded <b>\$23.9 million</b> to demonstrate an end-to-end smart grid that will benefit about 14,000 consumers.	<b>EnergyWorks KC</b> in Kansas City has been awarded <b>\$20 million</b> to build on Kansas City's Climate Protection Plan.

## 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 <sup>1</sup>	Number of Selections	Selected Amount (in millions) <sup>2</sup>
Energy Efficiency	<i>Weatherization Assistance Program (F)</i>	1	\$128.1
	<i>State Energy Program (F)</i>	1	\$57.4
	<i>Energy Efficiency and Conservation Block Grant (F)</i>	29	\$43.8
	<i>BetterBuildings (CM)</i>	2	\$25.0
	<i>Energy Efficient Appliance Rebate (F)</i>	1	\$5.7
	<i>Additional Programs (CM &amp; C)</i>	1	\$2.5
	<b>TOTAL Energy Efficiency</b>		35
Renewable Energy	<i>Solar (CM)</i>	1	\$0.2
	<i>Wind (CM)</i>	1	\$0.3
	<b>TOTAL Renewable Energy</b>	2	\$0.5
Electric Grid	<i>Smart Grid Investment and Demonstrations Project (CM)<sup>3</sup></i>	3	\$34.0
	<i>State and Local Energy Assurance and Regulatory Assistance (F)</i>	3	\$1.8
	<i>Smart Grid Workforce Training (CM)</i>	3	\$4.9
	<b>TOTAL Electric Grid</b>	9	\$40.7
Transportation	<i>Transportation Electrification (CM)</i>	2	\$37.0
	<i>Clean Cities Alternative Fuel and Vehicles Program (CM)</i>	1	\$15.0
	<i>Advanced Fuels (CM)</i>	2	\$26.5
	<i>Additional Programs (CM)</i>	1	\$1.3
	<b>TOTAL Transportation</b>	6	\$79.8
Carbon Capture and Storage	<i>Research and Training (CM)</i>	3	\$0.9
	<b>TOTAL Carbon Capture and Storage</b>	3	\$0.9
Science and Innovation	<i>Advanced Research Projects Agency - Energy (ARPA-E) (CM)</i>	1	\$7.2
	<b>TOTAL Science and Innovation</b>	1	\$7.2
<b>TOTAL - DOE Programs<sup>4</sup></b>		<b>57</b>	<b>\$392.6</b>
Tax Credits/ Payments <sup>5</sup>	<i>Payments for Renewable Energy Generation in Lieu of Tax Credits (1603)</i>	4	\$87.3
	<i>Clean Energy Manufacturing Tax Credits (48C)</i>	1	\$0.6
	<b>TOTAL Tax Incentives</b>	5	\$87.9
<b>TOTAL - DOE/Treasury + DOE</b>		<b>62</b>	<b>\$480.5</b>
<sup>1</sup> F=Formula Grant, CM=Competitive Grant, C=Contract			
<sup>2</sup> "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.			
<sup>3</sup> Projects may cross state boundaries, signifies HQ location.			
<sup>4</sup> Total does not include administrative funds.			
<sup>5</sup> Jointly administered by DOE and the U.S. Department of Treasury.			

## **ENERGY EFFICIENCY – 35 projects totaling \$262.5 million**

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*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): \$128.1 million, Weatherization Assistance Program (WAP)**

#### **Location: Statewide**

Missouri received \$128.1 million to scale-up existing weatherization efforts in the state, creating jobs, reducing carbon emissions and saving money for Missouri's low-income families. Over the course of the Recovery Act, Missouri expects to weatherize more than 20,000 homes. The program also includes workforce training and education as part of the state's efforts to develop a green workforce. The Missouri Department of Natural Resources is using Recovery Act funding for the Low Income Weatherization Assistance Program. The department issued grants to eighteen regional agencies responsible for administering weatherization locally. The weatherization program enables low-income individuals and families to permanently reduce their energy bills by making their homes more energy efficient. Program goals include the continued improvement of weatherization services, the increased energy efficient housing and the long-term reduction of client utility bills. This program focuses on ensuring the comfort and safety of those served, job creation and economic revitalization.

### **Award(s): \$57.4 million, State Energy Program (SEP)**

#### **Location: Statewide**

The Missouri Department of Natural Resources received \$57.4 million to invest in state-level energy efficiency and renewable energy priorities. The Missouri Department of Natural Resources is using Recovery Act funding for energy efficiency and renewable energy programs through various grants, loans and rebates to energize Missouri's homes, agriculture and industry. In addition, the state is developing a Missouri Energy Plan to provide a complete picture of the state's energy status as well as focus on the important relationship between energy, environmental quality and economic vitality.

### **Award(s): 29 totaling \$43.8 million, Energy Efficiency and Conservation Block Grant Program (EECBG)**

#### **Location: Statewide**

**Recipients:** Blue Springs, Cape Girardeau, Cass, Chesterfield, Christian, City of Saint Louis Board Of Public Service, St Joseph, Clay, Columbia, Greene, Jasper, Eastern Shawnee Tribe Of Oklahoma, Florissant, Franklin, Independence, Jackson, Jefferson City, County of Jefferson, Joplin, Kansas City, Lee's Summit, Missouri Department of Natural Resources, O'Fallon, City of Saint Charles, County of Saint Charles, Springfield, St Louis, St Peters, University City

Twenty-nine communities in Missouri received a total of \$43.8 million to develop, promote, implement and manage local energy efficiency programs.

These grants support a variety of energy efficiency planning, audits and projects across the state. For example, Kansas City is using its EECBG funds to perform energy efficiency upgrades at city hall, Wolf Parking Garage and the Health Department buildings. The city anticipates these activities to create or retain more than 200 jobs. An example is:

- **Columbia - \$1 million**

Columbia is directing its EECBG funds to three strategic categories. Funding is seeding Columbia's Office of Sustainability, being used for energy audits of city owned facilities and retrofitting city-owned facilities that exceed 6,000 square feet. The Office of Sustainability funding supports a recently hired manager whose primary responsibility is to administer and coordinate the grant and the city's overall Sustainability Action plan. This grant is funding baseline audits for all city-owned facilities, retrofits, installation of systems that monitor and track progress towards reaching goals of energy and GHG reduction.

**Award(s): \$5.7 million, Energy Efficient Appliance Rebate Programs**

**Locations: Statewide**

The Missouri Department of Natural Resources received \$5.7 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. The Energize Missouri Appliance Rebates program helps Missourians lower costs and reduce home utility expenses. The program also benefits Missouri businesses by stimulating sales of energy efficient appliances and other household systems. The Department of Natural Resources is issuing rebates for ENERGY STAR qualified appliances.

- **The City of Kansas City, Missouri - \$20 million**

EnergyWorks KC is using Kansas City's Climate Protection Plan and other available funding to provide retrofit financing and delivery in seven of the city's neighborhoods. This project covers a diversity of demographics, including the city's 150-square-block Green Impact Zone. Public outreach includes door-to-door visits and will coordinate closely with Kansas City Power and Light's Smart Grid outreach project, building on the scheduled rollout of smart meters to homes in the area. The project promotes energy assessments at the time of property sale, as well as developing a local workforce skilled in building retrofits.

- **Missouri Department of Agriculture - \$5 million**

Agricultural Energy Saving Team-A Revolutionary Opportunity (MAESTRO) is strengthening the financial viability and environmental soundness of Missouri's small animal farms. This project provides the small scale, animal agriculture market segment of Missouri's agricultural community with tools and resources that increase energy efficiency and improve overall environmental performance. This includes a coordinated education campaign, energy audits tailored to small farmers, increased training and business opportunities for those interested in the field of agricultural energy efficiency and technical assistance. The program is leveraging existing programs and networks, such as the agricultural extension services with current U.S. Department of Agriculture programs, to reach small farmers with retrofit information.

**Award(s): \$2.5 million, Ground Source Heat Pumps**

**Location: Prairie Home**

The University of Missouri System in Prairie Home is retrofitting two poultry farms with solar-assisted GHP systems, making use of an innovative concentrated solar collector and financing approach.



## **RENEWABLE ENERGY – 7 projects totaling \$88.4 million**

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*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): 4 payments totaling \$87.3 million from DOE / Treasury, 1603 Payments for Renewable Energy Generation**

**Location: Statewide**

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

- **Farmers City Wind, LLC, Tarkio - \$85 million**  
Farmers City Wind, LLC, in Tarkio received \$85 million for a wind project.
- **Ameresco, Inc., Jefferson City - \$2.3 million**  
Ameresco, Inc., in Jefferson City received \$2.3 million for a landfill gas project.
- **The Evergreen Institute, Gerald - \$6,000**  
The Evergreen Institute in Gerald received \$6,000 for a solar electricity project.
- **Pet Tender's Country Boarding Cattery, Saint Clair - \$5,000**  
Pet Tender's Country Boarding Cattery in Saint Clair received \$5,000 for a solar heating project.

**Award(s): \$570,000 from DOE / Treasury, Clean Energy Manufacturing Tax Credit (48C)**

**Location: Columbia**

AAF-McQuay, Inc., in Columbia received \$570,000 to update its manufacturing facility with equipment suitable for a versatile mini-pleating and assembly process. This process is capable of making polytetrafluoroethylene (PTFE) and other synthetic media air filters for the American Association of Heating, Refrigeration and Air-Conditioning Engineers and HEPA (high efficiency particulate air) markets. The goal of this project is to produce a new family of air filtration products that lower energy consumption by dramatically reducing air resistance within HVAC systems.

**Award(s): \$150,000, Photovoltaic (PV) Systems Development**

**Location: Rolla**

The University of Missouri, on behalf of Missouri University of Science and Technology in Rolla, received \$150,000 to develop processes to recycle solar grade silicon from top-cut scraps and slurry wastes from the wire sawing process.

**Award(s): \$308,000, Wind Energy Technology R&D and Testing**

**Location: Greenwood**

QM Power, Inc., in Greenwood received \$308,000 to focus on advanced high power density permanent magnet wind generators.

## **MODERNIZING THE ELECTRIC GRID – 9 projects totaling \$40.7 million**

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*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 \$942,000, Enhancing State and Local Governments' Energy Assurance**

#### **Location: Jefferson City, Columbia**

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.

- **Missouri Department of Natural Resources, Jefferson City - \$742,000**  
The Missouri Department of Natural Resources in Jefferson City received \$742,000 for State Energy Assurance Planning.
- **City of Columbia - \$200,000**  
The City of Columbia received \$200,000 for the Local Energy Assurance Planning (LEAP) Initiative.

### **Award(s): \$1.5 million, Smart Grid Investment Grant Program (EISA 1306)**

#### **Locations: Fulton**

The City of Fulton received \$1.5 million to replace 5,500 electric meters with Smart Grid Technology meters and implement a dynamic pricing program with randomization.

### **Award(s): 2 totaling \$32.5 million, Smart Grid Regional and Energy Storage Demonstration Project (EISA 1304)**

#### **Locations: Kansas City, St. Louis**

- **Kansas City Power & Light Company, Kansas City - \$23.9 million**  
Kansas City Power & Light Company received \$23.9 million to demonstrate an end-to-end SmartGrid. The SmartGrid demonstration includes advanced renewable generation, storage resources, leading edge substation and distribution automation and control, energy management interfaces and innovative customer programs and rate structures at a major substation in an urban location. The project will impact about 14,000 commercial and residential customers across ten circuits and two square miles. It provides the critical energy infrastructure required to support an urban revitalization effort, Kansas City's Green Impact Zone.
- **McDonnell Douglas Corporation, St. Louis - \$8.6 million**  
McDonnell Douglas Corporation in St. Louis received \$8.6 million to demonstrate an advanced Smart Grid technology with military-grade cyber-security for optimizing regional transmission system planning and operation. This project will enable wide-area situational awareness, coordination and collaboration in a secure manner. The project team includes Regional

Transmission Operators and utilities, which collectively serve all or part of 21 states and more than 90 million people.

**Award(s): 3 totaling \$4.9 million, Smart Grid Workforce Training**

**Location: St. Louis, Sikeston**

- **Ameren Services Company, St. Louis - \$3.5 million**  
Ameren Services Company in St. Louis received \$3.5 million for a Smarter Workforce Training Program. This project ensures a highly skilled workforce to install, operate, maintain and utilize "smart" devices and software that support Ameren's Smart Grid efforts. The project supports training in three Smart Grid areas, including Advanced Data Management System, new Graphic Information System (GIS) functionality and other smart devices for the electric distribution system. It is expected that over 4,000 individuals will benefit from training.
- **Composite Technology Corporation, Sikeston - \$1.3 million**  
Composite Technology Corporation in Sikeston received \$1.3 million to support the training of 200 workers in hourly production positions, 37 in support positions and thirteen in management and technical positions for a conductor manufacturing facility.
- **St. Louis Community College, St. Louis - \$82,000**  
St. Louis Community College received \$82,000 for a Lineman Pre-Employment Training. In collaboration with Ameren Services Company, also in St. Louis, this training will implement an innovative pre-employment program to address the critical skills and technical expertise needed in the energy industry. 300 dislocated and unemployed / underemployed residents of the Greater St. Louis region will be recruited and assessed on their interest and abilities to enter the pre-employment line worker training program.

**Award(s): \$901,000, State Assistance on Electricity Policies**

**Location: Jefferson City**

Missouri Department of Economic Development in Jefferson City received \$901,000 for State Public Utility Commissions to assist in addressing its Recovery Act electricity workload by hiring staff trained to facilitate the review of time-sensitive requests approving electric utility expenditures.

**TRANSPORTATION – 6 projects totaling \$79.8 million**

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*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): \$5.9 billion, Advanced Technology Vehicles Manufacturing Program**

**Location: Statewide**

Ford Motor Company closed a \$5.9 billion loan arrangement under the Department of Energy's Advanced Technology Vehicle Manufacturing program. This program is transforming factories across Illinois, Kentucky, Michigan, Missouri and Ohio to produce thirteen more fuel efficient vehicle models. The company estimates the project will transform nearly 35,000 employees to green engineering and manufacturing jobs.

**Award(s): \$15 million, Clean Cities Alternative Fuel and Vehicles (AFV) Grant Program**

**Location: Kansas City**

Metropolitan Energy Information Center, Inc., in Kansas City received \$15 million to deploy 373 alternative fuel vehicles and develop 24 alternative fueling sites.

**Award(s): \$1.3 million, Enabling Fuel Cell Market Transformation**

**Location: Springfield**

Fedex Freight East, Inc., received \$1.3 million to deploy 35 fuel cell systems as battery replacements for a complete fleet of electric lift trucks in their new service center in Springfield.

**Award(s): \$26.3 million, Fundamental Research in Key Program Areas**

**Location: St. Louis**

Donald Danforth Plant Science Center in St. Louis received \$26.3 million in funding for an algal biofuels research consortium.

**Award(s): \$200,000, Investigation of Intermediate Ethanol Blends, Optimization of E-85 Engines and Development of Transportation Infrastructure**

**Location: Jefferson City**

The Missouri Corn Merchandisers Council in Jefferson City received \$200,000 to create an infrastructure that will add five dispensers capable of delivering blends up to and including E85.

**Award(s): 2 totaling \$37 million, Transportation Electrification**

**Location: Kansas City, Rolla**

- **Smith Electric Vehicles US Corporation, Kansas City- \$32 million**  
Smith Electric Vehicles US Corporation in Kansas City received \$32 million to develop and demonstrate medium duty electric trucks in multiple locations across the U.S.
- **University Of Missouri System, Rolla- \$5 million**  
The University of Missouri System in Rolla received \$5 million to focus on electric drive vehicle education.

## **CARBON CAPTURE & STORAGE – 3 projects totaling \$892,000**

*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): 3 totaling \$892,000, Geologic Sequestration Training and Research Grant Program**

**Location: Rolla, Springfield**

- **University of Missouri System, Rolla - \$300,000**  
The University of Missouri System in Rolla received \$300,000 to enhance undergraduate curriculum in geology and geochemistry through field trips that investigate the behavior of carbon dioxide and its influence on local environmental systems. This funding also supports the research activities of four students who will develop their expertise in water-carbon dioxide-rock interactions. These research activities provide data to the scientific and engineering community used to evaluate unique stratigraphic packages for carbon trapping, carbonate mineral

formation and corrosion processes. These processes enhance porosity-permeability reactions at carbon dioxide gas injection sites and self-induced or human-enhanced fracture sealing dynamics.

- **University of Missouri System, Rolla - \$299,000**

The University of Missouri System in Rolla received \$299,000 to model the possibility for carbon dioxide leakage through cap rock and well penetrations by developing multi-scale Finite Element (FE) models of different geological settings for sequestration sites. The results will be analyzed including geomechanical processes such as how fluid pressure induces rock deformation, how faults and fractures affect fluid migration, as well as critical wellbore placement and integrity. This work is training several graduate students and developing a class lecture dedicated to integrity modeling of carbon dioxide sequestration and one-to-one research supervision.

- **University of Missouri System, Springfield - \$293,000**

The University of Missouri System in Springfield received \$293,000 to assess the migration of carbon dioxide in a geologic formation in Missouri, conduct reservoir modeling and compile this information into a geographic information system.

## **SCIENCE AND INNOVATION – 1 project totaling \$7.2 million**

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*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): \$7.2 million, Advanced Research Projects Agency - Energy (ARPA-E)**

**Location: Joplin**

Eaglepicher Technologies, LLC, in Joplin, in partnership with the Pacific Northwest National Laboratory, received \$7.2 million to develop a new generation of high-energy, low-cost planar liquid sodium beta batteries for grid-scale electrical power storage applications.

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/Missouri](http://energyempowers.gov/Missouri)

ST. LOUIS

## Urban League of St. Louis ramps up weatherization production and hiring

When Brenda Wrench saw the amount of weatherization funds being awarded to St. Louis last year, she did a double take. “It was unbelievable,” says the chief operating officer of the Urban League of Metropolitan St. Louis. “When I first got the email, I thought they were off by a decimal point.”

A closer look revealed that the community action agency’s federal funding jumped from about \$1 million in 2008 to more than \$7 million, due to the Recovery Act.

The increase gave the nonprofit the resources to weatherize nearly four times the number of homes it typically tackles in a month and create over 40 new green jobs in the community.

Urban League’s goal is weatherize about 1,500 eligible homes with Recovery Act funds by 2012. Since July, they have been retrofitting and upgrading over 50 homes a month, up from just 15 homes in 2008, to make them more energy efficient. They are providing free home weatherizing for the elderly and for families earning 200 percent of the federal poverty level.

Weatherizing the homes, some as old as 100 years, can reduce utility costs for residents by a range of \$250 to \$700 a year, according to the Urban League.

To perform the energy audits and weatherize the homes, Urban League hired a variety of contractors and organizations in the area.

“We’re employing the small, mom-and-pop shops all the way up to the big horses,” Brenda says.

They work with everyone from a man who replaces cracked furnaces to the large union crews which employ professional carpenters. One such crew, the Legacy Building Group — a certified Minority Owned Enterprise — performs all weatherizing duties, including wall insulation and finished carpentry.

“We also hired three people from the home building industry that had been laid off, with 30 years experience, as weatherization auditors,” Brenda says. “We consider our auditors the front lines of our organization, so we set pretty high standards for them.”

One of those hired is Jack Howard, an energy-audit supervisor who lost his construction job in 2008. Before coming on board with the Urban League in 2009, he spent 40 years building new homes for the Jones Company.

“The housing market finally caught up with me,” says Jack, who is happy to be weatherizing homes even though he took a pay cut to work as an auditor. Building new homes does not have the same emotional impact as repairing existing homes, he says.

“This is best end of the deal because I get to give people a much more comfortable home,” Jack says. “A lot of them tell me they get a good reduction in their utility bill, and I get all the thanks.”

Brenda says that Urban League has put in a request for another \$7 million to perform other work in the region, including weatherization

of seven homeless shelters.

The additional money could create another 30 to 40 jobs, she adds. “We view this as a once in a lifetime opportunity to help stabilize the low-income community,” Brenda says. “We are thankful...because this really is extraordinary.”

KANSAS CITY

## Kansas City gears up for weatherization jobs

A new weatherization training program will create a workforce of “21st century plumbers” in a Missouri area hit hard by unemployment, Representative Emanuel Cleaver II recently told a group of local laborers and union members.

“Jobs, jobs, jobs,” Rep. Cleaver (D-MO) said. “This is one area where we can move—and move quickly.”

Some members of the Laborers’ International Union of North America (LIUNA) Local 264 will go through a 90-hour training course on performing home audits and retrofits in Kansas City’s Green Impact Zone, a 150-block, low-income neighborhood.

The weatherization training program at Local 264 will teach its members to use equipment to scan for air leaks, test drafty walls, check for moisture, and other techniques.

The city, which received \$9 million as part of the Department of Energy’s Weatherization Assistance Program, aims to make over 2,000 homes in the Green Impact Zone more energy efficient, a move that will not only create jobs, but save residents money on their utility bills.

Many of the laborers have lost their jobs in commercial construction, an industry especially hit by the recession, so the new opportunities are welcomed.

“Our unemployment is so high. This is going to be a boost when this gets going,” said Bill Marsh, the training coordinator at Local 264, after the event.

Kevin Boydston, an instructor at Local 264 who demonstrated some of the weatherization techniques at the event with tools and a section of dry wall, said the goal is to reduce residents’ energy costs by about 30 percent per month.

LIUNA is preparing to train workers throughout the country to become weatherization installers, supervisors, and energy auditors. LIUNA represents about 500,000 workers in the U.S. and Canada; Local 264 has about 950 members.

“These are the ‘21st century plumbers,’” said Rep. Cleaver, pointing to about 15 union workers expected to take the weatherization training course. “This is the army of auditors who will be part of this new industry [to weatherize homes].”

SPRINGFIELD

## FedEx Freight delivers on clean energy

FedEx Freight has a special delivery for America’s clean energy economy: a fleet of hydrogen powered forklifts.

All 35 electric forklifts at FedEx Freight’s Springfield, Mo. service

center will be converted to hydrogen fuel cell power. The \$2.8 million project will be completed in a few weeks and was partially funded through a grant from the Recovery Act.

The energy makeover is “the best of both worlds,” says Dennis Beal, vice president of physical assets at FedEx Freight. “The vehicles will be emission-free and will provide the benefits of electrical power forklifts without having to plug them in to recharge the battery,” Dennis says.

The forklifts will be quieter, easier to operate and cleaner than ones with internal combustion engines. Dennis says the switch to hydrogen power is expected to result in lower maintenance and downtime, increasing productivity at the service center.

The green vehicles will play a crucial role at FedEx Freight. “The fuel cell forklifts will be used in a cross-dock operation,” project manager John King says. “In this type of operation, forklifts unload

freight from a trailer and move the freight to another location on the dock. The freight is then loaded on another trailer or stored for a short time,” John says.

Workers will undergo a week of training on how to operate and maintain the fuel cells, which are provided by Latham, N.Y.-based Plug Power. Refueling equipment and hydrogen will be supplied by Air Products of Allentown, Pa.

The forklift conversion project illustrates FedEx Freight’s commitment to renewable energy.

The company has installed rooftop solar systems at two California distribution centers, switched to energy-efficient lighting at offices and service centers and established a renewable energy education program for employees. Next up for FedEx Freight: a relationship with Vision Industries Corp. to test a hydrogen and electric hybrid tractor.