

# **ENERGY EFFICIENCY TRUST FUND PROGRAM REPORT**

**January 2013 through December 2013**

**ILLINOIS DEPARTMENT OF COMMERCE AND ECONOMIC OPPORTUNITY  
ILLINOIS ENERGY OFFICE  
500 EAST MONROE  
SPRINGFIELD, ILLINOIS 62701**



***ENERGY EFFICIENCY TRUST FUND  
PROGRAM UPDATE  
For the Period January 2013 through December 2013***

**INTRODUCTION:**

The Department of Commerce and Economic Opportunity (DCEO) administers the Energy Efficiency Trust Fund (Trust Fund) as established by the Renewable Energy, Energy Efficiency, and Coal Resources Development Law of 1997 (“the Law”). The Law requires that funds be spent on projects that promote residential energy efficiency in the state, with emphasis on low-income households. These programs produce two major benefits for the Illinois economy, the efficiency gains that provide substantial savings to consumers and the additional jobs created to install and implement the projects described in this report. Energy efficiency projects furthermore tend to improve building comfort, improve lighting and indoor air quality, decrease unscheduled maintenance and make a positive contribution to the environment through the reduction of unnecessary pollution.

DCEO’s Illinois Energy and Recycling Office administers these funds as stipulated by the Law. Within the Bureau, the “State Energy Office,” as designated by the U.S. Department of Energy (U.S. DOE), operates energy efficiency and renewable energy programs involving all sectors of the Illinois economy, including the residential sector. This report covers only those energy efficiency programs funded through the Law. All of these programs embody the benefits of energy efficiency, such as improved occupancy comfort, utility bill savings, reduced energy consumption and improved grid reliability.

Energy efficiency promotes both sound fiscal practices and environmental stewardship. Illinois has the potential to serve as a model state for energy efficiency in its residential structures. Implementation of energy efficiency practices will continue to require collaboration, support and funding from the Legislature and capable third-party implementers, such as consultants, contractors, utilities and cooperatives.

**PROGRAM OVERVIEWS:**

In 2013 the Energy Efficiency Trust Fund provided funding for several programs designed to meet Trust Fund guidelines. Projects include:

**Illinois Energy Efficient Affordable Housing Construction Program**

The *Illinois Energy Efficient Affordable Housing Construction Program* was funded from the Trust Fund in 2013 at a level of \$175,784. This program offers grants to fund incremental costs associated with energy efficiency improvements in residential construction projects targeted to low- and moderate-income households.

This energy efficient housing program has been a highly visible success for DCEO and has garnered support from U.S. DOE, the Illinois Housing Development Authority, the City of Chicago, several major utilities, architectural teams, and numerous affordable housing development networks in the state. The program provides up to \$4,000 per unit for new housing developments and up to \$4,500 per unit in rehab housing developments. The program results in utility savings averaging over 50% and a return on investment of over 30%. In addition, this program has been an integral part of the Bureau's effort to leverage private investments with public dollars and increase capital available to Illinois developers. Trust Fund dollars have also allowed DCEO to include funding for super-efficient refrigerators, high efficiency air conditioners and more efficient lighting as part of these housing projects. The success and the active support of the allied groups listed above have resulted in a tremendous increase in demand for this program, especially in the greater Chicago area.



In addition to providing affordable housing units for these families and meeting the low-income goals of the Energy Efficiency Portfolio law (ILCS 220 5/8-103 and 5/8-104), the results of this program are also used to encourage energy efficient building practices in all levels of construction activity in the state. The program also serves as a training ground for tradesmen to learn the latest energy efficient building techniques. The economic efficacy of energy efficient construction practices proven by this program has been and will continue to be publicized to the Illinois development, architectural, and construction industries. Education efforts include presentations at conferences, workshops, and seminars, including the *Affordable Comfort Conference*.



Projects funded in 2013 under the program fall into one of three categories: Gut Rehab, New Multi-Family and New Single Family. In total, the EETF provided funding for 5 projects that built 165 units of new multi-family housing and 42 units of single-family housing and rehabbed 4 units of small multi-family housing. In addition to the EETF most of these projects were eligible for funding from additional sources, such as the Energy Efficiency Portfolio (EEP), Illinois Housing Development Authority, U.S. Department of Housing and Urban Development, or the City of Chicago. The table below contains a complete list of the 2013 EETF affordable housing grantees.

*The Illinois Energy Efficient Affordable Housing Construction Program* is designed to meet or exceed the standards of the national ENERGY STAR® program and the state's current Energy Efficient Building Code (based on the International Energy Conservation Code at the time of construction). Many of the buildings would qualify for LEED certification as well.

Through this program, grant funding has provided the necessary incremental costs to enable several thousand low and moderate income families to reside in super-efficient structures, saving significant energy resources and connected costs. Since *Illinois Energy Efficient Affordable Housing Construction Program's* inception in 1988, 3,412 units have been rehabilitated, 4,955 units of new multi-family housing have been constructed, and nearly 1,500 new single-family homes have been completed.

## EETF Grantees

### Illinois Energy Efficient Affordable Housing Construction Program

Grantee	Project Name	City	Trust Fund Grant	Units
South Suburban PADS	Country Club Hills Wellness Center	Country Club Hills	\$42,867	77 new multi-family
New Moms Inc.	New Moms	Chicago	\$24,405	40 new multi-family
The Community Builders	Oakwood Shores-Terrace	Chicago	\$33,489	48 new multi-family
New Direction Housing Corp	Buttonwood Trails	Aledo	\$56,250	40 single-family
Rock Island Economic Growth Corp	Goldman Family Growth Corp	Rock Island	\$18,773	2 single-family, 4 multi-family rehab
TOTAL			\$175,784	

### **Residential Retrofit Program**

The Residential Retrofit Program was initiated five years ago to capture electric savings in privately owned and small-scale rental low-income housing that is in need of renovation and repair. The Program was expanded two years ago to capture natural gas savings as well. It has also been expanded to include public housing and multi-family rental housing. Grants are provided to existing housing rehab programs that lack funding to include measures in housing rehab that reduce energy consumption. In 2013, \$2.4 million in EETF grants were awarded to Residential Retrofit grantees. The table below provides a complete list of the grantees and each program is summarized below:

1. **Helping Homes** – This program is a residential energy efficiency improvement program that provides energy retrofits to single-family, owner-occupied, senior low-income and low-income households in the city of Springfield receiving electric service from CWLP.
2. **Illinois Municipal Electric Agency** – The program is a pilot energy efficiency program being made available to residents in nine cities that are served by Nicor Gas and Illinois Municipal Electric Agency members. Components include Complete System Replacement, Home Energy Savings and Multi-Family Home Energy Savings.
3. **Ameren Illinois Tornado Relief** – The program provides funding to assist the residents of Gallatin, Saline, and Williamson Counties by paying the incremental costs of installing energy

efficient measures as part of the repair and rebuilding of residential properties damaged by the tornado of February 2012.

4. Illinois Association of Electric Cooperatives HomeE Program – The program is an extension of a successful American Reinvestment and Recovery Act (ARRA) program that provides funding for high efficiency air source heat pumps, heat pumps water heaters and installation of insulation/weather sealing measures in residential facilities serviced through local electric cooperatives.

5. Efficient Living: Public Housing Program – The program targets extremely low to low-income renters with incomes below 80% of median income who occupy one of 51,693 housing units located in 99 public housing authorities across the state to support installation of energy efficiency measures.

### EETF Grantees

#### Residential Retrofit Program

Grantee	Project Name	City	Trust Fund Grant	Units
Springfield CWLP	Helping Homes Program	Springfield	\$45,632	15 retrofits
Illinois Municipal Electric Agency		Nicor territory	\$195,000	41 retrofits
Ameren Illinois	Tornado Relief	Gallatin, Saline, and Williamson Counties	\$1,600,000	156 repairs, 55 rebuild
Association of Illinois Electric Cooperatives	HomeE Lite Program	Coop areas	\$367,732	330 retrofits
University of Illinois	Efficient Living: Illinois PHA Program		\$196,918	239 retrofits
TOTAL			\$2,405,282	

In total, the Residential Retrofit EETF grantees retrofitted 781 units and rebuilt 55 units of low-income housing for higher energy efficiency.

## Lights for Learning

The Lights for Learning® school fund-raiser program provides an opportunity to expand the ENERGY STAR lighting educational program. The purpose of Lights for Learning® was to strengthen the promotion of ENERGY STAR lighting by introducing students, teachers, and their communities to specialty CFLs and LEDs, including daylight, 3-way, recessed cans, outdoor lighting applications, and holiday strands. This fundraiser allows schools to accomplish their education goals in promoting a healthy, environmental message for their students and community.

This project fulfills the mandate to impact energy efficiency in residences through the replacement of energy inefficient lighting units with ENERGY STAR recognized units. In addition, this project complies with educational mandates by providing appropriate information to consumers. This project also provides opportunities to partner with schools, U.S. DOE, Midwest Energy Efficiency Alliance (MEEA), and local organizations to help leverage a broad exposure of energy saving information.

Participation in Lights for Learning Program

Performance Indicator	EEPS Funded	EETF Funded	Total Program
Participating Students (presentations)	19,962	255	20,217
Participating Students (Fundraisers)	1,424	108	1,532
Participating Schools (Fundraisers)	145 fundraisers	13 fundraisers	158

During the 2012/2013 program year, 177 schools and other youth-based organizations participated in the Lights for Learning® Program. The 1,532 students participating in the fundraiser portion of Lights for Learning® raised \$34,411.00 for their schools and school organizations. The 108 students with EETF funding raised \$4,025.25 of the aforementioned funds. In total, students sold 18,143 efficient lighting products. The products sold by the students will save an estimated 630,728 kWh annually, reducing the energy bills of the students' families and friends by about \$78,841.00 each year (using the Bureau of Labor Statistics average cents per kWh for Chicago area households). The Lights for Learning® program also conducted 297 educational presentations that reached more than 20,217 students.

## **University of Illinois' Illinois Center for a Smarter Electric Grid**

DCEO is providing the University of Illinois \$7 million over five years to support a project that will provide services for the validation of information technology and control aspects of Smart Grid systems. During the first two grants (10-022002 and 12-197001), the Department has provided \$4 million in support thus far for this project. The funding for this grant has come both from Renewable Energy Resources Trust Fund and the Energy Efficiency Trust Fund.

The key objective of this project is to test and validate within a laboratory setting how new and more cost-effective Smart Grid technologies, tools, techniques, and system configurations can be used in trustworthy configurations that significantly improve upon the ones that are in common practice today. The Center also is developing an evolving smart grid testbed (working with Ameren), conducting power system modeling and validation, cyber security assessment, and examining how renewable energy effects on the grid. The Center has also coordinated with other smart grid activities at the university, including a joint project with the Bonneville Power Administration.

Grant funds have been used to hire engineering staff, buy equipment and remodel the laboratory facilities, and setup, calibrate and simulate smart grid systems. The laboratory will be a resource for Smart Grid equipment suppliers and integrators, and electric utilities to allow validation of system designs before deployment.

## **Codes Claimed Savings Work Group**

Through a \$126,425 EETF grant, the Midwest Energy Efficiency Alliance (MEEA) has been facilitating a working group, including the Illinois utilities, DCEO and other stakeholders, to explore and facilitate formation of a program to improve compliance with the Illinois Energy Conservation Code and to claim the resulting energy savings under the Illinois Energy Efficiency Portfolio. The program will build on DCEO's current Building Codes Training and Technical Assistance Program. The expanded program is expected to produce real, measureable energy savings, and to help ensure that new homes in Illinois are built to be energy efficient. The project will determine how such a program can be developed; how to determine claimable savings; develop a program worksheet for cost effectiveness analysis; and incorporate findings into the next DCEO and utilities program filings. The working group is also vetting the outcomes through the Stakeholder Advisory Group and Illinois Commerce Commission to increase support for adoption and inclusion in future utility program filings.

### **Activity**

- Organize teleconferences and meetings to review progress, identify issues and propose ways of addressing them.
- Communication with DCEO and individual utilities to address specific problems faced by a specific organization.
- Research and analyze policy relevant data
- Provide information on activity in other states.
- Find and tap into expertise from other regions of the country.

Products:

1. Developed a utility-DCEO-MEEA Teaming Agreement
2. Research and produce defensible construction data for both residential and non-residential construction.
3. Estimated potential savings from the program. (Annual electric potential energy savings are 127,000 MMBTU/year and annual natural gas potential energy savings are 250,000MMBTU/year)
4. Research and present on codes activities from other states (Estimate of energy savings from Rhode Island)
5. Produce memo on administrative costs of running the program elements. (Figure out the various program elements and the administrative costs associated with them including: codes collaborative, third party program, circuit riders, utility administrative support)
6. Develop Third Party Enforcement Memo
7. Research on how other states run a third party program.
8. Develop Scope of Work for baseline compliance study.
9. Tap into experts from the Northwest on the use of third party enforcement.
10. Develop list (and description of) program elements along with cost estimates for each.
11. Work through Total Resource Cost test (TRC) worksheet for both commercial and residential construction .

As a result of this work group, DCEO and several Illinois utilities included an initiative called the “Illinois Codes Collaborative” in their most recent three year plans submitted to the Illinois Commerce Commission as one their Energy Efficiency Portfolio of programs. It will be a joint DCEO-utilities program that provides rebates for third-party inspectors to verify compliance with the Energy Conservation Building Code.