

## Kentucky *Save Energy Now* Program

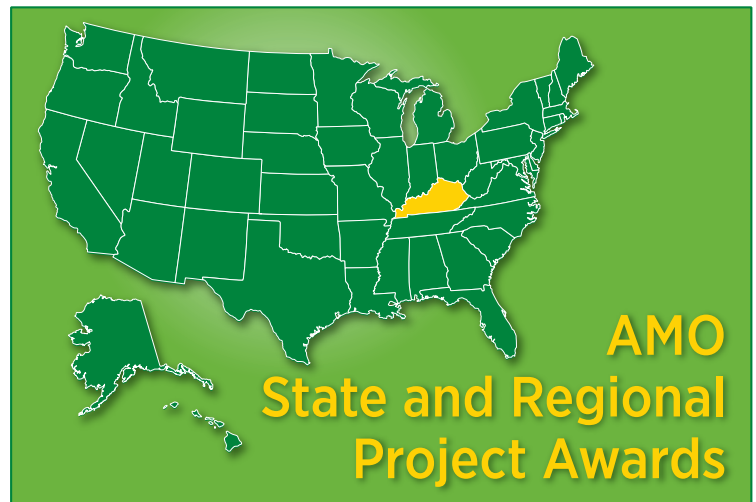
Due to the availability of low-cost coal-generated electricity, Kentucky's industrial sector has an energy-intensity level that is 427% higher than the national average. In recent years, rising energy costs have created an incentive for energy efficiency implementation as a means to ensure prosperity for Kentucky's manufacturing industry. To support this transition, the Kentucky Pollution Prevention Center (KPPC) will work to build self-sustaining energy savings programs at Kentucky manufacturing facilities.

The project team will develop the Kentucky *Save Energy Now* (KY SEN) Program, which will be conducted in two phases and will offer workshop trainings, technology demonstrations, project implementation, resource identification, and facility achievement recognition. Without the availability of an in-state Industrial Assessment Center (IAC), KPPC will work to maintain momentum and offer guidance to industrial facilities in Kentucky.

KPPC has identified an average annual energy savings of 0.266 trillion Btu for its clients over the past eight years. The project will provide technical support for energy efficiency trainings and technical assistance, as well as aid industrial companies in the development of energy management plans. During the first five quarters of the KY SEN program, KPPC was able to identify an annual primary energy savings of 47,682 million Btu per year and an annual cost savings of \$377,504 per year. The KY SEN initiative includes a voluntary pledge developed for industrial and large commercial clients. A five-tier recognition system was developed to reward participating facilities that successfully enact the progressively more difficult steps of a successful energy management system and consistently achieve facility goals. Those goals require a minimum targeted energy use reduction of 2.5% per year.

### KY SEN's 5-Tier Recognition System

Achievement Level	Necessary Attributes
★	<ul style="list-style-type: none"> <li>Sign KY SEN Pledge</li> <li>Establish Energy Use Baseline</li> </ul>
★★	<ul style="list-style-type: none"> <li>Institute Energy Management Policy</li> <li>Establish Cross-Functional Energy Team</li> <li>Attend Energy Management Training</li> </ul>
★★★	<ul style="list-style-type: none"> <li>Assess operations for Energy Saving Opportunities</li> <li>Develop Energy Action Plan (must include 2.5 percent/year minimum goal)</li> </ul>
★★★★	<ul style="list-style-type: none"> <li>Implement Energy Action Plan</li> <li>Evaluate Progress of Energy Management Program</li> </ul>
★★★★★	<ul style="list-style-type: none"> <li>Develop Internal Recognition Program</li> <li>Mentor KY SEN Participants</li> </ul>



### Project Description

**Funding Amount:** \$899,861

**Funding Source:** American Recovery and Reinvestment Act (ARRA)

**Program Period:** 11/23/2009 to 06/30/2011



### Project Success Highlights

- Exceeded the target number of KY SEN Pledges with a total of 21 participants.
- Held a press conference and open house with high-level guest speakers from the U.S. Congress, the University of Louisville, and the Kentucky Energy and Environment Cabinet.
- Issued nine Environmental Sustainability (ES) Reports in the reporting period—one to a commercial facility, two to institutional facilities, and six to commercial facilities.
- KPPC is providing services to 55 industrial and commercial facilities. Approximately 70% of these facilities participated in one of four KPPC-sponsored workshops to promote the Kentucky *Save Energy Now* Program.

### Primary Investigator

KPPC - the Kentucky Pollution Prevention Center - J.B. Speed School of Engineering, University of Louisville, Louisville, KY

### Project Partners

Big Rivers Electric Corporation, Henderson, KY  
 Duke Energy, Cincinnati, OH  
 East Kentucky Power Cooperative, Winchester, KY  
 E.ON U.S., Louisville, KY  
 Fellon-McCord & Associates, Louisville, KY  
 Kentucky Department for Energy Development and Independence, Frankfort, KY  
 Kentucky Energy Efficiency Working Group, Lexington, KY  
 Kentucky Solar Partnership, Frankfort, KY  
 Sierra Club - Cumberland Chapter, Prospect, KY  
 Tennessee Valley Authority, Nashville, TN

## Progress and Milestones

Activity Description	Goal	Completed to Date
Assessments	-	9
Identified Energy Savings (Trillion Btu)	0.2	0.093
Implemented Energy Savings (Trillion Btu)	-	0.085
Trainings	8	8
Individuals Trained	-	285
Pilots / Demonstrations	1	1
Plants Impacted	-	169

(As of June 2011)

KPPC is providing services to 55 industrial and commercial facilities. Approximately 70% of these facilities participated in one of four KPPC-sponsored workshops to promote KY SEN. KY SEN has made significant strides in reaching industrial manufacturers and acquiring their support for the program. The KY SEN initiative has received signed pledges from 21 industrial and large commercial facilities (as of April 2011). KPPC held a KY SEN Awards Presentation on October 28, 2010, with 15 of the 19 (at the time of the presentation) pledge-signed companies represented.

KPPC also has conducted multiple outreach activities, including workshops, trainings, and a facility tour at the Sherwin-Williams plant in Richmond, KY. This tour was a peer exchange event for sharing success stories, overcoming roadblocks, and seeing first-hand demonstration of Sherwin-Williams' 24.9% decrease in energy usage between the baseline year in 2006 and 2009. KPPC met its goal of completing eight training activities, reaching 285 attendees from a total of 144 unique organizations and facilities. These activities included the following:

- Four KY SEN Workshops (149 attendees from 77 unique organizations)
- Motor System Management Workshop (35 attendees from 17 unique facilities)
- Fundamentals of Compressed Air (36 attendees from 18 unique organizations)
- Advanced Management of Compressed Air Systems (18 attendees from 13 unique organizations)
- Kentucky Energy Alliance Facility Tour and Roundtable (47 attendees from 21 unique organizations).

### 2 Year Project Benefits

- Estimated energy savings of 0.2 trillion Btu over the three-year project period.
- Projected carbon dioxide emissions reductions of 33,000 metric tons.
- Fifteen Kentucky industrial facilities will be targeted to achieve the 2.5% energy intensity reduction goal in years two and three.

### Applications in Our Nation's Industry

This project will expand a partnership among academia, state offices, and utilities that will continue to help reduce the energy intensity of industrial manufacturers in Kentucky. The industrial energy efficiency project will reduce industrial energy intensity and its associated carbon emissions throughout the state.

### A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

KPPC is providing services to 39 industrial, institutional, and commercial facilities for onsite assessments through the Environmental Sustainability (ES) Program. Since the inception of KPPC's ES Program, the Center has completed and closed 121 service events that span across 82 unique clients. Due to separate funding sources, 23 events and 16 unique clients are being attributed to the KY SEN program. As part of the ES program, nine ES Reports have been issued in the reporting period—one to a commercial facility, two to an institutional facility, and six to an industrial facility.

KPPC held a press conference and open house on January 28, 2011, with guest speakers that included U.S. Congressman John Yarmuth, University of Louisville President James Ramsey, Kentucky's Energy and Environment Cabinet Deputy Secretary Hank List, and two current KPPC clients—Don Cravens with Anchorage School Systems and Peter Raymond of Reynolds Flexible Packaging. For this event, KPPC developed 21 new marketing materials. As a direct result of this open house event, articles in the Courier Journal newspaper were published promoting KPPC's work and the use of ARRA funds for the project.

### For Additional Information:

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