

Kentucky Energy and Environment Cabinet
Office of Energy Policy
Kentucky SEP ARRA Final Project Progress Report – School Energy Managers Project (SEMP)
Section II. Project Overview - Project Summary:

The Kentucky School Boards Association (KSBA) coordinated and administered the Kentucky Energy Efficiency Program for Schools Energy Managers Project (SEMP). Through KSBA, school districts submitted proposals to hire and fund energy manager’s salaries for participating school districts, (75% in year one and 50% in year two). Funds were also used to pay for 100% of travel for training and KSBA meetings outside the energy manager’s district.

35 energy managers were hired and provided comprehensive oversight in 130 participating public school districts to identify cost-reducing measures, implement energy efficiency initiatives and utilize technical resources provided by the Kentucky Pollution Prevention Center located at the University of Louisville’s J. B. Speed School of Engineering and by utility service providers.

Under the School Energy Managers Project, 35 energy managers were hired by a *Lead District* serving between one to six neighboring school districts. Fourteen school districts had existing energy managers, five of which were full-time. These districts were provided supplemental funding to support existing energy management programs and participated in SEMP training and other activities. Four regional SEMP coordinators provided coaching, monitoring and support to energy managers, organized into four geographic regions: North, Central, Southeast, and West.

The SEMP

Energy managers were responsible for (1) developing the district’s Energy Management Plan (EMP) and (2) identification of anticipated savings as required by KRS 160.325.

The EMP established (a) an energy policy, (b) energy goals, (c) operating procedures, (d) baseline, (e) benchmarking, (f) evaluation and monitoring procedures. Energy managers also assisted with development of an energy management communication plan, school district energy teams and ENERGY STAR certifications.

KSBA, through the School Energy Managers Project, coordinated the development of a state-wide energy management infrastructure that has focused public school districts on fostering intelligent energy choices in new and existing buildings through implementation of energy efficiency projects. As a result, both significant emission reductions have occurred and monetary savings have been unleashed to enhance the educational opportunities for the Commonwealth’s K-12 public schools. Funding for SEMP expired on April 30, 2012.

SEMP was introduced as districts faced budget cuts and economic challenges. Nonetheless, 130 of Kentucky’s 174 school districts entered into SEMP on the belief that they could achieve similar savings to those of a few districts who piloted energy management programs beginning in 2006. Another 14 school districts were already funding an energy manager within their district.

An initial step in the process was the audit of utility bills. Within five months, energy managers identified \$270,000 in refunds and over \$1M ongoing annual avoided costs in participating school districts.

Through KSBA's partnership with KEEPS, school energy managers facilitated the adoption of an Energy Management Policy in all of Kentucky's 174 school districts. The policy recommended school districts create a committee to oversee the development and implementation of an energy management plan.

Energy managers identified major opportunities to recalibrate building automation systems, to include implementing setbacks for evenings and weekends. This step alone resulted in significant dollar savings which remained in the school district's General Fund. Energy managers also implemented energy saving initiatives such as replacing inefficient lighting and improved computer management.

It was seen early in the project that a culture change would be critical within the school district if energy management efforts were going to be successful and sustained. Districts and schools that began steps for cultural change saw as much as a 20% impact from behavioral changes on the cost of utilities. (Source: Kentucky School Boards Association, Frankfort, Kentucky)

SEMP set a new standard for a business process in a culture that is student-focused. SEMP established relationships; tracked utilities; and communicated with stakeholders including boards of education, superintendents, faculty, administrators, support staff; and students. All together, significant reductions in operational costs in Kentucky's K-12 school facilities have been captured and, with continued focus on energy management, schools are positioned to capture significant additional savings in years to come.

SEMP promoted and utilized energy efficiency as a way to achieve sustainability goals to set an example of environmental stewardship for future generations. As such, SEMP has made a profound impact on Kentucky's schools by improving the learning environment and redirecting public monies to support classroom instruction.

III. Project Timeline Overview

* Activities not originally outlined in project, but were initiated by energy managers.

** Activities sustained after grant monies have expired using local district funding sources

Table: Project Timeline and Milestones			
Project Milestone	Planned	Completed	Dates
Draft & Execute MOA with Department for Energy Development and Independence (DEDI) for operation of the program	1	1	03/01/10
Phase 1 Hire Program Director	1	1	03/01/10
Finalize program milestones , targets and metrics	1	1	03/01/10
Hire program coordinators and administrative staff	6	6	03/28/10 & 7/1/2011 Auditor hired 2/14/11
Define Job Description for Energy Manager	1	1	04/30/10
EEC and KSBA develop solicitation for grant awards to school districts	1	1	04/30/10
EEC and KSBA select and award grants to school districts	1	41	05/01/10 – 10/31/10
Formulate Awards Program for ENERGY STAR schools	1	15	May 2011 to May 2012
District Agreements	41	41	04/30/10
Develop Training Program	2	2	07/01/10 – 04/30/12
Formulate energy manager performance and reporting requirements	1	1	06/30/10
Phase 2 Employ Energy Managers	49	35	07/01/10
Establish District Teams	130	121	07/01/10 - 06/30/11
Implement Communication Plan	130	35	07/01/10 - 09/30/11

Conduct Energy Assessments	250	400, Conducted by SEMP/KEEPS/Utilities	07/01/10 - 06/30/11
Review Energy Provider Contracts * **	Not in MOA; initiated by energy managers for 130 SEMP participating school districts	Activities sustained after grant monies have expired using local district fund source	07/01/10 - 12/01/11
Collect other pertinent information	1	Activities sustained after grant monies have expired using local district fund source	7-01/10 – 04/30/12
Phase 3 Establish baseline	130 districts all SEMP participating school facilities	130 districts	04/30/10 - 09/30/11
Assess ENERGY STAR certification	130 SEMP participating districts between 6/10 and 5/12	92 buildings achieved ENERGY STAR between 6/10 and 5/12	Activities sustained after grant monies have expired using local district fund source
Review operating procedures	130	130 participating districts	4/30/12
Evaluate savings alternatives	130 districts	130 districts	Activities sustained after grant monies have expired using local district fund source
Draft Energy Management Plans	130	98	04/01/11 – 6/30/11
Phase 4 Finalize and implement Energy Management Plans	130	98	07/01/11 - 09/30/11
Support District Maintenance Staff * **	Not originally outlined in project, but	55 of the 130 SEMP districts	4/30/12

	initiated by energy managers		
Monitor & Evaluate * **	Not originally outlined in project, but initiated by energy managers for 29 lead districts	29 Lead School Districts	4/30/12
Annual Report to DEDI	1	1	07/15/11
Final Funding and Final SEP Report	1	1	05/30/12

Table: TRAINING Timeline			
Project Milestone	Planned	Completed	Dates
SEMP Orientation and Training	1	1	07/07-07/10
SEMP Fall Regional Workshops	4	4	9/27/10 – 10/1/10
SEMP Winter Training/ KSBA Annual Conf	1	1	02/3-2/5/11
SEMP Spring Roundtables	4	4	04/27/11 – 05/05/11
Certified Energy Manager (CEM) Training	2	2- (35 EMs attended, 17 certified)	07/25-7/29/11 and 08/1-08/5/11
Webinar Quarterly Reporting	2	2	8/14/2011
KSPMA Annual Meeting (Fall Regional)	1	1	10/26-10/28/2011
Winter Regional Workshop	4	4	1/10,1/17,1/19 &1/24/2012
SEMP Training & Recognition	1	1	04/16 &4/17/12