

SCHOOL BUS

energy
at
work

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Kentucky Department for Energy Development and Independence

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Energy At Work is a review of Recovery Act programs working for Kentuckians

In early 2009, President Barack Obama signed the American Recovery and Reinvestment Act of 2009 (ARRA - also known as the Recovery Act or Stimulus Act) to stimulate the nation's economy. Of the approximately \$787 billion that Congress appropriated nationally, Kentucky will receive about \$3 billion, a staggering inflow of new money into the Kentucky economy. This funding will be spread over about three years. Of this, DEDI is administering about \$68 million over the three-year period. Some other energy-related funds for hybrid school buses, low-income weatherization of homes and jobs training are being administered through other state agencies.

DEDI is awarded only \$450,000 to \$700,000 in federal grants per year to operate its energy efficiency and renewable energy programs, and for those funds, a 20 percent cost share is required. It is clear that ARRA provides a much-needed, one-time infusion of dollars. This unanticipated bonus has allowed DEDI to expand proven programs and to create innovative programs that will have beneficial impacts for years to come.

How are these funds helping Kentuckians? They help further DEDI's overall goal of market transformation, meaning an increased demand for efficient and renewable sources that can result in an increase in green jobs. The benefits of market transformation and the four primary metrics DEDI tracks to determine program effectiveness include 1) an increase in jobs created or retained; 2) a decrease in energy consumed; 3) an increase in renewable energy generated; and 4) a reduction in greenhouse gas emissions.

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SAVE ENERGY AND MONEY!

How the Kentucky Home Performance program has begun shaping a future of savings for homeowners.



By: Nicole Morris, KY Housing Corporation

Being “green” is a hot topic. Everywhere you look there are suggestions about how you can save gas, water, even the planet. But Kentucky is lucky to have a green initiative that saves homeowners money.

KY Home Performance (KHP) helps owners of single-family homes save money and energy while improving the human health and air quality of their homes. The best part is that it is easy for anyone to sign up. There are no income restrictions; a homeowner only has to contact a KHP-certified energy evaluator listed on the KHP Web site, KYHomePerformance.org. Certified industry professionals will perform a comprehensive energy evaluation, and present the homeowner with a report identifying where the home is wasting energy. This report helps the homeowner decide the improvements they want to make. Then, either a KHP contractor/evaluator or installer will make the improvements.

Matt Fiscus, senior field technician for Conservation Services Group and a former KHP evaluator, said, “Recom-

mended energy efficiency measures, if they are installed, go a long way in keeping the home comfortable and more affordable – year in and year out. And using less energy also helps preserve our environment.”

Homeowners can choose to receive a rebate of up to \$2,000 or qualified homeowners can receive financing up to \$20,000 at a low 4.99 percent rate (rate is for a limited time). Mr. Fiscus explained, “The state’s homeowners have

a great incentive to get an audit and go to the next level, investing in energy efficiency improvements, because KHP offers rebates and financing to actually get the retrofit work done.”

But homeowners do not just save through rebates. By having a more efficient home, utility bills are decreased, saving more money for as long as the homeowner remains in the home and adopts good energy-saving habits.

“My utility bills decreased by at least one-third this past winter, which was incredibly cold. I expect the savings to be just as great this summer,” says Katherine Belcher, a homeowner who recently completed the program. “Any-

KY HOME PERFORMANCE

“I could not be happier! This program provided me with an incredible opportunity, and I’m so grateful I was able to utilize it.”

- Katherine Belcher, KY Home Performance Participant

thing I can do to reduce my monthly bills is a tremendous asset and completing the program was very quick. I had an entire central heat and air system installed, complete with duct work, and it took only approximately three weeks!”

Ms. Belcher is one of 66 homeowners who have completed the KHP program. There are another 100 homes currently in process. The evaluations and home modifications are completed through a network of 90 individual contactors or contractor agencies across the state.

“The people I worked with throughout the entire process were incredible. They were professional and courteous and helped me every step of the way,” said Ms. Belcher.

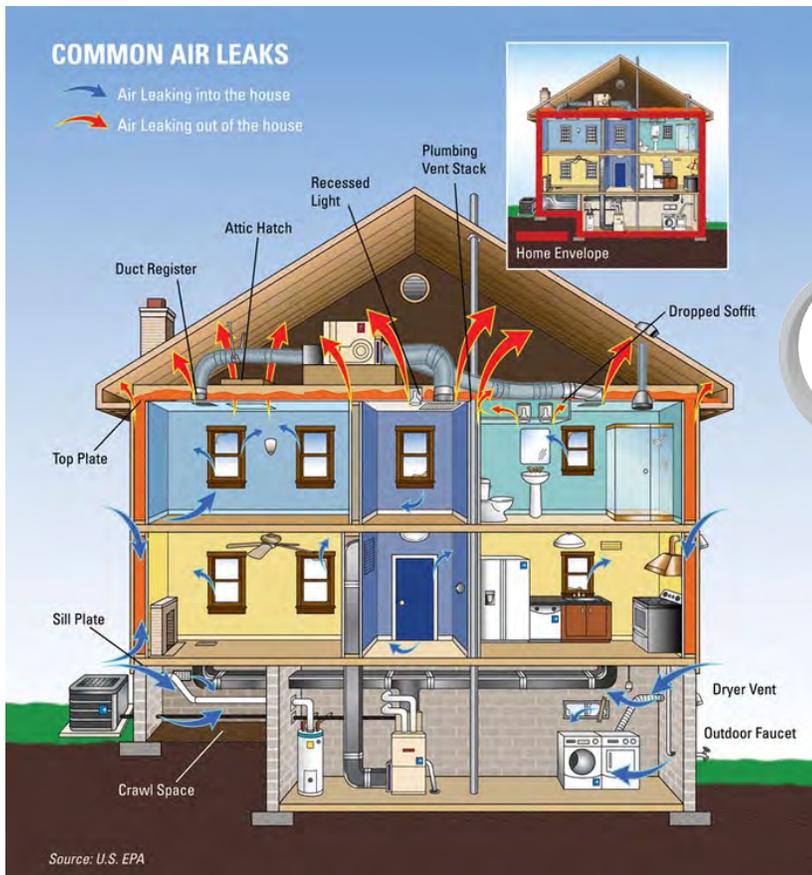
KHP is a win-win for contractors because they receive benefits even as they are helping homeowners. Participating contractors receive marketing and sales assistance, gain new customers because they offer a wider spectrum of services, and improve sales closing rates, even during the typical “off” season. They also gain association with

the ENERGY STAR label, providing more value for the customers and distinguishing themselves from their competitors.

“I have always been a huge fan of energy evaluations. Not only do they help save homeowners money on their energy bills, they showcase a home’s inner systems and how they all work together, from the ground up,” said Mr. Fiscus.

In total, 240 evaluations have been completed across the state, but KHP is able to process many more. Ms. Belcher encourages everyone to participate in KHP. “I could not be happier! This program provided me with an incredible opportunity, and I’m so grateful I was able to utilize it,” she said. “Without it, I would not have been able to complete the project to make my home more affordable, more energy efficient, and more comfortable.”

KY Home Performance is a partnership between Kentucky Housing Corporation (KHC), Kentucky Department for Energy Development and Independence (DEDI), and Kentucky Finance Administration Cabinet. With support from DEDI, the Finance Administration Cabinet, utility and other partners, KHC administers the program.



To learn more about KHP or to start the process on your own home, please visit www.KYHomePerformance.org. If you are a contractor that would like to learn more about joining KHP, please view the “Professionals” section of the web site.

Source: KY Home Performance



DEDI's Energy In Education Collaborative

By: Brooke Smith

When the Department for Energy Development and Independence (DEDI) received Recovery Act funds, a priority for the department was to enhance energy education in Kentucky school districts. The funds, distributed by the US Department of Energy, were meant to not only stimulate the economy, but to augment the efforts of environmental educators in their mission to instill energy efficiency and conservation into the minds of the upcoming generations, who will be the driving contributors to the new 'green' economy.

Energy efficiency and conservation programs for K-12 schools are also very timely. The phrase 'times are tough' is not just a cliché for school districts across the Commonwealth. The fact that budgets have been dramatically slashed at all levels for K-12 schools has driven many administrators to look for solutions that have been hiding under their noses for years: energy reduction. As districts look for sustainable solutions to reducing their operational costs, school administrators are quickly learning that high performance, energy-efficient school buildings are the way to go.

In the past five years school districts across the Commonwealth have come to recognize the importance that reduced energy consumption has to their bottom lines. At the time of this publication, Kentucky is home to 105 ENERGY STAR labeled schools. As energy costs continue to increase, it is now paramount that school administrators take heed of the energy cost savings realized by school districts following ENERGY STAR standards so that they, too, may cut their district's energy costs, reduce their carbon emissions and put those cost-savings back into their school systems for teachers and curriculum.

These facts led DEDI to pull together seasoned partner organizations to enhance both K-12 facilities energy management and boost energy education curriculum. By creating a collaborative of top Kentucky energy management and education professionals,

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The network provided through the Energy in Education Collaborative has been invaluable in improving communication among the many partners involved, and I am confident that the Collaborative will find ways to work together after April of 2012, when the ARRA funds are gone.

— Elizabeth Schmitz, Executive Director of
Kentucky Environmental Education Council



DEDI initiated the Energy in Education Collaborative.

The Energy in Education Collaborative is a partnership involving four programs and two projects. The program elements of the collaborative are designed to be a comprehensive, holistic approach, focusing on energy and sustainability issues in the design, construction and operation of energy-efficient sustainable schools as well as addressing the educational/curriculum opportunities presented by this focus. The following are descriptions of what each partner is contributing to the Energy in Education Collaborative.

School Energy Managers Project

The School Energy Managers Project (SEMP) is administered by the Kentucky School Boards Association. Under this program, SEMP uses Recovery Act funding to pay a portion of the salary (75 percent the first year and 50 percent the second year) for energy managers at the local district level. SEMP is funding 36 energy managers serving some 131 school districts and, for 4 districts that already had full-time energy managers, SEMP helps fund energy curriculum coordinators. A number of other districts also already have energy managers on staff. The school energy managers are the front-line managers responsible for coordinating energy efficiency and sustainability programs in the district. "I am so excited that the energy managers-'the boots on the ground'-at a time of severe financial challenges for districts are producing significant monetary benefits during the early stages of this project," said Ron Willhite, who leads the Kentucky School Energy Managers Project.

Kentucky Energy Efficiency Program for Schools

Kentucky Energy Efficiency Program for Schools (KEEPS) is administered by the Kentucky Pollution Prevention Center at the University of Louisville J.B. Speed School of Engineering. KEEPS provides technical consulting services to Kentucky's 174 public school districts as well as supporting the SEMP managers, conducts energy assessments of schools, produces training workshops for school energy managers and assists school energy managers to establish energy teams and implement a structured energy management program using the proven ENERGY STAR model. "The Energy in Education Collaborative encourages engagement throughout our Commonwealth's school districts, including curriculum-based environmental and energy-based education," said Fred Byrd, KEEPS Program Manager. "This way a true environment for culture change exists. Together, we are creating a new generation of citizens who are engaged, educated and compassionate about these issues."

KY National Energy Education Development Project

The Kentucky National Energy Education Development (Kentucky NEED) Project is part of a national non-profit organization that focuses on energy curriculum development. KY NEED provides energy workshops for teachers, grade-appropriate curriculum materials and kits for energy activities in the classroom. NEED has a program to assist schools with the formation of student-based energy teams that look at how energy is used in the school. NEED also works with DEDI to produce an annual High Performance School Buildings Workshop, focused on the best practices for design of new, highly energy efficiency schools. The workshop target audience is architects, engineers and school officials, particularly those officials who are from districts that plan to build or renovate within the coming years.

Kentucky Green and Healthy Schools Program

The Kentucky Green and Healthy Schools (KGHS) program is administered by the Kentucky Environmental Education Council in the Education and Workforce Development Cabinet. This inquiry-based program uses the entire school grounds as a learning laboratory for students. Students conduct inventories in nine different areas, including energy, solid waste and water. They then develop and implement improvement projects in each area, receiving awards and recognition as certain milestones are reached. "The Energy in Education Collaborative funding provided by the Department for Energy Development and Independence has provided a tremendous opportunity for the Ken

**Did You?
Know?**

**Kentucky is now home
to more than 100
ENERGY STAR schools!**



Kentucky Environmental Education Council and its flagship program, Kentucky Green and Healthy Schools,” said Elizabeth Schmitz, Executive Director of Kentucky Environmental Education Council. “Interest in the program has grown exponentially, with a 196 percent increase in enrollment in 2011, as compared to 2010 enrollment figures. We have given out \$19,325 in grant funds to 28 schools in 15 counties. Students and teachers at these schools have used the ARRA funds to implement 38 energy-saving improvement projects at their schools, while learning about energy and ways to conserve it. In addition, the network provided through the Energy in Education Collaborative has been invaluable in improving communication among the many partners involved, and I am confident that the Collaborative will find ways to work together after April of 2012, when the ARRA funds are gone.”

Net-Zero Energy Schools

These two projects in education involve two newly constructed schools that were occupied in the fall of 2010 – Richardsville Elementary School (Warren County Public Schools) and Turkey Foot Middle School (Kenton County School District). Each of these schools was designed to be very energy efficient. In fact, the schools are projected to use only about one fourth as much energy as the typical school that just meets Kentucky’s building energy codes.

DEDI has awarded Richardsville Elementary \$1.3 million and Turkey Foot Middle \$2 million to pay a portion of the cost to install sufficient photo-voltaic solar capacity to make each of the schools a net-zero energy school – among the first in the nation to achieve such a feat.

An additional unfunded program partner is the Kentucky School Plant Management Association (KSPMA). KSPMA provides energy efficiency-oriented training and workshops to school facilities personnel and fosters the exchange of “best practice” information among peers.

The Energy in Education Collaborative is making an immediate impact because it provides schools a total package that addresses all of their energy-related needs. The collaborative provides school districts both on-the-ground staff devoted to energy management, training and technical consulting expertise and education curriculum and student involvement in energy management that enhances the learning process for all involved.



Energy in Education Collaborative Partners:

School Energy Managers Project

<http://www.ksba.org/energy-management>

800-372-2962

Kentucky National Energy Education Development Project (KY NEED)

www.need.org

859-578-0312

Kentucky Energy Efficiency Program for Schools (KEEPS)

<https://louisville.edu/kppc/keeps>

502-852-0965

Kentucky Green & Healthy Schools Program

<http://greenschools.ky.gov/>

502-564-5937

Education and Workforce Development Cabinet Secretary Joseph U. Meyer gives the special address at the joint 2011 Kentucky NEED and Kentucky Green and Healthy Schools Awards Luncheon in Frankfort on May 18, 2011.

LOCAL IMPACT

Energy savings bring jobs to Williamstown Independent Schools

By: Martha Casher, School Energy Managers Project Coordinator

Williamstown Independent Schools was one of Kentucky's first school districts to report significant savings due to the work of an energy manager. And those savings turned into additional personnel benefiting students in their classroom learning.

Williamstown Independent and four neighboring districts partnered to hire an energy manager under the Kentucky School Boards Association's School Energy Managers Project. The project is funded by the American Recovery and Reinvestment Act, through the Kentucky Department for Energy Development and Independence and the U.S. Department of Energy.

Jon Nipple, one of 36 energy managers hired statewide, began reviewing the utility bills for Williamstown Independent. He found some unexpected assistance from a bus driver Mike Shoemaker, a retired electric superintendent from the City of Williamstown. Shoemaker suggested changing one major account from a general service rate to a demand rate. The anticipated annual savings from the rate change was \$30,000.

Those savings came in handy in August 2010, when the start of the school year resulted in increasing personnel needs. Due to energy cost reductions totaling more than \$50,000, Williamstown Independent was able to meet those needs.

"First we hired a much needed technology media assistant who allowed for increased classroom support", says Molly McComas, Dean of Students. "We also have helped solve an overcapacity problem by hiring two teacher's aides in January for the second grade,"

"I think the teachers really appreciate the extra hands in the classroom. The positions may change in appearance, but we know that these are continual savings that can be utilized in the future."

Throughout the 2010-11 school year, Nipple has assisted the district to develop strategies that promote energy awareness. Teachers and staff came on board with finding ways to reduce their energy consumption. "The school staff and students have done an excellent job of changing habits around energy consumption – removing unneeded equipment and shutting things down when not in use," said Nipple.

Williamstown Independent Schools Superintendent Sally Skinner and the Williamstown Independent Board of Education have been very pleased with becoming an energy partner, as well as the work of their district energy team.

"It should be the responsibility of everyone in the district to become good stewards of our resources; the new rate change and other conservation practices have created recurring savings for our district that is being used to directly impact student achievement," Skinner said.





Energy Manager organizes first Earth Day Expo at Whitley North Elementary

By: Courtney Lewis, SEMP Energy Manager for Whitley County

It was a first for Whitley North Elementary this year...an Earth Day Expo! Teacher Michelle Rice and Energy Manager Courtney Lewis put together the expo to celebrate and educate the students about Earth Day. Several booths were set up by local companies and organizations, and many goodies were available, free-of-charge, for the students.

Wal-Mart Supercenter and Principal Larry Brown donated hundreds of re-usable cloth bags for the students to pick up on their way into the gym that day. The day was organized by grade level. After receiving their bag at entry, students gathered on the floor in the middle of the gym to hear a short lesson from Courtney Lewis and Michelle Rice about Earth Day and what can be done to help the earth. Kindergarteners got a very special treat after their mini-Earth Day lesson: a visit from Smokey Bear and Ranger John Young. Many of the kindergarteners already knew the famous Smokey slogan, "Only You Can Prevent Wildfires!"

After the mini lesson, students were free to go visit the booths. Wal-Mart loaned Michelle Rice it's display of two electrical meters, showing the difference between a regular bulb's energy usage and a Compact Fluorescent Light bulbs (CFLs). Cumberland Valley

Electric had a booth promoting CFL Charlie, and educating the students on electricity. "Michelle and I worked well together for this event and she even got a Smart Car there!" said Lewis. TECO Coal's

Paul Matney had a booth to educate the students on the many uses of coal, and the environmentally friendly efforts of TECO. There was a KY PRIDE booth, as well as an ENERGY STAR booth that had free Lorax activity books for the students. The Whitley County Conservation District had a booth set up encouraging the students to recycle. Seed packets were also given out at one booth. Kentucky Living magazine, Kentucky Energy Efficiency Program for Schools (KEEPS), National Energy Education Development Project (NEED), Energy Information Administration (EIA), and ENERGY STAR were represented with their promotional materials for staff and students.

Whitley High's JROTC members assisted the students at the booths, and helped make the entire event run like clockwork. Whitley North's cafeteria staff was highly involved in the event as well. The cafeteria used little to no energy for the entire day, and the cafeteria staff got involved to make it educational and fun for the kids. "The event went really well and I hope to see all my schools doing this next year for Earth Day because it is so informative and the kids love it," said Lewis. "But, as many of the students reminded me, Earth Day can and should be every day."

Energy transformations are inherent in almost every system in the universe¹—a big concept for fourth grade students to comprehend. But ask one of the gifted and talented fourth graders in Grant County to explain it and they will, thanks to an Academy Day conducted by Carolyn Bergs, Kentucky National Energy Education Development (NEED) Project Regional Coordinator. "Using NEED's Energy Flow activity, we went through the transfer of energy from the sun all the way to the light bulb," explains Ms. Bergs. By the end of the morning, students were able to identify each energy transformation as radiant, chemical, thermal or mechanical.

In the afternoon the students tackled another big concept—researching and classifying renewable and nonrenewable energy sources.² The students worked in groups to create hands-on exhibits about the energy sources that power the nation using infor-

Energizing students in Grant County, Williamstown Independent Schools

By: Pam Proctor, KY NEED

mation provided in NEED's Energy Source Expo guide.

Ms. Bergs also worked with Sonya Linder, Enrichment Teacher with Williamstown Independent to conduct the same session at Williamstown Middle School. Molly McComas, the district's Program Director and Dean of Students, notes that the students "have done a phenomenal job with better understanding energy consumption and types of energy." In addition to the one-day academy, the Williamstown students conducted an energy conservation campaign in their school. Using the NEED Monitoring and Mentoring Kit, the students analyzed how much energy their building consumed and initiated a campaign to educate building occupants about energy conservation. Five students went on to present the results of their energy savings to the Williamstown Board of Education.

¹ Core Content Science Assessment, Version 4.1, Kentucky Department of Education

² Ibid, SC-04-2.3.1

CONGRATULATIONS KENTUCKY NEED



“To be recognized as NEED’s ‘State of the Year’ is indeed an honor. Our regional coordinators have been working closely with students and their teachers from across the Commonwealth to facilitate energy education programs in their schools and communities. The success of engaging and empowering students was evident when 53 student groups in Kentucky submitted energy projects for the 2010-11 NEED Youth Awards for Energy Achievement.”

- Karen Reagor, Kentucky State Coordinator for KY NEED



Students from ten Kentucky schools were recognized at the National Energy Education Development Project’s Youth Awards Program for Energy Achievement held June 20-24, 2011 in Washington, D.C.

- | | |
|-----------------------------------|-------------------------------------|
| 1. Centerfield Elementary School | 6. Lyon County Elementary School |
| 2. Dixie Elementary Magnet School | 7. Phillip A. Sharp Middle School |
| 3. Dixie High School | 8. Piner Elementary |
| 4. Henry Clay High School | 9. Randall Cooper High School |
| 5. James A. Caywood Elementary | 10. Richardsville Elementary School |

Kentucky NEED Program sponsors in the front row from left to right: Barry Schumann, Kentucky Power/American Electric Power; Karen Reagor, Kentucky NEED State Coordinator; Lindsey Palmer, Duke Energy Kentucky; Kelly Couch, Louisville Gas & Electric/Kentucky Utilities; John LeFevre, Kentucky Department of Energy Development and Independence. Kentucky NEED LG&E/KU Coordinators in the second row from left to right: Beth Bell, Sue Parrent, Tyler Cvitkovic and Whit Pennington.



Below are Kentucky National Award Winners

Elementary School of the Year Finalist

James A. Caywood Elementary School – *Kenton County School District*

Senior Level Rookie School of the Year

Randall Cooper High School – *Boone County School District*

Additional Kentucky Schools in attendance are listed below

Recognition of Outstanding Energy Education Programs

Ashland Elementary School
 Richardsville Elementary School
 Centerfield Elementary School
 Lyon County Elementary School
 Piner Elementary School
 Morton Middle School

State Award Winners

Dixie Elementary Magnet School – *Kenton Co. School District State Award Winner*
 Phillip A. Sharp Middle School – *State Award Winner*
 Henry Clay High School – *Fayette Co. School District State Award Winner*



As part of the Green and Healthy Schools program Model Lab freshman Liza Krein and Kaylin Burchell collect recyclables at the school in Richmond, Ky. Sept. 28, 2007. Photo by Amy Wallot

Kentucky Green and Healthy Schools Program Experiences Strong Growth

Teachers Say Students and Communities Benefit from Participation

By: Elizabeth Schmitz, Executive Director of Kentucky Environmental Education Council

The Kentucky Green and Healthy Schools (KGHS) program has experienced an exciting increase in growth, and program participants say that participation benefits students and the local community. In fact, interest in the program has grown exponentially, with a 196 percent increase in enrollment in 2011 (See Figure 1). Funding from the Kentucky Department of Energy Development and Independence has paid for staff time, program promotion, and small grants to schools that defray the cost of student-driven school improvement projects. The increase in enrollment can be attributed to the availability of small grants for schools, as well as an increase in support for teachers. This increased support is found in the form of the Energy in Education Collaborative, which includes programming and technical support from energy education organizations and district energy managers hired by the Kentucky School Boards Association (KSBA).

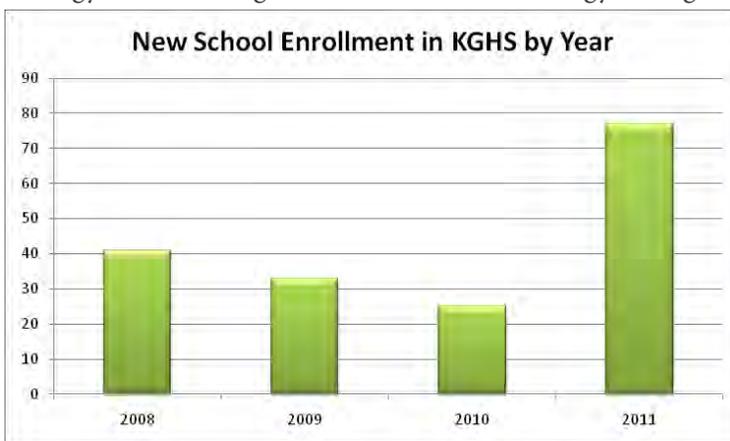


Figure 1: School enrollment in the Kentucky Green and Healthy School program nearly doubled during the 2010-2011 school year.

As of June 1, 2011, the KGHS program has disbursed \$20,235 in grant funds to 31 schools in 17 counties. Students and teachers at these schools have used the ARRA funds to implement 38 energy-saving improvement projects at their schools, while learning about energy and ways to conserve it. Along the way, students develop math, writing, and speaking skills to find data and compose written answers to the questions they explore.

Teachers often serve as team leads for the KGHS program, and many have expressed that the program benefits their students and their communities. "By using creative ways to get answers to inventory questions and interacting with

their community, students are learning valuable research skills and gaining awareness of how their actions affect the community and environment,” said Jennifer Davis, a middle school teacher in the Erlanger-Elsmere school district. Ms. Davis’ class completed a water conservation project that utilized rain barrels to capture rain, which is now

With the hard evidence of our work, Calvary Elementary School was recognized by the [Kentucky] Department of Environmental Protection as a 2010 Pacesetter.” Real world applications to learning are what make experiential, environmental education programs like KGHS engaging to students. Furthermore, real world applications help



Tichenor Middle School students pose while installing a rain barrel as part of their water conservation and energy-saving project.

Photo Credit: Jennifer Davis, Tichenor Middle School Teacher

students find a more concrete understanding of abstract concepts like energy, especially when they are able to quantify the impact of their projects. Completing research and projects that address areas of improvement at their schools also requires students to interact with each other and their learning communities. This helps students develop communication skills and grow as individuals.

used to irrigate the school grounds and gardens. Because water is expensive and requires lots of energy to treat and move from place to place, this project reduces energy use and saves the district money. Ms. Davis’ class used teamwork, problem solving, and gained research abilities through this project – all essential skills in today’s students and tomorrow’s workforce.

While it is most common for teachers to take a leadership role in the program, many other school staff engage as team leaders, including librarians, Gifted and Talented coordinators, counselors, and others. Charlotte Moffitt, a counselor with the Marion County School District, said that the KGHS program is a healthy, nonintrusive avenue to help children who are coping with distress/stress.

Ms. Moffitt continued, “The KGHS program is sensational. The recycling, gardening and energy conservation have been wonderful ways to help students express their basic needs of self worth, curiosity, responsibility, and fun. With the parameters set by KGHS, we quantified our work and thus gained a higher level of understanding and pride.

School improvement projects are the culminating activity for KGHS students, who first explore a category, such as energy, to determine baseline conditions at their school and then design an improvement project to help their school become more sustainable in that category. School improvement projects don’t have to cost money, but students and teachers have jumped at the opportunity to implement projects that otherwise would not be possible because of fiscal limitations. DEDI funding has also provided schools, teachers and students with energy education support, created by the district energy managers hired by the Kentucky School Boards Association and energy education programming provided by the Kentucky National Energy Education Development Project. These forms of support paired with the grants and programming provided by KGHS have created a perfect opportunity for schools to address energy efficiency and for students to take on a leadership role in supplementing school districts’ overall sustainability.



KEEPS Presents First Stewardship Awards; New Energy Management Tools Available; Webinar Series Continues

By: Chris Wooton, KEEPS, Public Information Officer

As momentum for the Kentucky Energy in Education Collaborative picks up, more Kentucky school districts realize the value that best energy management and environmental sustainability practices add to the quality of education for Kentucky's students. The collaborative provides an opportunity for Kentucky school districts to take ownership of their energy management program's ongoing success, and several districts are making the most of that opportunity.

Schools recognized for their efforts

In 2011, the Kentucky Energy Efficiency Program for Schools (KEEPS) established an awards program, which recognizes school districts that reach milestones through ENERGY STAR's seven-step energy management framework. Warren County, Fayette County, Barren County and Christian County public schools were among the first to receive the KEEPS Stewardship Award, which recognizes districts that complete Step One of the framework – Make the Commitment. This step establishes energy management program buy-in from senior administrators, raises awareness about the program to district faculty, staff and students and encourages participation

from everyone in the district and the community.

“In the past year, we have seen Kentucky school districts take incredible strides toward making best energy management practices part of their day-to-day operations,” said KEEPS Program Manager Fred Byrd. “To date, all 174 districts have school board approved energy policies. There are 111 school district cross-functional energy teams. More than 100 districts are ENERGY STAR partners. This is just a taste of the success that comes as a result of district energy managers, energy teams and key stakeholders' willingness to make the most of the resources provided by Kentucky Energy in Education Collaborative partner organizations.”

In addition to the Stewardship Award, KEEPS offers the

More than 100 districts are ENERGY STAR partners. This is just a taste of the success that comes as a result of district energy managers, energy teams and key stakeholders' willingness to make the most of the resources provided by Kentucky Energy in Education Collaborative partner organizations.

-Fred Byrd, KEEPS Program Manager

KEEPS Champion Award, which is presented to districts that complete Step Two - Assess Performance and Opportunities, Step Three - Set Performance Goals and Step Four - Create an Action Plan. Districts that complete Step Five - Implement the Action Plan, Step Six - Evaluate Progress and Step Seven - Recognize Achievements earn the KEEPS Leadership Award.

New KEEPS resources

The KEEPS Energy Management Toolkits provide a series of self-guided, web-based resources that facilitate school districts' progress through the ENERGY STAR framework. Resources include presentations, worksheets, references, templates and links to Kentucky Energy in Education Collaborative resources. Recently added to the toolkit series are several Microsoft Excel-based tools that help record and assess the energy performance of school district facilities. The tools address each facet of a KEEPS energy efficiency assessment and provide information that can be applied to the KEEPS Energy Assessment Report. They also identify areas where improved facility energy performance can yield cost savings for the district.

Other new toolkits include those that help set energy performance goals and establish an energy management action plan. Toolkit 3A: Set Energy Performance Goals defines the characteristics of effective energy performance goals using the SMART (Specific, Measurable, Achievable, Relevant and Time-framed) framework as a guideline. Toolkit 3B: Brainstorming Energy Performance Goals includes self-directed exercises, ideas and existing models for district energy teams to use as they develop their energy performance goals. Toolkit 4: Create an Energy Management Action Plan includes plan development worksheets and exercises, sample action plans from Kentucky school districts, and an action plan template to use to make the process as easy as possible.

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Front row, from left: Fayette County Public Schools Energy Manager Britney Thompson, FCPS Energy & Sustainability Curriculum Coordinator Tresine Logsdon, KEEPS Program Manager Fred Byrd and FCPS Board Chairman John Price.

Back row, from left: FCPS Board Members Doug Barnett, Melissa Bacon (vice chair), Amanda Ferguson, Daryl Love and FCPS Superintendent Stu Silberman.

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Lending a hand

KEEPS kicked off a series of free webinars on April 20 that provide training on how to make the best use of KEEPS tools and other resources, offer information about Kentucky Energy in Education Collaborative partners and showcase Kentucky school districts that have realized success through the ENERGY STAR framework. Past webinars have focused on how to create energy teams, identify awards and recognition opportunities, develop an energy program communications plan and address indoor air quality concerns.

“Sometimes school districts need help determining what to do next as the task may seem overwhelming,” said Byrd. “Training, technical assistance and program guidance are among the many benefits of the Kentucky Energy in Education Collaborative. This webinar series is one way we can provide those services.”

School district energy managers and energy team members are encouraged to attend the KEEPS webinar series.

All webinars are held from 2:00 p.m. to 3:00 p.m. ET. Log on to www.kppc.org/KEEPS and select the “Webinars and Workshops” tab to see recordings of past KEEPS webinars and register for upcoming webinars.



To download these and other KEEPS Energy Management Toolkits, log on to www.kppc.org/KEEPS and select the “KEEPS Toolkit Library” tab at the top of the page. More KEEPS Energy Management Toolkits will be available in the near future.

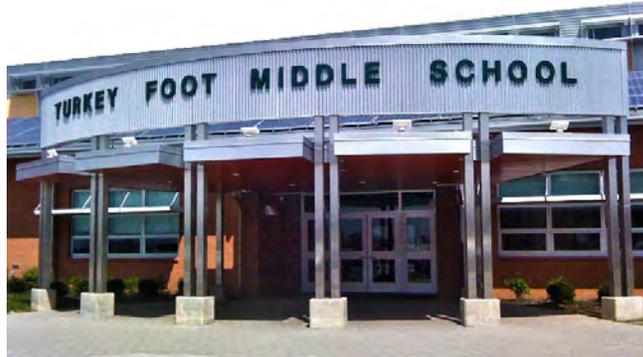
Turkey Foot Middle School hosts Flip the Switch Event

The Kenton County School district was excited to host a Flip the Switch event at Turkey Foot Middle School on May 18th to initiate the use of its Recovery Act-funded solar panels.

The building is now powered by the largest electric producing solar array installed in the state of Kentucky, a 385-kW solar array that comprises over 60,000 sq. ft. of thin film and crystalline panel solar technology. The school anticipates that on weekends and during the summer the building will produce an excess of electricity to sell back to Duke Energy.

The event was also a celebration of the E=WISE2 program, which is a student-led energy education program created in partnership with the Kentucky NEED (National Energy Education Development) project. Each of Kenton County School District's schools has an E=WISE2 team consisting of students, administration, faculty and custodial staff that is focused on monitoring, improving the habits of the building occupants and educating the faculty, staff and community about energy efficiency and environmental stewardship.

"This is one of two school facilities in the state that will ac-



tually put electricity back on the grid. This school building is a testament to the district's commitment to energy management. We believe school buildings should use less energy, demonstrate sound environmental practices and serve as fundamental tools for learning. A team of Turkey Foot students, named Construction 101, have been involved in the design and construction of the building. The new school uses half the energy of the old school building and the new school is twice the size," said Chris Baker, Energy Systems Coordinator.

For more information, or to read the full press release visit: <http://www.kenton.kyschools.us/districtNewsArticle.aspx?artID=1858>

The net-zero energy project at Turkey Foot Middle School is funded by the American Recovery and Reinvestment Act, through the combined efforts of the following organizations: Kentucky Department for Energy Development and Independence, the U.S. Department of Energy and Kenton County School District.

Aerial photo: Turkey Foot Middle School solar panel array.



KENTUCKY **Faces** AT WORK **of the** **Recovery Act**



Cathy Reed, SEMP Energy Manager for Boone County

Cathy Reed began as Energy Manager for both Boone County and Walton-Verona Schools in July 2010. Between these districts, Cathy's responsibilities include utility tracking between 25 separate institutions. Such efforts include ensuring each account is on the correct rate for their usage, applying for rebates and incentives for energy efficient equipment, and making recommendations for the procurement of energy suppliers.

Previously, Cathy worked as a Utility Invoice Auditor within the private sector. It was here where she acquired much of the necessary knowledge to work within each school district.

"This is an excellent opportunity to combine my past experience with utilities and take it to the next level of energy management which gives me the facilities exposure. It is exciting to work with so many people from different backgrounds because we all share experiences and we all draw from each other's expertise."

Cathy enjoys her new placement within SEMP - School Energy Managers Project - for her role in incorporating her efforts within the students and education process as a whole.

"I enjoy this position because I feel I am making a difference by directly affecting the school district's 'bottom line.' This position is a great combination of working with people, numbers, and applying technical expertise and logic."

Cathy is a graduate of the University of Cincinnati where she received her Bachelor of Science in Administrative Management.



Stefanie Osterman, DEDI Program Manager

Stefanie Osterman joined the Kentucky Department for Energy Development and Independence's (DEDI) Division of Efficiency and Conservation in February 2011 as a Program Manager. Stefanie's primary duties include identifying and analyzing major policy issues and formulating agencies' budget requests. Stefanie manages energy efficiency project implementation with DEDI's partners, particularly with the KY Home Performance, Smart Grid and Water/Wastewater projects and is the department's liaison for the annual Midwest Regional ENERGY STAR Conference.

Before coming to DEDI, Stefanie worked for the Department for Environmental Protection in the Division of Enforcement. She holds a BS in Natural Resource Policy and a MA in Agriculture Economics, both from the University of Kentucky.

"I enjoy the opportunity to help people increase their energy efficiency and save money," said Stefanie. "It's exciting to work with DEDI's partners as they create innovative solutions to energy usage problems."

Larry Metcalf, SEMP Energy Manager for Ashland Independent

Larry Metcalf joined SEMP - School Energy Managers Project- in July 2010 as Energy Manager for Asher Independent, Carter, Fairview, Raceland-Worthington and Russell Independent Schools.

Larry's responsibilities include helping school districts manage their energy usage by overseeing the purchase, consumption, communication, education and planning along these fronts. By doing so, he is able to maximize the potential of this learning environment to each district's student body.

"Every direction that I look I see exciting things that I like to do. I see tremendous opportunity for leadership, team building and development. I enjoy data analysis, and I really like troubleshooting and root-cause analysis. But as much as I find enjoyment in so many directions, I am most excited to utilize my efforts and experience in such a noteworthy project that will provide a full and rich learning environment for our customers – the students and our future leaders."

Larry enjoys his new work life within SEMP because of the impact he's making across all areas of the Commonwealth. His expertise not only rings true in the classroom, but across the bluegrass.

"In a world that is quickly changing and full of uncertainty we owe it to our children to prepare them in the finest possible way to meet the challenges of leadership, creation, and innovation. America needs them. My community needs them. I owe it to them!"

Larry is a graduate of Kentucky Christian University where he received his degree in Business Administration, followed by a Masters of Business Administration from Morehead State.



Eileen Hardy, DEDI Program Manager

Eileen Hardy joined DEDI's staff in the Division of Efficiency and Conservation in February 2011. Eileen works as a Program Manager, helping DEDI's statewide Recovery Act partners implement energy efficiency programs and comply with terms of state contracts. Eileen works primarily with the School Energy Managers Project, the Net-Zero Energy Schools projects, the UK High Performance Sustainable Energy Research Laboratory, and is immersed in the helping the Energy in Education Collaborative succeed across the Commonwealth.

Before coming to DEDI, Eileen worked for more than seven years for the Kentucky Department of Education, Division of Facilities Management, providing oversight of project applications for capital construction projects for Kentucky's K-12 school facilities. Prior to working with the Kentucky Department of Education, Eileen worked in Frankfort for the local tourist commission and chamber of commerce in marketing and membership development, and for the Franklin County Judge Executive.

"My position as a project manager for DEDI has been a natural career progression and enabled me to share and expand my knowledge of sustainable school design with many new projects," said Eileen. "I have never been a complacent person; I enjoy the opportunities in this department, to grow professionally. I learn something new every day and it is rewarding to feel like I am contributing to something greater than myself."

Eileen earned a BA in Communications, with a minor in art, from the University of Louisville.

"There are so many exciting and innovative energy projects happening in Kentucky that are a result of the mission of the Energy and Environment Cabinet as well as the federal government," said Eileen. "I can say for all of the projects I am working on, I enjoy assisting so many talented people from varied backgrounds reach a common goal."

SCHOOL BUS

EMERGENCY DOOR

The logo for DEDI features the letters 'DEDI' in a bold, black, sans-serif font. A stylized graphic element, consisting of a blue swoosh that curves around a central orange and yellow starburst shape, is positioned behind the letters.

DEDI

**KENTUCKY DEPARTMENT for ENERGY
DEVELOPMENT & INDEPENDENCE**



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