Fayette County Public Schools

Annual Sustainability Report

January 2014-December 2014

Vision

Fayette County Public Schools will be a global leader in sustainability, energy efficiency and environmental literacy.

Mission

To empower students to create change through enduring improved sustainability by equipping school and community stakeholders with the tools, knowledge and resources to preserve our natural and fiscal resources.

Our Approach

- Embrace student-driven model
- Created mindful engagement of diverse stakeholders and ideas
- Utilize data-driven monitoring to inform decisions
- Provide purposeful, continuous, comprehensive support to students and teachers

Core Values

Integrity *Passion* *Collaboration* *Innovation*

The following is a summary of accomplishments and progress made by the Sustainability Team from January 2014 to December 2014.

Staffing

- Tresine Logsdon, FCPS Energy & Sustainability Curriculum Coordinator
- Logan Poteat, FCPS Energy Manager

Professional Development

Tresine helps guide KY student-driven sustainability curriculum by serving on the

- KY Environmental Literacy Plan Implementation Task Force
- KY Green & Healthy Schools Advisory Team
- KY Interagency Subcommittee on Environmental Education
- KY Environmental Education Consortium
- Bluegrass Greensource Board
- KY Education Energy Management Association Education Committee
- Bluegrass Earth founding member

And servings as

- KY Environmental Association for Environmental Education Ambassador
- KY Science & Technology Corporation/Advance KY AP Env Science Training Consultant
- KY Chapter US Green Building Council Green Apple Day of Service Liaison
- College Board AP Environmental Science Consultant

Logan continues learning best practices and skills to help with energy management for the district at the following:

- Certified Energy Manager training
    - Logan passed the exam at the end of the training to officially become an *Energy Manager in Training*. He can become an official *Certified Energy Manager* after two more years of experience
- Kentucky American Water *Water-Wise Academy*
- Siemens building automation software training
- Shadowing local design engineers as they work on projects at our schools

Tresine and Logan continue to provide professional development and share best practices around KY and the nation through presentations at the following conferences:

- National Green School Conference
- KY Environmental Education Association
- KY Science Teachers Association
- KY School Energy Management Program
- KY High Performance Sustainable School Buildings Workshop
- Empowered Lexington Steering Committee

Sustainability Council + Coordinated School Health Committee

The Fayette County Sustainability Council continues to solicit insight and feedback from critical FCPS and community stakeholders to guide district-wide vision and direct short and long-term action plans with a special emphasis on the following priorities:

- **Set Best Management Practices for Facilities to Follow**
- **Incorporate Sustainability Features in New Building Design**
- **Create Active Sustainability Teams in All Schools with Community Involvement and Partner with the Bluegrass Youth Sustainability Council**

Since 2010, natural alignments and synergy with Student Health and Wellness have emerged and continue to increase. In 2015, the Sustainability Council joined forces with the Coordinated School Health Committee and will launch this collaborative approach Monday January 26th with the first combined Sustainability Council + Coordinated School Health Committee meeting. With this model, sustainability will be addressed comprehensively including insight from stakeholders with expertise in all areas of sustainability including energy management, solid waste, air quality, student nutrition, water quality, student health and environmental education. Facilitating partnerships between existing student $E=USE^2$ and school-based Wellness Teams, aligning monthly or quarterly meetings and considering mutually constructive short-term objectives and long-term goals will ensure that our most important stakeholders--students and teachers--understand the essential mutualism between sustainability and student wellness.

This model supports the national movement towards broader, more inclusive problem-solving in all areas of sustainability to equip school for 21st century excellence by

- Reducing environmental impact and costs
- Improving the health and wellness of schools, students and staff
- Providing environmental education, which teaches many disciplines, and is especially good at effectively incorporating STEM, civic skills, and green career pathways

Combined focus and achievement in all three areas ensures that we are teaching and nurturing our students holistically without addressing environmental impact, student wellness and environmental literacy in isolation. This holistic approach aligns with US DOE's cross-cutting goals for education, including improving student, staff and faculty performance and increasing efficiency at the federal, state and local levels to result in improved student engagement, academic achievement, graduation rates, and workforce preparedness, and reinforce state and federal efforts to increase energy independence and security.

Encouraging resource efficient schools allows Fayette County Public Schools to dedicate more resources to instruction rather than operational costs. Healthy schools and wellness practices

ensure that all students learn in an environment conducive to achieving their full potential, free of the health disparities that can aggravate achievement gaps. Environmental literacy helps all students engage in hands-on learning, hone critical thinking skills, learn many disciplines and develop a solid founding in STEM subjects.

FCPS Energy & Sustainability Report Card

Consistent with our three-pillared approach to sustainability, FCPS Sustainability will pilot a district-wide recognition tool to further incentivize and acknowledge the great works of our teachers and students towards improved sustainability in all areas: energy efficiency, environmental literacy and student wellness. Still in development, accomplishments featured in the FCPS Energy & Sustainability Report Card include participation and leadership in:

- $E=USE^2$
- School-wide recycling
- Computer shutdown scheduling
- Appliance consolidation
- Energy Star program
- Green Ribbon School
- Outdoor classroom
- KY Green & Healthy Schools
- Farm To School
- KY National Energy Education Development
- Wellness committee
- Healthy snack policy

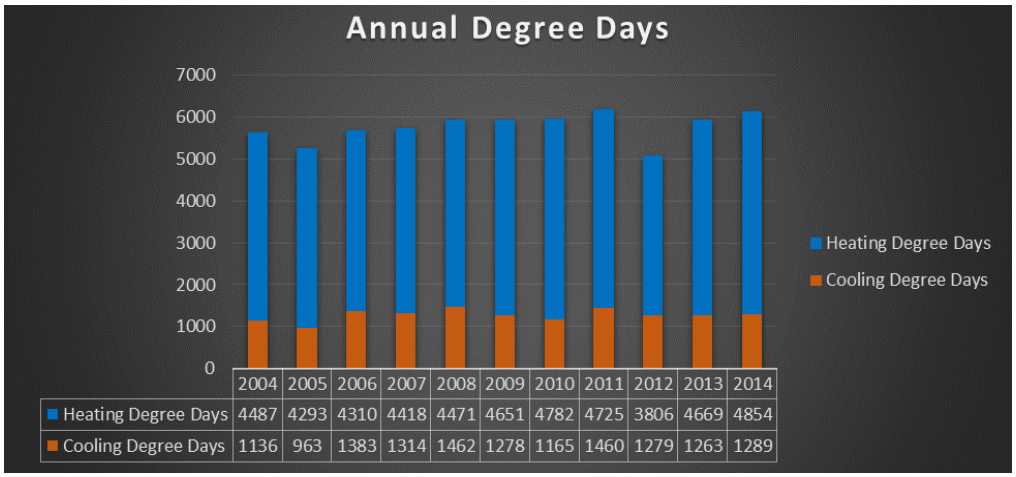
Energy Savings & Financial Stewardship

Fiscal year 2014 gave *FCPS Sustainability* many reasons to celebrate:

- Wellington Elementary was the third *Green Ribbon National School* in a row for FCPS and we hope to have our fourth in a row in 2015.
- We saw a reduced *Energy Usage Intensity (EUI)* for the district despite colder than normal temperatures in the winter.
- We were able to award more *Go Green to Earn Green* funds to schools due to reduced energy consumption than we ever have before.
- Grant funding from the *KY Department of Energy Development & Independence* gave students in all our schools the chance to implement a sustainability project or improvement that was designed solely by the students.

These are just a few of the many reasons we were excited about 2014. Even with all the wonderful things going on in our district, we still have many areas of improvement and projects we look forward to implementing this year and in future years.

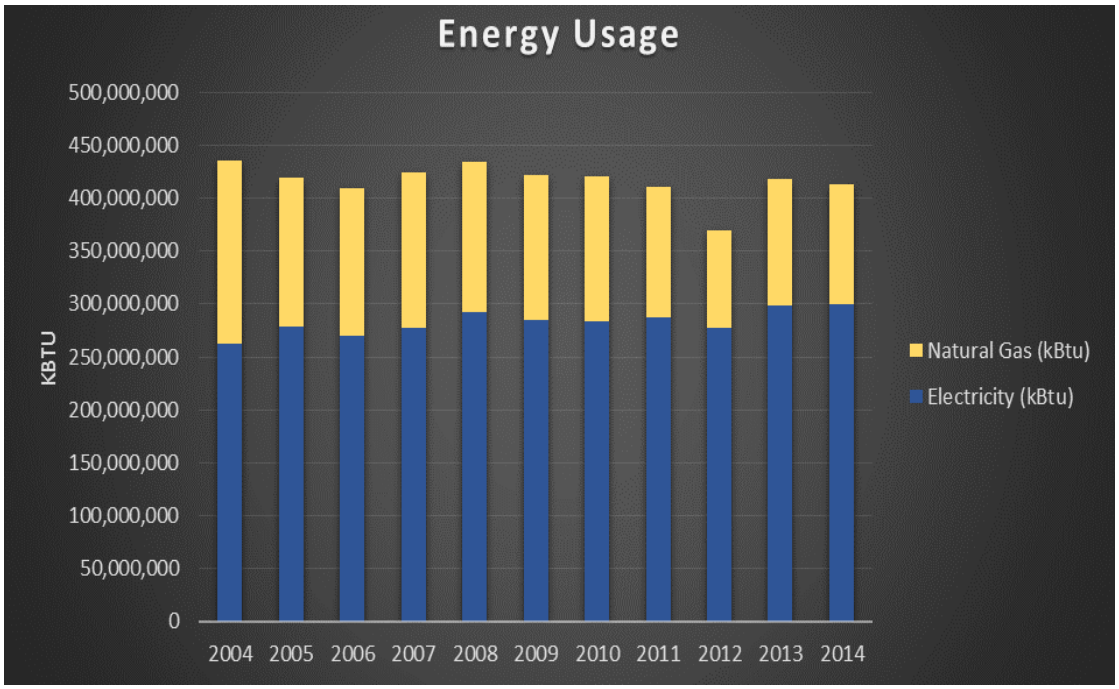
During the winter of 2013-2014 we all became familiar with the term "polar vortex." The polar vortex was especially meaningful in terms of our energy consumption too: the colder it is outside, the more energy a building will consume. Cold weather tends to cause more energy to be used by buildings than warm weather does, at least in Kentucky. We experienced more cold temperatures in Lexington, KY during the winter of 2013-2014 than we have in over a decade. Heating, ventilation, & air conditioning account for 50-60% of all energy used in a school building, therefore the more extreme the outside temperatures are, the more energy we can expect to use.



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Heating Degree Days	4487	4293	4310	4418	4471	4651	4782	4725	3806	4669	4854
Cooling Degree Days	1136	963	1383	1314	1462	1278	1165	1460	1279	1263	1289

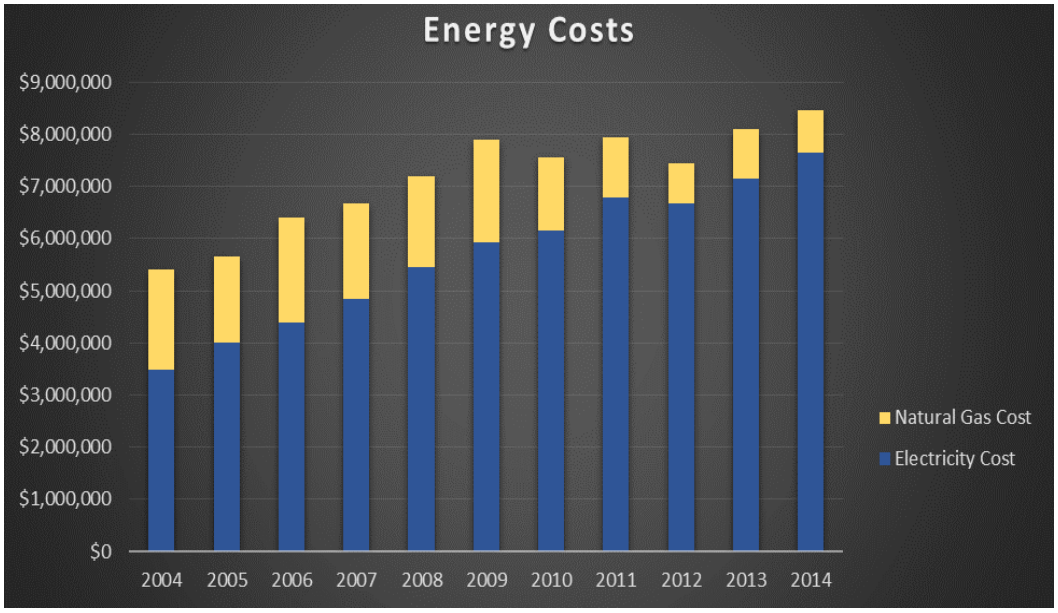
To determine a degree day a baseline temperature must be selected. For our calculations we used 65° Fahrenheit. If the temperature were 66° F for one full day, we would have one "cooling degree day" because it is warmer than the baseline temperature; if the temperature were 64° F for one full day, we would have one "heating degree day" because it is cooler than the baseline temperature.

One of the exciting things for FCPS during the last year is that despite an increase in colder temperatures compared to the previous year, the energy consumption actually declined. This was quite unexpected as the majority of districts throughout the state had a slight increase in energy consumption. The reduction in our energy usage despite factors that would normally cause an increase is a testament to the hard work of our custodial staff, maintenance staff, teachers, students, and principals that are all working together to make sure we are using our energy wisely.



Electricity bills provide energy usage in kWh (kilowatt-hours) and natural gas bills provide energy usage in MCF (thousands of cubic feet). Since these are different units of measurement, they must be converted into a common unit to accurately analyze data. To compare usage equally, they are converted to thousands of British Thermal Units (kBtu).

That good news was a prelude to the bad news. Despite reducing our energy consumption compared to the previous year **our energy costs still went up.** This is one of the biggest issues our district and every district in the state are dealing with right now. Costs for energy are rising quicker than they have in a long time. Increasing energy rates coupled with the fact that FCPS' student population has increased by 600-700 students every year for the past decade and construction and renovation have increased the size of our district on average by 100,000 square feet per year for 10 years are all factors that would normally lead to increased utility bills. We are ecstatic that we are seeing improvements in our energy consumption, but we are still working hard to reduce the impact seen in cost for the district.



What are we doing to reduce our utility bills other than trying to conserve energy?

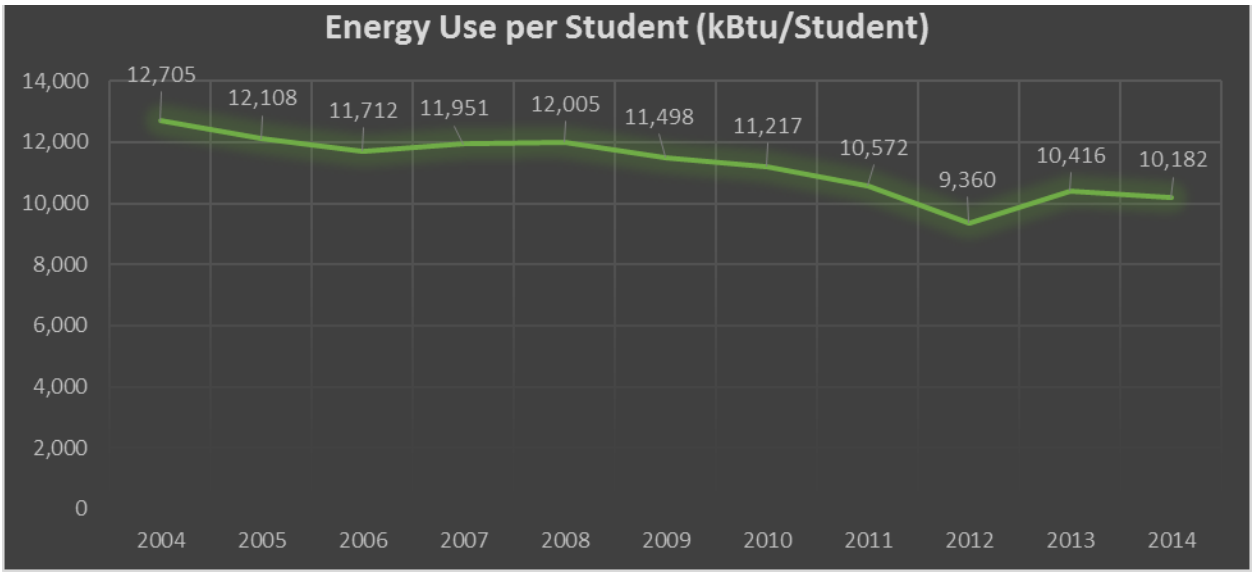
- In January, 2014, *FCPS Sustainability* analyzed the utility rate structures for every school in the district and was able to find more favorable rates for 26 schools that will provide a cost avoidance of $200,000 over the course of a year.
- Our KU representative is constantly checking to see if we have any more buildings and has been able to get a few more buildings on more favorable rates providing a cost avoidance of over $20,000 annually.
- We are partnering with the Kentucky School Board Association (KSBA) and all other districts that will be affected by KU's proposed rate increase and will intervene in the rate case with the intent of lowering the requested increase or providing more favorable

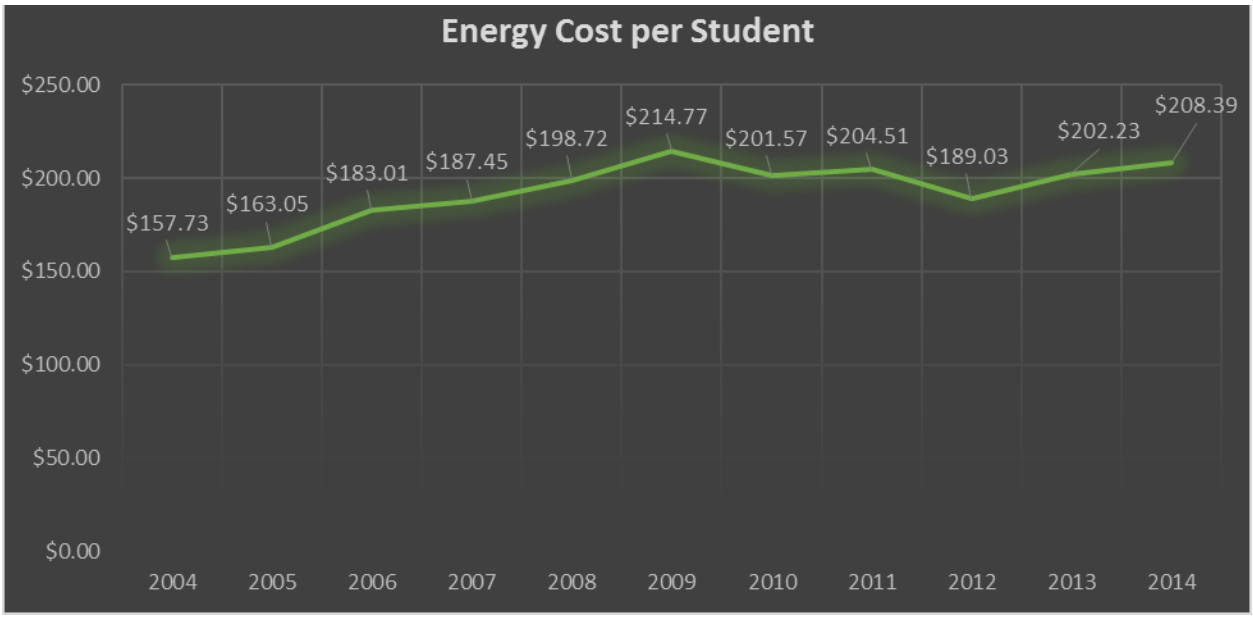
rates to schools that will lessen the impact of the rate increase. Upon final implementation of KU's rate increase, *FCPS Sustainability* will once again analyze every school's rate structure to make sure that every school is on the best rate for their usage.

- In July 2014 we partnered with Fellon-McCord through KSBA's Gas Aggregation Program for schools to acquire a new contract for natural gas prices. Although the natural gas contract price does equal a slight increase from last year's price, it represents a savings of nearly $150,000 annually versus what we would be paying had we decided against a long-term contract. These prices are locked in until the summer of 2016 when we will look at negotiating a new natural gas contract.

Per Student Data

Other data points of interest are the energy used per student in the district, as well as the cost of energy per student in the district. Of note in the next two graphs is the fact that even though our energy use per student has been on a steady decline for a long time, the energy cost seems to either be increasing or plateauing over the last few years. Again much of this can be attributed to rising utility costs.





FCPS is on a favorable course and we believe this trend will only continue as all stakeholders become increasingly engaged in our district energy efficiency and ecological footprints. Since the energy management program began in 2010, FCPS has been able to avoid the rapid increase in utility costs it had been experiencing for many years prior. Even though we will still see increases in costs due to rising utility prices, FCPS has seen a cost avoidance of over $2.7 million just from energy reductions alone when compared to 2010. That amount doesn't even include the cost avoidance from rate structure studies, natural gas contracts, rebate programs, and similar initiatives implemented for the district! Though localized weather patterns will continue to be an unpredictable factor in overall district energy costs, new technologies and increased awareness among our schools and community partners will allow FCPS to continue our trajectory towards improved monitoring, communication and management of our energy fiscal and environmental impact.

Energy Efficiency Initiatives

Demand Conservation Savings

During the summer of 2014, FCPS continued to participate in a demand conservation program with LG&E/KU to earn rebates by reducing electricity consumption during peak load times for KU throughout the summer. Our five high schools as well as Edythe J. Hayes and Bryan Station Middle Schools participated in the program and agreed to reduce their electricity consumption on potentially 10 separate occasions between the months of June and September, from 2:00 to 6:00 PM.

KU determined an amount of electricity that each building should try to shed using a baseline that was determined in May and agreed to compensate $25 for each kilowatt we were able to reduce during these events. Some schools were targeted as being able to reduce their consumption by greater amounts than other schools, which is why there is such a discrepancy between what each school earned. FCPS was able to shed its total electricity load by over 1 Megawatt (1000 kilowatts) during these events, resulting in over $27,000 in incentive money for the district. The summer of 2014 provided much warmer temperatures and greater humidity than the previous summer, so we were asked to reduce our usage 7 different times this summer, compared to the previous summer where we only were asked to reduce our usage twice. This made it much harder to meet or exceed all of our goals because for the first time we were asked to reduce our usage while school was in session in August, which is very hard to do. Even though not every school was able to meet its goals, we still had great participation and we have plans to participate in the program next summer and we are already planning on how we can ensure we can meet all the targets next year.

Each school that participated in the demand response events will receive 50% of its earnings while the remainder will be returned to the general fund.

	TOTAL EARNED	AMOUNT SCHOOL RECEIVES
Bryan Station Middle School	$855.09	$427.54
Edythe J Hayes Middle School	$1,354.02	$677.01
Henry Clay High School	$5,629.48	$2,814.74
Lafayette High School	$2,321.71	$1,160.85
Paul Laurence Dunbar High School	$8,176.43	$4,088.21
Tates Creek High School	$2,624.89	$1,312.44
Bryan Station High School	$6,937.10	$3,468.55
TOTAL	**$27,898.72**	**$13,949.34**

Live Energy Meters and EMC (Advantage Navigator) software

As part of a grant received in January 2013, live energy meters were installed on all FCPS buildings in June 2013, a major step towards allowing our team to monitor and manage energy in our buildings.

Why does this matter? It allows us to view peak usage times and develop action plans to reduce these peaks to minimize our demand charges. We can monitor building shutdown over weekends/breaks and equipment usage to identify energy waste. In short, as costly energy efficiency issues arise, our team is equipped to diagnose and respond.

The ability to analyze data in graphical format is one of the greatest tools the EMC offers. This software allows us to see both the energy usage at any school over a period of time and the power being drawn at any moment using stepped area graphing. This allows us to monitor electricity usage and compare energy curves to similar profiles to see how and when electricity is used. Our team is working with middle and high school E=USE^2 Teams to equip our teachers and students to monitor their own consumption, develop comparisons and goals and empower them to make small changes in their building that can add up to big savings.

We have been showing this software off everywhere we go. We train the students in our E=USE^2 teams on how to monitor their school's energy usage and how to spot potential issues. We teach the students the difference between power and energy and how both affect our utility bills. The software is currently undergoing a major overhaul that we expect to make the software much more

user-friendly and easier for everyone to access. Our hope is that once the software is upgraded we will be able to plug in our custodial staff and principals at all our schools so that this is something that they will be thinking about too. There are only two people in FCPS Sustainability, so it is tough to monitor all our schools all the time, which is why we hope to have as many eyes helping us out as possible.

Student-Driven Energy Conservation Projects

Launched in the 13-14 school year and continuing for the 14-15 school year, each school's E=USE^2 are awarded grant funds to design and implement a data-driven energy & sustainability improvement project in the following amounts:

Elementary: $1,000

Middle: $1,500

High: $2,000

Student-driven project design has been incorporated into E=USE^2 Step 4 to facilitate project planning and development to tailor projects to schools' individual sustainability goals. Each school's goals will be based on the STEM data students collect through Step 2 and EMC monitoring.


Popular items purchased through these projects include CFLs for teacher desk lamps, timed power strips, Vending Misers, school garden supplies, classroom recycling bins and LED desk lamps.

GBM (Green Building Monitoring)

A Green Building Monitoring (GBM) platform will begin development in partnership with Siemens in February 2015 that will pull together each school into an innovative, custom public portal to display energy and sustainability information to include live data, historical consumption, energy simulations, social media connections, cross-town competitions and blogging to allow students to feature and promote sustainability accomplishments, recognitions and goals unique to their school. Each school's E=USE^2 team will incorporate this robust and diverse data acquisition into STEM curriculum to interdisciplinary address content standards including Common Core, NGSS and Core Content. Data will guide and instruct each team's student-driven sustainability projects and initiatives. FCPS's GBM software will be the first of its kind in a US public K-12 school district, and we are eager to support implementation of the GBM in all of our classroom. At the time this report was generated, Siemens provided a snapshot template of FCPS's impending GBM below.

Quarterly Energy Report & Newsletter
It's About Sustainability

Since January 2014, FCPS Energy & Sustainability has provided energy consumption data and recognition through a quarterly newsletter by identifying schools in the following two categories:

Most Efficient (Energy Usage Intensity, kBtu/square feet)
Super Savers (Overall reduction compared to itself one year prior)
Go Green + Earn Green (fiscal incentive that provides 10% energy savings to any school that reduces their consumption 5% or more compared to themselves one year ago) *Go Green + Earn Green funds may be invested in student-driven sustainability improvement or any school need as identified by the principal.*

In addition to newsletter recognition, each identified school is provided the resources to celebrate within their school community through announcements, a special recognition ceremony and featured on It's About Sustainability and www.Sustainability.FCPS.net.

In addition to school-level recognition for reduced energy consumption, the It's About Sustainability Newsletter also provides updates on E=USE^2 resources, Sustainability + STEAM opportunities, conservation tips and local recognition opportunities.

Each quarterly newsletter is posted on www.Sustainability.FCPS.net.

WELCOME BACK TO SCHOOL!

IT'S ABOUT SUSTAINABILITY AT FCPS

DID YOU KNOW?

Thanks to the hard work of our students and staff, FCPS has diverted over **$5 Million** from utility providers back into our classrooms.

Keep up the great work!

GO GREEN + EARN GREEN

Earn 10% of your school's energy savings through easy student-driven and staff habits. Our schools earned **$40,000 during the 13-14 school year** through Go Green + Earn Green. See how your school stacks up in our quarterly newsletters.

Want an energy audit performed for your E=USE^2 Team and staff to reduce your school's usage? Please contact Logan Poteat.

Contact us

Tresine Logsdon
Energy & Sustainability Curriculum Coordinator
(859) 619-6472
tresine.logsdon@fayette.kyschools.us

Logan Poteat
Energy & Sustainability Manager
(859)619-6635
logan.poteat@fayette.kyschools.us

Energy Efficiency & Sustainability Tips

- If you are going to leave your area for more than 5 minutes, turn the lights off.
- If you have an adjustable thermostat, turn the temperature up 1-2 degrees during warm months and down 1-2 degrees during cold months.
- Keep your doors (including classroom doors) and windows shut if your room is being heated or cooled.
- Consider sharing personal appliances with co-workers in your same area and removing excess mini-fridges, coffee pots, etc.
- If you are using a mini-fridge, they are much more efficient if they are full. Don't keep a mini-fridge just for a sandwich and a soda. Keep it full & share it with your neighbors!
- Report malfunctioning equipment.

14-15 E=USE^2 Team Updates

- **$1,000-$2,000 mini-grants for sustainability projects**
- **STEAM-imbedded online portal for live energy consumption**
- **City-wide collaboration**

It's about Sustainability.

SUSTAINABILITY.FCPS.NET

Energy Saving Lunches

FCPS Child Nutrition has partnered with our student energy teams to host a monthly Low Energy Day in every elementary and middle school. During Low Energy Day events, school cafeterias conserve energy by serving nutritious lunches that do not require the use of ovens, steamers, dish machines and exhaust fans. The monthly energy saving lunch has generated a great deal of enthusiasm among our student energy teams and the reduced consumption can now be tracked by students with our new EMC live monitoring software.

Go Green + Earn Green

In September 2012, FCPS launched **Go Green + Earn Green** as a means to recognize and reward school communities for their reduced energy consumption, *compared to themselves one year ago*. **Go Green + Earn Green** allows schools who reduce their energy consumption 5% or more to earn up to 10% of the savings. Additionally, the top ten most efficient schools (five elementary, three middle, one high and one special school) each month earn an additional $100. Elementary schools will be able to earn a maximum of $1500 total per year, middle and special schools $2,000 and high schools $2,500. These funds may be used towards student-drive sustainability initiatives or towards a school-wide need as identified by the administration and faculty. Below are the charts identifying the schools and reward amounts for August-October 2014.

We believe **Go Green + Earn Green** provides a critical component to empowering and incentivizing our school communities to collaboratively improve sustainability at their schools. Administrators, teachers and students have offered significant positive feedback from this incentive program.

School	August FY2015		September FY2015		October FY2015		TOTAL
	Go Green + Earn Green Awards	Most Efficient Award	Go Green + Earn Green Awards	Most Efficient Award	Go Green + Earn Green Awards	Most Efficient Award	
Arlington		$100.00					$100.00
Ashland							
Athens Chilesburg							
B. T. Washington Int.	$79.91		$52.19				$132.10
B. T. Washington Pri.	$126.10		$241.09		$54.44		$421.62
Breckinridge							
Cardinal Valley							
Cassidy							
Clays Mill	$144.95				$62.99		$207.94
Deep Springs							
Dixie	$119.33		$54.55				$173.88
Garden Springs			$140.56	$100.00			$240.56
Glendover	$490.90	$100.00	$282.76	$100.00			$973.65
Harrison					$362.59		$362.59
James L. Allen							
Julius Marks	$239.69		$153.25				$392.95
Lansdowne							
Liberty	$92.97		$86.08		$147.96	$100.00	$427.02
Mary Todd					$95.76		$95.76
Maxwell	$67.19						$67.19
Meadowthorpe							
Millcreek	$72.45	$100.00	$385.16		$55.53		$613.14
Northern	$102.59		$138.18		$95.39		$336.16
Picadome							

Rosa Parks					$57.57		$57.57
Russell Cave					$59.87	$100.00	$159.87
Sandersville	$58.88		$73.66				$132.54
Southern	$273.43		$132.30		$61.63		$467.37
Squires			$384.08	$100.00	$46.04		$530.12
Stonewall							
Tates Creek ES	$209.51				$63.08		$272.59
Veterans Park			$107.74				$107.74
Wellington		$100.00		$100.00	$109.65	$100.00	$409.65
William Wells Brown		$100.00	$129.16			$100.00	$329.16
Yates				$100.00		$100.00	$200.00
Beaumont	$134.15						$134.15
Bryan Station MS		$100.00				$100.00	$200.00
Crawford			$130.79				$130.79
Edythe J. Hayes	$249.53		$185.79				$435.33
Jessie M. Clark	$121.67	$100.00				$100.00	$321.67
Leestown		$100.00		$100.00		$100.00	$300.00
Lexington Traditional	$79.08		$174.54	$100.00			$353.62
Morton	$181.78				$147.51		$329.30
SCAPA	$188.08		$264.84	$100.00	$100.31		$653.23
Southern MS	$158.44						$158.44
Tates Creek MS	$257.84						$257.84
Winburn	$648.73				$141.88		$790.61
Bryan Station High			$514.14	$100.00	$263.25	$100.00	$977.39
Henry Clay High	$754.95	$100.00					$854.95
Lafayette High	$1,020.03		$1,161.64		$318.32		$2,500.00
PL Dunbar High School	$1,320.70						$1,320.70
Tates Creek High							
Eastside Tech	$132.21		$143.46		$146.76		$422.42
STEAM Academy			$159.89	$100.00	$200.18		$460.07
Learning Center	$40.05		$49.52		$238.18		$327.75
Martin Luther King Jr. Academy			$143.68		$167.28		$310.96
Southside Tech	$21.37	$100.00				$100.00	$221.37
Locust Trace AgriScience Farm*							
Total	$7,386.49	$1,000.00	$5,289.05	$1,000.00	$2,996.20	$1,000.00	$18,671.74

*LTAF Not eligible for Most Efficient Award

Sustainability, Energy, and Environmental Education

E=USE²

Education leads to **U**nderstanding **S**ustainability, **E**nergy and the **E**nvironment continues to engage, celebrate and empower our students to analyze their own collected data to design and implement awareness and sustainability improvement projects in partnership with numerous and diverse community partners.

www.Sustainability.FCPS.net

E=USE^2 works in conjunction with the Kentucky NEED Project, KGHS (KY Green & Healthy Schools) and Bluegrass Greensource LiveGreen Lexington program and provides students, administrators, faculty, staff and community partners with guidance to help make informed decisions about sustainable practices and environmental efficiency for the well-being and benefit of the Lexington-Fayette County area and social, environmental and economic health of our community.

By choosing smart, sustainable options, schools improve students' environmental literacy, save natural and financial resources and provide healthier, more effective learning environments by applying 21st Learning and STEM skills. E=USE^2 is based on five basic principles: assessment, raising awareness, educating, monitoring, projects and partnerships (A.R.E.M.P^2).

For the 14-15 school year, E=USE^2 has been revised to purposefully address the following guidelines standards in the 4th, 7th and 11th grade strands:

- Next Generation Science Standards
- STEAM with emphasis on inquiry-based learning and engineering practices
- Common Core
- KY Core Academic Standards
- National Environmental Education Association Excellence in Education Guidelines

Content taught during E=USE^2 lessons include:

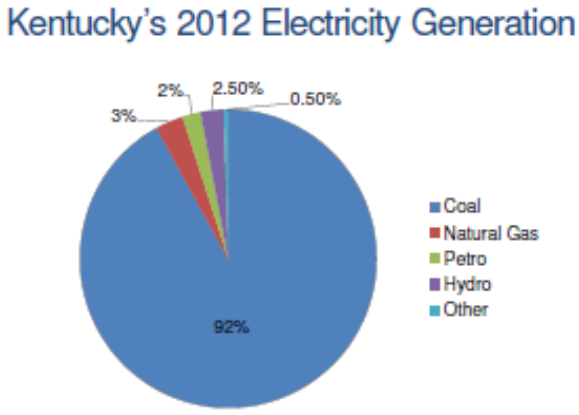
- Energy Transformations/Energy flow through the Earth
- Renewable vs non-renewable energy sources
- Fossil fuel formation, extraction and application
- Photosynthesis/cellular respiration
- Sustainability defined (environmental, physical, economic factors)
- Energy conservation/energy solutions
- Global climate/weather patterns and energy transfer
- Anthropogenic environmental impacts
- Population dynamics
- Data and graph analysis
- Human Wellness
- Fission vs fusion, nuclear decay

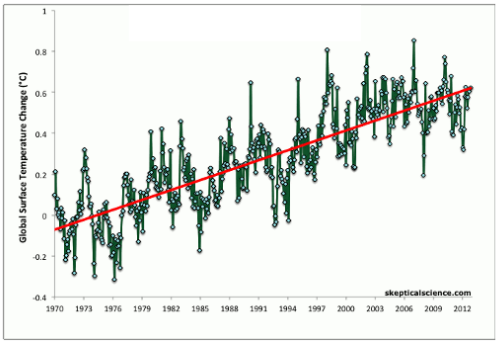
Each of our schools have an E=USE^2 team and each school's E=USE^2 team is unique, ranging in student participation from 8 students to 140. The approximate number of students actively engaged in implementing E=USE^2 (investigations, data analysis, awareness campaign, project design) in all of our schools is 1,400. Because Energy & Sustainability Improvement projects improve energy and sustainability on a broad, campus-wide scale, up to 40,000 students of Fayette Co Public Schools are positively impacted by the E=USE^2's student-driven sustainability improvement project, awareness campaigns and school-based initiatives.

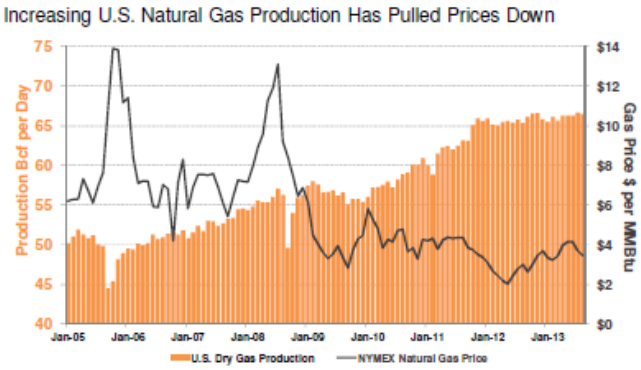
Through their E=USE^2 team of students and teachers, schools implement the following 6 steps of E=USE^2.

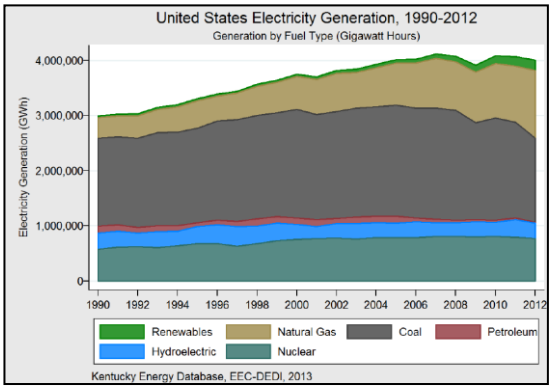
Step 1: Form an E=USE^2 Team

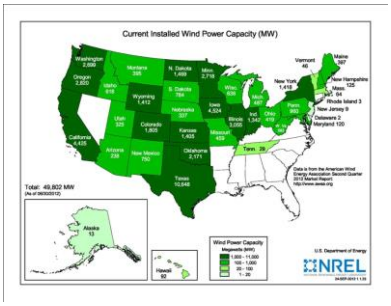
Step 2: Conduct four energy consumption assessments (plug load study, light level survey, secret audit, KY Green & Healthy Schools Energy Inventory); interpret and analyze data related to local, national and global sustainability.







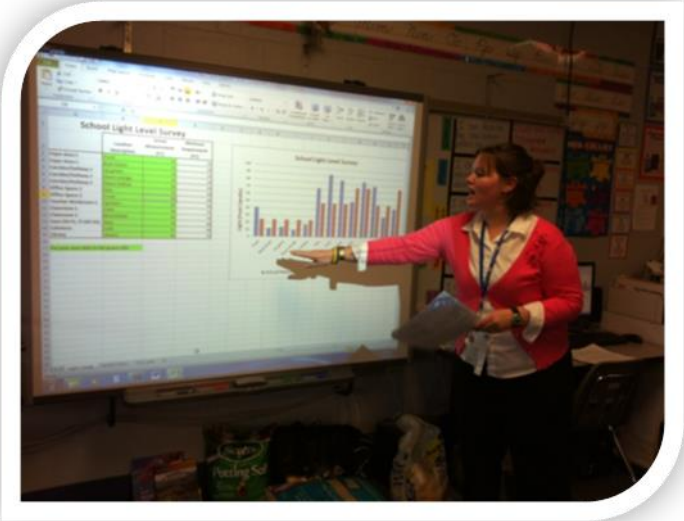




Step 3: Raise awareness of energy and sustainability initiatives through a district Earth Day poster initiative, student-produced awareness video, light switch face plate/exterior door/appliance stickers and monthly energy audit patrol Thank You and Ticket Post Its©. New 13-14, student teams wear Power Patrol badges during Monthly Patrols.

Step 4: Monitor live energy consumption data and design and implement a grant-funded sustainability improvement project in partnership with UK College of Education for STEM and Our Environment.

- Graph student-collected data to interpret and analyze results of Plug Load study, Light Level Survey, Monthly Patrol Audits
- Access and analyze EMC school-specific energy consumption data and compare to baseline and similar age, size FCPS school
- Complete Project Action Plan for grant-funded projects



Step 5: Design and construct a KY NEED Youth Awards for Energy Achievement portfolio

Kentucky NEED Project
Putting Energy into Kentucky Schools

Step 6: Recognition and Reward

At Bluegrass Youth Sustainability Council's annual Earth Day Celebration, schools are recognized and rewarded for their achievements in environmental literacy and improvements in school-wide sustainability by FCPS (E=USE^2), KY Green & Healthy Schools, KY National Energy Education Development Project, KY American Water and Bluegrass Greensource.

livegreenlexington PARTNER

KENTUCKY GREEN AND HEALTHY SCHOOLS

Design 101 and Renovation 101 Teams

Five schools are under renovation during the 14-15 school year and have engaged a team of students to serve as liaison between their school renovation and school community through a Renovation 101 Team.

The instructional objective of these teams is to incorporate "green" infrastructures with instructional strategies, acquaint students with architect and engineering career pathways, and train E=USE^2 students as liaisons to the school community on design progress and the benefits and functionality of sustainable, high performance components of the renovation. E=USE^2 students met with architect/s and engineers monthly to interpret site plans and construction documents, take hard hat tours, practice architectural techniques, engage in hands-on learning with models and discuss many components of the school renovation. Students use this information to develop a PowerPoint presentation to be delivered at faculty meetings and for parents at Open House.

14-15 Renovation 101 Teams
Deep Springs Elementary
Garden Springs Elementary
Glendover Elementary
Jessie Clark Middle School
Squires Elementary

Bluegrass Youth Sustainability Council

Since May 2014 the Bluegrass Youth Sustainability Council has received four local, state and national recognitions:

- KY Environmental Quality Commission Earth Day Award
- Lexington Environmental Commission Award
- National Energy Education Development Project Rookie of the Year Award
- US Green Building Council Best of Green Schools, Student Leadership

The Bluegrass Youth Sustainability Council continues its 4th year, this year under the leadership of PLD senior Student Facilitator Millie Ma.

The BYSC consists of students from eight area high schools: Bryan Station, Henry Clay, Lafayette, Lexington Catholic, Lexington Christian, PL Dunbar, Sayre Upper and Tates Creek.

ww.Sustainability.FCPS.net

For the 14-15 school year, the Council has formed a record **fourteen project committees** made up of a cross-section of its members to address a variety of their goals in cooperation with community partners.

Energy Audit Committee

This committee partners with FCPS IAKSS, Lexington Commerce Center, and LFUCG Government Center to conduct an energy audit by collecting occupant behavior data. This committee plans to graph, analyze and present their findings to each community partner. Since spring 2014, this committee has presented their findings for five audiences:

- KY Association for Environmental Education Conference
- Sierra Club Bluegrass Chapter
- Forever Green, Bluegrass Tomorrow
- FCPS Administration
- LFUCG Administration

Stadium Dual Stream Waste Receptacle Committee

This committee developed the goal of identifying community partners to help fund the purchase of two outdoor dual-stream recycling/waste receptacles for each member high school's football stadium. In spring 2014, this committee purchased a dual stream waste receptacle (accepts recycling and landfill-bound waste) for each of the eight member high schools. Due to popular demand, this project committee has re-formed to provide an additional dual stream receptacle to each high school. Because of their partnership with Max-R Recycling, the BYSC was offered a free, customized bin which they chose to donate to the IAKSS administrative building, to be delivered March 2015.

Networking Committee

This committee's primary goal is to open up dialogue between high school Green Teams and elementary/middle school teams through classroom visits and a quarterly newsletter. Students visit elementary and middle school science classrooms and Green Teams to discuss how to get involved in student-driven sustainability at high school and share best practices, achievements and lessons learned. A portion of the committee's spring 2014 newsletter is below.

The Bluegrass Youth Sustainability Council

Who we are

The Bluegrass Youth Sustainability Council (BYSC) is made up of environmentally passionate students from Fayette County's public and private high schools (Tates Creek, Henry Clay, Dunbar, Lafayette, Bryan Station, Sayre, Lexington Catholic, Lexington Christian Academy, and Montessori High School). Mentored by Tresine Logsdon, we meet monthly to discuss collaborative projects, short-term and long-term goals, partnership prospects, leadership examples and post-secondary opportunities in sustainability and energy management. You may have seen us crop up here and there in the last few years. For example, we are the ones who had the water-bottle refill stations installed in all Fayette county high schools! We also organized the Bill-Clinton Earth day celebration, IdeaFest collaborations etc. One of our basic principles is our belief in working collaboratively among our members and building alliances with community partners such as Bluegrass Greensource, Sustainable Communities Network, KY National Energy Education Development Project, KY American Water, Seedleaf, LFUCG Division of Environmental Policy, KY Green & Healthy Schools, KY Association for Environmental Education and UK Student Sustainability Council and Transylvania Student Sustainability Councils and Transylvania Environmental Action League (TEAL).

The BYSC serves as an excellent leadership and collaborative opportunity for our area youth who deeply care about environmental quality and are motivated to work together with local experts and volunteers on projects to improve sustainability. Simply put, the BGYSC is a team of likeminded individuals ready to promote our cause throughout our community and our world.

In short, here's what you really need to know:

1. The BYSC provides unique opportunities to be INNOVATIVE, together
2. We are interested in advancing the sustainability movement by connecting with other green organizations such as high school green teams
3. You are the adults that we have identified as the Green-team leaders for your school

Our Current Members

Thank you for serving as the Council's identified liaison to your school. Many of the students listed below serve because of your recommendation.

Bryan Station High School: Sara Arthur-Paratley, Ella Helmuth, Maggie Newell

Henry Clay High School: Claire Gardner, Grace Goulson, Erin Holbrook, Alaap Patil, Ben Swanson, Lucy Wan

Connect with Us

If you are the teacher leader of an Environmental/ Sustainably oriented group at your school, we invite you to attend one of BYSC's meetings when in your school building.

Schedule of Tuesday meetings:

February 11: PL Dunbar High School
March 4: Lexington Christian Academy
April 8: Lexington Catholic High School
April 22: Lafayette High School
May 6: Tates Creek High School

Let's partner! The BYSC wants to collaborate with your school's Green Team. Please pass this newsletter on to your Green Team's student leadership and reach out to Emma to discuss cooperative projects.

Contact information

Marie Armbruster (Student Facilitator): **mearmb@gmail.com**

Tresine Logsdon (Teacher Facilitator): **tresine.logsdon@fayette.kyschools.us**

Emma Anderson (Networking Committee Chair): **riverbeing@yahoo.com**

www.sustainability.fcps.net/BYSC

Running Waters 5K

This committee is partnering with the University of KY Student Sustainability Council and Running Waters, Inc to host a spring 2015 Earth Day 5K to raise awareness and funds to improve access to clean drinking water. At the time this report was generated, the Running Water project committee had secured a verbal commitment from UK Student Sustainability Council and John's Run Walk Shop to facilitate their event.

Storm Drain Murals

This project committee is partnering with Lexington's Youth Arts Council to design and install oil paint murals on campus storm drains to raise awareness about non-point pollution of our freshwater waterways. The first installed mural was at Bryan Station High School (right).

Styrofoam in the Cafeterias

This project committee's goal is to explore more sustainable options to Styrofoam trays and containers and disposable cutlery in FCPS school cafeterias. In December 2014, student committee chairs met with FCPS Child Nutrition Director Michelle Coker and Program Coordinator Wendy Young December to discuss their proposal which included cost-efficient alternatives and occupant behavior modifications to allow the application of reusable trays in high schools. At the time this report was generated, students are working on a revised proposal and are scheduled to meet with Ms Coker and Ms Young again January 22nd to form a better understanding of the fiscal implications of transitioning away from Styrofoam towards reusable trays.

Composting in Cafeterias

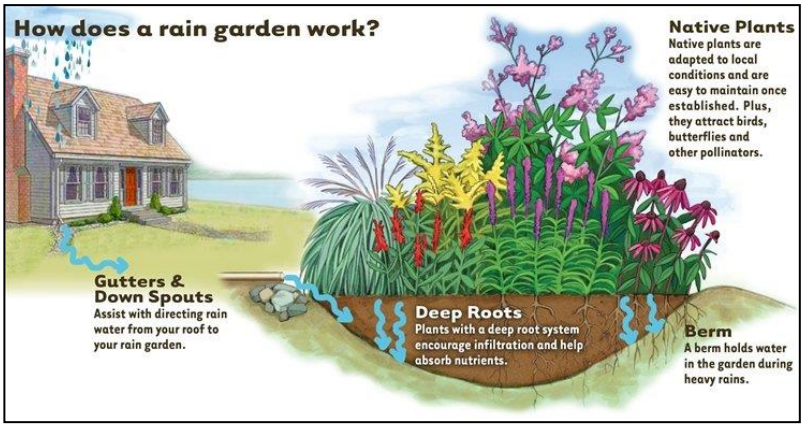
This project committee's goal is to establish a model cafeteria composting program in Tates Creek High School. At the time of this report's generation, this committee planned to meet with Bluegrass Greensource and TCHS's Cafeteria Manager to review the *FCPS Composting Manual for Schools* and discuss an action plan to move forward.

Recycling Awareness

The Recycling Awareness project committee is partnering with the Bryan Station High School TV Film Production team as well as a local production company to write, direct and produce a public service announcement to be aired in all FCPS schools by Earth Day 2015. The primary goal of their public service announcement is to raise awareness and remind FCPS students, teachers and occupants what is recyclable and the financial, environmental and environmental literacy benefits to recycling in our schools.

Rain Gardens in Schools

This committee has identified 10 FCPS elementary and middle schools who have installed a campus rain garden in the last six years and reached out to the Green Team sponsor for each school to work with elementary/middle school students on the biodiversity, stormwater quality, aesthetic and instructional benefits of campus rain gardens. This committee is developing a *School Rain Garden 101* pamphlet that succinctly describes rain garden benefits and outlines the steps to nurture, maintain and grow a campus rain garden using the *FCPS Rain Garden Manual for Schools*.



Vintage Vinyl Recycling

When Lexington's NPR affiliate WUKY reached out to the Bluegrass Youth Sustainability Council to partner on a vintage vinyl recycling project, five BYSC members immediately stepped up to lead the cause. WUKY Manager Tom Godell is working with this committee to collaborate with Lexington ReStore and WUKY for its third annual

Vintage Vinyl sale to upcycle ususued LPs by making and selling coasters, bowls, etc in April 2015 for a BYSC fundraiser. At the time of this report was generated, this committee is in talks with WUKY and Lexington ReStore to fully define the BYSC's role and contributions.

Urban Tree Initiative and Seeds of the Future

The University of KY Urban Tree Canopy Initiative reached out to the Bluegrass Youth Sustainability Council in October 2014 to engage area high school youth in the economic, ecological and aesthetic value of urban trees. "The physical beauty of UK's campus is one of the many attributes that makes us an attractive place to learn and work," said President Eli Capilouto. "Inviting outdoor landscapes add a rich dynamic to a college campus—fostering collaboration among students, faculty and staff, and welcoming university visitors. This initiative with further enhance our green spaces amid Lexington's urban environment." The project includes over 200 trees being planted by Fall 2015 in 16 designated areas of enhancement throughout UK's campus to provide human connection to nature, ecosystem benefits, aesthetic value, use and efficient land use management. In this partnership, BYSC students are learning that urban trees provide shade, mitigate stormwater runoff, filter harmful pollutants form the air and water, and increase building energy savings. Students also learned that Louisville, KY has been identified as having the worst heat island effect among US largest 50 cities. This committee's primary goal is to raise awareness of the importance of an urban tree canopy among Lexington students and teachers and explore ways to protect and preserve existing K-12 school campus trees in partnership with UK's Urban Tree Canopy Initiative and US

2015 Earth Day Celebration + Bluegrass Earth

Bluegrass Earth (idagrounds.com/bluegrassearth) was formed June 2014 to create a collaborative, synergistic team of local stakeholders to pool together and capitalize on existing resources, networking and events to celebrate the 45th anniversary of Earth Day with a regional music festival, keynote speaker and film festival. This team includes local organizations such as WUKY, UK Dept of Sustainability, Bluegrass Greensource, Lexington Public Library, Sustainable Community Network, Bluegrass Youth Sustainability Council, KY Audubon Society, UK Arboretum, Bluegrass Tomorrow and Fayette Co Public Schools and is modeled after Cincinnati's *Green Umbrella* and Lousiville's *Partnership for a Green City* to improve sustainability with bottom-up collaboration, top-down support, stated goals, objectives and a focused, aligned plan of action. Student representatives from the Bluegrass Youth Sustainability Council has attended each of Bluegrass Earth's monthly meetings and are active participants in the discussion, decision-making and planning of Earth 2015 events. For their 4th annual Earth Day Celebration, the BYSC will again partner with KY Green & Healthy Schools, KY National Energy Education Development Project, Bluegrass Greensource and UK Student Sustainability Council to host their Earth Day Celebration during Earth Week 2015.

For the BYSC's April 2014 Earth Day Celebration, Lexington native Ben Sollee served as their keynote performer at Transylvania University's Haggin Auditorium to celebrate all public and private schools for their sustainability achievements. Prior to the event, the Council hosted a Sustainability Fair featuring dozens of booths from community partners and local schools as well as a Local Food Sustainability Snack Booth in partnership with the Lexington Farmers Market.

School Gardens + The School Garden Coalition

There are currently 35 school gardens of all types and sizes in our schools and a great deal of enthusiasm among parents, students and teachers for outdoor classroom space that includes rain gardens, community gardens, vegetable gardens, sensory gardens, herb gardens, etc. FCPS's School Garden Coalition, made up of teachers, parents and students interested in supporting school gardens and outdoor classrooms at their school, has formed a robust

partnership with community associates such as UK Extension, Farm Bureau, Locust Trace Agriscience Farm, University of KY College of Agriculture, Whole Foods, FCPS Grounds, FCPS Child Nutrition, Good Foods Coop and Bluegrass Greensource. This alliance will provide unprecedented support, guidance and resources for teachers and parents to design, install and maintain school community, rain and vegetable gardens.

New for the 2014-2015 school year, FCPS Sustainability is partnered with EJ Hayes MS, UK College of Ag, and UK College of Education to develop an exploratory 9-week middle school Horticulture & School Garden course launched at EJ Hayes during the 14-15 school year. The standards-based framework of this course includes:

- Plant structure and function
- Gardens as ecosystems
- Relationships between interdependent biotic and abiotic factors
- Human and gardening impacts of agricultural practices
- Anatomy, classification and roles of agriculture hurdles such as weeds and insects
- Sustainable agriculture techniques
- Health, economic and environmental benefits of local food

Farm To School

Fayette County's Farm To School program has experienced extraordinary growth and development during the 14-15 school year. A highly collaborative initiative that includes community partners such as Fayette County Child Nutrition, Fayette County Health Department, UK Extension, Lexington Farmers Market, Farm Bureau, UK College of Ag, Locust Trace Agriscience Farm and Local Food Association, Fayette County Farm To School's mission is

www.Sustainability.FCPS.

to empower youth to make healthy lifestyle choices by promoting the benefits of consuming locally grown and produced foods.

For the 14-15 school year, Fayette County Farm To School has piloted a revised curriculum model for 4th and 5th grade students that includes three 45-minute lessons to teach environmental, economic and human health benefits of local food. Each lesson is accompanied by a local food Taste Test such as local kale chips, blueberries, sweet potatoes and honey. New for the 14-15 school year to accommodate increased demand, Farm To School is developing a teaching kit and funding model to allow classroom teachers to implement the Farm To School model independent from a F2S representative.

No Idling Campaigns

In partnership with the KY Division for Air Quality and Earth Day Network©, six elementary, three middle and one high school have implemented a No Idling Campaign that was strictly voluntary, student-driven and included measurable benchmarks. To implement a No Idling campaign, students and teacher are trained on how to collect pre/concurrent/post campaign data and provided with awareness and communication tools (flyers, newsletter templates, pledge cards, car tags, Thank You notes) to keep parents informed of the health, economic and environmental benefits of No Idling, particularly in afternoon carpool lines. All participating schools experienced a reduction of 40% idling with some achieving a 60% reduction. FCPS has been recognized by KY Division for Air Quality and nominated for the KY Association for Environmental Education special project award.

Siemens FUSE Partnership

In November 2014, Siemens (global energy company) and Northwestern University traveled to Lexington to partner with STEAM Academy, The Learning Center and Bryan Station High School students to launch FUSE, an interest-driven program developed by researches at Northwestern University to engage students in STEM disciplines. Through the FUSE program, students were encouraged to "hang out, mess around and geek out" while learning numerous skills sets and discussing the project with professional scientists, engineers, advanced undergraduate and graduate students as mentors to provide real-world connections to the concepts they learned and practiced through the FUSE challenges. Siemens, a long-time vendor for FCPS control equipment and software, provided the materials and student/teacher training at no cost. At the time this report was generated, the three pilot high schools are expanding the FUSE program in their classrooms with the expectation that more students and teachers will be trained Fall 2015 on the Solar Roller Car and Wind challenges.

Green Ribbon Green Strides Tour: Healthy Schools, High-Achieving Students

Representatives of the U.S. Department of Education visited Fayette County Public Schools Aug. 20-21 to tour our three schools who have achieved national Green Ribbon School designation for their environmental efforts: Rosa Parks Elementary, Locust Trace Agriscience Farm and Wellington Elementary. FCPS is the only KY school to earn Green Ribbon School distinction since the program was launched in 2012. Our 2015 Green Ribbon School nominee is Bryan Station Middle School.

Green Ribbon schools are recognized for:

- reducing environmental impact and costs
- improving the health and wellness of schools, students and staff
- providing environmental education among many disciplines, and especially incorporating Science, Technology, Engineering and Math (STEM), civic skills and green career pathways.

During the student-led tour, US Dept of Education representative Andrea Falken and KY Education Commissioner Terry Holiday heard how students lead the charge towards significant energy reduction, spearhead building recycling and are the designers behind outdoor classroom space. The tour was a result of a partnership between KY Environmental Education Council, US Department of Education, KY Dept of Education, KY School Board Association, KY National Energy Education Development project, KY US Green Building Council, KY Association of Manufacturers and honorees of the US Green Ribbon Schools program.

Green Career Fair

In partnership with Bluegrass Greensource, FCPS launched the first annual Green Career Fair in October 2014 at Locust Trace Agriscience Farm. The Fair invited hundreds of students from Bryan Station HS, Tates Creek HS, The Learning Center and five other regional high schools outside of Fayette County to expand their understanding of green jobs and green business to prepare them for innovative careers in the rapidly growing green economy. Our first Green Career Fair built collaborative relationships between students and the green business sector by acquainting students with professionals in green careers and promoting quality employment opportunities. Businesses participating in the Green Career Fair were carefully selected to teach students how business can improve the environment and promote innovative thinking. The Fair also promoted an understanding of Business Literacy and Environmental Literacy through interactive activities for students to maximize learning through creativity, business innovations and business communication skills. Participating businesses included Big Ass Solutions, KY American Water, Alltech, Food Chain, UK Department of Forestry and KY Excel.

2014 Green Apple Day of Service

Fayette County Public Schools is the only KY school district to host a US Green Building Council Green Apple Day of Service since its launch in fall 2012. In September 2014, a team of Russell Cave students, parents and teachers teamed up with local community partners and the Tates Creek High School men's Lacrosse team to maintenance their outdoor

classroom, plant native flowers, build walking pathways, and install raised beds.

As part of their Green Apple Day of Service, Crawford Middle School partnered with SKANSKA USA Building to install four raised beds and launch their first outdoor classroom.

Green Apple Day of Service is an initiative from the Center for Green Schools at the U.S. Green Building Council and rallies advocates around the nation to take action in their communities through service projects at local schools. The 3-yr-old initiative gives students, families, teachers, organizations and companies a chance to ensure schools are healthy, safe, cost-efficient and productive learning places. Among area businesses that pitched in to donate supplies, labor or snacks are Whole Foods, Gault's Lawn Care, Leachman Landscape Design, SKANSKA USA Building and CDP Engineers.

Miscellaneous Sustainability & Environmental Education Updates

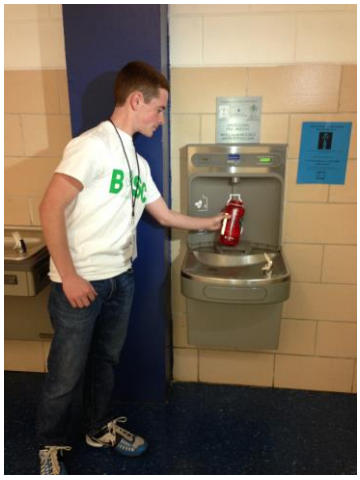
- Provide comprehensive, year-long curriculum, mentoring and support for all FCPS AP Environmental Science curriculums. Tresine Logsdon serves as a consultant for Advance Kentucky (National Math and Science Initiative), Table Leader for College Board AP Environmental Science Reading and as an KY Professional Environmental Education Certification Model Teacher.

- E=USE^2 Teams applied E=USE^2 content knowledge to their visit and tour of Locust Trace Agriscience Farm. Students from Ashland Elementary, Leestown Middle and Tates Creek High school participated in energy and sustainability activities and discussion along with student-led tours of the sustainability components of Locust Trace Agriscience Farm including renewable energy technology, stormwater management, energy conservation measures, sustainable agriculture and Career and Technical Ed curriculum.

- To engage students into the STEM design of the new high school, Henry Clay HS senior Ben Gardener is dedicating his senior mentoring project to building a team of future occupants and stakeholders of the new high school to the collaborative and architectural strategies and approach to the new high school design. In spring 2014, Ben facilitated a Student Focus Group made up of students from EJ Hayes Middle, Crawford Middle, Carter G Woodson Academy, Bryan Station HS and Henry Clay HS to solicit qualitative ideas and quantitative feedback on the new FCPS high school design. Tresine Logsdon supervises the New High School Student Focus Group and TateHillJacobs Architects Susan Hill and Sabrina Oaks advise.

- In partnership with Seedleaf and KY State University, E=USE^2 and Marine Science students at Tates Creek High School are raising largemouth bass and growing vegetables without soil in a new three-level aquaponics system, which recycles water in a sustainable food-production model. In the simple setup, large mouth bass produce large volumes of ammonia-rich waste that nitrogen-fixing bacteria quickly convert to nitrite and nitrate that the plants need. The plants in turn filter the water by removing nitrates which is then returned to the fish tanks. This system--monitored, maintained and eventually harvested by students--is used to demonstrate plant life cycles and structure, nutrient cycling, high-yield gardening, ecological issues, biodiversity, and sustainable farming. TCHS's system will be used as a model for subsequent aquaponics systems in our schools.

- New in spring 2015 and by popular demand, KY American Water has revised its Excellence in Water Education award program to offer five FCPS schools an opportunity to earn a free water bottle refilling station for their school to encourage the use of reusable water bottles, discourage the use of disposable plastic bottles and promote the healthy habit of drinking water. This is the ripple effect of a 2013 partnership between KY American Water and the Bluegrass Youth Sustainability Council to install two water bottle refilling stations in all Lexington public and private high schools. As enthusiasm for water bottle refilling stations has spread to our elementary and middle schools, KY American Water invites any FCPS school to earn a station in exchange for filming and producing a public service announcement on *The Value of Water: From River to Tap*.



Recognition & Awards

- National Green Ribbon Award, Wellington Elementary
- 13 total schools have been Energy Star certified in FCPS: Arlington Elementary, Athens-Chilesburg Elementary, Harrison Elementary, James Lane Allen Elementary, Meadowthorpe Elementary, Rosa Parks Elementary, Russell Cave Elementary, Wellington Elementary, William Wells Brown Elementary, Yates Elementary, Bryan Station Middle, Leestown Middle and Jessie Clark Middle Schools

Publicity, Awareness & Communications

It's About Sustainability, Ch 13

Tresine Logsdon and Logan Poteat continue to feature and provide updates on district-wide sustainability initiatives through *It's About Sustainability,* a quarterly program aired on FCPS's Channel 13.

Faculty Meetings

Tresine Logsdon and Logan Poteat continue to present to school faculties to share customized energy consumption data, best practices in school energy management, FCPS's comprehensive approach to sustainability and recognize teachers and students for accomplishments and goals in reduced energy consumption and sustainability.

Website

The Sustainability website (www.Sustainability.fcps.net) continues to serve as a resource for all questions about sustainable initiatives in the district. Tresine Logsdon and Logan Poteat maintain the website by continually adding fresh news articles, current energy data, E=USE^2 resources, Sustainability Council updates, resources for teachers/parents and more. The website is linked to each school's E=USE^2 website and is promoted in every email, newsletter, television production, presentation, and conversation Tresine and Logan have. It is important to utilize the internet to the fullest extent in this age and it has already served a great deal of good in promoting the sustainability message.

Partnerships

FCPS Energy & Sustainability Managers partner with the following local, state and national organizations and businesses:

- Bluegrass Community Foundation
- Bluegrass Greensource
- Bluegrass GreenWorks
- Columbia Gas
- Cooperative Extension Service
- Food Chain
- Kentucky Utilities
- KY American Water
- KY Association for Environmental Education
- KY Department for Air Quality
- KY Energy & Environment Cabinet divisions
- KY Environmental Education Council
- KY Environmental Quality Commission
- KY National Energy Education Development Project
- KY School Board Association
- KY Science Teacher Association
- Lexington-Fayette Environmental Commission
- Lexington Fayette Urban County Government Division of Environmental Policy
- Siemens
- Seedleaf
- Sustainable Communities Network
- UK Center for Applied Energy Research
- UK College of Education
- UK College of Engineering
- UK Institute for Sustainability and the Environment
- US Green Building Council