

Grant Administration

State Energy Program Funded Projects

The U.S. Department of Energy's State Energy Program (SEP) provides funding and technical assistance to states, territories, and the District of Columbia to enhance energy security, advance state-led energy initiatives, and maximize the benefits of decreasing energy waste. SEP emphasizes the state's role as the decision maker and administrator for program activities within the state that are tailored to their unique resources, delivery capacity, and energy goals.

The National Energy Education and Development Project

The National Energy Education Development (NEED) Project is a not-for-profit association that focuses on K-12 energy education to promote an energy conscious and educated society. The Kentucky NEED Project conducts professional development workshops to educators providing comprehensive information and resources to integrate energy education into their classroom activities. NEED promotes student energy activities and recognition events including the state NEED Youth Awards Luncheon and the National Youth Awards event; and provides for energy program development and implementation activities throughout the state.

Kentucky Habitat for Humanity

Kentucky Habitat for Humanity will provide training and education to Habitat Partners on Structural Insulated Panel (SIP) building techniques and other energy efficiency measures to ensure affordable housing that is stable, healthy, and sustainable. Habitat will analyze the energy efficiency of SIP homes compared to other construction techniques.

Housing Development Alliance

The Housing Development Alliance has been providing affordable, energy efficient housing in southeastern Kentucky for over 25 years. Several HDA programs will be expanded to increase the knowledge and ownership of affordable energy efficient homes within the southeast Kentucky housing market. Additionally, training will be provided on energy efficiency as part of the existing job training program.

COAP, Inc.

The Christian Outreach with Appalachian People (COAP) focuses on providing sustainable, affordable, safe, and energy efficiency housing in Harlan, Bell, and Leslie counties in east Kentucky. COAP will provide training for contractors on Structural Insulated Panel building techniques that improve energy efficiency and resilience of the affordable housing stock.

Energy Efficiency Job Training Program in Kentucky

The Kentucky Housing Corporation administers the state's U.S. Department of Energy Weatherization Assistance Program, which works to reduce energy costs for low-income households by increasing the energy efficiency of their homes. To meet the current need for certified Building Performance Institute

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(BPI) Quality Control Inspectors to certify the post-work inspection of the Weatherization home energy projects, KHC will administer the Energy Efficiency Job Training Program. The eleven-week training program provides funding for four individuals to participate in the BPI certified inspector training course and certification exam, and to support the Kentucky Weatherization Assistance program for two years.

University of Kentucky Electric Vehicle STEM Project

There have been numerous methods and programs of instruction that have been developed and are in practice to educate students regarding STEM (Science, Technology, Engineering and Math). This project is designed to bring several aspects of STEM and general education learning to 5th grade students across the state. In conjunction with GreenpowerUSA, the University of Kentucky Center for Applied Energy Research (CAER) will develop and implement a program that will allow students to design, construct, and competitively race a one person electric vehicle.

Coal Education Funded Projects

Pursuant to KRS 132.020(5) a portion of the funding from the un-mined minerals tax collected each year shall be credited to the Energy and Environment Cabinet for the purpose of public education of coal-related issues.

Kentucky Coal Association Junior Achievement BizTown Project

The Junior Achievement BizTown Project provides an opportunity for elementary and middle school students in Eastern and Central Kentucky regions to learn about employment and career opportunities relative to the coal industry and provide exposure to those students to the various careers within the industry. Through a “storefront” in Junior Achievement BizTown students will have the ability to learn about modern mining practices through interactive computer programs as well as virtual reality programs. For SFY2020, The Junior Achievement for Kentuckiana Finance Park Project will be contracted through the Kentucky Foundation, Inc. which provides educational materials to educate on the coal industry. The project will provide opportunities for elementary and middle school students within the Kentuckiana Regional of Junior Achievement.

Bluegrass Greensource

Bluegrass Greensource is an environmental nonprofit that provides resources and education to empower residents of its service areas to foster positive environmental change in their communities. Since coal is not mined in these central Kentucky counties, the teachers from that area know very little about where their energy originates. As a consequence, their students don’t understand that they, and the people around the world rely on the energy produced by coal mined here in Kentucky. These units help educate teachers and their students on the role that coal plays.

Coal Education in Eastern Kentucky

CEDAR, Inc. provides coal education programs, materials, and/or events directed toward education and awareness on coal related issues for students in Eastern Kentucky. The goal of the project is to advance in-depth understanding of coal operations, clean coal technologies, electricity production, use and emission issues, as well as foster interest in the pursuit of energy-related science and economic

careers at the post –secondary level.

Western Kentucky Coal Education Program

CEDAR West, Inc. offers the coal education program in Henderson, Hopkins, Muhlenberg, Union, Ohio, McClean, and Wester counties. The program stresses the importance of coal and the future of coal to the citizens of Kentucky. The program provides an avenue of learning about the history of coal, the economic contributions that coal provides in meeting Kentucky’s energy demands, and the future energy demands of our nation.

Coal Education for the Commonwealth

The Kentucky National Energy Education Development (NEED) Project focuses on K-12 education to promote an energy conscious and educated society. NEED provides coal education programs, materials, and/or events directed toward education and awareness of coal related issues. NEED provides regional workshops for teachers and conducts an Energy Tour for teachers to learn about energy activities for the classroom and to visit with energy professionals throughout the Commonwealth.

Tennessee Valley Authority Clean Air Act Settlement Grant Program

In 2011, Kentucky and other states were parties to a federal court settlement of an enforcement action under the federal Clean Air Act that resulted in a Consent Decree with the Tennessee Valley Authority (TVA). In 2012, the Cabinet began receiving applications and awarded projects for the \$11.2 million of funding. The list below highlights the active project under this category.

Owsley County School District Energy Efficiency and Energy Star Certification

The goal of the Owsley County School District is to increase the financial stability of the school system while improving the safety, health, and learning environment for the staff, children, and community. In order to complete this goal, Owsley County School District partnered with Murphy Group Architects to identify energy savings opportunities to reduce the elementary and high school energy use index and to achieve ENERGY STAR certification for the school district.

Butler County Water System Water Treatment Plant Pump Energy Efficiency Project

This project will allow both the low service and high service pumps at the water treatment plant to operate at reduced speeds, and therefore, reduce energy consumption. The low service pumps are currently connected to variable frequency drives. Although the low service pumps are connected to the VFS’s, they lack the control systems required to operate at less than full speed.

Warren County Public Schools Multi-School Solar Photovoltaic (PV) Systems Project

Warren County Public School District established a goal to reduce energy use by 20 percent and to achieve an overall energy use index (the amount of energy used per square foot of space) of 32.5 in all its buildings. To achieve this goal, Warren County partnered with CMTA Energy Solutions to identify deep energy savings and renewable opportunities to create highly-efficient buildings that minimize, or eliminate, the need for outside energy. This grant-funded project supports the purchase and installation of 433 kW of roof mounted solar PV systems across five schools.

Building Operator Certification Program

The Kentucky Pollution Prevention Center and the Midwest Energy Efficiency Alliance have collaborated to bring the Building Operator Certification (BOC) program to Kentucky. The program consists of an eight-week, Level 1 training series and identifying six qualified trainers for future BOC programs. BOC is a nationally recognized training program that provides public and private sector facility personnel the knowledge and skills to implement energy efficient building operations and maintenance.

Waterfront Botanical Gardens—Botanica Inc.

With long-term cost and sustainability benefits in mind, the Graeser Family Education Center will be designed as a net-zero ready facility using state of the art technology to minimize energy waste, carbon dioxide emissions, and water consumption. Botanica will install exterior LED lighting, geothermal well field and piping, above-code energy efficient heating and cooling system, and storm water collection system as part of the Waterfront Botanical Gardens Family Education Center.

Statewide Wood Energy Team

Through funding from the United States Department of Agriculture Forest Service, the Kentucky Statewide Wood Energy Team was formed through a cooperative agreement with USDA to coordinate the efforts of a number of existing agency personnel, rural development leaders, agricultural organizations, forestry expertise, and other stakeholders for the purpose of improving the utilization of woody biomass resources for energy uses. The funding for the Statewide Wood Energy Team ended as of July 31, 2019.

Wood Waste Briquetting Integration Project

The project explores a SWET partner identified issue and provides technical assistance activities. The viability and economics of creating a briquetted fuel from wood waste including sawdust and coal fines that can be utilized in a coal fired utility with minimal modification to the existing utility infrastructure will be evaluated. The project will refurbish existing equipment for wood waste rather than switchgrass. The ultimate goal will be to evaluate briquettes at East Kentucky Power Cooperative's Spurlock electric generating facility. The project directly supports the wood industry in the Morehead, KY area.

Secondary Wood Industry Residuals Project

The project will collect, update, and document information on residuals produced by Kentucky's secondary wood industry. The project will provide an updated inventory of types and volumes of residual use/disposal information from the secondary wood industry in Kentucky.

Wood Bioenergy for Rural Resiliency Project

The project focuses on identifying sites with high potential for successful wood bioenergy program implementation. Goals of the project are to find opportunities for rural, dependable production of electricity in the face of challenging environmental circumstances or natural disasters. In doing so, the project identified rural municipal organization and critical facilities ideal for establishment of wood-biomass fired combined heat and power systems along with modeling potential economic impacts. Ultimately, the projects will identify gaps impeding the adoption of infrastructure connecting forest residuals with energy production.

