



REQUEST FOR APPLICATION (RFA)

KENTUCKY DEPARTMENT OF EDUCATION  
BRANCH OF COLLEGE AND CAREER READINESS

**Energy Engineering Technology  
Career Pathway Grant  
(Energy Sustainability Grant)**

<p>RFA posted on Monday, January 13, 2014</p> <p>RFA issued by Office of Career and Technical Education Kentucky Department of Education</p>	<p>Address Questions In Writing To: <a href="mailto:KDERFP@education.ky.gov">KDERFP@education.ky.gov</a></p> <p>Deadline for Submission of Questions: 12:00 Noon (EST) <b>Friday, February 14, 2014</b></p>
<p><b>Application Submission Deadline</b></p> <p><b>4:00 PM (EST)</b> <b>Thursday, March 6, 2014</b></p>	<p>Submit Applications To:</p> <p>Kentucky Department of Education 1633 Capital Plaza Tower 500 Mero Street Frankfort, KY 40601</p>
<p>Comments/Special Instructions:</p> <ol style="list-style-type: none"> <li>To be eligible for an <b>Energy</b> Engineering Technology Sustainability Grant, the local Education Agency (LEA) must be a registered Project Lead The Way (PLTW) site <a href="http://www.pltw.org">http://www.pltw.org</a>.</li> <li>Each school shall <b>update</b> a business plan (completion of the application components listed on page 3) for all <b>Energy</b> Engineering Technology Career Pathway programs for a minimum duration of 5 years.</li> <li>All PLTW Schools with current PLTW agreements are eligible to receive an <b>Energy</b> Engineering Technology Career Pathway sustainability grant regardless if you have or have not received grant funding.</li> <li>A high school and a middle school may submit a joint application.</li> <li>Priority points are awarded to schools that are identified as "priority schools." (10 points)</li> <li>KDE reserves the right to waive minor technical deficiencies.</li> </ol>	

**KENTUCKY DEPARTMENT OF EDUCATION  
BRANCH OF COLLEGE AND CAREER READINESS  
Energy Engineering Technology Career Pathway**

**Background**

Kentucky legislation provides funding to both the Council on Postsecondary Education and the Kentucky Department of Education to support Science, Technology, Engineering and Math (STEM) Education initiatives throughout the state. KDE has selected PLTW as the curriculum for this pathway. Many energy components are already included in the PLTW curriculum. This Request For Application (RFA) will allow local school districts to apply for a grant to sustain existing **energy** technology engineering career pathway for students to enter postsecondary related programs and related careers.

**Funding**

This grant will provide matching funds to local school districts up to \$15,000 per school.

If school districts choose to implement the **Energy** Engineering Technology Career Pathway program in partnership with area technology centers or community/technical colleges, they may prorate a portion of the grant funds to these agencies. Such allocation must be allocated and reported to KDE.

**Allowable Use of Funds**

1. Laboratory equipment necessary for PLTW instruction
2. Computers and/or computer upgrades
3. Computer software required by PLTW
4. Laptop computer for the instructor
5. Travel expenses and registration fees for school counselors to attend the required PLTW Counselors Conference
6. Travel expenses and registration fees for teachers to attend the required PLTW Core Training(s)
7. Resources and professional development for integrating energy activities into the curriculum.
8. Energy related instructional materials and equipment

**General Requirements**

1. Teacher Availability/Certification -- Applicant must have available or be willing to hire qualified teachers with proper certifications to teach Project Lead The Way Courses at the middle and high school level. (See Attachments)
2. Middle and High School Program -- Applicant must commit to implementing the PLTW PTE high school program and a middle school GTT program with energy activities integrated in the middle and high school where PLTW will be offered.
3. Instructional space for the middle and high school laboratory should be a minimum of 1700 square feet.
4. Applicant must commit to the terms of the PLTW STEM Agreement.
5. All high and middle school programs will be required to have an affiliated Technology Student Association (TSA) chapter or other related CTSO.
6. Schools will provide annual student information through PLTW's systemic evaluation process.
7. High schools will use end of course assessments for all programs.
8. Schools will send the Accountability report (attached) to KDE (on or before June 30).

## Application Components

The following should be included in the application. Failure to include any of the components below may deem your application non-responsive. Applications deemed non-responsive will not move forward in the evaluation process.

- a. An overall program growth plan with annual growth percentages defined. The plan shall provide a thorough description of how students with differences in race, ethnicity, social class and gender will be recruited to the **Energy** PLTW classes and how continuous guidance and advising will be provided to ensure student success and academic achievement. The plan must also address how parents will be informed and included in this process.
- b. A thorough description of how the energy technology engineering career pathway is established in the school district to support K-12 students. The plan must also outline and discuss all postsecondary agreements that may lead to course articulations and/or dual credit through various engineering and engineering technology career pathways.
- c. A thorough description of reasonable measures the school district will take to follow and ensure the progress of each of the Energy PLTW students throughout the student's participation in the program.
- d. A description of how local industry partners support the **Energy** PLTW program in terms of concept, implementation, finances, sustainability, and student success.
- e. Descriptions of how the applicant will continue the PLTW program beyond state grant funding.
- f. A description of the degree to which program objectives are to be met, specific methods and criteria used for evaluation, to include evaluation of End of Course Assessment (EOC) for high schools and the assessment used to determine that outcomes are met.
- g. Timeline of **Energy** PLTW activities.
- h. Budget summary form
- i. Budget narrative detailing expenses in the budget summary form

## Formatting Requirements

1. Pages limits are
  - a. Narrative (application component 2 items a, b, c, d, e, f listed above) – 4 pages
  - b. Timeline (application component 2 item g listed above) – 1 page
  - c. Budget Summary Form – 1 page
  - d. Budget Narrative – 1 page
2. All pages should be single-sided.
3. Text should be in either Arial or similar 12-point font and be double-spaced. Do not use condensed or narrow fonts.
  - Text contained within **charts/graphs** may be Times New Roman or Arial 10 point font.
  - Bullets may be single-spaced; however, they should not be used excessively.
4. All pages of the application should have side and top margins of one inch.
5. The original and all copies should be secured using only clips, staples, or rubber bands. Do not bind them or place them in notebooks.

### **Intent to Apply**

In order to secure an adequate number of grant reviewers, please submit an email no later than **Friday February 7, 2014** to [KDERFP@education.ky.gov](mailto:KDERFP@education.ky.gov) if you intend to submit an application. You should include the district name, contact name, address, e-mail and phone number. This letter is for planning purposes only and does not obligate you to submit an application.

### **Submission of Application**

The Kentucky Department of Education must receive the application by 4:00 PM (EST), **Thursday, March 6, 2014**. Applications received after this time and date will be deemed non-responsive. All applications must be mailed or hand delivered. Please label the original and each copy with **Energy RFA**. Hand-delivered copies **MUST** be delivered to the Capitol Plaza Tower (Room 1633), 500 Mero Street, Frankfort, KY 40601.

The following must be submitted to the Kentucky Department of Education:

1. One (1) original with original signatures in ink. The signature of the superintendent must be notarized with a raised seal. If a circumstance arises in which the superintendent is unavailable to sign, please contact KDE at [kderfp@education.ky.gov](mailto:kderfp@education.ky.gov) for further instruction. A designee's signature will not be accepted without prior approval from KDE.
2. Five (5) exact copies of the original. Copies must be blinded (all identifying information such as names, school names and districts, etc. blacked out).

If you are hand-delivering your application, please allow 60 minutes for parking and security checks. You will need to present a photo ID in the visitors lobby for entrance. Please inform the lobby receptionist that you need to deliver the package to the KDE Procurement office, room 1633.

If you are mailing your application, please allow adequate time for the application to be received by the KDE Procurement Office by the deadline. Applications postmarked before the submission deadline but not received by the submission deadline will be deemed non-responsive.

The applicant is responsible for ensuring that ALL pages of the application submitted are in both the original application and the copies.

### **Evaluation of Application**

A committee consisting of persons knowledgeable in the grant description will review applications based on the extent to which the following criteria are met. The Kentucky Department of Education reserves the right to consider demographic and programmatic diversity as factors in the selection of applications and to negotiate the budget with funded applicants.

\*In order for an applicant to receive funding:

- Score sheets are tallied by the evaluators, priority points are assigned by KDE personnel, then schools are rank-ordered (highest to lowest).
- District awards are dependent upon the rank score as well as available money.
- The application must receive a minimum score of 70% (priority points not considered in percentage) overall **AND** a minimum score of 17 points for #5 – Sustainability - listed below.

\*Ties will be broken based upon the average score of sustainability section.

Description	Possible Points
Energy Technology Career Pathway Grant Application/Business Plan: <b>[Scored by Reviewers]</b>	80
<ol style="list-style-type: none"> <li>1. Student Recruitment Plan – (Section = 10 points) Applicant must provide an overall program growth plan with annual growth percentages defined. The plan shall provide a thorough description of how students with differences in race, ethnicity, social class and gender will be recruited to energy career pathway classes and how continuous guidance and advising will be provided to ensure student success and academic achievement. The plan must also address how parents will be informed and included in this process.</li> <li>2. <b>Energy</b> Engineering Technology Career Pathway Plan – (Section = 10 points) Applicant shall provide a thorough description of how the energy career pathway is established in the school district to support the students across the K-12 district. The plan must also outline and discuss all postsecondary agreements that may lead to course articulations and/or dual credit through various energy technology career pathways.</li> <li>3. Student Progress – (Section = 10 points) Applicant must provide a thorough description of reasonable measures the school district will take to follow and ensure the progress of each of the energy student throughout the student’s participation in the program to include the assessment and evaluation of student success through (EOC) for high school programs.</li> <li>4. Industry Partnership Team – (Section = 10 points) Applicant must describe how local business partners support the <b>Energy</b> program in terms of concept, implementation, finances, sustainability, and student success.</li> <li>5. Sustainability – (Section = 25 points) Applicant must describe a plan for continuing the program beyond the grant with state and local funding sources.</li> <li>6. Evaluation – (Section = 10 points) Applicant must describe the degree to which program objectives are to be met, specific methods and criteria used for evaluation, and the assessment used to determine that outcomes are met to include the mention of the high school EOC.</li> <li>7. Timeline of Energy activities (Section = 5 points)</li> </ol>	
Budget: <b>[Scored by Reviewers]</b>	20
<ol style="list-style-type: none"> <li>1. Budget Summary Form – (Section = 10 points) Applicant must clearly delineate costs to be met by the funding (use form on page 8).</li> <li>2. Budget Narrative – (Section = 10 points) Applicant must thoroughly describe how grant funds will be utilized to support all aspects of the <b>Energy</b> /PLTW program. Provide further detail of items listed in the budget summary form.</li> </ol>	
Priority Points <b>[Assigned by KDE]</b>	15
<ol style="list-style-type: none"> <li>1. Priority points are awarded to schools that are identified as “persistently low performing.” (10 points)</li> </ol>	

**Kentucky Department of Education**  
**Office of Career and Technical Education**  
**Energy Engineering Technology Career Pathway Sustainability Grant**  
**Application**

Please check the level of sustainability, adding the:

\_\_\_ 2<sup>nd</sup> Course                      \_\_\_ 3<sup>rd</sup> Course                      \_\_\_ 4<sup>th</sup> course

Funding Amount (See Proposed Budget Summary Form):                      \$ \_\_\_\_\_

District: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

School Name: \_\_\_\_\_

School Name: \_\_\_\_\_

School Name: \_\_\_\_\_

Project Director: \_\_\_\_\_ Phone \_\_\_\_\_

Email: \_\_\_\_\_

I assure the attached application has been reviewed and approved for implementation by all stakeholders and the district and school will comply with all requirements, both technical and programmatic, pertaining to the **Energy** Engineering Technology Career Sustainability Pathway Grant. Failure to do so could impact future funding.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Date

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
My commission expires

\_\_\_\_\_  
Notary seal

\_\_\_\_\_  
Superintendent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
My commission expires

\_\_\_\_\_  
Notary seal

**KENTUCKY DEPARTMENT OF EDUCATION  
BRANCH OF COLLEGE AND CAREER READINESS  
ASSURANCES FOR Energy ENGINEERING TECHNOLOGY CAREER PATHWAY  
SUSTAINABILITY GRANT AWARD**

The applicant agrees that if funds are made available through the **Energy** Engineering Technology Energy Career Pathway Grant Award Program:

1. Instructional space for the middle school and high school laboratory should be a minimum of 1700 square feet each. However, after the second year of program operation at the high school level, a second laboratory is required and should include a minimum of 1000 sq. ft.
2. Schools will provide annual student information through PLTW's systemic evaluation process.
3. High Schools will use all PLTW End-of Course assessments.
4. Fiscal and property management control, and fund accounting procedures are in place and operational with the Accountability Report to KDE on or before June 30, 2014.
5. Prior to the close of the fiscal year of the grant award, a report will be forwarded to the Department describing the accomplishments made toward the implementation of the plan.
6. All equipment purchases must be physically located in the instructional area approved in the grant application unless explicit approval is obtained under Department regulations regarding equipment disposition.
7. All grant funds must be incurred and expended prior to June 30, 2014.
8. That an affiliated Technology Student Association (TSA) chapter or other related CTSO is made available to students in the program at the high school level.

By submitting this application, the applicant assures a commitment to implement the improvements described in the attached grant proposal.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Date

\_\_\_\_\_  
Superintendent

\_\_\_\_\_  
Date

## Proposed Budget Summary Form

Explanation of Expenditures	Grant Amount	Match (In Kind) Amount
Laboratory equipment necessary for PLTW instruction.		
Computers and/or computer upgrades.		
Computer software required by PLTW.		
Laptop computer for the instructor.		
Travel expenses and registration fees for school counselors to attend the required PLTW Counselors Conference.		
Travel expenses and registration fees for teachers to attend the required PLTW Core Training(s).		
Resources and professional development for integrating energy activities into the curriculum.		
Energy related instructional materials and equipment.		
<b>Total Amount Requested</b>	<b>\$</b>	<b>\$</b>

**\*Estimated Costs based on 2013-2014 Purchase Manual attached as a reference for purchases.**

**\*Teacher salaries are not an allowable expense; yet, a stipend for attendance at summer Core Training for Teachers is an allowable expense using the munis code 0113.**



**PLTW/ENERGY COURSE AND TEACHER CERTIFICATION PERMISSIONS**

	Elementary Certifications	Technology Education	Mathematics	Science	Industrial Education-Specialty in Engineering Technology	Industrial Education-Specialty in Electronics	Industrial Education-Specialty in Drafting	Industrial Education-Specialty in Electricity	Industrial Education-Specialty in Machine Tool Technology	Industrial Education-Specialty in Industrial Machine Maintenance	Industrial Education-Specialty in Manufacturing Technology	Industrial Education-Specialty in Hydraulics/Pneumatics	Industrial Education-Specialty in Flight	Industrial Education-Specialty in Air Frame & Power Plant
Integrated Elementary Activities	X													
Middle School: Gateway to Technology Programs		X	X	X										
Introduction to Engineering Design		X	X	X	X	X	X		X	X	X			
Principles of Engineering		X	X	X	X	X	X	X	X	X	X			
Digital Electronics		X	X	X	X	X	X	X		X	X			
Computer Integrated Manufacturing		X	X	X	X	X	X		X	X	X	X		
Civil Engineering and Architecture		X	X	X	X		X							
Bio Technical Engineering		X	X	X	X									
Aerospace Engineering		X	X	X	X								X	X
Engineering Design And Development		X	X	X	X	X	X		X	X	X	X		

## ADDITIONAL ENGINEERING/ENERGY FUNDING SOURCES

### Funds

1. Perkins
2. GEAR UP II
3. State Technology Funds
4. Title I--Professional Development Funds for Districts in need of Improvement
5. Title VA
6. Title VI
7. Business and Industry Contributions
8. Local Government Contributions

## INTEGRATED ELEMENTARY ENGINEERING/ENERGY ACTIVITIES

### Companies/Agencies

1. Virginia Children's Engineering Council Web site <http://www.childrengineering.org/>
2. Project Lead The Way site <http://www.pltw.org/>
3. Project Lead The Way Kentucky site <http://www.pltwky.org/>
4. American Society for Engineering Education <http://www.engineeringk12.org/>
5. The NCTL is led by The Museum of Science & <http://www.mos.org>
6. Discovery Education <http://discoveryeducation.com>
7. KET EncycloMedia and Kentucky Standards-based Lesson Plans  
<http://www.ket.org/education/encyclomedia.htm>
8. PITSCO <http://www.pitsco.com/>
9. LEGO <http://shop.lego.com/?CMP=KAC-GOOGUS&HQS=lego>
10. NASA <http://teacherlink.ed.usu.edu/tlnasa/units/index.html>
11. ITEA <http://www.iteaconnect.org/>
12. <http://www.louisvillescience.org/>
13. <http://edventures.com/imssc/nsimssc/index.php?>
14. Kentucky Coal Education <http://www.coaleducation.org/>
15. US Department of Energy/Energy Efficiency and Renewable Energy: K-12 Energy Lesson Plans and Activities <http://www.eere.energy.gov/education/lessonplans/>
16. Coal and Energy Links – Center for Applied Energy Research-University of Kentucky  
<http://www.caer.uky.edu/liblinks.shtml>
17. National Energy Education Development <http://www.need.org/>

### Note:

This is not an all-inclusive list. Please feel free to provide your own web searches for additional resources.

**ACCOUNTABILITY FORM TO BE COMPLETED AND SUBMITTED TO KDE ON OR BEFORE JUNE 30.**