Budget

Adams County/Ohio Valley Local (061903) - Adams County - 2016 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (134)

U.S.A.S. Fund #: 466

Plus/Minus Sheet (opens new window)

Object Code / Purpose Code	Salaries 100	Retirement Fringe Benefits 200	Purchased Services 400	Supplies 500	Capital Outlay 600	Other 800	Total
Instruction	43,200.00	0.00	62,400.00	181,700.00	0.00	68,850.00	356,150.00
Support Services	110,000.00	0.00	0.00	0.00	0.00	0.00	110,000.00
Governance/Admin	12,500.00	0.00	233,500.00	0.00	0.00	0.00	246,000.00
Prof Development	0.00	0.00	54,000.00	0.00	0.00	0.00	54,000.00
Family/Community	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Safety	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Facilities	0.00	0.00	453,600.00	492,300.00	0.00	0.00	945,900.00
Transportation	0.00	0.00	0.00	0.00	0.00	52,800.00	52,800.00
Indirect Cost						0.00	0.00
Total	165,700.00	0.00	803,500.00	674,000.00	0.00	121,650.00	1,764,850.00
						Adjusted Allocation	0.00
						Remaining	-1,764,850.00

Application

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Please respond to the prompts or questions in the areas listed below in a narrative form.

A) APPLICANT INFORMATION - General Information

1. Project Title:
STEM Workforce Training - A New Collaborative Educational Approach

2. Project Summary: Please limit your responses to no more than three sentences.
Students conduct inquiry-based energy efficiency audits with engineers of facilities as "labs" and recommend changes to boards for savings.

This is an ultra-concise description of the overall project. It should only include a brief description of the project and the goals it hopes to achieve.

3. Estimate of total students at each grade level to be directly impacted each year.

*This is the number of students that will receive services or other benefits as a **direct result** of implementing this project. This does not include students that may be impacted if the project is replicated or scaled up in the future. It excludes students who have merely a tangential or indirect benefit (such as students having use of improved facilities, equipment etc. for other uses than those intended as a part of the project). The Grant Year is the year in which funds are received from the Ohio Department of Education. Years 1 through 5 are the sustainability years during which the project must be fiscally and programmatically sustained.*

Grant Year

Pre-K Special Education	K	1	2	3
4	1015 5	1015 6	1015 7	1015 8
525 9	525 10	144 11	144 12	

Year 1

Pre-K Special Education	K	1	2	3
4	450 5	450 6	450 7	450 8
450 9	450 10	144 11	144 12	

Year 2

Pre-K Special Education	K	1	2	3
4	450 5	450 6	450 7	450 8
450 9	450 10	144 11	144 12	

Year 3

Pre-K Special Education	K	1	2	3
4	450 5	450 6	450 7	450 8
450 9	450 10	144 11	144 12	

Year 4

Pre-K Special Education	K	1	2	3
4	450 5	450 6	450 7	450 8
450 9	450 10	144 11	144 12	

Year 5

Pre-K Special Education	K	1	2	3
4	450 5	450 6	450 7	450 8

450 9	450 10	144 11	144 12

4. Explanation of any additional students to be impacted throughout the life of the project.
This includes any students impacted or estimates of students who might be impacted through future scale-ups or replications that go beyond the scope of this project.

Additional students will be impacted by this project regardless of participating directly in the program. Students attending participating CTCs and STEM Schools which will house a "Net-Zero" Electrical Energy Use Laboratory space will benefit from having that resource located in their facility as well as enhanced rigor and curriculum. These same students will have access and exposure to a real-time dashboard demonstrating energy usage at their schools. Additionally, all students in participating districts will ultimately benefit by the greater share of operating resources that will be redirected into classrooms and create more substantial classroom experiences as a result of energy use being driven down.

5. Lead applicant primary contact: - Provide the following information:

First and last name of contact for lead applicant
Tad Mitchell

Organizational name of lead applicant
Adams County Ohio Valley Career Tech Center

Address of lead applicant
141 Lloyd Rd., West Union, OH 45810

Phone Number of lead applicant
937-544-2336

Email Address of lead applicant
Tad.mitchell@ovsd.us

Community School Applicants: After your application has been submitted and is in Authorized Representative Approved status an email will be sent to your sponsoring entity automatically informing the sponsor of your application.

6. Are you submitting your application as a consortium? - Select one checkbox below

☑ Yes

☐ No

If you are applying as consortium, please list all consortium members by name on the "Consortium Member" page by clicking on the link below. If an educational service center is applying as the lead applicant for a consortium, the first consortium member entered must be a client district of the educational service center.

Add Consortium Members

7. Are you partnering with anyone to plan, implement, or evaluate your project? - Select one checkbox below

☑ Yes

☐ No

If you are partnering with anyone, please list all partners (vendors, service providers, sponsors, management companies, schools, districts, ESCs, IHEs) by name on the "Partnering Member" page by clicking on the link below.

Add Partnering Members

B) PROJECT DESCRIPTION - Overall description of project and alignment with goals

8. Describe the innovative project: - Provide the following information

The response should provide a clear and concise description of the project and its major components. The following questions will address specific outcomes and measures of success.

a. The current state or problem to be solved; and

School districts across the state are experiencing significant lack in hands-on learning opportunities especially STEM disciplines. Opportunities for applicable, inquiry-based experiences in the fields of mechanical and electrical engineering, renewable energy, LED lighting, energy efficiency and environmental science are often lacking. There is critical gap in students entering the energy fields of study creating a challenging workforce need. The Ohio energy industry has in-demand jobs that go unfilled due to lack of skilled workers in the energy field. At the same time, districts are regularly cutting budgets due to increasing demands and lack of funding resources. High utility bills add significantly to district budgets draining important resources that could otherwise be put back into the classrooms to benefit students. Many districts across the state are not operating their facilities in the most energy efficient manner and often are forced to operate aging buildings which present significant energy issues resulting in massive utility bills. Appalachian schools in southern Ohio are particularly challenged with funding and face an "education deficit" as a result. This area of the state sees the greatest percentage of people living at or below the 200 percent of the federal poverty level. Southeast Ohio has the lowest graduation rates and rates of adults who have college or technical school education beyond high school, generally 20 percent below the state average. This part of the state is experiencing

some of the fastest concurrent growth nationally in the energy industry. This proposal will create a workforce pipeline to fill these in-demand jobs in Ohio. There is a strong emphasis on assisting students from the southeast Ohio region with this project with the intent of saving significant dollars from energy use and freeing up funding that can be redirected to the classrooms while providing high level educational experiences in STEM disciplines.

b. The proposed innovation and how it relates to solving the problem or improving on the current state.

Program Includes: -"Net-Zero" Electrical Energy Use Laboratory Space -100% student led, including engineering, design and installation -Supervision from professional engineers and licensed installing technicians -Space to be used as an educational hub for the CTC, local K-12 school districts and surrounding communities for educational and workforce training purposes -Focus on the STEM related careers within the energy efficiency, renewable energy, sustainability and environmental stewardship job markets. This educational and workforce training space will utilize the following technologies in order to be 100% self-powered: -LED Lighting; -Solar PV System; -Hydrogen generation system; -Fuel cell technologies; -Web-based, real-time electrical energy monitoring, metering, display and dashboard system -Track, manage and display all technologies and power generating systems installed within the space -Accessible to all participating school districts for educational training Facility Energy Audit with Advanced Energy Savings Programming of HVAC Systems -100% student led -Supervision and training provided by Certified Energy Audit professionals -Audits to include: -12-month utility usage and cost analysis -Lighting, HVAC and Building Envelope assessments -Identification of energy savings facility improvement opportunities -Financial cost analysis of each opportunity, including cost, savings and pay back calculations -Low-cost and No-cos opportunities to be the focus of these assessments -This will enable the districts to self-implement the opportunities using existing staff Students to present the energy audit report and findings to the Board of Education -Perform peer-to-peer training of high school (non-CTC) students Energy efficient programming and commissioning of HVAC building automation systems -Reduced operating costs -Improved comfort of educational spaces Curriculum-based educational lessons to be developed for utilization within multiple grade levels and disciplines -Students will train the teachers on how to utilize the lesson plans and hands-on educational classroom activities -Lessons and inquiry-based activities to be in line with the state testing standard requirements Energy Management, Sustainability and Education Program -Create and implement guidelines and procedures to be utilized by each participating CTC and school district -Student-led district "green teams" to empower the next generation of energy consumers and students -Educational and Workforce Training seminars for surrounding communities - led by students -Press releases throughout the project to let your community know about this unique program Benefits: -Student exposure and training to in-demand jobs -Student engagement and empowerment -Sustainable energy savings for all participating CTCs and school districts, driving dollars back into the classroom -Curriculum that aligns with Ohio's learning standards and the Common Core without burdening teachers -Increased rigor in the classroom -Inquiry-based learning model -Stipends and Compensation for -Students participating in the programs -Teacher participating in the programs -Scholarships for leading students Positive public relations - a "good news story" for your community -Providing your students with a unique opportunity to better understanding the fastest growing career market in the U.S. -Saving the taxpayers money (reduced operating costs) As the lines between K-12 and higher education continue to blur, this project seeks to prepare all students with an interest in energy related fields including those desiring to go immediately into jobs following graduation or those who pursue higher education at various levels. Participating students will earn an "Energy Training" designation to expose urge them to consider official accredited certification in the future.

9. Select which (up to four) of the goals your project will address. For each of the selected goals, please provide the requested information to demonstrate your innovative project. - (Check all that apply)

☑ a. Student achievement

i. List the desired outcomes.
Examples: fewer students retained at 3rd grade, increase in graduation rate, increased proficiency rate in a content area, etc.

Numerous studies have shown that CTE course work (which this is) boosts graduation rates to over 90% compared to around 75% for non-CTE programs. This project provides a hands-on and engaging environment for learning and make knowledge and skills immediately applicable for students. Students have an immediate and practical application for the knowledge, which makes the project relevant to students. Desired outcomes include a significant increased proficiency in energy related disciplines by students including a working knowledge of the jobs that exist in STEM related careers including mechanical and electrical engineering; renewable energy (solar and wind); LED lighting industry; energy efficiency industry; and environmental science. This will result in an increased proficiency in STEM related areas, prepare, encourage and expose students to career opportunities in Ohio's growing energy industry. Students will be empowered and engaged throughout the process. They will grow leadership skills by leading Educational and Workforce Training seminars for surrounding communities and will help empower the next generation of energy consumers. They will also gain presentation and leadership skills through the process of preparing savings findings to be presented to the Board of Education. This is a "Win-Win" opportunity.

ii. What assumptions must be true for this outcome to be realized?
Examples: early diagnosis and intervention are needed to support all children learning to read on grade level; project-based learning results in higher levels of student engagement and learning, etc.

A win for students through enhanced rigor and college/career opportunity preparation. A win for districts through energy operating cost savings. A win for the classrooms by freeing up funding and supporting curriculum. The project will provide hands-on, project-based educational experiences utilizing peer to peer curriculum-based training. This creates higher levels of student engagement and learning.The Energy Use Laboratory Space will be 100% student led (with supervision), including engineering, design and installation. Students will work closely with professional engineers and licensed installing technicians in order to provide to most impactful hands-on experience possible. Web-based, real-time electrical energy monitoring, metering, display and dashboard system will be utilized to ensure students are regularly exposed to the results of the energy monitoring they are learning about. Students, working hand-in-hand with professional engineers and Certified Energy Audit professionals, will identify energy savings facility improvement opportunities as well as financial cost analysis of each opportunity, including cost, savings and pay back calculations. Students will present their findings and recommendations to the Board of Education. "Green Teams" will be established with staff support in the grant years following implementation in order to ensure continued education and involvement. Research specifically states that students learn more in authentic, real world, inquiry based environments. By utilizing the school as a learning tool for science, math, and writing standards, with a specific end-goal project in mind that aids in energy efficient operations and exposes the students to engineering and business professions, their achievement will be impacted to the positive. All recent research shares that students who not only learn the what, but

learn the why in partnership, achieve more on tests, and gain self confidence that prepares them for the workforce.

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

This project was selected during Phase I of the Straight A Fund and the pilot received high accolades from all involved including participating schools, teachers, students and program administrators in West Central Ohio where it was implemented. It was used as an example as a highly successful project by the Ohio Department of Education as well as by statewide school leadership organizations. Students involved in Phase I of the program were regularly asked to present on their experiences, because of the tremendous success that was demonstrated. This successful pilot project is now being proposed to be expanded to numerous new CTCs, related feeder schools and at-need areas of the state with a strong concentration in Appalachian areas of Southern Ohio. The general approach to defining measureable benchmarks for energy literacy is to establish three broad domains - cognitive, affective, and behavioral -- then to define general characteristics within each of those domains, then to establish measurable benchmarks for each general characteristic. We will test students prior to their day of learning with the goal of achieving a 20% improvement in average scores.

iv. List the specific indicators that you will use to measure progress toward your desired outcome.
These should be measurable changes, not merely the accomplishment of tasks. Example: Teachers will each implement one new project using new collaborative instructional skills, (indicates a change in the classroom) NOT; teachers will be trained in collaborative instruction (which may or may not result in change).

Teachers will implement the project, through strategic collaboration with the project team, using collaborative instructional skills. Not only will the teacher be working with students, but Certified Energy Managers (engineers), higher education experts in related fields, and a retired teacher who serves as a training resource using the Ohio Energy Project materials working with each "green team" and will maintain the education piece in the years following the implementation year to ensure continuation, student involvement, district monitoring of energy efficiency and sustainability. We will test students prior to their day of learning with the goal of achieving a 20% improvement in average scores.

v. List and describe pertinent data points that you will use to measure student achievement, providing baseline data to be used for future comparison.

Students will be tested prior to their participation in the program to assess their knowledge of energy STEM fields as well as their interest in these fields as a potential future career choice. They will also be tested following their participation in the program in order to assess knowledge gained as a result of participating in the program. Additional assessments will utilize Classroom Assessment Techniques (CAT's), as well as Concept Tests to determine comprehension of material covered. Group & Self-Assessment Tools will also be used throughout the implementation of our program and student-led feedback will be utilized in conjunction with assessment results to make adjustments to the structure of the curriculum and group work elements. Experience from the previous pilot clearly demonstrated a significant jump in students' high level of understanding in the various STEM fields as a result of their hands-on experiences working with Energy Savings professionals (engineers.) Past participating students have presented not only to their district school boards but to statewide education groups with noted understanding, experience and excitement. "Green Team" staff support will be funded for five years following the project to ensure student exposure and involvement. This will be coordinated by project partner Energy Optimizers, USA and data collected from "green team" work will be shared with the lead district. District "Green Teams" will also be encouraged to connect with other existing teams across the State in order to facilitate regional and state-wide coordination of energy education programs and learning.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

In the event previously proven assumptions prove false, we are prepared to evaluate and alter the course of action to address the issues. If certain engineers or auditors turn out not to be a good fit given their personality, we will immediately redirect staff so that the most appropriate staff are assigned to work with students. If the timing of the hands-on experiences are not proving beneficial, we will adjust the timeline and schedule in order to provide a more beneficial experience for students and teachers alike. If peer to peer collaborations are not working properly, the team can restructure and/or shuffle students until the best fit is found. The beauty of the project is that we can be flexible and address issues as they arise in order to ensure the best experience for students as possible.

☑ b. Spending reductions in the 5 year forecast

i. List the desired outcomes.
Examples: lowered facility cost as a result of transition to more efficient systems of heating and lighting, etc.; or cost savings due to transition from textbook to digital resources for teaching.

The desired outcome includes across the board reductions in energy usage, and therefore utility spending, in school facilities. Lighting, HVAC and Building Envelope assessments will be conducted by Certified Energy Audit professionals and reduction in energy costs will be achieved through the implementation of low- and no-cost measures identified by participating students and implemented by in-house facility staff. Reduction in energy costs is guaranteed by project partner Energy Optimizers, USA. Low-cost and no-cost opportunities will be the focus of the energy assessments and will enable the districts to self-implement the opportunities using existing resources. Lowered costs for energy in facilities will result from transition to more efficient use of equipment, installation of more efficient technology, as well as identified behavioral changes and the strategic use of monitoring, metering and tracking technologies. Spending on classroom instruction for participating districts will be reduced as additional materials, staffing and programmatic resources will be provided as part of the program. Staff resources will also be provided during the project as well as in following years to support the continuation of "green teams" at districts and to ensure sustainability of energy efficiency programming in districts. The goal is to provide resources and support without burdening teachers.

ii. What assumptions must be true for this outcome to be realized?
Example: transition to "green energy" solutions produce financial efficiencies, etc.; or available digital resources are equivalent to or better than previously purchased textbooks.

The most basic assumption involved is that existing inefficiencies will be identified by students and energy professionals. Without existing inefficiencies, room for improvement or cost-reduction opportunities don't exist. Having worked with over 100 school districts throughout the state, project partner Energy Optimizers, USA is confident that even the newest and "greenest" school facilities have room for improvement. Given the pace with which technology is changing to meet efficiency mandates, coupled with the 6-7 year lag between building design and commissioning, energy efficiency opportunities are available in all existing facilities. Additionally, no-cost savings opportunities associated

with behavioral and cultural changes (ex. flipping light switches, better scheduling of exterior lighting, adjusting temperature set points, etc.) are always available and will be captured during the auditing phase of the program. Another assumption that must be true is that a body of students interested in energy saving technology will be identified. As we have targeted CTC's and JVS's for this program we know that this interest already exists. Energy efficiency and renewable energy solutions are fast-growing components of the tech and trade marketplace and offer new, and also fast-growing, opportunities for job placement. Our program provides an avenue for trade and tech-minded students to engage, hands-on, with these emerging fields to better gauge their interest and develop a leg-up on other students entering the workforce. Additionally, traditional (i.e. non-CTC/JVS students) students will be provided an opportunity to survey a broader field of career opportunities from that to which they've previously been exposed. The energy professionals who will be engaged in this program come from a wide field of experience and education including financial sales, mechanical and electrical engineering, service technicians, and facilities management. The "Green teams" th

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

The program we're proposing was implemented on a smaller scale during the first round of Straight A Funding in 2014 and involved a total of six participating districts. By all accounts and methods of measurement, the program was a success and delivered tangible utility savings averaging $2,760.00 per district. Additionally, participating students gained valuable experience delivering public presentations at state and local level events including the Ohio School Boards Association Conference in November, 2014 and the Ohio Association of Career Tech Superintendent's Summer Conference of 2014. As a result of the program implemented at Springfield-Clark CTC, at least two graduating seniors gained lasting employment in the energy efficiency field. Project partner Energy Optimizers, USA has implemented more energy savings projects in Ohio K12 schools since 2011 than any other energy firm operating in our state. Their customers have saved an average of 129% of their expected savings which equates to an extra $1,303,849 a year. This experience has also provided for a vast bank of data highlighting potential savings available to schools as well as the no-cost and low-cost strategies most commonly available. Utilizing this experience base in developing program curriculum will ensure that targeted savings are met and industry-relevant information is gained by participating students and staff. National statistics support that performing ASHRAE level facility energy audits produce on average 16% energy savings. Ohio case studies provided by Energy Optimizers, USA show districts that conduct energy audits achieve 4.65% gas savings and 6.20% electric energy savings. Districts achieve sustainable results and realize energy savings of $6,880 per facility from the continuous energy auditing performed by successive classes. This project is proven to produce quantifiable results that can be benchmarked. The repetition of the energy audit process will provide for early identification of potential problems allowing the facility manager to schedule facility based corrective actions. The company believes that education and occupant involvement are key components of increasing and sustaining the efficiency of a building by implementing a behavioral and energy education with the organization is imperative to achieving and maintaining energy conservation goals. This involvement allows the building occupants to become OWNERS and active participants in the organization's energy conservation and sustainability goals.

iv. List the specific indicators that you will use to monitor progress toward your desired outcome.
These should be specific dollar savings amounts. THESE MUST MATCH THE COST SAVINGS AS PROJECTED IN THE FINANCIAL IMPACT TABLE (FIT).

We will be monitoring several program components for determining success. The first of these is financial and involves the achievement of utility savings targets. Accomplishment of this goal will be monitored by performing regular analysis of utility spending as measured against the benchmark energy spending identified prior to implementing building efficiency strategies. This benchmark will recognize industry standards for utility analyses and will involve weather normalization and correcting for utility rate escalation, demand usage, and rate structuring. A target goal of $30,060.00 in annual electric savings has been set and will be achieved through behavioral changes to system use, installation of LED lighting in select spaces, and the installation of a Solar Photovoltaic array designed to offset electric use and provide a powerful educational and marketing tool for the schools. We estimate an annual total of $14,400.00 will be required to maintain the program for years 2-5 resulting in an annual cash-positive position totaling $15,660.00. Additionally, as our primary goal is to open job avenues in the energy field for these students, we will monitor post-graduation job placement success with a goal of 10% job placement in the energy industry for CTC & JVS students participating in the program. Program partner, Energy Optimizers, USA will use its standing in the industry to promote and inform similar service providers throughout the state of the program's efforts and the valuable pool of potential employees being groomed in these schools. Throughout the program's implementation we will be monitoring student achievement and growth through testing. Students will be tested prior to their participation in the program to assess their knowledge of energy STEM fields as well as their interest in these fields as a potential future career choice. They will also be tested following their participation in the program in order to assess knowledge gained as a resul

v. List and describe pertinent data points that you will use to measure spending reductions, providing baseline data to be used for future comparison.

Spending reductions related to energy usage is easily tracked as utility bills are assessed before behavior and/or usage is changed. We look at one year's worth of consumption history as well as cooling- and heating-degree day information from this same one year period. Future measurement and verification analyses are normalized back to this same one year baseline period. This data is taken directly from utility bills in its unaltered form and we have found this approach provides the most accurate post-project data comparison. Long term facility operation or behavioral changes are reflected by performing an appropriate thermodynamic model for the baseline period and adjusting the raw consumption data accordingly before running a normalization analysis. Once an energy conservation measure (ECM) opportunity is identified an appropriate methodology is created to model the affected system and a before & after analysis is performed. The methodologies utilized for calculating savings differ by ECM type, facility, energy prices, etc. Relevant calculation models are numerous and many of these methods are detailed in Guide To Energy Management published by the Association of Energy Engineers. We do not use a blended electric rate analysis as this is an inaccurate and misleading approach to savings calculations. We analyze utility rate structures to determine each component part of your charges (i.e. demand, tariffs, etc.) and provide a full analysis showing the truly affected rate for each building system being addressed. Similar to the energy savings calculations models, once an ECM is identified we investigate all savings avenues including maintenance or operational costs gained from implementing the measure. In reviewing the financial savings associated with operations and maintenance we reveal all of our calculations and assumptions and compare with real data from a school's purchasing department.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

Because the forecasted savings will result from scientifically calculated formulas, there is a slight chance the assumptions will prove false as most facilities have energy usage reduction that is not being addressed. However, should that happen, the team can reexamine their

audits to identify potential errors and correct as needed. Because of ever-changing improvements in technology, virtually every facility lends itself to upgrade needs as technology improves rapidly. For example, lighting technology is upgraded at a rapid pace therefore upgrades in fixtures and bulbs are included in almost every project as a result. Behavioral changes also play a large part on usage savings. This is something that easily be adjusted should assumptions prove false or outcomes not realized.

☑ c. Utilization of a greater share of resources in the classroom

i. List the desired outcomes.
Example: change the ratio of leadership time spent in response to discipline issues to the time available for curricular leadership.

Cost savings from this project will help both students and teachers alike by providing additional resources to support increased learning in the classroom. New, relevant and useful energy curriculum (from project partner Ohio Energy Project) on STEM topics will be made available for teachers use in their classrooms. Certified Energy Managers (engineers) will work directly with students to provide hands-on, inquiry-based experiences in energy auditing, assessment and recommendations that have real-world application on their school facilities. Students will use their actual school facilities as their "lab." "Net Zero" Electrical Energy Use Laboratory Space will be installed at participating CTCs/STEM Schools with supervision from professional engineers and licensed installing technicians which can be used as an educational hub for the CTC, STEM School, and local K-12 school districts and surrounding communities for educational and workforce training purposes. This lab space will be available for use by participating feeder schools. Web-based, real-time electrical energy monitoring, metering, display and dashboard system will also be installed and accessible to all participating school districts for educational training. Not only will the savings support the energy education program but it will free up additional resources that can be used for things like additional labs, online access to STEM education virtual experiences and expanded services and school offerings. By engaging higher education institutions, districts will benefit by higher education exposure for their students. The project is structured in a way that seeks to gain significant buy-in from stakeholders. Consortium partners (including school districts, higher education and private business) will be providing resources by participating. This provides opportunities for private business and higher educational institutions seeking to increase their engagement with students at all levels.

ii. What assumptions must be true for this outcome to be realized?
Examples: improvements to school and classroom climate will result in fewer disciplinary instances allowing leadership to devote more time to curricular oversight.

Implementing the education program in conjunction with the energy reduction plan will ensure teachers are provided with the curriculum, materials, support and follow-up needed to effectively impact the education of students participating in the program. We believe every piece of this program is important in order to provide a comprehensive, hands-on learning experience for students and enhance rigor in the classroom. All parts of the program must be included in order for the impact to be made. The focus on hands-on learning coupled with real-time energy use monitoring will provide students with an educational method that directly involves the learner, by actively encouraging them to do something in order to learn about it. In short, it is 'learning by doing'. Hands-on learning allows students to directly observe and understand what is happening.

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

Phase I pilot of this project was extremely successful and students exceeded expectations in demonstrating understanding of energy efficiency as a result of the project. Districts that participated in the first phase pilot of this project shared overwhelming positive feedback on the project with strong indicators demonstrating increased learning by students who participated in the program. Pre and post project testing of students also supports the positive results stated.

iv. Please provide the most recent instructional spending percentage (from the annual Ohio School Report Card) and discuss any impact you anticipate as a result of this project.
Note: this is the preferred indictor for this goal.

Adams County/Ohio Valley Local School District, of which Ohio Valley CTC is a part, is currently at 69.9% percent of funds spent on classroom instruction. They are unique in that they are not a standalone CTC like most of their counterparts in other areas of the state. However, generally speaking, the ultimate goal of this project is to increase instructional/classroom support and exposure for students to the energy industry in Ohio and helping fill the workforce pipeline for the energy industry. Concurrently, the project will help participating districts become more energy efficient resulting in reduced energy use. Savings resulting from the reduced energy use can be redirected back to the classroom to benefit students. District operating costs will drive down freeing up funds for instructional spending.

v. List any additional indicators that you will use to monitor progress toward your desired outcome. Provide baseline data if available.
These should be specific outcomes, not just the accomplishment of tasks. Example: fewer instances of playground fighting.

Students will demonstrate a clear and cohesive understanding of energy the energy industry as a result of their hands-on experience with the project. Anticipated growth in participation in the program is an indicator used to demonstrate progress. Use and activity around the affiliated labs and energy use monitoring systems will also indicate the level of interest from students both directly and indirectly involved with the project. Participation with district "green teams" by students will indicate continued interest and engagement following project completion. Funding is included in the project to support "green team" advisors for five years after project completion. Energy Optimizers, USA will collect data from "green team" advisors and coordinate with the lead district.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

We are prepared to alter the course of the project should we start to see collaborative work between CTCs or STEM schools is not occurring with participating feeder schools. Project managers will address the lack of collaboration and work in conjunction with all partners to ensure that it does not continue. Points of contact at individual districts may need to be shuffled to ensure the right fit is achieved with teachers who are the best fit for the project. Collaboration not only between teachers at each district with the Certified Energy Managers but also CTC and STEM school and associated feeder schools. Peer to peer mentoring is critical in order for the model to be successful. Clearly identified project managers will closely monitor working relationships and collaborations throughout the life of the project.

☑ d. Implementing a shared services delivery model

i. List the desired outcomes.
Examples: increase in quality and quantity of employment applications to districts; greater efficiency in delivery of transportation services, etc.

The desired outcomes include greater energy efficiency in all participating district facilities; increase in student understanding and interest in STEM fields specifically focused on the energy industry; increased cooperation between CTCs, STEM Schools and "feeder" schools working together on energy efficiency education and increase in students pursuing STEM energy related fields following graduation.

ii. What assumptions must be true for this outcome to be realized?
Example: neighboring districts have overlapping needs in administrative areas that can be combined to create efficiencies.

1. Participating CTCs, STEM Schools and feeder all agree to work cooperatively on the project. 2. CTCs and STEM School leadership commit to engaging with feeder school students and teacher for mentoring and collaboration. 3. Feeder schools commit to using the labs on site at CTCs and STEM schools to ensure exposure to the amenities for students.

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, data analysis etc), or how these are well-supported by the literature.

A similar structure was tested during Phase I of the Straight A Fund round which tested this concept. Learning from that experience, changes were made to better structure the peer to peer mentoring piece by allowing for CTCs and STEM school to mentor students from associated feeder districts. Because CTC and STEM school students lend themselves to being more "industry focused" it was decided to have them take the initial training lead then serve as mentors for students in feeder districts. A true collaboration from all parties involved but be achieved in order for the project to be successful. iv. List the specific indicators that you will use to monitor progress toward your desired outcomes (2000 characters). These should be measurable changes, not the accomplishment of tasks. Example: consolidation of transportation services between two districts. Regular communication, collaboration, discussion and peer to peer mentoring between CTCs, STEM school and feeder schools must occur. This will be tracked so that the project managers can monitor progress for the project. Collaborative energy assessments and training will take place and reported to project managers.

iv. List the specific indicators that you will use to monitor progress toward your desired outcomes.
These should be measureable changes, not the accomplishment of tasks.
Example: consolidation of transportation services between two districts.

Students will demonstrate a clear and cohesive understanding of energy the energy industry as a result of their hands-on experience with the project. Anticipated growth in participation in the program is an indicator used to demonstrate progress. Use and activity around the affiliated labs and energy use monitoring systems will also indicate the level of interest from students both directly and indirectly involved with the project. Participation with district "green teams" by students will indicate continued interest and engagement following project completion. Funding is included in the project to support "green team" advisors for five years after project completion. Energy Optimizers, USA will collect data from "green team" advisors and coordinate with the lead district.

v. List and describe pertinent data points that you will use to evaluate the success of your efforts, providing baseline data to be used for future comparison.
Example: change in the number of school buses or miles travelled.

Collaborative work between CTCs, STEM Schools and feeders schools will be monitored and tracked throughout the life of the project and years following completion. Collaborative audits, training sessions, audit assessments and joint reports must be demonstrated for evaluation. Peer to peer mentoring sessions will also serve as an evaluation data points. Project managers with Energy Optimizers, USA will serve as the "off-site" evaluators not affiliated with any specific CTC, STEM School or feeder school.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

Energy Optimizers, USA, as project managers as well as "Green Team" facilitators following project completion, will make adjustments as needed during the course of the project. They will ensure that collaborative work is occurring and will address with individuals districts should issues arise.

10. Which of the following best describes the proposed project? - (Select one)

- [ ] a. New - Never before implemented
- [x] b. Existing - Never implemented in your community school or school district but proven successful in other educational environments
- [ ] c. Replication - Expansion or new implementation of a previous Straight A Project
- [ ] d. Mixed Concept - Incorporates new and existing elements
- [ ] e. Established - Elevating or expanding an effective program that is already implemented in your district, school or consortia partnership

C) BUDGET AND SUSTAINABILITY

11. Financial Information: - All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 12-19.

a. Enter a project budget in CCIP (by clicking the link below)

Enter Budget

b. If applicable, upload the Consortium Budget Worksheet (by clicking the Upload Documents link below)

c. Upload the Financial Impact Table (by clicking the Upload Documents link below)

Upload Documents

The project budget is entered directly in CCIP. For consortia, this project budget must reflect the information provided by the applicant in the Consortium Budget Worksheet. Directions for the Financial Impact Table are located on the first tab of the workbook. Applicants must submit one Financial Impact Table with each application. For consortium applications, please add additional sheets instead of submitting separate Financial Impact Tables.

1,764,850.00 12. What is the amount of this grant request?

13. Provide a brief narrative explanation of the overall budget.
Responses should provide a rationale and evidence for each of the budget items and associated costs outlined in the project budget. In no case should the total projected expenses in the budget narrative exceed the total project costs in the budget grid.

All energy efficiency education and auditing, and energy education activities will occur after school. Therefore, all students and teachers involved in this project are provided with a stipend for time. Stipends are based upon projected amount of time required to complete the specific responsibilities. The Lead CTC, Ohio Valley in Adams County, will have teachers and students involved in all aspects of the project, working with other CTCs and STEM schools, and then with their own District Schools' teachers and students. Their stipends are the most, followed by CTC/STEM teachers and students, and then the District Schools teachers and students. Funds are provided for scholarships at all CTCs and District Schools for the Grant Year and two additional years. Funds are provided to compensate the Energy Optimizers Project Director, Green Team Mentor/Coach, and Certified Engineers who will be providing organizational and teaching services in specialty fields. Each CTC/STEM partner will have one college intern to work with them and their District Feeder schools, helping to provide assistance in skill development and in Energy Efficiency Auditing and Energy Education activities. Funds are provided to make one lab in each of the nine CTC/STEM partners' into a "Net Zero" energy use space. This is done through retrofitting the lab to all LED lighting, and then installing solar Photovoltaic modules to generate enough electricity to offset the required electricity. These schools will also receive Flat Screen Energy Dashboards which will provide real time electricity use and generation information, available to all students of the school. All these installations will include specific professionals working with the various student groups to complete the installations. Materials to demonstrate Energy activities using the Ohio Energy Project curriculum, tied to the State Standards, are provided to all CTC/STEM partners and their District Feeder schools. Funds are available to provide for Green Team Advisors for all involved schools for the Grant Year and five additional years, to help the project be sustainable. Funds are provided for Hydrogen demonstration units and Fuel Cell demonstration units for each CTC/STEM lab. Since both energy education and efficiency training and auditing will require travel, there are funds for travel reimbursement.

14. Please provide an estimate of the total costs associated with maintaining this program through each of the five years following the initial grant implementation year (sustainability costs). This is the sum of expenditures from Section A of the Financial Impact Table.

14,400.00 a. Sustainability Year 1

14,400.00 b. Sustainability Year 2

14,400.00 c. Sustainability Year 3

14,400.00 d. Sustainability Year 4

14,400.00 e. Sustainability Year 5

15. Please provide a narrative explanation of sustainability costs.
Sustainability costs include any ongoing spending related to the grant project after June 30, 2017. Examples of sustainability costs include annual professional development, staffing costs, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in this narrative section should be consistent and verified by the financial documentation submitted and explained in the Financial Impact Table. If the project does not have sustainability costs, applicants should explain why.

Sustainability costs include any ongoing spending related to the grant project after June 30 of your grant year. Examples of sustainability costs include annual professional development, staffing costs, and equipment maintenance and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in this narrative section should be consistent and verified by the financial documentation submitted and explained in the Financial Impact Table. If the project does not have any sustainability costs, applicants should explain why. $2,476 represents the electricity savings from LED lighting retrofit in the Lab, plus solar electric generation, all valued at $.09 per kWh. $635 represents the electricity savings from LED lighting retrofit in one classroom per school, plus solar electric generation, all valued at $.09 per kWh.

100 16. What percentage of these costs will be met through cost savings achieved through implementation of the program?

Total cost savings from section B of the Financial Impact Table divided by total sustainability cost from section A of the Financial Impact Table. If the calculated amount is greater than 100, enter 100 here.

17. Please explain how these cost savings will be derived from the program.
Applicants who selected spending reductions in the five-year forecast as a goal must identify those expected savings in questions 16 and 17. All spending reductions must be verifiable, permanent, and credible. Explanation of savings must be specific as to staff counts; salary/benefits; equipment costs, etc.

The cost savings will be generated from electricity, figured at $ .09/kWh, that is not used by replacing lighting with LEDs, and by the kWh generated by the solar PV. The amounts differ because the CTCs and STEM had larger lab facilities retrofitted with LEDs resulting in greater savings, and they had larger solar arrays installed. District schools had one classroom retrofitted with LEDs and smaller arrays installed. All savings will be sustainable. Value of the savings will likely increase as electricity rates increase.

0 18. What percentage of sustainability costs will be met through reallocation of savings from elsewhere in the general budget?

Total reallocation from section C of the Financial Impact Table divided by total sustainability cost from section A of the Financial Impact Table
Note: the responses to questions 16 and 18 must total 100%

19. Please explain the source of these reallocated funds.
Reallocation of funds implies that a reduction has been made elsewhere in the budget. Straight A encourages projects to determine up front what can be replaced in order to ensure the life of the innovative project.

Funds are reduced in the electricity costs, and these reductions more than offset the annual Purchased Services stipend for the Green Team Advisor.

D) IMPLEMENTATION

20. Please provide a brief description of the team or individuals responsible for the implementation of this project, including other consortium members or partners.

This response should include a list of qualifications for the applicant and others associated with the grant. Please list key personnel only. If the application is for a consortium or a partnership, the lead should provide information on its ability to manage the grant in an effective and efficient manner. Include the partner/consortium members' qualifications, skills and experience with innovative project implementation and projects of similar scope.

Enter Implementation Key Personnel information by clicking the link below:

Add Implementation - Key Personnel

For Questions 21-23 please describe each phase of your project including its timeline, and scope of work.

A complete response to these questions will demonstrate awareness of the context in which the project will be implemented and the time it will take to implement the project with fidelity. A strong plan for implementing, communicating and coordinating the project should be apparent, including coordination and communication in and amongst members of the consortium or partnership (if applicable). Not every specific action step need be included, but the outline of the major steps should demonstrate a thoughtful plan for achieving the goals of the project. The timeline should reflect significant and important milestones in an appropriate time frame.

21. Planning

a. Date RangeSeptember/October 2016

b. Scope of activities - include all specific completion benchmarks.

September - Two regional meetings of Superintendents to explain process, identify Lead Teachers, introduce management team October - Organizational meetings with Teachers from Lead CTC (2)and Partner CTCs (16) , plus District Teachers (54), plus College Interns (9). Review process and personnel. Describe outcomes and responsibilities. Complete administrative requirements. Teachers are to identify Lead Students (4 each school, total 144).

22. Implementation(grant funded start-up activities)

a. Date RangeNovember-June 2016/2017

b. Scope of activities - include all specific completion benchmarks

November - PreTest Lead CTC Students (4) in Energy and Energy Auditing. Training of Lead CTC Teachers and Lead Students and College Interns in Energy Education Activities, Energy Auditing process, basic skills involved in Lighting Installation by Certified Energy Engineers. Use OEP curriculum activities and Energy Education Kits for Energy Activities training. Use Energy Auditing Kits for Auditing training. December/January - PreTest all CTC/STEM Lead Students (32). Train CTC/STEM Teachers and Students by Certified Energy Engineers, Mentor Coach, involving College Interns and Lead CTC Teachers and Students in peer learning process. Training includes both Energy Education and Energy Auditing, including use of all activity materials. LED lighting installation in CTCs by professional installers, with CTC students and Teachers involved. February - PreTest all District Schools students (108). CTC/STEM Teachers and Students, and College Interns train District Teachers and Students in Energy Education activities and Energy Auditing. Certified Energy Engineers and Mentor Coach provide additional resource input. PreTest all Students in Solar and Renewable Energy. Initiate Solar and Renewables training with Teacher and Student groups. LED Lighting installation in District Schools classrooms by professional installers with CTC Teacher and Student involvement. March/April - CTC/STEM Teachers and Students complete training with District Schools Teachers and Students. CTC/STEM Teachers and Students with College Interns and Certified Energy Engineers conduct Energy Audit of their own school building and analyze results, making recommendations of energy improvements. Solar PV installations in CTCs and District Schools. Energy Dashboard installations in CTC/STEM schools. April - CTC/STEM Teachers and Students and College Interns work with District Schools Teachers and Students to conduct Energy Audits of District School buildings and begin analysis of

23. Programmatic Sustainability (years following implementation, including institutionalization of program, evaluation and communication of program outcomes)

a. Date Rangecontinual

b. Scope of activities - include all specific completion benchmarks

Green Teams will operate as club function with staff support (retired teacher) from Energy Optimizers, USA. This will help ensure not only the educational component but students will also hold districts accountabale for maintaining effective energy efficiency in their districts.

E) SUBSTANTIAL IMPACT AND LASTING VALUE

24. Describe the expected changes to the instructional and/or organizational practices in your institution.

The response should illustrate the critical instructional and/or organizational changes that will result from implementation of the grant and the impact of these changes. These changes can include permanent changes to current district processes, new processes that will be incorporated or the removal of redundant processes. The response may also outline the expected change in behaviors of individuals (changes to classroom practice, collaboration across district boundaries, changes to a typical work day for specific staff members, etc.). The expected changes should be realistic and significant in moving the institution forward.

Please enter your response below:

Substantial impact and lasting value with the project is significant, proven and sustainable. By implementing an energy efficiency plan of action while involving students and teachers in the entire process, permanent changes to district processes as well as continuation into the future are anticipated. Instructional changes include an intentional focus on the energy efficiency industry including enhanced rigor in the classroom by providing hands-on opportunities for students to work alongside Certified Energy Managers as they conduct facility assessments together. This is a unique approach which uses the school facilities as the literal "lab" for students-true project-based learning. High quality material from statewide, well- respected partner Ohio Energy Project, will be used. Approaching this from a workforce development standpoint as opposed to standard testing attainment will encourage students to pursue the energy industry as a career field for their future. By providing them with real world applications working with established professionals in the industry, they will be better positioned to consider the energy industry as a career. Organizationally, participating CTCs, STEM schools and feeder districts will now work in a highly collaborative manner with each other across district boundaries. CTC students will act as mentors for feeder school students. STEM school students will mentor feeder school students, as well. Feeder school students will actively engage with CTC and STEM school students on a regular basis and will work in a very intentional collaborative structure. They will work together not only on their facility assessments and recommendations but also with the labs that will be housed at the lead CTC or STEM school. By tying energy efficiency education to the actual facility assessment and changes, districts will maintain a focus on ensuring their facilities are running efficiently and behavior modifications are maintained as students will hold their districts accountable. A cultural shift is anticipated that empowers students to ensure their facilities are running efficiently, energy efficient behavior is occurring and low-cost and no-cost enhancements are implemented for the highest return to each district. Lasting value is achieved by ensuring districts' commitment to energy efficiency. As they implement behavior changes and low-cost and no-cost solutions, they will create long-term value for their district by maintaining a reduced annual spend on utility use.

25. Please provide the name and contact information for the person and/or organization who will oversee the evaluation of this project.

Projects may be evaluated either internally or externally. However, evaluation must be ongoing throughout the entire period of sustainability and have the capacity to provide the Ohio Department of Education with clear metrics related to each selected goal.

Please enter your response below:

Chris Meyer Energy Optimizers, USA 937-229-9092 cmeyer@energyoptusa.com

26. Describe the overall plan for evaluation, including plans for data collection, underlying research rationale, measurement timelines and methods of analysis.

This plan should include the methodology for measuring all of the project outcomes. Applicants should make sure to outline quantitative approaches to assess progress and measure the overall impact of the project proposal. The response should provide a clear outline of the methods, process, timelines and data requirements for the final analysis of the project's progress, success or shortfall. The applicant should provide information on how the lessons learned from the project can and will be shared with other education providers in Ohio. Note: A complete and comprehensive version of the evaluation plan must be submitted to ODE by all selected projects.

Project outcomes will be evaluated in two areas: 1. Energy Efficiency Education of Students 2. Energy Efficiency of Facilities. Energy Efficiency Education of Students: Participating students will be tested on their knowledge and interest of the energy industry and related STEM fields prior to participating and again following their participation in the program. Testing results will be evaluated by project managers with Energy Optimizers, USA and reported to home districts. Tracking of student interest and pursuit of energy related fields of study will also be conducted immediately prior to graduation. They will be assessed to determine their level of interest in the energy industry as well as what, if any, level of additional education or certification they intend to pursue. Students will also be tracked following graduation to determine actual pursuit of employment in the energy industry. The project has a strong focus on student touches through group presentations. Each "Green Team" receives a kit of Energy Education Activities and is challenged to present those to at least three classes of twenty-five students during the year. Team advisors at each school will be asked to report on all presentations done by the team. Each team will have an Energy Audit Kit and will be challenged to perform an Energy Audit of at least three buildings in their district and to report on findings including identifying the projected reduction in electricity and natural gas use if recommendations are implemented. All "Green Teams" have a Mentor Coach provided by Energy Optimizers, USA to help in clarifying savings. Data collection is handled by Energy Optimizers, USA through contact with all "Green Team" Advisors requesting participation amounts. Energy Efficiency of Facilities: Assessment of results of energy efficiency changes with participating facilities is straight forward assessment of energy usage in each facility by reviewing past utility bills and usage, auditing each facility, discussing energy efficiency behavior with facility managers and other staff and preparing a comprehensive, formula-based audit for each facility. These audits are assessed before, during and after any changes made at each facility. Highly skilled Certified Energy Managers (engineers) will conduct audits with assistance from participating students. ASHRAE level 1 energy audits include the following: 1. 24-month utility billing analysis for electricity and natural gas usage and cost 2. Energy & facility benchmarking 3. Energy Star portfolio manager reports for each facility 4. Facility walk-through and on-site data collection 5. Energy conservation opportunities identified 6. Financial analysis of energy savings opportunities 7. Grant, rebate and tax reduction identification 8. Written facility analysis and energy audit report 9. On-site meeting to review and discuss the facility analysis and energy audit report. After changes are made to increase energy efficiency at facilities, utility usage will decrease and savings will begin. A year following change implementation, the same ASHRAE level 1 energy audit will be conducted so that a true comparison and can be made. Following this comparison of audit before and then after the project is implemented, district facility mangers, along with participating students and "Green Team" members will analyze and make recommendations for continued improvement to drive down energy costs for their district. Certified Energy Managers will also ensure each district is taking full advantage of all audit rebate programs available to them. They will assist the district from application to funding draw down.

27. Please describe the likelihood that this project, if successful, can be scaled-up, expanded and/or replicated. Include a description of potential

replications both within the district or collaborative group, as well as an estimation of the probability that this solution will prove useful to others. Discuss the possibility of publications, etc., to make others aware of what has been learned in this project.

The response should provide an explanation of the time and effort it would take to implement the project in another district, as well as any plans to share lessons learned with other districts. To every extent possible, applicants should outline how this project can become part of a model so that other districts across the state can take advantage of the learnings from this proposed innovative project. If there is a plan to increase the scale and scope of the project within the district or consortium, it should be noted here.

This application is a demonstration of a pilot project being scaled-up and expanded to include new districts. With some tweaking based on past experience, this highly successful Phase I project is easily replicated in other districts and all areas of Ohio. One key change with this replication is having CTC and STEM students serve as peer to peer mentors for feeder school students. CTC and STEM school students lend themselves naturally to "industry" and workforce-focused educational environment and therefore are a logical fit to serve as mentors for other students. A strong focus is placed on using this model to serve as a way to help fill the energy workforce pipeline for Ohio. Students are needed to fill critical in-demand jobs around the state for the energy industry. Because districts around Ohio vary greatly from one another, it is important to make the project flexible so that it can be modified for each district it is being implemented in. The beauty of this model is in its simplicity. Virtually every district in Ohio has room for improvement in the area of energy efficiency. Due to ever changing technology and advances in the industry, even districts that have made significant energy efficiency changes have opportunities for continued improvement in this area. There are also districts who are starting completely from ground zero and have tremendous opportunity to make substantial changes to improve their energy efficiency and save significant dollars for their district. It is believed that the best structure is one of a collaborative in order to provide students with the most impactful and substantial classroom experiences. The peer-to-peer mentoring working is vitally important to the success of this project. Students will not only be working one-on-one with other students but also will present their learnings and audit findings to fellow classmates in a presentation setting as well as to their local boards of education for consideration. It is highly probable this project will successfully be implemented in additional districts across Ohio. During Phase I of this project, a diverse sample of districts was used for the pilot project. Without exception, the model was successful in each of them, regardless of their demographic, financial and geographic differences.

By virtue of applying for the Straight A Fund, all applicants agree to participate in the overall evaluation of the Straight A Fund for the duration of the evaluation time frame. The Governing Board of the Straight A Fund reserves the right to conduct an evaluation of the project and request additional information in the form of data, surveys, interviews, focus groups and other related data on behalf of the General Assembly, Governor and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant, and any or all identified consortium members or partners, that all supporting documents contain information approved by a relevant executive board or its equivalent and to abide by all assurances outlined in the Straight A Assurances (available in the document library section of the CCIP).

Rich Seas

Consortium

Adams County/Ohio Valley Local (061903) - Adams County - 2016 - Straight A Fund - Rev 0 - Straight A Fund

Sections

Consortium Contacts

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Josh	Shoemaker	740-259-5522	josh.shoemaker@sciototech.org	Scioto County Career Technical Center	051490	951 Vern Riffe Dr, Lucasville, OH, 45648-8437	
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Steven	Easterling	Dawson-Bryant Local Schools	steve.easterling@kb.k12.oh.us	Dawson-Bryant High School	008219	1 Hornet Ln, Coal Grove, OH, 45638-2994	
Mick	McClelland	740-753-4441	ny_cmcclella@seovec.org	Nelsonville-York High School	026567	1 Buckeye Dr, Nelsonville, OH, 45764-9591	
Dustin	Bolin	740-753-5395	dbolin@tricountyhightech.com	Tri-County Academic Center	064337	PO Box 71, Sardinia, OH, 45171-0071	
Wes	Hairson	740-646-2458	whairson@rockhill.org	Rock Hill Elementary School	008235	15725 State Route 93, Pedro, OH, 45659-8734	
Dennis	Blatt	740-373-2766	dblatt@thecareercenter.net	WASHINGTON COUNTY ADULT SKILL CENTER	007467	848 THOMPSON DR, ABINGDON, VA, 24210	

Partnerships

Adams County/Ohio Valley Local (061903) - Adams County - 2016 - Straight A Fund - Rev 0 - Straight A Fund

Sections

Partnerships							
First Name	**Last Name**	**Telephone Number**	**Email Address**	**Organization Name**	**IRN**	**Address**	**Delete Contact**
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Implementation Team

Adams County/Ohio Valley Local (061903) - Adams County - 2016 - Straight A Fund - Rev 0 - Straight A Fund

Sections

Implementation Team								
First Name	Last Name	Title	Responsibilities	Qualifications	Prior Relevant Experience	Education	% FTE	Delete Contact
Chris	Meyer	Project Director	Meyer will direct all aspects of the project.	Chris Meyer will be Project Director for this Straight A Project. He has been a high school teacher (10 years) and college adjunct instructor, and has spent many years in business and technology development. He has worked for Energy Optimizers for the last 2 years, focusing on energy efficiency and renewable energy projects in the commercial sector. His prior work as Energy Director for the Dayton Development Coalition has provided him with significant contacts in the energy space throughout Ohio. He currently serves on the Green Energy Ohio Board of Directors.	He was the Project Director for the very successful Phase I Straight A Project working with Springfield Clark CTC and Energy Optimizers, USA and is excited about directing this expanded project in Phase 3.	He has a BA from Earlham College and a MS from University of Southern California in Education (1972).	100	
Josh	Foor	Certified Energy Manager/Certified Energy Auditor at Energy Optimizers, USA	Foor will lead the engineering team for the project.	A member of the organization's Executive Team, Josh Foor serves as Director of Project Development, working with clients to develop the most cost-effective energy conservation solutions. He deals with vendors and the company's Sales and Engineering teams and is engaged in projects through the implementation process. He engages in business development and customer relations as well.	Prior to joining Energy Optimizers, USA, Mr. Foor worked at the University of Dayton Research Institute as a researcher, data analyst, and team leader. He performed matrix testing for surgical devices, designed and revised experimental test setups and plans, and developed spreadsheets for data analysis. Mr. Foor serves on the Sinclair Community College Advisory Board for the Energy Management Degree Program.	University of Dayton	50	
Steve	Wolfe	Project Manager	Wolfe will assist Chris Meyer with managing all	Steve Wolfe, LEED AP, is the Facilities Manager at Adams	The school district that Wolfe formerly managed, Georgetown Exempted	Georgetown High School	20	

			aspects of the project.	County/Ohio Valley School District, which is the second largest district in Ohio in terms of square miles covered. He has a proven track record of improving operations in facility management.	Village Schools, was the first in the State of Ohio to earn the United States Department of Energy's Energystar LEADERS award for energy efficiency. Since then, Wolfe has been responsible for having 8 separate facilities become EnergyStar labeled under the guidance of my energy management plan. The Adams County/Ohio Valley School District is currently ranked in the top 5% of k-12 schools in the nation in terms of energy efficiency. Wolfe has served as the Adams County/Ohio Valley District's representative through a major construction project that culminated in three LEED Certified facilities. He was instrumental in getting two of the buildings solar powered through a partnership that required no out-of-pocket expense to the school district. He led the effort to win the United States Department of Education's Green Ribbon for Schools Award for one of the district's buildings, one of only 2 in the State of Ohio, and 33 school buildings in the nation to do so. This award recognizes school buildings that champion the cause of environmental stewardship in design, operations, curriculum, and promoting a culture of sustainability to staff, students and the local community. Wolfe's work has successfully saved dollars, helped save the environment, and positively affected those that he serves. He will be an excellent Project Manager who will share his knowledge with the collaborative partners, teachers and students.			
Brian	Abels	Certified Energy Manager/Certified Energy Auditor at Energy Optimizers, USA	Abels will lead the engineering portion of the project.	Brian Abels is responsible for the engineering work produced by Energy Optimizers, USA for more than $42 million worth of energy conservation projects since 2011 and oversees four engineers.	Brian developed a strong background in energy efficiency working for the Dayton office of the Department of Energy's Industrial Assessment Center where he helped more than 30 mid-sized manufacturers in the Ohio area to achieve over $1.4 million in implemented annual energy savings. Abels is developing a reputation as an expert on solar thermal	Abels is a graduate of the University of Dayton, School of Engineering with a Master's degree in Mechanical Engineering and a focus in Energ	50	

					renewable energy and was featured in a December 2013 article published by the National Resource Defense Council solar thermal energy. He is a member of the Association of Energy Engineers and serves on the board of the West Central Ohio chapter of AEE.			
Doug	Trimbach	Vice President & Director of Lighting, Energy Optimizers, USA	Doug will assist with the lighting aspects of the project.	With extensive experience in lighting audits, project development, sales, and project management, Trimbach has led the company's efforts in assisting local government and educational and commercial clients with energy efficient lighting retrofits. Because of his wealth of knowledge about lighting technology,	Trimbach is a frequent presenter of educational workshops on lighting at conferences throughout the U.S., including the Buckeye Association of School Administrators (BASA), Ohio Public Maintenance Facilities Association (OPFMA), and Ohio Association of School Business Officials (OASBO).	Trimbach is a graduate of UNC Pembroke with a B.A. in Philosophy and an M.A. in Philosophy from Colorado State University. He has been reco	50	