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**Adjusted Allocation** | 0.00

**Remaining** | -1,000,000.00
**A) APPLICANT INFORMATION - General Information**

1. **Project Title:**
   Creating a Brighter Future through the Implementation of LED Lighting and Solar Energy

2. **Executive summary:** Please limit your responses to no more than three sentences.

   This grant will measurably improve the environmental literacy and learning outcomes of students in the Granville Exempted Village School District (GEVSD) through the implementation of cost-saving innovative technology and beneficial environmental studies curricular changes. The goal of this grant is to offset energy costs through the replacement of incandescent light bulbs with LED light bulbs and the installation of solar panels to use the cost savings to enhance the classroom environment through curricular additions and the utilization of a greater share of resources, such as online textbooks and enhanced curricular teacher training. The curriculum will include environmental studies programs in each of the four schools in the district: Introductory topics including the role of the sun in energy production in the elementary school; Building on the introductory knowledge and introducing earth systems and cycles in the intermediate and middle schools; Utilizing the LED and solar installations to provide students with hands-on learning opportunities in and out of the high school classrooms.

   *This is an ultra-concise description of the overall project. It should not include anything other than a brief description of the project and the goals it hopes to achieve.*

3. **Total Students Impacted:**
   2442

   *This is the number of students that will be directly impacted by implementation of the project. This does not include students that may be impacted if the project is replicated or scaled up in the future.*

4. **Please indicate which of the following grade levels will be impacted:**

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

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

   First Name, last Name of contact for lead applicant
   Jeff Brown

   Organizational name of lead applicant
   Granville Exempted Village Schools

   Address of lead applicant
   130 North Granger Street, PO Box 417, Granville, OH 43023 - 0417

   Phone Number of lead applicant
   740.587.8110

   Email Address of lead applicant
   jrbrown@granvilleschools.org

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
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. Later questions will address specific outcomes and the measures of success.

The current state or problem to be solved; and

The implementation of solar panels & LED lights in the Granville Exempted Village School District (GEVSD) will produce measurable improvement in students' understanding of energy systems & alternative forms of energy. Not only will the installation provide the opportunity to educate students about environmental stewardship & literacy, but these technologies will add a new level of experiential learning to the classroom. These energy & cost efficient technologies will save the district $531,920 on energy costs over the next 5 years. By installing more efficient LED lights throughout each of the school's buildings, the district would cut energy expenditures in half. The lights will outlast the current fluorescent lights & require no maintenance & paying for themselves with the savings in 2.21 years. The GEVSD is committed to distributing these cost savings back into the classroom with new technologies, courses, & enhanced canned curriculum teacher training.

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

Currently, the cost to educate a student in the GEVSD is $9,500 each year. The cost reductions from the LED technologies alone will save the district $380 per student/year. By alleviating a portion of the financial cost/student, the district will be able to allocate more funds to invest in online textbooks and learning resources for students. In addition, the proposal would cover the entire cost of solar panels. GEVSD would own the panels and, unlike other districts, would be able to harness more energy & cost savings as a result. The implementation of a new Global Scholars program in the district is committed to more environmentally-focused coursework & programs. With the installation of these technologies on site at each of the buildings in the district, the project will offer our students a tangible example of an alternative energy source. The two-fold model will put GEVSD at the forefront of Ohio environmental sustainability. Currently, the district has already reduced the kilowatt per hour usage by 2.4 million in the past five years. Our goal is to continue these strides in reducing energy usage while providing our students with a world-class education about environmental & economic sustainability.

9. Which of the stated Straight A Fund goals does the proposal aim to achieve? - (Check all that apply)

Applicants should select any and all goals the proposal aims to achieve. The description of how the goals will be met should provide the reader with a clear understanding of what the project will look like when implemented, with a clear connection between the components of the project and the stated goals of the fund. If partnerships/consortia are part of the project, this section should describe briefly how the various entities will work together in the project. More detailed descriptions of the roles and activities will be addressed in Question 16.

- Student achievement (Describe the specific changes in student achievement you anticipate as a result of this innovation (include grade levels, content areas as appropriate) in the box below.)

The installations of solar panels will impact student achievement by adding a new level of academic experience. The presence of solar panels on the grounds of the schools throughout the district will allow the students to see renewable energy possibilities first hand. Introducing aspects of environmental education in all grade levels, starting in kindergarten, will instill environmentally sustainable practices in the students. Additionally, the solar panels on the school property will give students access to a tangible source of renewable energy from which they are able to learn. The implementation of LED lighting in the schools will improve student concentration based on a similar installation done at the Sumner School in Washington. The Sumner School found that the light produced by LED was more consistent and brighter than the standard fluorescents and therefore contributed to better student performance in the classroom. The following link is the Sumner School case study: http://www.bpa.gov/energy/n/PROMO/Case_Studies/sumnerschooldist_short_casestudy.pdf

- Spending reductions in the five-year fiscal forecast or positive performance on other approved fiscal measures (Describe the specific reductions you anticipate in terms of dollars and spending categories over a five-year period in the box below or the positive performance you will achieve on other approved fiscal measures. Other approved fiscal measures include a reduction in spending over a five-year period in the operating budget approved by your organization's executive board or its equivalent.)

Replacing the interior and exterior fixtures with LED lighting will cost $201,769 after rebate. The interior lighting will cost $190,945.32. The exterior lighting will cost $10,823. Based on the wattage of the LED lights and the hours per day the LED lights will be turned on, the school district will save $87,635 per year. This means that in five years, the GEVSD will save $438,177. Hence, our payback period is 2.21 years. Adding the solar panels to the school district will cost an estimated $789,232. The total cost savings anticipated from the solar panel installation will be $18,749 per year.

- Utilization of a greater share of resources in the classroom (Describe specific resources (Personnel, Time, Course offerings, etc.) that will be enhanced in the classroom as a result of this innovation in the box below.)

As a result of the implementation, the economic savings will allow the school to budget for other experiences and activities for the students. The school board is committed to putting the savings from these technologies back in the classroom, specifically by improving instructional materials (i.e. online textbooks, class materials, etc.). The school board will also focus on increased accessiblity to online resources. Tom Fry, the Director of Curriculum and Instruction and Rob Sexton, Director of Technology in GEVSD, are developing an online textbook for the...
Implementing a shared services delivery model (Describe how your shared services delivery model will demonstrate increased efficiency and
effectiveness, long-term sustainability, and scalability in the box below.)

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

- New - never before implemented
- Existing: Never implemented in your community school or school district but proven successful in other educational environments
- Mixed Concept: Incorporates new and existing elements
- Established: Elevating or expanding an effective program that is already implemented in your district, school or consortia partnership

C) SUSTAINABILITY - Planning for ongoing funding of the project, cost breakdown

11. Financial Documentation: - All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 11-14.

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

Enter Budget

* If applicable, upload the Consortium Budget Worksheet (by clicking the link below)

* Upload the Financial Impact Table (by clicking the link below)

* Upload the Supplemental Financial Reporting Metrics (by clicking the link below)

Upload Documents

For applicants without an ODE Report Card for 2012-2013, provide a brief narrative explanation of the impact of your grant project on per pupil expenditures or why this metric does not apply to your grant project instead of uploading the Supplemental Financial Reporting Metric.

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. Applicants must submit one Financial Impact Table with each application. For consortium applications, each consortium member must add an additional tab on the Financial Impact Tables. Partners are not required to submit a Financial Impact Table.

Applicants with an "Ohio School Report Card" for the 2012-2013 school year must upload the Supplemental Financial Reporting Metrics to provide additional information about cost savings and sustainability. Directions for the Supplemental Financial Reporting Metrics are located on the first tab of the document. If your organization does not have an "Ohio School Report Card" for the 2012-2013 school year, please provide an explanation in the text box about how your grant project will impact expenditures per pupil or why expenditure per pupil data does not apply to your grant project.

Educational service center, county boards of developmental disabilities, and institutions of higher education seeking to achieve positive performance on other approved fiscal measures should submit the budget information approved by an executive board or its equivalent on the appropriate tabs of the Financial Impact Table. Educational service centers should use the "ESC" tab and county boards of developmental disabilities and institutions of higher education should use the "non-traditional" tab.

12. What is the total cost for implementing the innovative project?

Responses should provide 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.

1,000,000.00 State the total project cost.

* Provide a brief narrative explanation of the overall budget.

The cost will be distributed between solar PV arrays installed at each property, and a conversion of the lighting system across the school district to LED lights (~3,200 bulbs). LED cost information comes from Mr. Ray Barnes of CompleteLux/CKS Energy Solutions (Newark, OH). The expected cost for installing LED lights across the district is $201,768.88. These lights will save the district 378.77 kW of energy per year, reducing electricity expenses by 75%. Solar array cost information comes from Mr. David Cohen of Dovetail Wind & Solar (Bexley, OH). The array sizes were determined, with Mr. Cohen’s guidance, according to space restraints and net metering guidelines. A 275 kW ground-mount array at the Intermediate School is expected to cost $784,000. A 1 kW roof-mount array at both the High School and Middle School is expected to cost $14,232. This brings the total expected cost for installing solar PV arrays across the district to $798,232. Savings from the complete solar system is expected to be $18,749 per year.
13. Will there be any costs incurred as a result of maintaining and sustaining the project after June 30th of your grant year?

Sustainability costs include any ongoing spending related to the grant project after June 30th of your grant year. Examples of sustainability costs include annual professional development, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in the 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.

- Yes - If yes, provide a narrative explanation of your sustainability costs as detailed in the Financial Impact Table in the box below.

- No - If no, please explain why (i.e. maintenance plan included in purchase price of equipment) in the box below.

No, there are no anticipated costs in order to maintain and sustain the project. There are virtually no maintenance costs for both the solar PV systems and the LED lights.

14. Will there be any expected savings as a result of implementing the project?

- Yes

- No

Applicants with sustainability costs in question 13 or seeking to achieve significant advancement in spending reductions in the five-year forecast must address this response. Expected savings should match the information provided by the applicant in the Financial Impact Table. All spending reductions must be verifiable, permanent, and credible. Applicants may only respond “No” if the project will not incur any increased costs as a result of maintaining and sustaining the project after June 30th of your grant year. The Governing Board will use the cost savings as a tiebreaker between applications with similar scores during its final selection process. Cost savings will be calculated as the amount of expected cost savings less sustainability costs relative to the project budget.

If yes, specify the amount of annual expected savings. If no, enter 0.

18,749.00 If yes, specify the amount of annual expected savings. If no, enter 0.

If electricity remains at a rate of 0.055 cents/watt, the expected savings for LED is $87,635.41 per year. The expected savings for the solar PV array is $18,749 per year.

15. Provide a brief explanation of how the project is self-sustaining.

All Straight A Fund grant projects must be expenditure neutral. For applications with increased ongoing spending as documented in question 11-14, this spending must be offset by expected savings or reallocation of existing resources. These spending reductions must be verifiable, permanent, and credible. This information must match the information provided in your Financial Impact Table. Projected additional income may not be used to offset increased ongoing spending because additional income is not allowed by statute. Please consider inflationary costs like salaries and maintenance fees when considering whether increased ongoing spending has been offset for at least five years after June 30th of your grant year. For applications without increased ongoing spending as documented in questions 11-14, please demonstrate how you can sustain the project without incurring any increased ongoing costs.

For educational service centers and county boards of developmental disabilities that are members of a consortium, any increased ongoing spending at the educational service center or county board of developmental disabilities may also be offset with the verifiable, permanent, and credible spending reductions of other members of the consortium. This increased ongoing spending must be less than or equal to the sum of the spending reductions for the entire consortium.

Explain in detail how this project will sustain itself for at least five years after June 30th of your grant year.

Implementing LED lights and solar panels is expenditure neutral because of the little to no maintenance costs involved. Once the LED lights and solar array are installed, they require minimal maintenance. Any defects in the solar panel will be covered by a warranty. Any spending on educational components would be easily offset by the electricity cost savings.

D) IMPLEMENTATION - Timeline, scope of work and contingency planning

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

This response should include a list of qualifications for the applicant and others associated with the grant. 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 Team information by clicking the link below:

Add Implementation Team

For Questions 17-19 please describe each phase of your project, including its timeline, scope of work, and anticipated barriers to success.

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

17. Planning - Activities prior to the grant implementation

* Date Range: July 7th - August 22nd, 2014

* List of scope of work (activities and/or events including project evaluation discussions, communication and coordination among entities).

Communication/Coordination: ? Participate in multiple meetings with partners to discuss potential ideas and updates and overall progress of the project. Project Evaluation Discussions: ? Discuss financial impact and creating timelines for installation and educational plans. ? Submit a project proposal and determine which solar companies win the contract. ? Determine the cost-savings analysis and discuss with Granville School Board, Energy board, and partners. ? Plan and design solar array according to its location and size. ? Solidify a curriculum plan that is in accordance with state standards and includes some new renewable energy and project-related content. Teachers will integrate the new curriculum into their lesson plans.

* Anticipated barriers to successful completion of the planning phase

Anticipated barriers to successful completion of the planning phase: The solar PV array audit could have unexpected expenses. Partners and representatives from Granville School board have conflicting schedules and this could interfere with planning meetings. Teaching schedules and alignment of curriculum with state standards could pose a time constraint.

18. Implementation - Process to achieve project goals

* Date Range: August 20th, 2014 - May 20th 2015

* List of scope of work (activities and/or events, including deliverables, project milestones, interim measurements, communication, and coordination).

Communication/Coordination: ? Weekly conversations between installation company, energy board, and workers on the project. ? Daily or fortnight phone check ins between Granville school's point person and project manager for both LED and solar array installations. Teaching programs: ? Professional development workshop will be added at the end of the summer to inform teachers on the improvement to the school's energy system. To pose ideas how to integrate it into curriculum. ? Formation and approval of lesson plans under the umbrella of STEM education that pertains to the newly integrated program. ? Short teacher trainings may be needed depending on what types of lesson plans are decided upon. ? During the installation periods appropriate and interested classes will watch and engage with the process as the panels go up. This will happen at all school sites. The integration of the new lesson plans with current curriculum in appropriate grade levels will begin in Fall of 2014. The lessons will span the whole school year, according to the current curriculum. Installation: ? The solar company chosen will begin installation in late September. Site evaluation for array location, priming of land area, installation of system infrastructure, and installation of solar panels will all be tasks needing completion. ? Installation will be split up into two parts to allow ample opportunity for teachers to integrate the panels into lessons. Installation of LED lights will be a shorter process, still needing man power to make the bulb switches throughout the district. Tying both into the grid will require staff from the school district and from AEP. Energy Board: ? Choice of financial proposal from one company. ? Payments to that company and the approval from the state, board, and local council of the building plans. Financial reports and check ins throughout the installation.

* Anticipated barriers to successful completion of the implementation phase

Anticipated Barriers: Product shortage or material needs for solar installation. Timing of solar installers. Inability to meet deadlines for timeline of plans. Teachers not having time or enough resources to integrate new material. Scheduling barriers.

19. Summative Evaluation - Plans to analyze the results of the project

* Date Range: September 17, 2014 - June 1, 2015

* List of scope of work (activities and/or events, including quantitative and qualitative benchmarks and other project milestones).

Project Milestones: ? There will be energy audits and tracking graphs of solar intake or output to understand the long term energy usage changes throughout the school district. ? Evaluate both the energy and monetary savings once the solar array is installed at the end of September and middle of October. This will happen the first year of the program and be continued as deemed necessary by the school district's energy board, the grant partners, and the state of Ohio Benchmarks. ? Students will be gauged according to their evaluation provided by the new curriculum. Specific dates will determine when teachers integrate the new information, the surveys will be given in the follow days of these. ? Surveys will be given out to the students to gather what they took away from it. A creative, integrative lesson plan will use surveys and tests to evaluate student knowledge of the new information.

* Anticipated barriers to successful completion of the summative evaluation phase

Anticipated barriers to successful completion of the summative evaluation phase: Maintenance or emergency costs for both the LED and solar arrays could change the evaluation numbers. Creating an effective way to evaluate the students learning of the new curriculum could become subjective, depending on the approach taken. Emergency maintenance for solar, creating a curriculum plan that follows the ODE standards and works into teachers current curriculums well. Vandalizing of new lights and solar panels.

20. 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 or duplicative 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:

Several changes will occur as a result of the implementation of the grant. On a district level, curriculum will have a larger focus on
21. Describe the rationale, research or past success that supports the innovative project and its impact on student achievement, spending reduction in the five-year fiscal forecast or utilization of a greater share of resources in the classroom.

The response should provide a concise explanation of items which provide rationale that will support the probability of successfully achieving the goals of the project. Answers may differ based on the various levels of development that are possible. If the proposal is for a new, never before implemented project, the response should provide logical, coherent explanations of the anticipated results based on some past experience or rationale. For projects that have been implemented on a smaller scale or successfully in other organizations, the response should provide the quantifiable results of the other projects. If available, relevant research in support of this particular proposal should also be included.

Please enter your response below.

There are an innumerable amount of success stories regarding the implementation of renewable and cost-saving energy resources in schools. Integrating the district's environmentally conscious actions into the curriculum at each grade level will have substantial long term benefits on the students' environmental literacy. Past STEM education efforts have increased student awareness of environmental issues and have encouraged students to implement such changes in their everyday lives. For this project, a synergy of solar PV arrays and LED lighting is the best way to promote environmental consciousness throughout the district. In terms of renewable energy systems, solar PV arrays are the best choice for the district because of cost-savings benefit and the system provides the opportunity for student and community involvement in both the installation and data collection. The project will educate students and the community about sustainable practices, energy dependence, stabilization of energy costs, and the reduction of air pollution. GEVS recently partnered with AVI Fresh to start the Fresh Foods Program. The district now buys 25% of the food from farms less than 75 miles away in Licking and Knox county and promote economic sustainability and reduces the carbon footprint. In addition to purchasing local foods, the school district has transitioned to reusable serveware, trays and silverware in the cafeterias to reduce waste. Through this program, the district was able to reduce lunch waste by 80 bags a day within the first year of its implementation. In addition to the Fresh Foods Program and the waste reduction program, GEVS has also implemented an innovative project that promotes fitness and healthy lifestyle tips, activities, and classes for both students and staff. This program has made a difference in the nutritional choices available to every student through healthy lunches at the cafeteria and staff members through activities and classes in the school district. Another innovative project in the school district is the implementation of the Global Scholars Diploma. Rising high school freshmen and sophomores have the opportunity to earn the Global Scholars Diploma, which acknowledges students who demonstrate global proficiency as students create a portfolio based on research or service learning. This specific program has the opportunity to connect with the conservation of energy and topics of environmental sustainability, creating an ideal relationship between this proposed project and the Global Scholars Diploma.

22. Describe the overall plan to evaluate the impact of the concept, strategy or approaches used in the project.

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 failure. The applicant should provide information on how the lessons learned from the project can and will be shared with other education providers in Ohio.

* Include the name and contact information of the person who will be responsible for conducting the evaluation and whether this will be an internal or external evaluation.

Tom Fry Jr., Assistant Superintendent (740) 587-8186 and Frank Fahmer, Maintenance Coordinator (740) 587-8114 Internal evaluation

* Include the method by which progress toward short- and long-term objectives will be measured. (This section should include the types of data to be collected, the formative outputs and outcomes and the systems in place to track the project's progress).

Per the Ohio Board of Education standards, all grade levels in the school district currently have a science curriculum that includes Earth Science. Specifically, the curriculum includes energy transformations & renewable versus non-renewable sources. At the high school there are two courses that are specific to environmental issues, Environmental Studies & AP Environmental. These two courses inform students of current environmental issues in a comprehensive & productive manner & to provide an atmosphere in which they feel empowered to meet the challenges of the future. In addition, these courses provide a strong foundation in environmental science for those students who may be considering a career in this field. In addition to these courses & the current science curriculum used in the district, GEVS will incorporate an environmental curriculum in a wider variety of subjects starting at the Kindergarten level through grade 12. Curriculum additions, materials, and activities will be added to different grade levels to comply with Ohio's new learning standards. Ohio's new learning standards for science require elementary school students (grades K-3) to gain a basic understanding of energy & where energy is found. Through the exploration of concepts such as the sun as an energy source, wind speed and air movement, & renewable & nonrenewable resources, the students at the Granville Elementary will have the foundation they need to build on these concepts. Through hands on projects such as sun diagrams, the construction of solar ovens, & solar-powered cars, calculating the school's carbon footprint, the elementary students will be prepared for future environmental units in science classes.
23. Describe the substantial value and lasting impact which the project hopes to achieve.

The response should provide specific quantifiable measures of the grant outcomes and how the project will lead to successful attainment of the project goals. Applicants should describe how the program or project will continue after the grant period has expired.

Please enter your response below.

In alignment with the school district's mission, the impact of providing young students with resources for environmental education is a lasting one that propagates accountability and continuous learning with respect to our planet. Not only are the proposed practices intrinsically valuable to Granville students' educational growth, but also they are financially sustainable, with foreseeable payback that provides a basis for measurable progress as a long-term investment. Pre and post tests and surveys will provide quantifiable data about the educational growth of students as a result of the environmental studies curriculum additions and the technological installations. Performance based assessments, projects, and student presentations will also provide information on the growth of student knowledge and skills in these areas. The money that the school district saves from the installation of LED lighting and solar PV arrays will be used for instructional resources that will directly improve student learning throughout the district. This includes electronic resources like online textbooks, resources for hands-on lab activities, and canned curriculum teacher training in the summer. The impact of providing young students with resources for environmental education is a lasting one that propagates accountability and continuous learning with respect to our planet. These proposed practices are intrinsically valuable to Granville students' educational growth and are financially sustainable, with foreseeable payback. Therefore, this proposal provide basis for measurable progress as a long-term investment. The money that the district saves through the implementation of this innovative cost and energy saving technology will cover the cost of additional educational resources and teacher training that will improve the educational experience both in and out of the classroom in the school district immediately and in the future.

24. Describe the specific benchmarks, by goal as answered in question 9, which the project aims to achieve in five years. Include any other anticipated outcomes of the project that you hope to achieve that may not be easily benchmarked.

The applicant should provide details on the quantifiable measures of short- and long-term objectives that will be tracked and the source of benchmark comparative data points. Responses should include specified measurement periods and preliminary success points that will be used to validate successful implementation of the project. If a similar project has been successfully implemented in other districts or schools, identification of these comparable benchmarks should be included.

* Student Achievement

The district has struggled with student growth in several grade levels for science. The district expects the project will help in two specific ways. First, the cost savings will allow for the purchase of additional resources to help improve student achievement and growth. Second students will experience authentic examples of science in the real-world applications. These learning opportunities will provide concrete examples that will make the learning "sticky" for students.

* Spending Reduction in the five-year fiscal forecast

Through the installation of LED lighting and solar PV arrays, the school district will set an example of environmental and economic sustainability to its students and other school districts. Cost-saving technologies that also reduce the carbon footprint have strong ties into the state curriculum standards and national AP standards. This model would put Granville Exempted Village School District at the forefront of innovative educational studies in many of the high school courses. In chemistry & biology classes, students will be able to measure the total amount of carbon that is emitted into the atmosphere prior to and after the solar panels & LED lights are installed. In the physical sciences, students will learn how solar cells convert energy with solar cars that will assist in their understanding of the solar panels. These students will assist in the preparation, installation, & maintenance of the solar panels. Economic & math courses will include calculating the energy audits from the LED and solar PV array installation to assess the cost savings of such innovative technological changes.

* Utilization of a greater share of resources in the classroom

Through the cost savings through energy savings the district will reinvest these funds into specific resources to improve student achievement. These include, but are not limited to the creation of online learning options for students in grades 4-12.

* Implementation of a shared services delivery model

* Other Anticipated Outcomes
25. Is this project able to be replicated in other districts in Ohio?

Yes

If the applicant selects “Yes” to the first part of the question, 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 the 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 included here.

* Explain your response

Yes. This project could easily be replicated in another school district in Ohio. If the funds and resources are available, the installation of LED lighting and solar PV arrays are relatively simple and require little, if any, infrastructural change. If the installation of LED lighting and solar PV arrays is not economically feasible, the curricular ties are also effective increasing environmental literacy of the students.

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).

I accept, Jeff Brown, Superintendent, Granville Exempted Village Schools, 4/18/2014
Consortium

No consortium contacts added yet. Please add a new consortium contact using the form below.
## Partnerships

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Telephone Number</th>
<th>Email Address</th>
<th>Organization Name</th>
<th>IRN</th>
<th>Address</th>
<th>Delete Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>David</td>
<td>Cohen</td>
<td>614.937.4486</td>
<td><a href="mailto:Dcohen@dovetail.com">Dcohen@dovetail.com</a></td>
<td>Dovetail Solar and Wind</td>
<td></td>
<td>89 South Stanwood Road, Bexley, Ohio, 43209</td>
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<tr>
<td>Ray</td>
<td>Barnes</td>
<td>513.947.1277</td>
<td><a href="mailto:ray.barnes@completelux.com">ray.barnes@completelux.com</a></td>
<td>CompleteLux, LLC</td>
<td></td>
<td>4101 Founders Blvd, Batavia, Ohio, 45103</td>
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<tr>
<td>Abram</td>
<td>Kaplan</td>
<td>740.587.6736</td>
<td><a href="mailto:kaplan@denison.edu">kaplan@denison.edu</a></td>
<td>Denison University</td>
<td></td>
<td>100 West College Street, Granville, Ohio, 43023</td>
<td></td>
</tr>
<tr>
<td>Jeremy</td>
<td>King</td>
<td>740.587.8680</td>
<td><a href="mailto:kingje@denison.edu">kingje@denison.edu</a></td>
<td>Granville Solar Co-op and Denison University</td>
<td></td>
<td>100 W College St, Granville, Ohio, 43023</td>
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<tr>
<td>Constance</td>
<td>Barsky</td>
<td>614.292.8686</td>
<td><a href="mailto:barsky@learningbyredesign.org">barsky@learningbyredesign.org</a></td>
<td>Learning by Design</td>
<td></td>
<td>174 W. 18th Ave, Columbus, Ohio, 43210</td>
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<td>First Name</td>
<td>Last Name</td>
<td>Title</td>
<td>Responsibilities</td>
<td>Qualifications</td>
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<tr>
<td>Ray</td>
<td>Barnes</td>
<td>CKS Energy Solutions</td>
<td>Replace existing inefficient lighting with energy efficient LED lightbulbs in the Granville School District's high school, middle school, intermediate school, and elementary school. Since the CKS Energy Solutions Corporation specializes in producing, delivering, and installing LED lightbulbs for competitive market rates, the company is positioned to be the project's primary LED lightbulb provider for the Granville School District.</td>
<td>? Nationally known company that manufactures energy efficient products such as LED.</td>
<td>Set up an LED lighting test-classroom in the Granville Exempted Village Schools. CKS Energy Solutions also installed LED lighting in local Granville stores and a gas station with success, ultimately conserving energy and lowering the electricity bill for each merchant.</td>
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<tr>
<td>David</td>
<td>Cohen</td>
<td>Certified Solar PV Installer at Dovetail Solar and Wind</td>
<td>David will help all parties involved in understanding the solar array system, estimating the amount of renewable energy that could be created and the calculating the costs associated with purchasing the system.</td>
<td>Dovetail Solar and Wind has more than 19 years of experience with renewable energy system design, installation, and green building. One of the oldest, largest, and most experienced renewable energy firms in Ohio, Dovetail Solar and Wind can provide expertise in solar electric, solar thermal, and wind technologies.</td>
<td>? Dovetail Solar and Wind has completed over 325 system installations, including more than 6.2 Megawatts of solar and wind systems, across Ohio and surrounding states.</td>
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<tr>
<td>John</td>
<td>Servak</td>
<td>Founder and CEO of the Go Sustainable Energy company</td>
<td>An expert in project management of energy programs across the state, John will bring knowledge of how energy systems are funded, implemented, and funded. John will be a resource for organizing the solar array plans, as well as help with guiding Granville Schools through the process. He will help with the initial energy audits and energy use analysis.</td>
<td>? Founder and CEO of the Go Sustainable Energy company that helps assist and teach companies about the importance of sustainable consumption rates and integrating renewable energy into businesses. John has served on many energy-oriented boards and councils including the Advanced Energy Economy Ohio and Manufacturer's Education Council.</td>
<td>? Longtime partner of the Granville School district in regards to energy programs. His company provides many services from energy audits to international energy efficiency aid.</td>
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<tr>
<td>Constance</td>
<td>Barsky</td>
<td>Affiliated Scholar at Denison University, Principal Investigator of Ohio Science Standards Alignment Grant, Learning by Redesign</td>
<td>? Assistance in integrating the Ohio Science Standards Alignment processes into the Granville School District curriculum according to the ODE standards. With this grant focusing on the sciences, including earth sciences, tying in environmental units will be easier.</td>
<td>? Affiliated Scholar at Denison University, Principal investigator of the Ohio Science Standards Alignment grant, and director of Learning by Design at The Ohio State University. Constance was involved in the background research required to formulate the grant and is invested in moving teachers forward in their curriculums confidently and effectively.</td>
<td>? Research for this grant has been a work in progress.</td>
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<tr>
<td>Abram Kaplan</td>
<td>Professor at Denison University</td>
<td>Providing the research for the grant application and offering environmental expertise. In addition to recruiting partners for the project implementation stage of the project, students will also be responsible for producing, revising, and finalizing the overall grant application.</td>
<td>Third-year, Environmental Studies majors currently enrolled in Dr. Kaplan's Environmental Practicum class. Headed by Professor Abram Kaplan, the founding director of the Environmental Science Department at Denison University and personal user of solar panels upon his residence.</td>
<td>Integration of a roof mounted solar array on top of the library in 2007, rated at 6.14 kW. The Homestead, an alternative living site, has been using a 10.14 kW solar system to power the various sustainably friendly cabins and buildings for decades.</td>
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<td>Jeremy King</td>
<td>Member of Granville Solar Co-op</td>
<td>Providing technical expertise and assist in the installation of the solar array. Due to their advanced background and knowledge in solar technology, the Solar Co-op will also assist school district executives in determining which solar panels are optimal to purchase for this project and present information on how organize the installation process of the panels.</td>
<td>Members are well-versed in solar power and have had experience with solar arrays. The founder of the Granville Solar Co-op is Joe Recchie, a dedicated environmental stewardship who earned the Solar America Showcase Award, developed a net-zero energy system upon his personal residence, and has transformation of brownfields of Granville into healthy urban environment.</td>
<td>Four past solar array installations, one of which being a ground mount. Involved in installing panels at the Denison University Homestead. The Solar Co-op has also partnered with Community Renewable Energy in order to help build upon their idea of solar gardens and expand their already successful solar learning center.</td>
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