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<th>Object Code</th>
<th>Salaries 100</th>
<th>Retirement Fringe Benefits 200</th>
<th>Purchased Services 400</th>
<th>Supplies 500</th>
<th>Capital Outlay 600</th>
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Adjusted Allocation 0.00
Remaining -389,733.41
A) APPLICANT INFORMATION - General Information

1. Project Title:
The E3 Innovation

2. Project Summary: Please limit your responses to no more than three sentences.
NAPLS will prepare, enrich & inspire youth to problem-solve in environmental science, energy & engineering leading to future STEM careers.

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.

<table>
<thead>
<tr>
<th>Grant Year</th>
<th>Pre-K Special Education</th>
<th>K</th>
<th>1</th>
<th>360 2</th>
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<td></td>
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<td>430 5</td>
<td>412 6</td>
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<td>383 11</td>
<td>319 12</td>
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<td>Year 1</td>
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<td>407 4</td>
<td>429 5</td>
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<td>Year 5</td>
<td></td>
<td>414 4</td>
<td>428 5</td>
<td>451 6</td>
<td>433 7</td>
</tr>
</tbody>
</table>
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.

By nature of the work, students in grades 2-12 in New Albany will be served each year. On average, 4,615 children will be served each year through this project. 4,219 student enrolled in grades 2-12. Additional students to be served in the New Albany community include our 675 preschool - 1st grade students. Approximately 680 students will make yearly visits to the Solar house. Approximately 200 students enrolled in New Albany summer clubs, camps sponsored by Healthy New Albany, Girl Scouts, & Y camp students will visit the Solar house. Approximately 500 9-12 grade students in roughly 13 districts and Ohio State students across central Ohio will be invited to participate in studies at the Solar House studying energy, engineering, & environmental sciences will be invited to access the Solar House across central Ohio.

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

First and last name of contact for lead applicant
Dr. April Domine

Organizational name of lead applicant
New Albany-Plain Local Schools

Address of lead applicant
55 North High Street, New Albany, OH 43054

Phone Number of lead applicant
614.855.2040

Email Address of lead applicant
domine.1@napls.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

According to the ACT National Curriculum Survey (August, 2015): “? US HS graduates expressed interest in STEM careers/majors. College readiness levels in math/science are higher for STEM interested students than ACT-tested students overall. Students with STEM interest that is both expressed & measured outperform their peers. According to ACT’s new STEM College Readiness Benchmark (set at 26), only 20% of 2015 ACT-tested high school graduating class was ready for first year STEM college courses. ACT research notes students who meet STEM Benchmark have 49% chance of attaining STEM degree in 6 years compared to 17% of those who fall below this Benchmark”. While data is not currently available to show NAPLS performance on this new benchmark, Ohio’s results are only slightly above national average. This leads us to believe that New Albany students are only marginally more prepared than other Ohio students. Historically, New Albany students perform very high on state & national assessments & receive strong content knowledge as a part of their typical education experience. However, this alone will not prepare our students to excel in globally competitive environments, especially those in STEM fields. New Albany must use an integrated academic approach to prepare, enrich, & inspire students to conduct real-world problem-solving & creative solutions.
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.

Outcomes Goal: New Albany E3 Innovation will collaborate with industry/higher education partners to design & scale real world problem solving experiences, exposing NAPLS students (gr 2-12) with deeper learning in knowledge, skills, & work habits essential for success in 3 highly in-demand STEM career fields (energy, engineering, environment). Outcomes: NAPLS HS students/partners transform Easton-OSU STEM & Nature Center into operational, energy neutral community learning lab Measurements: Student board presentation/open house on completion; participation rates & achievement in Engineering pathway & Environ. science courses Measurements: Participation rates & achievement in Engineering pathway & Environ. science courses for College Credit Plus STEM courses 2. Expansion of College Credit Plus STEM courses in engineering & energy. Measurements: Participation rates & achievement in Engineering pathway & Environ. science courses on state tests, AP, & dual enrollment. Measurements: Pre/post survey E3 career-awareness & interest inventory (eg. Naviance) selected gr 2-12. 3. Deepen early engineering exposure for students in gr 2-12 as result of high quality PD, new curriculum resources, supplies & equipment. Measurements: Pre/post survey E3 career-awareness & interest inventory (eg. Naviance) for selected gr 2-12; % MS Science teachers trained in PLTW energy modules; % gr 5 & 8 students scoring 4-5 on A.I.R. science test (whose teacher participated in project PD). 4. School w/community partners design PBL lessons/units deepening student learning in energy, engineering & environ. science Measurements: % gr 2-6 teachers who teach Science & participate in PBL, PLTW, environ. science module training; % students gr 2-12 scoring accomplished on Buck Institute for Education rubrics 5. Fiscal sustainability: NAPLS builds capacity to sustain E3 Innovation without additional income Measured by cost savings within project & reallocation cost savings as described on FIT.

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.

Assumption 1: NAPLS students are academically successful but need deeper, authentic learning experiences to prepare for careers in STEM. Research: According to the ACT National Curriculum Survey (Aug. 2015): “?” US HS graduates expressed interest in STEM careers/majors. College readiness levels in math/science are higher for STEM interested students than ACT-tested students overall. Students with STEM interest that is expressed & measured outperform peers. According to ACT’s STEM College Readiness Benchmark (set at 26), only 20% 2015 ACT-tested high school graduating class was ready for 1st yr STEM college courses. ACT research notes students who meet STEM Benchmark have 49% chance attaining STEM degree in 6 yrs compared to 17% who fall below Benchmark”. While data is not currently available to show NAPLS performance on this benchmark, OH results are slightly above nat. average. Both NAPLS student participation & NAPLS scores in current ACT benchmarks are slightly above the state average which indicates more
students need to be engaged in STEM & improve their achievement in STEM courses. Assumption 2: Teacher PD & real world PBL through design/implementation of solar house will prepare students for deeper learning experiences & high achievement in STEM & soft skills required for success in workplace. Deeper learning is a set of competencies (1. Master core academic content 2. Think critically & solve complex problems 3. Work collaboratively 4. Communicate effectively 5. Learn how to learn 6. Develop academic mindsets) students must master to develop a keen understanding of academic content & apply knowledge to problems in the classroom & on the job. They are essential to prepare students to achieve at high levels. (Deeper Learning Defined, 2013). Marc Chun, education program officer for the Hewlett Foundation. "When done well, PBL gives students opportunities to practice the competencies that lead to desired outcomes. PBL offers a way to get there. (Boss, 2013)"

According to Dr. Susan Tave Zelman in her 2005 introduction message within the Ohio Standards for Education document "Excellence can be achieved when we have high expectations for ourselves and our students. ... The research is clear: what matters most is the quality of the teacher we put before every student. It is the interaction between teacher and student that is critical to producing high-level student learning and achievement. " NAPLS has had a rich history of investing in teacher professional development, collaborating with the community and there are strong examples of deeply embedded real world learning. Examples of this strategy include our PBL environmental science instruction through Eastland Career Center, the K-12 use of the New Albany wetlands embedded in district science curriculum, high school capstones in energy, engineering, & environmental sciences which have led to students pursuing STEM college coursework & STEM careers. Our AP Environmental Science classes are already working with wind-turbine technology & aid in real-world applications on campus. The wind-turbine was donated by AEP & the New Albany Community Foundation. Another example includes three middle school teachers who are piloting Project Lead the Way (PLTW) modules in their classrooms and embedding in grade level science content in order to deliver the Ohio Next Generation Science Standards. Current examples of relationship with OSU include experiential learning curriculum planning & support with Dr. LingYing Zhao, Associate Professor of the Department of Food, Agriculture, & Biological Engineering. The curriculum & planning supports the following courses at NAPLS high school: AP Environmental Science, Introduction to Engineering Design, Principles of Engineering, & Advanced Manufacturing & Robotics and energy/environment Senior Capstone courses. The Easton-OSU STEM & Nature Center is currently resting stagnantly on NAPLS campus. The structure is currently stored in three separate modules for prior transportation purposes, & each module is sealed off to prevent internal weather damage. Upon renovation, the three separate modules will be reassembled into one, built on a permanent cement foundation, & completely transformed into a living outdoor learning lab equipped with data collection and STEM lab tools. This new space will be used as an energy neutral community learning lab that can be used not only by NAPLS students, but by the community as a whole and any central Ohio school.

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 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).

Formative For selected students gr. 2-12 (eg. Naviance) a career interest inventory will be used to ensure students are enrolled in rigorous & appropriate science coursework annually including AP, STEM, & dual enrollment courses % science staff trained in PBL, Project Lead the Way (PLTW) and other identified grant programs over the next 3 yrs Use projections from multiple data points including ACT Aspire, state, & MAP assessments to ensure students are enrolled in most rigorous & appropriate science coursework including AP, STEM, & dual enrollment courses annually Use MAP assessment results (3 times/yr) to identify students not on-track to reach levels 4 or 5 on 5th & 8th gr science assessment Cost savings/reallocation in FIT Summative Increase in student awareness & interest in STEM careers on the E3 career awareness survey % science staff who successfully complete training related to PBL, PLTW modules & other grant related training by over the next 3 yrs to at least 75% Increase participation rates in AP Environmental Science % achieving a score of 3 or higher, an increase in % students achieving college readiness benchmark for science subject test of the ACT & increase in both science & composite ACT college entrance exam scores % students scoring a 4 or 5 on A.I.R. science test in grades 5 & 8 % students scoring accomplished on the BIE PBL rubrics in grades 2-12 Cost savings/reallocation in FIT Participation rates & achievement in Engineering pathway & Environmental science courses. budget aligned/ reasonable based on student impact, outcomes & value NAPLS requests $389,733.41 for implementation & will have $19,860 in sustainable costs. NAPLS is reducing overall district expenditures by $55,700 which results in net savings of $35,840. E3 Innovation is not only sustainable without additional income, but also demonstrates savings.

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

Short Term 6/2017 Renovation is student-ready baseline - Aug 2016 Student learning experiences embedded into curriculum baseline set fall 2016 Pre/post E3 career awareness survey results baseline fall 2016 1st survey. Naviance Interest Inventory annually to selected grades across grades 6-12 baseline: currently only given to 8th grade students. Staff survey results on student engagement baseline: survey to be given starting fall 2016 Projection data from state assessments, MAP, & ACT Aspire for scheduling. Baseline: currently creating student projections to inform course placement for 2016-17, cost savings from project and reallocation cost savings data- baseline FY2015 October Medium Term 6/2019 Increase % of students earning 4 or 5 on Ohio AIR science assessments baseline: 5th 66%; 8th 60% AP Physics & AP Environmental Science Participation increase baseline: ES 47 students avg. 3.89; Physics B 30 students 3.67; Physics-Elec/Mag less than 5 students; Physics C-Mech less than 5 increase p% of students who indicate interest in STEM careers on career inventory in grades 6-12, increase # of student opportunities to earn college credit in STEM, increasing student participation in STEM courses tracked by HS course enrollment. Participate in Youth Energy Summit - Ohio Energy Project. baseline: 1 MS team - spring 2017 cost savings from project and reallocation cost savings data- baseline FY2015 October Long Term 6/2022 15 % point increase in the # of students earning 4 or 5 on Ohio AIR science assessments AP Physics & AP Environmental Science Participation rates & scores increase increase the % of students who indicate interest in STEM careers on course interest inventory increase # of student opportunities to earn college credit in STEM 10% annually. increase student participation in STEM courses tracked by HS course enrollment 10% annually, cost savings from project & reallocation cost savings data- baseline FY2015 October

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

Describe plan to alter course if assumptions prove false or outcome are not realized. The Project team will review relevant data bi-monthly as available. Annual staff PD surveys & student surveys will include questions that can help identify where recalibration or options may need to be expanded. Curriculum audits will occur each winter to review course offerings & enrollments. We will use projections to help
remove unintended barriers to students access to the most rigorous science coursework. All freshman will take the ACT Aspire test for Science to provide a projection of both the ACT science subject test & composite scores. The information will also be used to adjust the instructional model of the project. Evaluator to provide quarterly reports on project progress & suggestions for improvement if necessary. 

Project team will provide updates to community two times a year to help communicate both the successes & barriers to the program. Budget is aligned with/ reasonable based on student impact, outcomes, lasting value. New Albany is contracting with Dynamix as an external evaluator at $35,430.31 which is 10% of project budget. This amount is in line with industry standards which will allow the vast majority of project funds to be spent directly on work with educators. At the same time, it will provide an in depth formative and summative evaluation. This evaluation will ensure NAPLS meets project outcomes, has strong impact on student achievement, and is fiscally sustainable. The evaluation will also support the district and partners as they fine tune systems in preparation to expand pilots and replicate/ scale project activities.

## 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.*

### 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.*

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

### 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).*

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

### vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are 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.*

### 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.*

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

### 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 indicator for this goal.*

### 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.*

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

## 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.*

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.*

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.

iv. List the specific indicators that you will use to monitor progress toward your desired outcomes.

*These should be measurable changes, not the accomplishment of tasks.*

*Example: consolidation of transportation services between two districts.*

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.*

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

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

- a. New - Never before implemented
- 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)

[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.*

389,733.41 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 projected costs in the budget grid.

- Total of the budget is broken down: Salaries-$23,520: Stipends for staff to administer program broken down by gr levels K-5, Gr 6-8 & Gr 9-12 for $6,000 each for a total of $18,000; Stipends for curriculum work for 20 teachers, 12 hours each @ $23 / hr for total of $5,520; (one time grant cost during implementation only) Benefits -$3,763: 16% of stipend costs for program administration of $2,880; 16% of stipend costs for curriculum work of $883; (one time grant cost during implementation only) Purchase Services-$100,238.71: PLTW engineering program will have training costs of $3,900 & Meeting/Travel costs of $3,410.40; Gateway to Technology program training costs of $8,000 & Meet/Travel costs of $8,961.20; PLTW STEM Launch - costs for Training of $4,200 & Meeting/Travel of $4,960.80; SREB Clean Energy & Power curricula training - $12,800 & meeting/travel costs are $9,576; Substitute Costs for classroom coverage during training of staff $6,000; (all of these are one time grant cost during implementation yr only); Dynamix, external program evaluation/reporting $35,430.31 (multi-year contract (thru 6/22) allowable per guidance - evaluation is implementation cost). Supplies - $18,818: Classroom supplies to support the new programs within the updated...
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.

The amount of the grant for sustaining costs is very minimal based on the benefit to the district for the total amount of the grant. There will be a need for custodial staff to clean the building on a twice per week basis for 1 hour per day of $1,872 per year for salary; the increase in the benefits will be for the retirement and Medicare of $300 per year; the district also believes that there will be an increase of utilities of $1,500 per year; the final increase will be classroom supplies of $300 per year as most of the consumable supplies will be paid for through student fees as are all other programs for the district. The total for sustainable costs is $3,972 per year and a total for the five years of $19,860.

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.

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<th>Year</th>
<th>Costs</th>
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<td>3,972.00</td>
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<tr>
<td>Year 3</td>
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<tr>
<td>Year 4</td>
<td>3,972.00</td>
</tr>
<tr>
<td>Year 5</td>
<td>3,972.00</td>
</tr>
</tbody>
</table>

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.

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 grant is to reconstruct and install the OSU Solar decathlon competition house as an energy neutral community learning lab to studying energy, engineering, & environmental sciences that will help the district to lower the cost of electricity. The building is designed to generate enough electricity to cover all that is used by the building and also add more to the actual grid to lower NAPLS actual electricity costs. Since the actual energy generation will not happen until after the implementation year, NAPLS is being very conservative in only estimating the cost savings of $1,500 per year is estimated to be the same amount as the actual increase in utility costs for a total of savings over the five years of $7,500. The district expects that it will be much more than this once all of the instruction begins and the actual savings are put into place for the utilities.

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.

Professional development will be decreased each year by $3000, as NAPLS will not need to train staff any longer as the grant has developed teacher-leader expertise. Stipends for curriculum work can be decreased by $1,800 each year since the grant has front-loaded curriculum development and ongoing revisions will take significantly less time. Science supplies that are currently in the forecast will not need to be purchased with the changes that the grant will offer for teaching and will be less dependent on actual supplies. The total amount of the
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 Range 3/1/2016 End Date 7/31/2016

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

Upon award: media notification; board approvals/contracts signed; planning team designated; finalize professional learning surveys & evaluation plan; weekly Project meetings during planning period to ensure all processes are in place for implementation; By 6/1/2016 submit final evaluation plan to ODE Teacher PD: Training offered, plan for summer Resources: Supplies & materials ordered through End-of-Year ordering procedures By 8/15/2016 Renovation: Solar house construction, installation and renovations complete. Teacher PD: Training ongoing Resources: Available for use. Benchmarks to demonstrate success Renovation is student-ready Student learning experiences are embedded into curriculum Pre/post of first E3 career awareness survey created Staff survey results on student engagement created Projection data from state assessments, MAP, & ACT Aspire available for scheduling Student participation in STEM courses audit by HS course enrollment communication/key stakeholder engagement/consent from all required officers, governing bodies NAPL will offer stipends to 3 teachers (1 per grade band) to share Project Management and be in charge of stakeholder communication, coordinating resources, managing day/day project activities & budget. Superintendent and key project leaders will continue community outreach and planning efforts with OSU and business partners. Teacher participation will ensure staff buy-in; The Director of Communication will work with the key leadership team to develop a communication strategy which will include media releases, email blasts, announcements of program activities, etc. Board has been actively engaged in project and will continue. Key project leaders will update board at least quarterly.

22. Implementation(grant funded start-up activities)

a. Date Range 8/1/2016 End Date 6/30/2022

b. Scope of activities - include all specific completion benchmarks

Wi/Su 16: Installation, construction, and renovation of solar house Sp/Su 16: Launch of project leadership team and professional development/curriculum development work which begins includes 3 Day Buck Institute PBL training for Central Ohio held in NA Fa/Wi 2016-17: OSU-Establish Advisory Group, PLTW & Gateway to Technology PD starts (& ongoing), CAYCI survey administration, OSU-Participating on Engineering courses continues; OSU team - NAHS teachers develop experiential learning curricula begins Sp/Su 2017: OSU-Participating on Engineering courses; PLTW & Gateway to technology PD continues; 9/30/17 & annually: CAYCI survey administration annually; Refine program plans based on evaluations Qtly through 6/30/22: Project Leadership Team meetings, evaluation, recognition Benchmarks to demonstrate success Renovation student-ready Pre/post E3 career awareness survey results across grades 2-12 Naviance Inventory annually to selected grades 6-12 Staff survey results on student engagement Projection data from state assessments/MAP/ACT Aspire for scheduling Increase % students earning 4/5 on state science assessments Improve % students who are interested in STEM careers on career inventory Import # student opportunities to earn college credit in STEM Improve student participation in STEM courses Participate in Youth Energy Summit 15% increase students earning 4/5 on state science test Improve AP Physics/Environmental Science participation rates/scores improve % students indicating interest in STEM careers on career inventory Improve # of student opportunities to earn college credit in STEM Improve student participation in STEM courses communication/key stakeholder engagement/consent from all required officers, governing bodies Qtly. planning meetings to review data & refine processes; Teacher Project managers communicate with staff/ partners; Board receives Qtly. reports from evaluator.

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

a. Date Range 3/1/2016 end 6/30/2022

b. Scope of activities - include all specific completion benchmarks

By 9/1/2016 & annually through project Evaluation plan approved by ODE Annual project evaluation & fiscal reports Quarterly through Project end 6/30/2022 Quarterly project evaluation to assess PBL impact Project Leadership Team quarterly planning to adjust based on evaluation & plan for sustainability By 6/30/2019 through Project end 6/30/22 Begin phase in of all teachers conducting PBL projects in their classrooms.
## 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:

The partnership opportunities with The Ohio State University, Central Ohio corporations and community will greatly improve teacher efficiency & effectiveness as we improve student achievement in energy, engineering, & the environmental science pathways. Instructional changes: With The E3 Innovation, students will experience problem based inquiry in the real world context of a net zero energy house across the years of their school experience which will raise student achievement in math and science as well as expand the vision of a generation on their own role and future in STEM careers. District expects these instructional practice changes to positively impact student achievement &/or reduce ongoing costs: increased use of PBL to solve problems occurring in the community; higher expectations of student capacity to innovate and richer/more engaging learning opportunities; Through business & community partnerships, students will access greater depth of college & career exploration opportunities. PBL and engineering program/resources will help teachers engage children in becoming responsible for their own learning and more deeply scaffold 21st century skills especially targeting communication, creativity, innovation, collaboration; problem solving, tenacity & grit. Organizational Changes: NAPLS anticipates the following organizational practices will change in ways that positively impact student achievement & reduce operational costs. The expanded relationships with OSU and central Ohio businesses will impact future curriculum design and create new and additional funding sources for ongoing evolution of the program and the lab facility. The 2-12th grade efforts will result in district ease of transition from elementary-to-middle-to high school settings. District is creating and expanding mutually beneficial relationships with partners to support & expand student learning opportunities & build career readiness skills important to employers.

### 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:

Name: Dr. Tom Fry
Contact information: Dynamix LLC, 6617 Dublin Rd., Delaware, OH 43015; 614.218.1569; tom@dynamixllc.org

### 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.

The evaluation will use a both qualitative & quantitative methods & data. Qualitative analysis will include student interest inventories, career awareness surveys, & staff engagement surveys. Quantitative analysis will include student & staff surveys, data analysis of student achievement both internally & compared to state & similar districts, AP participation data, data analysis of student performance on assessments, course enrollment data, college credits earned by students participating in project, data analysis of community partnerships, data analysis of teacher professional development outcomes, & data analysis of project efficiencies & productivities. Completeness of timeline, including scope of activities & clear benchmarks for evaluation (link to Question 9 data points) By 9/1/2016 and annually through project Annual student and staff surveys Annual review of fiscal reports Annual review of student course enrollment & achievement Quarterly through Project end 6/30/2022 Quarterly project evaluation to assess PBL system changes and impact Quarterly review of STEM course opportunities Project Leadership Team quarterly planning to adjust based on evaluation Process final analysis of progress, success or shortfall Ongoing formative annual evaluation submitted to the Board of Education & the ODE will continue beyond the grant period & will conclude with a summative program evaluation at the end of the 5 years. All reports will adhere to national standards of confidentiality protecting any personal information. Project team will summarize formative results of The E3 Innovation to be shared with community & Board of Education semi-annually. Sharing lessons learned across Ohio Annual summative results will be shared with ODE. Project team will submit proposals for state conferences & forums to share project progress.
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.

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).

April Domine, Superintendent, New Albany Plain Local School District, November 25, 2015
<table>
<thead>
<tr>
<th>Consortium Contacts</th>
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No consortium contacts added yet. Please add a new consortium contact using the form below.
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<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>LingYing</td>
<td>Zhao, Ph.D</td>
<td>614-292-9448</td>
<td><a href="mailto:zhao.119@osu.edu">zhao.119@osu.edu</a></td>
<td>The Ohio State University</td>
<td></td>
<td>2070 Neil Avenue, Columbus, OH, 43210</td>
<td></td>
</tr>
<tr>
<td>Dr. Tom</td>
<td>Fry</td>
<td>614.218.1569</td>
<td><a href="mailto:tom@dynamixllc.org">tom@dynamixllc.org</a></td>
<td>Dynamix LLC</td>
<td></td>
<td>6617 Dublin Rd., Delaware, OH, 43015</td>
<td></td>
</tr>
<tr>
<td>Bill</td>
<td>Resch</td>
<td>614.264.9778</td>
<td><a href="mailto:whresch@aol.com">whresch@aol.com</a></td>
<td>Community Member and Volunteer</td>
<td></td>
<td>5610 Morgan Road, New Albany, OH, 43054</td>
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## Implementation Team

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Title</th>
<th>Responsibilities</th>
<th>Qualifications</th>
<th>Prior Relevant Experience</th>
<th>Education</th>
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<th>Contact</th>
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<tbody>
<tr>
<td>April</td>
<td>Domine</td>
<td>Superintendent</td>
<td>Will serve as the project lead through construction and launch, developing the team and systems for implementation, overseeing budget and expenditures</td>
<td>Dr. Domine has over 25 years of experience in education, including 15 in administration and 8 as a Superintendent, overseeing operating budgets of over 50 million dollars and 500 employees. She led two major multi million dollar school construction projects and led local, regional, state grant projects in innovation, which included federal and national foundation grant management.</td>
<td>Experience writing and designing as well as implementing major innovation projects in Houston, Appalachia and working with the state, the USDOE, Dell foundation and Gates Foundation. Experience in designing and leading construction projects in two different districts with experience in school construction in a third district.</td>
<td>Ed.D. in Leader, Policy &amp; Organizations-Vanderbilt.Univer, M.A-Ashland Univer in Ed. Admin.; B.S. in Elem and Sp. Ed. (LD/BD)-Kent State Univ</td>
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### Shared Project Management Team (3 Person Team) TBD

- The district intends to identify three highly experienced teachers to handle project oversight & partnership development who will receive an annual stipend. The management team will report to the Chief of Innovation, Improvement and Human Capital or designee. They will ensure project aligns with school/district's overall mission & improvement plans; manage project budget, regularly review progress, address barriers & ensure project success; facilitate Project Leadership Team. These meetings will focus on teacher license and strong, positive relationships with district staff; strong project management and training skills.

- NA teacher preferred- one will be elementary, one will be middle and 1 will be HS

- educator license preferred

- 50
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Education/Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill</td>
<td>Resch Community Member</td>
<td>Liaison with OSU - College of Engineering and College of Architecture. Wetland and river restoration and renewable energy and the sustainable environment, consulting with other entities. Wetland assembly, design, wetland mitigation. Negotiate Eastland/Career Center collaboration, environmental and stream restoration. MA BA, The Ohio State University.</td>
</tr>
<tr>
<td>Marilyn</td>
<td>Troyer Chief of Innovation, Improvement and Human Capital</td>
<td>Over 30 years of experience in education including over 15 years at the Ohio Department of Education leading major initiatives for school improvement and reform, working closely with USDOE, districts, higher education institutions and education non-profits. Extensive experience designing and implementing millions of dollars of state and federal grants and initiatives in education. Doctorate in Education Policy &amp; Leadership from OSU MA in Literacy- OSU BS in Elementary Education - OSU.</td>
</tr>
<tr>
<td>LingYing</td>
<td>Zhao Associate Professor, The Ohio State University</td>
<td>Dr. Zhao will provide leadership and guidance through the high school course development. Associate Professor, Department of Food, Agricultural and Biological Engineering. Dr. Zhao’s research goal is to discover knowledge and develop new technologies for effective management of indoor environment and air emissions from agriculture animal operations to improve health and the environment. Dr. Zhao’s research interests focus on air quality and bioenvironmental engineering control including measurement, modeling, and mitigation of indoor environment, air quality and emissions. Alternative environmental control system using renewable energy is a new area of Dr. Zhao’s research. Ph.D. Agricultural Engineering, U of Illinois at Urbana-Champaign; M.S/B China Agricultural University.</td>
</tr>
<tr>
<td><strong>Dr. Tom Fry</strong></td>
<td>Dynamix Evaluation</td>
<td>Dr. Fry is responsible for compiling data from all aspects of the project and producing reports that guide the progress of the project. Dr. Fry has over 20 years in education, 13 of which he was a director of data, research and accountability. He has presented nationally regarding the use of student projections to drive instruction, value-added analysis at the school and teacher level, and his dissertation explored the relationship between teacher value-added data in reading and math and the TeacherInsight screening instrument.</td>
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<tr>
<td><strong>Marcy Raymond</strong></td>
<td>Co-Principal of NA Middle School</td>
<td>Support the implementation of all professional development and curriculum design related to PLTW, PBL and other programs, will work directly with the Chief or designee and the project leadership team to provide support as needed. Strong STEM background as teacher, school leader and curriculum designer; Middle School Principal in NAPLS; nationally recognized STEM leader, presented at White House on school redesign and STEM education; former Ohio STEM Learning Network Central Ohio Hub Director, consultant for Battelle Education on STEM leadership and pedagogy; first principal at Metro Early College High School;</td>
</tr>
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