## Budget

Bowling Green School District (043638) - Wood County - 2014 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (300)

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

#### Plus/Minus Sheet (opens new window)

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**Adjusted Allocation**: 0.00

**Remaining**: -854,944.00
2. Executive summary: Provide an executive summary of your project proposal and which goal(s) in question 9 you seek to achieve. Please limit your responses to no more than three sentences.

The BGCS Propane Bus Project is seeking funding to implement propane powered school buses and associated refueling infrastructure to significantly reduce operating costs both over a five year fiscal timeframe (currently propane is priced at less than 50% of the cost of diesel per gallon). Implementing propane as the fuel of choice for BBCS buses will offer immediate fuel cost savings from the first day of implementation and continue through the lifetime of each bus and will provide for BGCS to continue to purchase cost-effective propane powered vehicles over the long-term. Finally, in addition to offering significant operational cost savings, propane is a domestic fuel sourced as a by-product from natural gas production and its use as a transportation fuel results in significantly lower bus emissions providing for a healthier environment in the passenger cabin for students and for the wider communities in which the vehicles travel.

1. Project Title: Bowling Green City Schools Propane Bus Project

2. Project Description: Provide a general description of your project. Describe how the project fits into the overall strategy of your district.

Implementing propane as the fuel of choice for BGCS buses will offer immediate fuel cost savings from the first day of implementation and continue through the lifetime of each bus and will provide for BGCS to continue to purchase cost-effective propane powered vehicles over the long-term. Finally, in addition to offering significant operational cost savings, propane is a domestic fuel sourced as a by-product from natural gas production and its use as a transportation fuel results in significantly lower bus emissions providing for a healthier environment in the passenger cabin for students and for the wider communities in which the vehicles travel.

3. Total Students Impacted:

Bowling Green City Schools (BGCS) Propane Bus Project with associated refueling infrastructure will significantly reduce operating costs over a five year fiscal timeframe (currently propane is priced at less than 50% of the cost of diesel per gallon). Implementing propane as the fuel of choice for BBCS buses will offer immediate fuel cost savings from the first day of implementation and continue through the lifetime of each bus and will provide for BGCS to continue to purchase cost-effective propane powered vehicles over the long-term. Finally, in addition to offering significant operational cost savings, propane is a domestic fuel sourced as a by-product from natural gas production and its use as a transportation fuel results in significantly lower bus emissions providing for a healthier environment in the passenger cabin for students and for the wider communities in which the vehicles travel.

4. List all other participating entities by name: Provide the following information for each additional participating entity, if applicable: Mention First Name, Last Name, Organizational Name, Unique Identifier (IRN/Fed Tax ID), Address, Phone Number, Email Address of Contact for All Secondary Applicants in the box below.

Sam Spofforth, Executive Director, Clean Fuels Ohio 530 W Spring St. Ste 250 Columbus, Ohio 43215 Phone: (614) 884-7336 info@cleanfuelsohio.org

Carl Hammer, Superintendent of Public Works City of Bowling Green 304 N. Church Street Bowling Green, OH 43402 419-354-6227 mike.hammer@bgohio.org

Stephen McEwen, Consulting Engineer 1053 Pinewood Court Bowling Green, OH 43402 419-352-3253 stephen.mcewen@wconet.org

5. Secondary applicant contact: Provide the following information, if applicable:

First Name, Last Name of contact for secondary applicant: Carlton Schooley, Director of Transportation

Organizational name of secondary applicant: Bowling Green City Schools

Unique Identifier (RN/Fe Tax ID): 043638

Address of secondary applicant: 13230 Bishop Road

Phone number of secondary applicant: 419-354-8509

Email address of secondary applicant: cschooley@bgcs.k12.oh.us

6. Include supporting letters of support: If a partnership or consortium will be established, please include the signed Straight A Description of Nature of Partnership or Description of Nature of Consortium Agreement.

Upload Grant Application Attachment.aspx

7. Partnership and consortia agreements and letters of support: - Please include a resolution from the commission in support of the project.

* If a partnership or consortium will be established, please include the signed Straight A Description of Nature of Partnership or Description of Nature of Consortium Agreement.

8. Please provide a brief description of the team or individuals responsible for the implementation of this project including relevant experience in other innovative projects. You should also include descriptions and experiences of partnering entities.

Carlton Schooley, Director of Transportation - Experienced transportation director; degree in chemistry; high level of interest in alternative fuels; has discussed alternative fuels with other transportation directors; has visited Wood Lane (Developmental Disabilities) propane fueling station, talked with the director and bus drivers, ridden on a propane-fueled bus Toby Snow, Mechanic Experienced mechanic; has taken numerous classes specific to mechanical work on buses with varying types of fuel; high level of interest; familiarity with demographics and routes of the Bowling Green bus fleet Mike Hammer, Superintendent of Public Works for the City of Bowling Green - High level of interest in alternative fuels; has attended numerous workshops regarding alternative fuels; has interest in converting city-owned gas powered vehicles to propane; will continue to meet with BIG Schools in order to determine feasibility of shared services Slave McEwen, Retired Engineer - The most forward-thinking and knowledgeable individual in the Bowling Green area regarding alternative fuels; travels to sites that are using alternative fuel; has made contacts with experts in the field of alternative fuels across the United States and Canada; led a team who converted the Wood County Library Book Mobile from gasolene to compressed natural gas Clean Fuels Ohio - Megan Stein, Andrea Conley; Big Schools was looking at compressed natural gas and Megan and Andrew provided the data that resulted in this grant for propane fueled buses; there was no pressure or bias on the part of Megan and Andrew; just factual information.

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

[ ] Student achievement
[ ] Spending reductions in the five-year fiscal forecast
[ ] Utilization of a greater share of resources in the classroom

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

[ ] New - never before implemented
[ ] Existing and researched-based - never implemented in your district or community school but proven successful in other educational environments
[ ] Mixed Concept - incorporates new and existing elements
[ ] Enhancing/Scale Up - elevating or expanding an effective program that is already implemented in your district, school or consortia partnership

11. Describe the innovative project.

The BGCS Propane Bus Project is seeking funding to implement propane powered school buses and associated refueling infrastructure to significantly reduce operating costs both over a five year fiscal timeframe as well as provide a solution to lower long term pupil transportation costs. This innovative, replicable, sustainable project is designed to directly address rising student transportation costs. The price of maintaining a diesel bus fleet is increasing due to three factors: 1) New diesel school buses are more costly per unit because of new emissions control devices and updated US EPA regulations. In addition, yearly bus maintenance costs have increased to service these new emission control components (i.e. regular maintenance cycles for diesel particulate filters, new requirements for ongoing purchases of diesel emission fluid, etc.) 2) Diesel fuel is increasingly costly due to high global demand and projected to increase in cost annually in the coming decades. In addition to annual increases, the price of diesel fuel is unstable and can significantly spike over short intervals due to supply interruptions, global instability, and weather related disruptions. 3) District operational funds for buses, maintenance, and fuel purchases are tightening, with less state and federal funds available to provide supplemental funding assistance for operational shortfalls. A Straight A Fund investment in propane buses and refueling stations will offer a sustainable solution to all three transportation cost related problems. By investing in propane buses and refueling stations, Straight A fund resources will allow districts to utilize buses demonstrated to have significantly lower lifecycle costs, realize significant annual fleet operational cost reductions, and allow for more stable long-term propane fuel prices because...
12. Describe how it will meet the goal(s) selected above.

The BGCS Propane Bus Project is significant because it will save substantial, sustainable school bus fleet operational cost savings over the long term. These overall cost savings will provide additional resources in our classrooms in the long term. The following lists project activities and a description of how each activity will contribute to the overall goal of reducing costs: Activities to Achieve Goal: 1) Purchase commercially available propane powered school buses that offer demonstrable lifecycle cost savings. Based on conservative assumptions, a single bus will save approximately $10,721.93 over 6 years (prop = $152,000.00 less ($152,000.00 - $141,278.07) + $20,923.62 + 365 days/year x $89,991.32 x $2.00/gal) over that period. These lifecycle cost savings are predictable based on: a) projected savings over 5 years of $152,000.00, and b) $20,923.62 saved in the first year of operation. These cost savings are in line with real world savings documented by other propane users in Ohio including Delta York and Franklin County Bd of Ed. It is important to note these are conservative numbers as previously discussed. 2) Build a propane refueling station at Bowling Green City Schools Operations Center, where buses are currently zoned and permitted for diesel fueling. This installation of above ground refueling stations on city owned properties will allow the district to bond the cost of fueling system costs into bonds with property tax credits. These above ground refueling stations can be installed in less than 90 days and will offer BGCS easy, on-site fueling to ensure that bus operations continue to function in the same efficient manner as previous diesel operations. These above ground refueling stations will be immediately operational cost savings that will continue to accrue for the lifetime of the propane vehicles allowing BGCS to not only invest in more propane buses for long-term operational savings, but to direct these cost savings into our classrooms to, once the fleet of diesel buses is replace.

*Describes how it will meet the goal(s) selected above.

If school/district receives school improvement funds/support, include a brief explanation of how this project will advance the implementation of this project.

13. Financial Documentation - All applicants must enter or upload the supporting information. Responses should refer to specific information in the financial documents when applicable:

- a. Enter a project budget
- b. Upload the Straight A Financial Impact Template forecasting the expected changes to the five year forecast resulting from implementation of this project. If applying as a consortia or partnership, please include the five year forecast estimates for each district, community school or STEM school member for review.
- c. If subsection (b) is not applicable, please explain why, in addition to how the project will demonstrate sustainability and impact.

The Straight A Financial Impact Template forecasting the expected changes to the five year forecast resulting from implementation of this project has been completed; however, the following information is provided as further explanation: The following budget information aligns with the major activities in this project including: 1) Bus Purchases; 2) Station Construction; 3) Driver/Mechanic Training; and 4) Administrative Costs. These are the total project expected funding requirements including a $20,000 budget for Fuels and Mechanic Training, which have been added to the above table and included in each district’s Five Year Fiscal Information Forecast (in these categories will be realized through the implementation of this project). Total Project Budget - School Bus Purchases: $719,844 (8 bus replacements) - Station Construction Costs: $60,000 (1 large station to accommodate future shared services with the City of BG) - Training Costs: $55,500 (35 drivers; 1 mechanic) - Administrative Costs: $20,000. Total Project Cost: $855,444.

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

$85,444.00 * Total project cost

* Provides a brief narrative explanation of the overall budget. The narrative should include the source and amount of other funds that may be used to support this concept (e.g., Title I funding, RTT money, local funding, foundation support, etc.), and provide details on the cost of items included in the budget (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.)

15. What are new/recurring costs of your innovative project will continue once the grant has expired? If there are no new/recurring costs, please explain why.

0.00 * Specific amount of new/recurring cost (annual cost after project is implemented)

* Narrative explanation/rationale: Provide details on the cost of items included in the budget (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.) If there are no new/recurring costs, please explain why.

BGCS Propane Bus Project does not represent any new project or recurring new costs from this project. Since this project will provide the initial investment capital to set up BGCS for the use of propane powered school buses and associated refueling infrastructure, all recurring costs from this project will fall within existing annual budget categories for buses and station maintenance, annual fuel purchases, school bus replacements, and ongoing driver/mechanic training. In fact, based on the annual savings projected in question 16 below, BGCS should have additional future resources available due to the implementation of this project. Estimated cost savings are conservative and to not take into account the following additional cost savings: 1) as additional propane buses are purchased, the cost savings/revenue increases through the internalization of pro-rated Federal Tax Credits currently in the $150,000 range; 2) current diesel contracts are cost歌曲低于BGCS current costs of $3.66/gallon for diesel; 3) if the Federal Tax Credit of .50/gal for propane continues, the .32/gal rebate (after taxes) will result in an estimated $16,000 fuel costs per year (entire fleet of propane buses). The above additional savings will result in increased revenue available in our classrooms.

16. Are there expected savings that may result from the implementation of the innovative project?

36,352.53 * Specific amount of expected savings (annual)

* Narrative explanation/rationale: Provide details on the expected savings (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.)

The BGCS Propane Bus Project is expected to result in significant reductions in the annual savings for propane buses which would be derived primarily from the cost savings differential in the per gallon price of diesel compared to diesel. The following describes projected annual savings: Actual monthly fuel costs (September 2013) for 8 buses: (8 replacement buses requested) is as follows: Diesel fuel: $12,516.98 (3.66/gal); Propane fuel: $8,477.81 (1.65/gal). Does not take into consideration the Federal Government Rebate ($0.50/gal - $0.18 tax = $0.32/gal savings) Monthly Savingsopropane with propane (8 buses): $4,039.17 This annual savings will be used to offset the cost of replacing diesel buses with propane until the entire fleet is propane fueled. The fuel cost savings from the September 2013 savings would equate to $7,859.54 or $70,735.86 annually (9 months) before Federal Rebate. These annual savings projections are based on real world data on current diesel bus usage (annual/daily usage; annual/daily fuel use, MPG, diesel price per gallon, maintenance costs) vs. the metrics for propane vehicles that will take over these routes. Propane bus MPG is based on real world information supplied by the bus manufacturer as well as real world informaListics. Fuel costs are based on current market price for diesel ($3.66/gal based on current price for diesel fuel) and propane ($1.65/gal current rate from Amerigas as quoted by Wood Lane for the month of October 2013; Wood Lane is located in Bowling Green, Ohio and has provided the following fuel rates for the most recent three consecutive years. Since the primary savings for this project will stem from fuel cost savings, the projections above are a comparable projection. As such, the primary savings for this project will stem from fuel cost savings, the projections above are a comparable projection. For the most recent 2012-2013 school year, Pike Delta York Schools in Delta Ohio paid an average of $3.65/gal for diesel and $1.80/gal for propane, realizing a savings of $23,047.95 with only three propane buses from July 2012 through June 2013. For the 2013-2014 school year, Pike Delta York has secured a contract for $1.53/gal for propane fuel and expects to save even more since their bus company, Delta York, will realize a significant cost savings and has already been utilizing propane for other school districts. In addition, BGCS has engaged a highly qualified propane supplier who has helped Franklin Co. Board of DD, Pike Delta York, and Austintown Local Schools deploy propane school buses and stations. Clean Fuels Ohio quoted administrative costs based on work with previous districts and grants from the US DOE, US EPA, and Ohio EPA for similar projects. Total Project Cost: $555,444.00 This total project cost reflects the addition of all cost categories above.

17. Does not take into consideration the Federal Government Rebate ($0.50/gal - $0.18 tax = $0.32/gal savings)
D) IMPLEMENTATION - Timeline, communication and contingency planning

18. Fill in the appropriate dates and an explanation of the timeline for the successful implementation of this project. In each explanation, be sure to briefly describe the largest barriers that could derail your concept or timeline for implementation and your plan to proactively mitigate such barriers. In addition, the narrative should list the stakeholders that will be engaged during that stage of the project and describe the communication that occurred as the application was developed.

**Proposal Timeline Dates**

- Plan (MM/DD/YYYY): 01/03/2014
- Narrative explanation

D) IMPLEMENTATION - Timeline, communication and contingency planning

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

E) SUBSTANTIAL IMPACT AND LASTING VALUE - Impact, evaluation and replication

20. Describe the rationale, research or past success that supports the innovative project and its impact on student achievement, spending reduction in the five E) SUBSTANTIAL IMPACT AND LASTING VALUE

21. Is this project able to be replicated in other districts in Ohio?

**Yes**
22. If so, how?
As question 20 demonstrates, this type of propane school bus project has already been replicated across the country in school fleets including those in Indiana, Georgia, Arizona, Oklahoma, Oregon, and Ohio. In addition to Ohio’s Pike Delta York Schools listed above, Franklin Co. Board of Developmental Disabilities currently utilizes propane fuel for part of its bus fleet operations and Austintown Local Schools is in the initial stages of deploying 14 propane buses for school operations. As reviewers for the Straight A Fund will likely find, many more Ohio districts beyond BGCS are interested in deploying propane buses to reduce their fuel costs as well as provide lower emissions for students and the community.

23. Describe the substantial value and lasting impact that the project hopes to achieve.

The goal of BGCS Propane Bus Project is to result in significant operational cost savings over the immediate five year fiscal timeframe as well as offer substantial and sustainable school bus fleet operational cost savings over the long term. Since the cost savings from this project will accrue based on the lower operational costs of propane buses vs. current diesel equipment, the primary project benchmarks will stem from a direct comparison between past/remaining diesel bus operations and Straight A funded propane bus operations. This will include tracking the following data for both diesel and propane powered buses:

1) Fuel Price per gallon (for applicable period, i.e. monthly, quarterly, annually)
2) Fuel use per vehicle (daily, quarterly, annually)
3) Miles Travelled per vehicle (daily, quarterly, annually)
4) Average vehicle Miles Per Gallon (quarterly, annually)
5) Maintenance costs per vehicle (quarterly, annually)
6) Station Operation and Maintenance Costs (quarterly, annually)
7) Cost per Mile for each vehicle (quarterly, annually)
8) Miscellaneous additional costs per vehicle or overall project (quarterly, annually)
9) Miscellaneous additional savings as per vehicle or overall project (quarterly, annually)
10) Annualized operational cost savings per vehicle.

Based on a straightforward comparison of these metrics, costs, and data points, savings from propane bus operations can be readily benchmarked and documented. In addition to the cost savings benchmarks, BGCS will also be able to provide data to Clean Fuels Ohio and receive assistance in calculating vehicle specific emissions reductions for the propane buses through Clean Fuels Ohio’s free program, earning positive recognition for their leadership in fleet economic and environmental performance.

24. What are the specific benchmarks related to the fund goals identified in question 9 that 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.

In addition to the cost savings described in question 23, the Straight A Fund will also be able to provide data to Clean Fuels Ohio and receive assistance in calculating vehicle specific emissions reductions for the propane buses through Clean Fuels Ohio’s free program, earning positive recognition for their leadership in fleet economic and environmental performance.

25. Describe the plan to evaluate the impact of the concept, strategy or approaches used.

As described in question 24, the goal of the BGCS Propane Bus Project is to result in significant operational cost savings over the immediate five year fiscal timeframe as well as offer substantial and sustainable school bus fleet operational cost savings over the long term. Since the cost savings from this project will accrue based on the lower operational costs of propane buses compared to current diesel equipment, the primary project evaluation method will consist of a direct comparison between past/remaining diesel bus operations and Straight A funded propane bus operations. This will include tracking the following data for both diesel and propane powered buses:

1) Fuel Price per gallon (for applicable period, i.e. monthly, quarterly, annually)
2) Fuel use per vehicle (daily, quarterly, annually)
3) Miles Travelled per vehicle (daily, quarterly, annually)
4) Average vehicle Miles Per Gallon (quarterly, annually)
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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 timeframe. The Governing Board of the Straight A Fund reserves the right to conduct evaluation of the plan and request additional information in the form of data, surveys, interviews, focus groups, and any other materials to the data legislature, governor, and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant agency and/or all identified partners to abide by all assurances outlined in the Assurance section of the CCIP. In the box below, enter “I Accept” and indicate your name, title, agency/organization and today’s date.

I Accept Dr. Ann McVey Superintendent Bowling Green City Schools 137 Clough Street Bowling Green OH 43402 419-352-3576 amcvey@bgcs.k12.oh.us 10.25.13