



**PPL Electric Utilities**

**Grid of the Future Project**

FOA Number: DE-FOA-0002740

BIL – Grid Resilience and Innovation Partnerships (GRIP)

Topic Area 2: Smart Grid Grants (Sec. 40107)

**Technical Points of Contact**

Steve Selkregg

Director of Asset Management and Engineering

(b) (4)

Jim Conrad

Director of IT Product Team

(b) (4)

**Business Point of Contact**

Eric Resch

Project Manager

PPL Electric Utilities Corporation

(b) (4)

**Team Member Organizations:**

PPL Electric Utilities Corporation, Prime

PPL Services Corporation, Team Member

Accenture PLC, Team Member

**Project Locations:**

Eastern & Central Regions of the Commonwealth of Pennsylvania

**Notice of Restriction on Disclosure and Use of Data:**

Tab A. Personnel, Tab B. Fringe, Tab D Equipment, and Tab F Contractual, of the Budget Justification Workbook of this document may contain business sensitive, trade secrets, proprietary, or otherwise confidential information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance agreement between the submitter and the Government. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source. [End of Notice].

## Instructions and Summary- Confidential

**Award Number:** \_\_\_\_\_

**Date of Submission:** 3/15/2023

**Award Recipient:** \_\_\_\_\_

**Form submitted by:** PPL Electric Utilities Corporation

(May be award recipient or sub-recipient)

**Notice of Restriction on Disclosure and Use of Data:**

Tab A. Personnel of the Budget Justification Workbook of this document may contain business sensitive, trade secrets, proprietary, or otherwise confidential information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance agreement between the submitter and the Government. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source. [End of Notice].

**Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!**  
**Do not modify this template or any cells for formulas!**

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, contractors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows and columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

**BURDEN DISCLOSURE STATEMENT**

Public reporting burden for this collection of information is estimated to average 24 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

### SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

**The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry**

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
Budget Period 1		\$21,831,140	\$21,831,140			\$43,662,280	50.00%	01/01/2024 - 12/31/2024
Budget Period 2		\$14,855,536	\$14,855,536			\$29,711,072	50.00%	01/01/2025 - 12/31/2025
Budget Period 3		\$7,210,882	\$7,210,882			\$14,421,764	50.00%	01/01/2026 - 12/31/2026
Budget Period 4		\$2,722,577	\$2,722,577			\$5,445,154	50.00%	01/01/2027 - 12/31/2027
Budget Period 5		\$2,735,078	\$2,735,077			\$5,470,155	50.00%	01/01/2028 - 12/31/2028
Total		\$49,355,213	\$49,355,212			\$98,710,425	50.00%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	(b) (4)							
b. Fringe Benefits								
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
d. Equipment	\$11,581,041	\$10,635,626	\$6,876,261	\$1,633,850	\$1,633,850	\$32,360,628	32.78%	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
f. Contractual								
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Contractor	\$21,579,517	\$9,210,818	\$1,798,348	\$259,818	\$259,818	\$33,108,317	33.54%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$21,579,517	\$9,210,818	\$1,798,348	\$259,818	\$259,818	\$33,108,317	33.54%	
g. Construction	\$1,086,950	\$627,950	\$169,950	\$169,950	\$169,950	\$2,224,750	2.25%	
h. Other Direct Costs	\$275,000	\$325,000	\$350,000	\$388,000	\$413,000	\$1,751,000	1.77%	
Total Direct Costs	\$42,060,767	\$28,142,289	\$13,510,633	\$5,164,572	\$5,189,573	\$94,067,834	95.30%	
i. Indirect Charges	\$1,601,513	\$1,568,783	\$911,131	\$280,582	\$280,582	\$4,642,591	4.70%	
Total Costs	\$43,662,280	\$29,711,072	\$14,421,764	\$5,445,154	\$5,470,155	\$98,710,425	100.00%	

**Business Use**

Additional Explanation (as needed):

a. Personnel-Confidential

Contains Business Sensitive, Trade Secrets, Proprietary, or Otherwise Confidential Information Exempt from Public Disclosure

**INSTRUCTIONS - PLEASE READ!!!**  
1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and contractors must be included under f. Contractual.  
2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base hourly rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., rate negotiated for each hour worked on the project, labor distribution report, state civil service rates, etc.) must also be identified.  
3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).  
4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.  
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 5			

(b) (4)

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 5			
<div>(b) (4)</div>																			

Additional Explanation (as needed):

a. Personnel-Confidential

Contains Business Sensitive, Trade Secrets, Proprietary, or Otherwise Confidential Information Exempt from Public Disclosure

b. Fringe Benefits-Confidential

Contains Business Sensitive, Trade Secrets, Proprietary, or Otherwise Confidential Information Exempt from Public Disclosure

**INSTRUCTIONS - PLEASE READ!!!**  
1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.  
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.  
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.  
4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	

(b) (4)

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

☐ A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.\*

☐ There is not a current federally approved rate agreement negotiated and available.\*\*

\*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

\*\*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <https://www.energy.gov/eere/funding/downloads/sample-indirect-rate-proposal-and-profit-compliance-audit>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

Contains Business Sensitive, Trade Secrets, Proprietary, or Otherwise Confidential Information Exempt from Public Disclosure

## c. Travel

**INSTRUCTIONS - PLEASE READ!!!**

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Only travel that is directly associated with this award should be included as a direct travel cost to the award.
4. Federal travel regulations are contained within the applicable cost principles for all entity types.
5. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
6. Columns E, F, G, H, I, J, and K are per trip.
7. The number of days is inclusive of the day of departure and the day of return.
8. Recipients should enter City and State (or City and Country for International travel) in the Depart from and Destination fields.
9. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

Business Use

**d. Equipment****Contains Business Sensitive, Trade Secrets, Proprietary, or Otherwise Confidential Information Exempt from Public Disclosure****INSTRUCTIONS - PLEASE READ!!!**

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. contractor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a contractor quote for all equipment items over \$50,000 in price. If the contractor quote is not an exact price match, provide an explanation in the additional explanation section below. If a contractor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3.1	(b) (4)			\$326,508		
3.1				\$1,848,000		
3.1				\$371,833		
3.1				\$135,000		
3.1				\$74,000		
3.1				\$157,000		
3.1				\$74,000		
3.1				\$2,758,000		
3.1				\$1,623,750		
3.1				\$30,600		
3.1				\$306,000		
3.1				\$1,558,850		
3.1				\$75,000		
3.1				\$1,031,250		
3.1				\$90,000		
3.1				\$1,031,250		
3.1				\$90,000		
				\$0		
Budget Period 1 Total				\$11,581,041		
Budget Period 2						
3.1	(b) (4)			\$734,643		
3.1				\$462,000		
3.1				\$3,027,783		
3.1				\$18,000		
3.1				\$10,000		
3.1				\$21,000		
3.1				\$10,000		
3.1				\$2,758,000		
3.1				\$1,623,750		
3.1				\$30,600		
3.1				\$306,000		
3.1				\$1,558,850		
3.1				\$75,000		
				\$0		
Budget Period 2 Total				\$10,635,626		
Budget Period 3						
3.1	(b) (4)			\$190,463		
3.1				\$165,000		
3.1				\$4,886,948		
3.1				\$1,558,850		
3.1				\$75,000		
				\$0		
Budget Period 3 Total				\$6,876,261		
Budget Period 4						
3.1	(b) (4)			\$1,558,850		
3.1				\$75,000		
				\$0		
Budget Period 4 Total				\$1,633,850		
Budget Period 5						
3.1	(b) (4)			\$1,558,850		
3.1				\$75,000		
				\$0		
Budget Period 5 Total				\$1,633,850		
TOTAL EQUIPMENT				\$32,360,628		

Additional Explanation (as needed):

**Contains Business Sensitive, Trade Secrets, Proprietary, or Otherwise Confidential Information Exempt from Public Disclosure**

**e. Supplies****INSTRUCTIONS - PLEASE READ!!!**

- Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
- List all proposed supplies below, providing a basis of costs (e.g. contractor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
- Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
- Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
- Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
<b>Budget Period 1</b>						
4.6	EXAMPLE!!! Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
<b>Budget Period 2</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
<b>Budget Period 3</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
<b>Budget Period 4</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
<b>Budget Period 5</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
TOTAL SUPPLIES				\$0		

Additional Explanation (as needed):



**INSTRUCTIONS - PLEASE READ!!!**

2. **Sub-recipients (partners, sub-awardees):** Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 25% of total award costs. These sub-recipient forms may be completed by either the sub-recipients themselves or by the preparer of this form. The budget totals on the sub-recipient's forms must match the sub-recipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. contractor status.

3. Contractors: List all contractors supplying commercial supplies or services used to support the project. For each Contractor cost with total project costs of \$100,000 or more, a Contractor quote must be provided. A contractor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. contractor status.

4. **Federal Funded Research and Development Centers (FFRDCs):** FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Contractor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
(b) (4)								\$2,317,000
								\$895,992
								\$935,078
								\$549,001
								\$467,093
								\$1,933,000
								\$50,000
								\$330,000
								\$72,250
								\$112,000
								\$2,625,000
								\$2,044,845
								\$408,969
								\$3,750,000
								\$1,803,690
								\$360,738
								\$10,851,605
\$2,510,494								
\$1,091,563								
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$21,579,517	\$9,210,818	\$1,798,348	\$259,818	\$259,818	\$33,108,317

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

<b>Total Contractual</b>	<b>\$21,579,517</b>	<b>\$9,210,818</b>	<b>\$1,798,348</b>	<b>\$259,818</b>	<b>\$259,818</b>	<b>\$33,108,317</b>
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Additional Explanation (as needed):

~~Business Use~~

## g. Construction

### PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a contractor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

**Overall description of construction activities: Construction expenses required to complete all Topic Area 2 projects.**

SOPQ Task #	General Description	Cost	Basis of Cost	Justification of need
<b>Budget Period 1</b>				
5.1	Underground Fiber installation	\$532,000	Assume 60% contractor, 40% PPL and scaled off of fiber installation	Installation of Fiber for LTN Automation Project
5.1	Predictive Failure Monitor Sensor Installation	\$385,000	Scaled from mock up in pilot	Installation of Sensors for Predictive Failure Monitoring
5.1	1PH Recloser Installation	\$169,950	Scaled from previously completed installation	Installation of 1PH reclosers
	<b>Budget Period 1 Total</b>	\$1,086,950		
<b>Budget Period 2</b>				
5.1	Underground Fiber installation	\$73,000	Assume 60% contractor, 40% PPL and scaled off of previously completed job	Installation of Fiber for LTN Automation Project
5.1	Predictive Failure Monitor Sensor Installation	\$385,000	Scaled from mock up in pilot	Installation of Sensors for Predictive Failure Monitoring
5.1	1PH Recloser Installation	\$169,950	Scaled from previously completed installation	
	<b>Budget Period 2 Total</b>	\$627,950		
<b>Budget Period 3</b>				
5.1	1PH Recloser Installation	\$169,950	Scaled from previously completed installation	
	<b>Budget Period 3 Total</b>	\$169,950		
<b>Budget Period 4</b>				
5.1	1PH Recloser Installation	\$169,950	Scaled from previously completed installation	
	<b>Budget Period 4 Total</b>	\$169,950		
<b>Budget Period 5</b>				
5.1	1PH Recloser Installation	\$169,950	Scaled from previously completed installation	
	<b>Budget Period 5 Total</b>	\$169,950		
	<b>TOTAL CONSTRUCTION</b>	<b>\$2,224,750</b>		

Additional Explanation (as needed):  
Business Use

## h. Other Direct Costs

### INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
<b>Budget Period 1</b>				
	Analytics	\$100,000	Analytics costs	Estimated costs for reporting and analytics capabilities
	Azure Cloud Hosting and Services	\$100,000	Cloud costs	Estimated Cloud storage and data processing costs
	Software Licensing	\$75,000	Software and licensing costs	Estimated costs to extract and replicate data into cloud systems
	<b>Budget Period 1 Total</b>	<b>\$275,000</b>		
<b>Budget Period 2</b>				
	Analytics	\$100,000	Analytics costs	Estimated costs for reporting and analytics capabilities
	Azure Cloud Hosting and Services	\$150,000	Cloud costs	Estimated Cloud storage and data processing costs
	Software Licensing	\$75,000	Software and licensing costs	Estimated costs to extract and replicate data into cloud systems
	<b>Budget Period 2 Total</b>	<b>\$325,000</b>		
<b>Budget Period 3</b>				
	Analytics	\$100,000	Analytics costs	Estimated costs for reporting and analytics capabilities
	Azure Cloud Hosting and Services	\$175,000	Cloud costs	Estimated Cloud storage and data processing costs
	Software Licensing	\$75,000	Software and licensing costs	Estimated costs to extract and replicate data into cloud systems
	<b>Budget Period 3 Total</b>	<b>\$350,000</b>		
<b>Budget Period 4</b>				
	Analytics	\$100,000	Analytics costs	Estimated costs for reporting and analytics capabilities
	Azure Cloud Hosting and Services	\$200,000	Cloud costs	Estimated Cloud storage and data processing costs
	Software Licensing	\$88,000	Software and licensing costs	Estimated costs to extract and replicate data into cloud systems
	<b>Budget Period 4 Total</b>	<b>\$388,000</b>		
<b>Budget Period 5</b>				
	Analytics	\$100,000	Analytics costs	Estimated costs for reporting and analytics capabilities
	Azure Cloud Hosting and Services	\$225,000	Cloud costs	Estimated Cloud storage and data processing costs
	Software Licensing	\$88,000	Software and licensing costs	Estimated costs to extract and replicate data into cloud systems
	<b>Budget Period 5 Total</b>	<b>\$413,000</b>		
	<b>TOTAL OTHER DIRECT COSTS</b>	<b>\$1,751,000</b>		

Additional Explanation (as needed):

## i. Indirect Costs

**INSTRUCTIONS - PLEASE READ!!!**

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim resulting cost as a Cost Share contribution, nor can the Recipient claim "unrecovered indirect costs" as a Cost Share contribution.** Neither of these costs can be reflected as actual indirect cost rates realized by the organization, and therefore are not verifiable in the Recipient records as required by Federal Regulation (200.306(b)(1))
- 5.. **Each budget period is rounded to the nearest dollar.**

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
<b>Provide ONLY Applicable Rates:</b>							
Overhead Rate	40.00%	40.00%	40.00%	40.00%	40.00%		<i>Clearing and Overhead</i>
General & Administrative (G&A)	12.00%	12.00%	12.00%	12.00%	12.00%		<i>Material Loader</i>
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
<b>Indirect Costs (As Applicable):</b>							
Overhead Costs	\$480,888	\$292,508	\$85,980	\$84,520	\$84,520	<b>\$1,028,416</b>	<b>Clearing and Overhead</b>
G&A Costs	\$1,120,625	\$1,276,275	\$825,151	\$196,062	\$196,062	<b>\$3,614,175</b>	<b>Material Loader</b>
FCCM Costs, if applicable						<b>\$0</b>	
OTHER Indirect Costs						<b>\$0</b>	
<b>Total indirect costs requested:</b>	<b>\$1,601,513</b>	<b>\$1,568,783</b>	<b>\$911,131</b>	<b>\$280,582</b>	<b>\$280,582</b>	<b>\$4,642,591</b>	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

- ☐ An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application and will be provided electronically to the Contracting Officer for this project.
- ☐ The organization does not have a current, federally approved indirect cost rate agreement and has provided an indirect rate proposal in support of the proposed costs.
- ☐ This organization has elected to apply a 10% de minimis rate in accordance with 2 CFR 200.414(f).

**You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.**

Additional Explanation (as needed): \*IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. **Contractors may not provide cost share.** Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. **Contractors may not provide cost share.** Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. **Each budget period is rounded to the nearest dollar.**

**50.0%**

Applicant Name: 0 Award Number: 0

### Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity  (a)	Catalog of Federal Domestic Assistance Number  (b)	Estimated Unobligated Funds		New or Revised Budget			
		Federal  (c)	Non-Federal  (d)	Federal  (e)	Non-Federal  (f)		Total  (g)
1. Budget Period 1				\$21,831,140	\$21,831,140		\$43,662,280
2. Budget Period 2				\$14,855,536	\$14,855,536		\$29,711,072
3. Budget Period 3				\$7,210,882	\$7,210,882		\$14,421,764
4. Budget Period 4				\$2,722,577	\$2,722,577		\$5,445,154
5. Budget Period 5				\$2,735,078	\$2,735,077		\$5,470,155
6. Totals				\$49,355,213	\$49,355,212		\$98,710,425
Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	(b) (4)						
b. Fringe Benefits							
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	
d. Equipment	\$11,581,041	\$10,635,626	\$6,876,261	\$1,633,850	\$1,633,850	\$32,360,628	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	
f. Contractual	\$21,579,517	\$9,210,818	\$1,798,348	\$259,818	\$259,818	\$33,108,317	
g. Construction	\$1,086,950	\$627,950	\$169,950	\$169,950	\$169,950	\$2,224,750	
h. Other	\$275,000	\$325,000	\$350,000	\$388,000	\$413,000	\$1,751,000	
i. Total Direct Charges (sum of 6a-6h)	\$42,060,767	\$28,142,289	\$13,510,633	\$5,164,572	\$5,189,573	\$94,067,834	
j. Indirect Charges	\$1,601,513	\$1,568,783	\$911,131	\$280,582	\$280,582	\$4,642,591	
k. Totals (sum of 6i-6j)	\$43,662,280	\$29,711,072	\$14,421,764	\$5,445,154	\$5,470,155	\$98,710,425	
7. Program Income						\$0	

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