Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 3					
Budget Period 3 Total					
PROJECT TOTAL					

Additional Explanations/Comments (as necessary)

e. Supplies

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. Further definitions can be found at 10 CFR 600 found on the PMC Recipient Resources Forms page at https://www.eere-pmc.energy.gov/Forms.aspx#regs.

List all proposed supplies below, providing a bases of cost such as vendor quotes, catalog prices, prior invoices, etc., and briefly justifying 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.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1					
EXAMPLE ONLY!!! Wireless DAS components					
				REDACTED EXEMPTION 4	
Budget Period 1 Total					
Budget Period 2					
				REDACTED EXEMPTION 4	
Budget Period 2 Total					

General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 3					
Budget Period 3 Total					
PROJECT TOTAL					

Additional Explanations/Comments (as necessary)

f. Contractual

PLEASE READ!!!

The entity completing this form must provide all costs related to sub-recipients, vendors, contractors, consultants and FFRDC partners in the applicable boxes below.

Sub-recipients (partners, sub-awardees):

For each sub-recipient with total project costs of $100,000 or more, a separate SF-424A budget and PMC123.1 budget justification form must be submitted. 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-recipeint entries below.

The preparer of this form need only provide further support of the completed sub-recipient budget forms as they deem necessary. The support to justify the budgets of sub-recipients with estimated costs less than $100,000 may be in any format, and at a minimum should provide what Statement of Project Objectives task(s) are being performed, the purpose/need for the effort, and a basis of the estimated costs that is considered sufficient for DOE evaluation.

Vendors (includes contractors and consultants):

List all vendors, contractors and consultants supplying commercial supplies or services used to support the project. The support to justify vendor costs (in any amount) should provide the purpose for the products or services and a basis of the estimated costs that is considered sufficient for DOE evaluation.

Federal Research and Development Centers (FFRDCs):

For FFRDC partners, award recipient will provide a Field Work Proposal (if not already provided with the original application), along with the FFRDC labor mix and hours, by category and FFRDC major purchases greater than $25,000, including Quantity, Unit Cost, Basis of Cost, and Justification. The award recipient may allow the FFRDC to provide this information directly to DOE.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

Sub-Recipient Name/Organization	Purpose/Tasks in SOPO	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Project Total
EXAMPLE ONLY!!! XYZ Corp.					
	REDACTED EXEMPTION 4				

Sub-Recipient Name/Organization	Purpose/Tasks in SOPO	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Project Total
	REDACTED EXEMPTION 4				
	Sub-total				

Vendor Name/Organization	Product or Service, Purpose/Need and Basis of Cost (Provide additional support at bottom of page as needed)	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Project Total
EXAMPLE ONLY!!! ABC Corp.					
	REDACTED EXEMPTION 4				

FFRDC Name/Organization	Purpose	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Project Total
	REDACTED EXEMPTION 4				

Total Contractual					

AdditionalExplanations/Comments (as necessary)

g. Construction

PLEASE READ!!!

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 vendor or subrecipient to the award recipient should be entered under f. Contractual.

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.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

Overall description of construction actiivities:

xample Only!!! - Build wind turbine platform

General Description	Cost	Basis of Cost	Justification of need
Budget Period 1			
Three days of excavation for platform site EXAMPLE ONLY!!!			
		REDACTED EXEMPTION 4	
Budget Period 1 Total			
Budget Period 2			
		REDACTED EXEMPTION 4	
Budget Period 2 Total			

General Description	Cost	Basis of Cost	Justification of need
Budget Period 3			
		REDACTED EXEMPTION 4	
Budget Period 3 Total			
PROJECT TOTAL			

Additional Explanations/Comments (as necessary)

g. Construction

h. Other Direct Costs

PLEASE READ!!!

Other direct costs are direct cost items required for the project which do not fit clearly into other categories, and are not included in the indirect pool for which the indirect rate is being applied to this project. Examples are meeting costs, postage, couriers or express mail, telephone/fax costs, printing costs, etc.

Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

General description	Cost	Basis of Cost	Justification of need
Budget Period 1			
XAMPLE ONLY!!! Grad student tuition			
			REDACTED EXEMPTION 4
Budget Period 1 Total			
Budget Period 2			
		REDACTED EXEMPTION 4	
Budget Period 2 Total			
Budget Period 3			
		REDACTED EXEMPTION 4	
Budget Period 3 Total			
PROJECT TOTAL			

Additional Explanations/Comments (as necessary)

i. Indirect Costs

	Budget Period 1	Budget Period 2	Budget Period 3	Total
Rate applied:		REDACTED EXEMPTION 4		
Total indirect costs requested:				

A federally approved indirect rate agreement, or rate proposed supported and agreed upon by DOE for estimating purposes is required if reimbursement of fringe benfits 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. Calculate the indirect rate dollars and enter the total in the Section B., line 6.j. (Indirect Charges) of form SF 424A.

____ **There is a federally approved indirect rate agreement. A copy is provided with this application and will be provided electronically to the Contracting Officer for this project.**
(When this option is selected, a presentation of the budget that demonstrates the application of the approved rate, to arrive at the proposed indirect charges proposed should also be provided.)

X **There is no current, federally-approved indirect rate agreement.**
(When this option is checked, the entity preparing this form shall submit an indirect cost rate proposal in the format provided at the following website, or in a format that provides the same level of information and which supports the rate(s) being proposed for use in estimating the project. Go to https://www.eere-pmc.energy.gov/forms.aspx and select PMC 400.2 Sample Rate Proposal.)

Additional Explanations/Comments (as necessary)

REDACTED EXEMPTION 4

Cost Share

PLEASE READ!!!

A detailed presentation of the cash or cash value of all cost share proposed for the project must be provided in the table below. Identify the source & amount of each item of cost share proposed by the award recipient and each sub-recipient or vendor. Letters of committment must be submitted for all third party cost share (other than award recipient).

Note that "cost-share" is not limited to cash investment. Other items that may be assigned value in a budget as incurred as part of the project budget and necessary to performance of the project, may be considered as cost share, such as: contribution of services or property; donated, purchased or existing equipment; buildings or land; donated, purchased or existing supplies; and/or unrecovered personnel, fringe benefits and indirect costs, etc. For each cost share contribution identified as other than cash, identify the item and describe how the value of the cost share contribution was calculated.

Funds from other Federal sources MAY NOT be counted as cost share. **This prohibition includes FFRDC sub-recipients. Non-Federal sources include private, state or local Government, or any source not originally derived from Federal funds. Documentation of cost sharing commitments must be provided, if not already provided with the original application and they have not changed since its submission.**

Fee or profit will not be paid to the award recipients or subrecipients of financial assistance awards. Additionally, foregone fee or profit by the applicant shall not be considered cost sharing under any resulting award. Reimbursement of actual costs will only include those costs that are allowable and allocable to the project as determined in accordance with the applicable cost principles prescribed in 10 CFR 600.127, 10 CFR 600.222 or 10 CFR 600.317. Also see 10 CFR 600.318 relative to profit or fee.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

Organization/Source	Type (cash or other)	Cost Share Item	Budget Period 1 Cost Share	Budget Period 2 Cost Share	Budget Period 3 Cost Share	Total Project Cost Share
ABC Company EXAMPLE ONLY!!!		REDACTED EXEMPTION 4				

Organization/Source	Type (cash or other)	Cost Share Item	Budget Period 1 Cost Share	Budget Period 2 Cost Share	Budget Period 3 Cost Share	Total Project Cost Share
		REDACTED EXEMPTION 4				
		Totals				

Total Project Cost

Cost Share Percent of Award:

Additional Explanations/Comments (as necessary)

REDACTED
EXEMPTION 4

STATEMENT OF PROJECT OBJECTIVES

Solazyme, Inc.
Recovery Act: Solazyme Integrated Biorefinery (SzIBR): Diesel Fuels from Heterotrophic Algae

A. PROJECT OBJECTIVES

Solazyme proposes to build, operate and optimize a pilot-scale "**S**ola**z**yme **I**ntegrated **Bio**refinery." SzIBR will demonstrate integrated scale-up of Solazyme's novel heterotrophic algal oil biomanufacturing process, validate the projected commercial-scale economics of producing multiple advanced biofuels, and enable Solazyme to collect the data necessary to complete design of the first commercial-scale facility.

Specific project objectives include:
- Expeditiously commence construction and operations.
- Integrate all process unit operations successfully into a unified biorefinery.
- Validate feasibility of low cost production at commercial scale.
- Demonstrate refining of the algal oil into fully-compliant liquid transportation fuels.
- Accelerate development of high-impact lignocellulosic feedstocks.
- Successfully complete the project on schedule.

B. PROJECT SCOPE

The scope of the proposed project encompasses (i) building, operating and optimizing a pilot-scale integrated biorefinery, (ii) cultivating fuel oil-producing algae, (iii) extracting and purifying oil from the algae, (iv) refining the algal oil to standard liquid transportation fuels, (v) optimizing fermentation parameters at both laboratory and pilot scale, and (vi) gathering data to assist in the design of subsequent demonstration and commercial facilities.

The project advances the goals of the DOE Biomass Program and accelerates the nation's ability to achieve the production targets mandated by the federal Renewable Fuel Standard (RFS).

C. TASKS TO BE PERFORMED

BUDGET PERIOD 1: PRELIMINARY ACTIVITIES

Task A: Complete Award 1 Activities

Task A.1: Selection Kick-Off Meeting (DOE Core)

Task A.2: Risk mitigation plan validation completed – Award 1 (DOE Core)

Task A.3: Complete NEPA process – Period 1

The expected result is a Categorical Exclusion or Finding of No Significant Impact.

Task A.4: Submission of Award 1 application (DOE Core)

Task A.5: Acceptance of Award 1 application (DOE Core)

Task A.6: CD-2 Approve Performance Baseline (DOE Core)

Task A.7: Release of Award 1 funds (DOE Core)

Task B: Complete Award 2 Activities

Task B.1: Risk mitigation plan validation completed – Award 2 (DOE Core)

Task B.2: NEPA approval to proceed (DOE Core)

Task B.3: Prepare manufacturing site:

Solazyme shall finalize and sign EPC contract (DOE Core), complete engineering drawings, submit permit applications, finalize specifications of equipment with vendors, finalize initial feedstock supply agreements, and update the safety plan for the manufacturing site. Upon completion of this Task, Solazyme will have completed all preparatory work at the project site including receipt of the environmental air permit and be ready to begin construction.

Task B.4: Define commissioning criteria (DOE Core)

Task B.5: Prepare research site

Solazyme shall obtain permits (expect none required) and update the safety plan for the research site.

Task B.6: Submit reports

Solazyme shall submit financial reports, including standard and Recovery Act status reports, and technical progress reports. Reports will be provided in accordance with the Federal Assistance Reporting Checklist following the instructions included therein.

B.7: Submission of Award 2 application (DOE Core)

B.8: Acceptance of Award 2 application (DOE Core)

B.9: CD-3 Approve Start of Construction (DOE Core)

B.10: Release of Award 2 funds (DOE Core)

BUDGET PERIOD 2: CONSTRUCTION AND OPERATION

Tasks C.1-C.7: Create and qualify pilot-scale SzIBR at manufacturing site

Solazyme shall submit purchase orders for all the necessary oil extraction and recovery equipment downstream of fermentation. Solazyme will clear space for equipment as needed, prepare utility connections and accept delivery of equipment. Solazyme shall also install, startup, test and qualify all equipment, train operators on new equipment and conduct start-up/safety inspection. Upon completion of this Task, the SzIBR facility will be mechanically complete and ready for shakedown.

Task C.8: CD-4: Start of Operation Approval – Initiate Shakedown (DOE Core)

Task C.9.1 – C9.4: Test and qualify facility:

Solazyme shall conduct initial fermentation-only runs to verify operation of the pre-existing fermentation infrastructure at the manufacturing site, as well as complete process flow runs. Upon completion of this Task, the SzIBR facility will be fully operational and ready to conduct

the major project campaigns specified in Task D.

C.9.5: Shakedown complete (DOE Core)

C.10: Commissioning – Start of commercial operation (DOE Core)

Task D: Operate SzIBR to optimize and demonstrate integrated process

Solazyme shall conduct a series of major campaigns through the entire integrated process flow at SzIBR , collect extensive process data, and optimize the process parameters. The expected outcome is the demonstration of key performance parameters (KPPs) that Solazyme has specified. These KPPs correspond to process productivity, yield, and efficiency metrics required to reach commercial cost objectives (when the process is transferred to a commercial-scale facility).

Solazyme shall facilitate an Independent Engineer Performance Test. The expected outcome is completion of the IEPT tests demonstrating the KPPs while exceeding the minimum feedstock throughput requirements.

Task E: Generate concentrated sugars derived from lignocellulosic feedstocks

Solazyme shall obtain sugar derived from lignocellulosic feedstocks via enzymatic processes and acid hydrolysis from subcontractors. The expected outcome is a quantity sufficient to conduct the work specified in Task D and Task F.

Task F: Optimize fermentation parameters at laboratory scale to support integrated pilot operations at SzIBR

Solazyme shall optimize the fermentation performance at laboratory scale in support of operations at SzIBR. The expected outcome is data that will guide pilot-scale operations.

Task G: Refine algal oil from SzIBR to standard liquid transportation fuels

Solazyme will deliver the purified algal oil generated in Task D to subcontractors that will refine the oil to standard liquid transportation fuels, including biodiesel and renewable diesel. The expected outcome is liquid transportation fuels that fully comply with all applicable standards.

Task H: Submit reports

Solazyme shall submit financial reports, including standard and Recovery Act status reports, annual reports and updated pro formas, as well as the Interim Final Technical Report, including property disposition and IP reports. Reports will be provided in accordance with the Federal Assistance Reporting Checklist following the instructions included therein.

STATEMENT OF PROJECT OBJECTIVES

Solazyme, Inc.
Solazyme Integrated Biorefinery (SzIBR): Diesel Fuels from Heterotrophic Algae

A. PROJECT OBJECTIVES

Solazyme proposes to build, operate and optimize a pilot-scale "**Sol**a**z**yme **I**ntegrated **Bio**refinery." SzIBR will demonstrate integrated scale-up of Solazyme's novel heterotrophic algal oil biomanufacturing process, validate the projected commercial-scale economics of producing multiple advanced biofuels, and enable Solazyme to collect the data necessary to complete design of the first commercial-scale facility.

Specific project objectives include:

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- Accelerate development of high-impact lignocellulosic feedstocks.
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B. PROJECT SCOPE

The scope of the proposed project encompasses (i) building, operating and optimizing a pilot-scale integrated biorefinery, (ii) cultivating fuel oil-producing algae , (iii) extracting and purifying oil from the algae, (iv) refining the algal oil to standard liquid transportation fuels, (v) optimizing fermentation parameters at both laboratory and pilot scale, and (vi) gathering data to assist in the design of subsequent demonstration and commercial facilities.

The project advances the goals of the DOE Biomass Program and accelerates the nation's ability to achieve the production targets mandated by the federal Renewable Fuel Standard (RFS).

C. TASKS TO BE PERFORMED

BUDGET PERIOD 1: PRELIMINARY ACTIVITIES

Task A: Complete Award 1 Activities
Task A.1: Selection Kick-Off Meeting (DOE Core)
Task A.2: Risk mitigation plan validation completed – Award 1 (DOE Core)

Task A.3: Complete NEPA process – Period 1

The expected result is a Categorical Exclusion or Finding of No Significant Impact.

Task A.4: Submission of Award 1 application (DOE Core)

Task A.5: Acceptance of Award 1 application (DOE Core)

Task A.6: CD-2 Approve Performance Baseline (DOE Core)

Task A.7: Release of Award 1 funds (DOE Core)

Task B: Complete Award 2 Activities

Task B.1: Risk mitigation plan validation completed – Award 2 (DOE Core)

Task B.2: NEPA approval to proceed (DOE Core)

Task B.3: Prepare manufacturing site:

Solazyme shall finalize and sign EPC contract (DOE Core), complete engineering drawings, submit permit applications, finalize specifications of equipment with vendors, finalize initial feedstock supply agreements, and update the safety plan for the manufacturing site. Upon completion of this Task, Solazyme will have completed all preparatory work at the project site including receipt of the environmental air permit and be ready to begin construction.

Task B.4: Define commissioning criteria (DOE Core)

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Solazyme shall obtain permits (expect none required) and update the safety plan for the research site.

Task B.6: Submit reports

Solazyme shall submit financial reports, including standard and Recovery Act status reports, and technical progress reports. Reports will be provided in accordance with the Federal Assistance Reporting Checklist following the instructions included therein.

B.7: Submission of Award 2 application (DOE Core)

B.8: Acceptance of Award 2 application (DOE Core)

B.9: CD-3 Approve Start of Construction (DOE Core)

B.10: Release of Award 2 funds (DOE Core)

BUDGET PERIOD 2: CONSTRUCTION AND OPERATION

Tasks C.1-C.7: Create and qualify pilot-scale SzIBR at manufacturing site

Solazyme shall submit purchase orders for all the necessary oil extraction and recovery equipment downstream of fermentation. Solazyme will clear space for equipment as needed, prepare utility connections and accept delivery of equipment. Solazyme shall also install, startup, test and qualify all equipment, train operators on new equipment and conduct start-up/safety inspection. Upon completion of this Task, the SzIBR facility will be mechanically complete and ready for shakedown.

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C.9.5: Shakedown complete (DOE Core)

C.10: Commissioning – Start of commercial operation (DOE Core)

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Solazyme shall conduct a series of major campaigns through the entire integrated process flow at SzIBR , collect extensive process data, and optimize the process parameters. The expected outcome is the demonstration of key performance parameters (KPPs) that Solazyme has specified. These KPPs correspond to process productivity, yield, and efficiency metrics required to reach commercial cost objectives (when the process is transferred to a commercial-scale facility).

Solazyme shall facilitate an Independent Engineer Performance Test. The expected outcome is completion of the IEPT tests demonstrating the KPPs while exceeding the minimum feedstock throughput requirements.

Task E: Generate concentrated sugars derived from lignocellulosic feedstocks

Solazyme shall obtain sugar derived from lignocellulosic feedstocks via enzymatic processes and acid hydrolysis from subcontractors. The expected outcome is a quantity sufficient to conduct the work specified in Task D and Task F.

Task F: Optimize fermentation parameters at laboratory scale to support integrated pilot operations at SzIBR

Solazyme shall optimize the fermentation performance at laboratory scale in support of operations at SzIBR. The expected outcome is data that will guide pilot-scale operations.

Task G: Refine algal oil from SzIBR to standard liquid transportation fuels

Solazyme will deliver the purified algal oil generated in Task D to subcontractors that will refine the oil to standard liquid transportation fuels, including biodiesel and renewable diesel. The expected outcome is liquid transportation fuels that fully comply with all applicable standards.

Task H: Submit reports

Solazyme shall submit financial reports, including standard and Recovery Act status reports, annual reports and updated pro formas, as well as the Interim Final Technical Report, including property disposition and IP reports. Reports will be provided in accordance with the Federal Assistance Reporting Checklist following the instructions included therein.

<u>BUDGET PERIOD 3: EXTENDED OPERATION</u>

Task H: Submit reports

Solazyme shall submit financial reports, the final pro forma, and the Final Technical Report, including final property disposition and final IP reports. Reports will be provided in accordance with the Federal Assistance Reporting Checklist following the instructions included therein.

PMC123.1 - Budget Justification for SF 424A Budget

Instructions and Summary

Award Number: DE-FOA-0000096
Award Recipient: Cherokee Pharmaceuticals LLC

Date of Submission: 8/9/2011
Form submitted by: Solazyme
(May be award recipient or sub-recipient)

Please read the instructions on each page before starting.
If you have any questions, please ask your DOE contact. It will save you time!

On this form, provide detailed support for the estimated project costs identified on the SF-424A form (Budget).

- **The dollar amounts on this page must match the amounts on the associated SF-424A.**
- The award recipient and each sub-recipient with estimated costs of $100,000 or more must complete this form and a SF-424A form.
- The total budget presented on this form and on the SF424A must include both Federal (DOE), and Non-Federal (cost share) portions, thereby reflecting TOTAL PROJECT COSTS proposed.
- **For costs in each Object Class Category on the SF-424A, complete the corresponding worksheet on this form (tab at the bottom of the page).**
- **All costs incurred by the preparer's sub-recipients, vendors, contractors, consultants 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.**

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

(Note: The values in this summary table are from entries made in each budget category sheet.)

CATEGORY	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Total Costs	Project Costs %	Comments (Add comments as needed)
a. Personnel						
b. Fringe Benefits						
c. Travel						
d. Equipment						
e. Supplies						
f. Contractual						
Sub-recipient						
FFRDC						
Vendor						
Total Contractual						
g. Construction						
h. Other Direct Costs						
i. Indirect Charges						
Total Project Costs						

REDACTED
EXEMPTION 4

Additional Explanations/Comments (as necessary)

REDACTED
EXEMPTION 4

a. Personnel

PLEASE READ!!!

List costs solely for employees of the entity completing this form (award recipient or sub-recipient). All other personnel costs (of subrecipients or other contractual efforts of the entity preparing this) must be included under f., Contractual. This includes all consultants and FFRDCs.

Identify positions to be supported. Key personnel should be identified by title. All other personnel should be identified either by title or a group category. State the amounts of time (e.g., hours or % of time) to be expended, the composite base pay rate, total direct personnel compensation and identify the rate basis (e.g., actual salary, labor distribution report, technical estimate, state civil service rates, etc.).

Add rows as needed. Formulas/calculations will need to be entered by the preparer of this form. Please enter formulas as shown in the example.

Task # and Title	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hours)	Pay Rate ($/Hr)	Total Budget Period 1	Time (Hours)	Pay Rate ($/Hr)	Total Budget Period 2	Time (Hours)	Pay Rate ($/Hr)	Total Budget Period 3			
1. Generation 2A Receiver Design		10000		$423,000	600								
XAMPLE													
ONLY!!!													

REDACTED
EXEMPTION 4

Additional Explanations/Comments (as necessary)

b. Fringe Benefits

	Budget Period 1	Budget Period 2	Budget Period 3	Total
Rate applied:				
Total fringe requested:		REDACTED EXEMPTION 4		

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information. Calculate the fringe rate and enter the total amount in Section B, line 6.b. ("Fringe Benefits") of form SF-424A.

___ **A fringe benefit rate has been negotiated with, or approved by, 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.**
**In the area designated below, identify the full calculations used to derive the total fringe costs. See further information below.*

X **There is not a current, federally approved rate agreement negotiated and available.**
*When this option is checked, the entity preparing this form shall submit a rate proposal in the format provided at the following website, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Go to https://www.eere-pmc.energy.gov/forms.aspx and select PMC 400.2 Sample Rate Proposal. * In the area designated below, identify the full calculations used to derive the total fringe costs. See further information below.*

Additional explanation/comments (as necessary)

*IMPORTANT: In the space provided below (or as an attachment) provide a complete explanation and the full calculations used to derive the total fringe costs. If the total fringe 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). The rates and how they are applied should not be averaged to get one fringe cost percentage. NOTE: The fringe benefit rate should be applied to both the Federal Share and Recipient Cost Share.

c. Travel

PLEASE READ!!!

Provide travel detail as requested below, identifying total Foreign and Domestic Travel as separate items. Purpose of travel are items such as professional conference, DOE sponsored meeting, project management meeting, etc. The Basis for Estimating Costs are items such as past trips, current quotations, Federal Travel Regulations, etc.

All listed travel must be necessary for performance of the Statement of Projecct Objectives.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

Purpose of travel	No. of Travelers	Depart From (not required for domestic travel)	Destination (not required for domestic travel)	No. of Days	Cost per Traveler	Cost per Trip	Basis for Estimating Costs
Budget Period 1							
Domestic Travel							
EXAMPLE ONLY!!! Visit to PV cell mfr. to set up vendor agreement							
		REDACTED					
		EXEMPTION 4					
Domestic Travel subtotal							
International Travel							
International Travel subtotal							
Budget Period 1 Total							

Purpose of travel	No. of Travelers	Depart From (not required for domestic travel)	Destination (not required for domestic travel)	No. of Days	Cost per Traveler	Cost per Trip	Basis for Estimating Costs
Budget Period 2							
Domestic Travel							
Domestic Travel subtotal							
International Travel							
			REDACTED EXEMPTION 4				
International Travel subtotal							
Budget Period 2 Total							
Budget Period 3							
Domestic Travel							
Domestic Travel subtotal							
International Travel							
International Travel subtotal							
Budget Period 3 Total							
PROJECT TOTAL							

Additional Explanations/Comments (as necessary)

d. Equipment

PLEASE READ!!!

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. Further definitions can be found at 10 CFR 600 found on the PMC Recipient Resources Forms page at https://www.eere-pmc.energy.gov/Forms.aspx#regs .

List all proposed equipment below, providing a basis of cost such as vendor quotes, catalog prices, prior invoices, etc., and briefly justifying its need as it applies to the Statement of Project Objectives. If it is existing equipment, and the value of its contribution to the project budget is being shown as cost share, provide logical support for the estimated value shown. If it is new equipment which will retain a useful life upon completion of the project, provide logical support for the estimated value shown.

For equipment over $50,000 in price, also include a copy of the associated vendor quote or catalog price list.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1					
EXAMPLE ONLY!!! Thermal shock chamber					
				REDACTED EXEMPTION 4	
Budget Period 1 Total					
Budget Period 2					
				REDACTED EXEMPTION 4	
Budget Period 2 Total					

Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 3					
				REDACTED EXEMPTION 4	
Budget Period 3 Total					
PROJECT TOTAL					

Additional Explanations/Comments (as necessary)

e. Supplies

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. Further definitions can be found at 10 CFR 600 found on the PMC Recipient Resources Forms page at https://www.eere-pmc.energy.gov/Forms.aspx#regs.

List all proposed supplies below, providing a bases of cost such as vendor quotes, catalog prices, prior invoices, etc., and briefly justifying 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.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1					
EXAMPLE ONLY!!! Wireless DAS components					
				REDACTED EXEMPTION 4	
Budget Period 1 Total					
Budget Period 2					
				REDACTED EXEMPTION 4	
Budget Period 2 Total					

General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 3					
Budget Period 3 Total					
PROJECT TOTAL					

REDACTED
EXEMPTION 4

Additional Explanations/Comments (as necessary)

f. Contractual

PLEASE READ!!!

The entity completing this form must provide all costs related to sub-recipients, vendors, contractors, consultants and FFRDC partners in the applicable boxes below.

Sub-recipients (partners, sub-awardees):

For each sub-recipient with total project costs of $100,000 or more, a separate SF-424A budget and PMC123.1 budget justification form must be submitted. 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-recipeint entries below.

The preparer of this form need only provide further support of the completed sub-recipient budget forms as they deem necessary. The support to justify the budgets of sub-recipients with estimated costs less than $100,000 may be in any format, and at a minimum should provide what Statement of Project Objectives task(s) are being performed, the purpose/need for the effort, and a basis of the estimated costs that is considered sufficient for DOE evaluation.

Vendors (includes contractors and consultants):

List all vendors, contractors and consultants supplying commercial supplies or services used to support the project. The support to justify vendor costs (in any amount) should provide the purpose for the products or services and a basis of the estimated costs that is considered sufficient for DOE evaluation.

Federal Research and Development Centers (FFRDCs):

For FFRDC partners, award recipient will provide a Field Work Proposal (if not already provided with the original application), along with the FFRDC labor mix and hours, by category and FFRDC major purchases greater than $25,000, including Quantity, Unit Cost, Basis of Cost, and Justification. The award recipient may allow the FFRDC to provide this information directly to DOE.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

Sub-Recipient Name/Organization	Purpose/Tasks in SOPO	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Project Total
EXAMPLE ONLY!!! XYZ Corp.					
	REDACTED EXEMPTION 4				