From: Hames, Molly
Sent: Thursday, August 12, 2010 2:48 PM
To: 'Mundell, Kristy (KR)'
Cc: Dibbs, Mitch (MG); Sterner, Christy; English, Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,
This email is to confirm that using the DCAA approved provisional billing rates for 2010,

REDACTED
EXEMPTION 4

difference as cost share.

Also, please confirm that the $ referenced in the line, 'Dow will pay for any excess costs over the total DOE funding of $ as originally proposed.' is in reference to Dow's originally proposed total project costs, $, minus cost share contributions.'

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

-----Original Message-----
From: Mundell, Kristy (KR) [mailto:KRMundell@dow.com]
Sent: Thursday, August 12, 2010 9:10 AM
To: Hames, Molly
Cc: Dibbs, Mitch (MG); Sterner, Christy; English, Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Molly,

Below is the breakdown of the Year 1 indirect costs using the 2010 provisional billing rates. Attached is the email from DCAA indicating approval of the 2010 provisional billing rates.

Please note, Dow is not requesting any additional funding from DOE. Dow will pay for any excess costs over the total DOE funding of $
as originally proposed.

R&D Labor
Non-R&D Labor
Total Direct Costs

REDACTED
EXEMPTION 4

R&D Overhead -
Non-R&D Overhead -

Total Overhead

Total Direct & Overhead

REDACTED
EXEMPTION 4

ASE -
(ASE is the Administrative Services Expense.
ASE is applied to Total Direct & Overhead)

Grand Total

If you have any questions, please do not hesitate to contact me.

Regards,

Kristy Mundell
Functional Controllers - U.S. Government Contracts

The Dow Chemical Company
2020 Dow Center
Midland, MI 48674
Phone: 989-638-9831 Fax: 989-636-0380
Email: krmundell@dow.com

-----Original Message-----
From: Hames, Molly [mailto:molly.hames@go.doe.gov]
Sent: Monday, August 09, 2010 4:40 PM
To: Dibbs, Mitch (MG); Mundell, Kristy (KR)
Cc: Sterner, Christy; English, Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,
I just wanted to check in and see if you had any questions. This is the last item we need before the remaining conditions can be lifted for Budget Period 1. Please feel free to call me.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

-----Original Message-----
From: Hames, Molly
Sent: Monday, August 02, 2010 12:34 PM
To: 'mgdibbs@dow.com'; 'krmundell@dow.com'
Cc: Sterner, Christy; English, Christine
Subject: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,
We are reviewing your budget submitted as a contractor to Algenol Biofuels, Inc. I only had a few questions. The first is, could we please have a copy of your indirect rate agreement with DCAA? The second is, would you mind providing me with how you calculated the proposed indirect costs of $ in the attached budget submission?

Since the personnel costs have been grouped into three categories (Technologist, R&D, Scientist, R&D, Sr. Research Specialist, R&D), I calculated the indirect rate as follows:

Base Item	Base Cost	Rate
Indirect Cost		

REDACTED
EXEMPTION 4

costs. This is why I am requesting a breakdown of the indirect costs. Please contact me with any questions.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

From: Dibbs, Mitch (MG) [mgdibbs@dow.com]
Sent: Monday, August 09, 2010 3:16 PM
To: Hames, Molly
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Molly,

I should have a response for you on Wednesday.

Regards,
Mitch

Mitchell Dibbs
External Technology
The Dow Chemical Company
1776 Building
Midland, Michigan 48674
Tel: (989)636-1202
Fax: (989)636-1705
mgdibbs@dow.com
www.dow.com

-----Original Message-----
From: Hames, Molly [mailto:molly.hames@go.doe.gov]
Sent: Monday, August 09, 2010 4:40 PM
To: Dibbs, Mitch (MG); Mundell, Kristy (KR)
Cc: Sterner, Christy; English, Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

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Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

-----Original Message-----
From: Hames, Molly
Sent: Monday, August 02, 2010 12:34 PM
To: 'mgdibbs@dow.com'; 'krmundell@dow.com'
Cc: Sterner, Christy; English, Christine
Subject: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,

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Since the personnel costs have been grouped into three categories (Technologist, R&D, Scientist, R&D, Sr. Research Specialist, R&D), I calculated the indirect rate as follows:

Base Item	Base Cost	Rate
Indirect Cost		

REDACTED
EXEMPTION 4

costs. This is why I am requesting a breakdown of the indirect costs. Please contact me with any questions.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

STATEMENT OF PROJECT OBJECTIVES
Algenol Biofuels Inc.
Pilot-Scale Integrated Biorefinery for Producing Ethanol from Hybrid Algae

A. PROJECT OBJECTIVES

Exemption 4

B. PROJECT SCOPE

The DOE Office of Energy Efficiency and Renewable Energy (EERE) has established performance goals. Among these goals are to: 1) dramatically reduce, or even end, dependence on imported oil; and 2) spur the creation of the domestic bio-industry. To that end, the Office of the Biomass Program is offering to fund integrated biorefinery projects under this FOA entitled "Demonstration of Integrated Biorefinery Operations". The FOA lists three main criteria for selection; 1) technical merit and rationale, 2) credible economics and competitive advantages that justify an award, and 3) knowledge and experience in project management.

Algenol and its collaborators, The Dow Chemical Company, National Renewable Energy Laboratory, Membrane Technology & Research Inc., and The Georgia Institute of Technology, have collectively prepared an application that is responsive to the selection criteria as detailed below.

Exemption 4

Exemption 4

C. TASKS TO BE PERFORMED

Exemption 4

Exemption 4

Exemption 4

Exemption 4

ALGENOL
BIOFUELS
DIRECT TO ETHANOL™

Pilot-Scale Integrated Biorefinery
Simplified Process Flow Diagram

Redacted
Exemption 4

Detailed blueprints for the Algenol pilot-scale integrated biorefinery are located in the final four pages of the PFD_Data document:
Sheet 1: Site Layout and Notes
Sheet 2: Operations Layout
Sheet 3: Detailed Process Flow Diagram
Sheet 4: Notes and Electrical Loads

Proprietary Information: All information in this document is proprietary. Algenol Biofuels requests all information in this document not be released to persons outside the Government, except for the purposes of review and evaluation.

Process Flow Diagram Step 1

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

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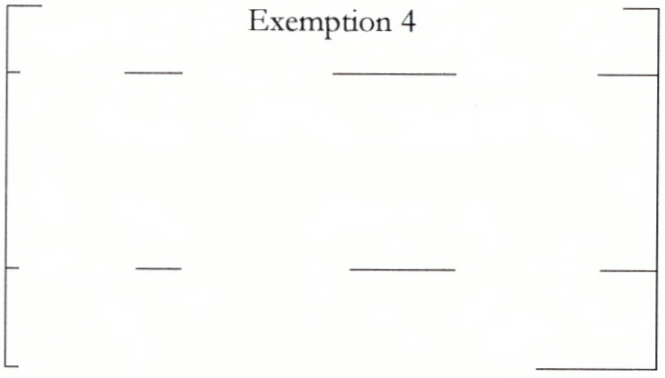
Exemption 4

Exemption 4



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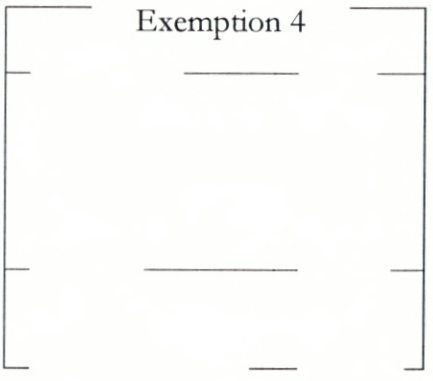

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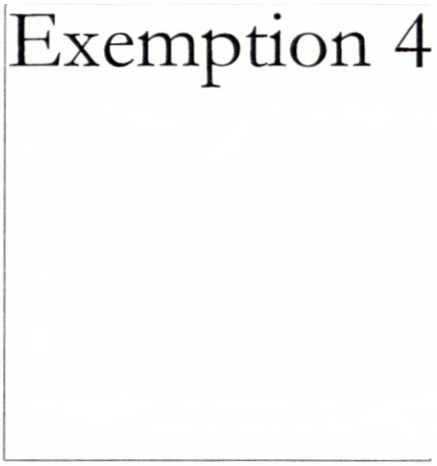
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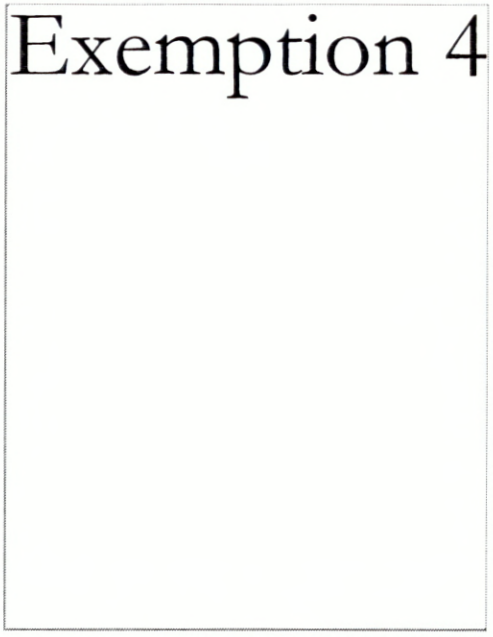
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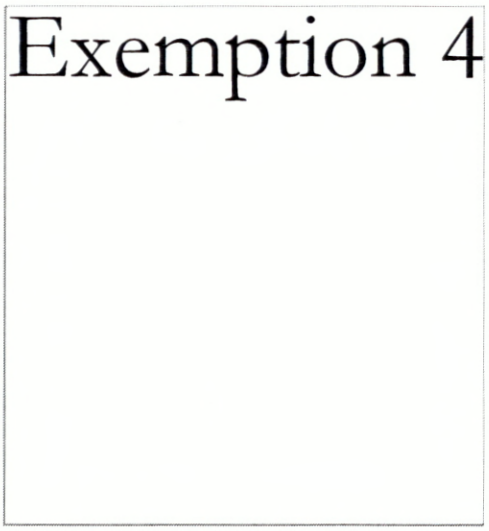
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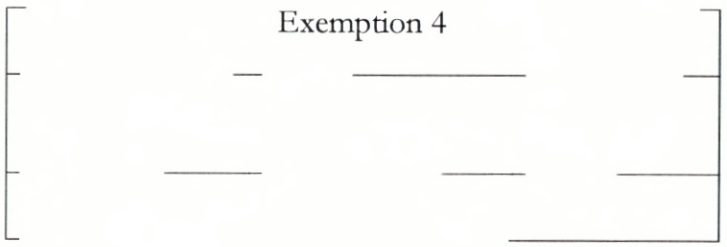

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Exemption 4

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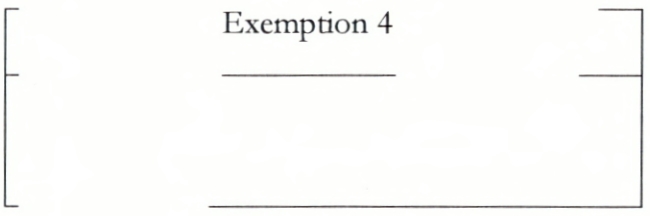

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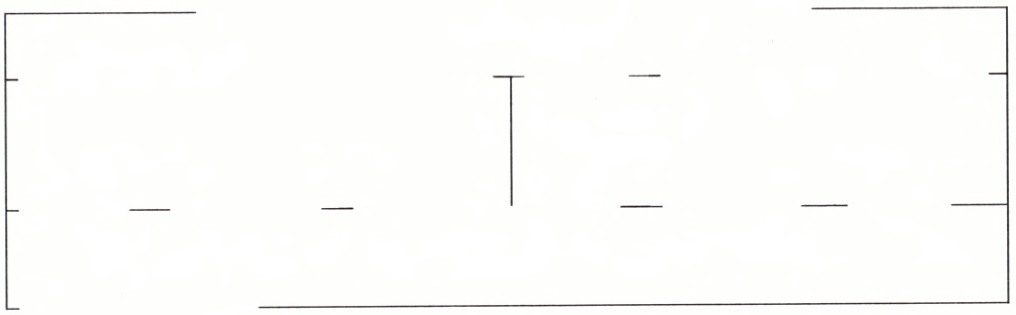

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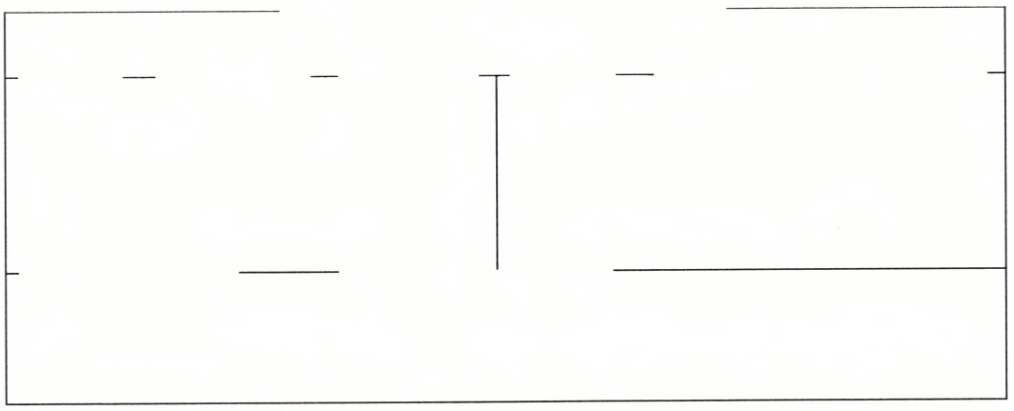

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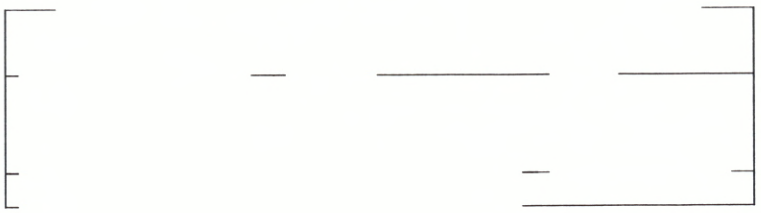

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Exemption 4

PMC123.1 - Budget Justification for SF 424A Budget

Instructions and Summary

Award Number: DE-FOA-0000096
Award Recipient: Algenol Biofuels Inc.

Date of Submission: Apr-10
Form submitted by: Algenol Biofuels Inc.
(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	Exemption 4					
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						

Additional Explanations/Comments (as necessary)

Task #	Title	Position Title	Budget Period 1			Budget Period 2			Budget Period 3		
			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

Exemption 4

b. Fringe Benefits

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

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, if it has not already been provided to the Contracting Officer, OR if it has changed since it was. 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.**
(When this option is selected, a presentation of the budget that demonstrates the appliction of the approved rate, to arrive at the proposed fringes benefits dollars should also be provided.)

XXX **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.)

Additional explanation/comments (as necessary)

The Fringe Benefits rate is based on current actual and adjusted in the future periods for projected hiring salary levels.Currently a larger portion of our employess are senior level and as we expend they will represent a smaller portion of our staff. Since the majority of our fringe benefits is for healthcare insurance, the effect of this demographic change is that fringe benefits will be a higher percent of compensation. Please see the Indirect tab at the end of this file for the Fringe calculation. Fringe Benefits includes medical, dental, childcare reimbursement and payroll taxes.

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	2			2	$650	$1,300	Internet prices
Exemption 4		Exemption 4					
Domestic Travel subtotal							
International Travel							
International Travel subtotal							
Budget Period 1 Total							
Budget Period 2							
Domestic Travel							
Exemption 4		Exemption 4					
Domestic Travel subtotal							

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
International Travel	Exemption 4						
International Travel subtotal							
Budget Period 2 Total							
Budget Period 3							
Domestic Travel	Exemption 4						
Exemption 4							
Domestic Travel subtotal							
International Travel							
International Travel subtotal							
Budget Period 3 Total							
PROJECT TOTAL							

Additional Explanations/Comments (as necessary)

In the interest of having a more reader-friendly schedule, column B above represents the number of trips, not the number of travelers on each trip (e.g. Exemption 4). The general assumption (based on past experience) is that each trip would be Exemption 4 of the training. We anticipated lower hotel rates due to the volume and ability to book in advance. Travel is primarily between Naples, FL and: Baltimore, MD; Freeport,Tx; Midland, MI

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	2	$20,000	$40,000	Vendor Quote	Reliability testing of PV modules- Task 4.3
Exemption 4			Exemption 4		
Budget Period 1 Total					
Budget Period 2					
Exemption 4			Exemption 4		
Budget Period 2 Total					
Budget Period 3					
Budget Period 3 Total			Exemption 4		
PROJECT TOTAL					

Additional Explanations/Comments (as necessary)

At the end of this file there are 2 tabs, one for Lab equipment the other for Office equipment which details the above amounts by item. Basis for quotes include vendor quotes, known actual and catalogs.

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	10	$360.00	$3,600	Catalog price	For Alpha prototype - Task 2.4
	0		$0		
Budget Period 1 Total			**$0**		
Budget Period 2					
	0		$0		
Budget Period 2 Total			$0		
Budget Period 3					
Analytical supplies		Exemption 4			
Chemicals, solvents, polymers					
Disposable lab supplies (e.g. gloves)					
Safety supplies					
Minor engineering equipment					
Budget Period 3 Total					
PROJECT TOTAL					

Additional Explanations/Comments (as necessary)

For Phase I and II, lab supplies are part of the overhead allocation. In Phase III, the costs are only for those at the pilot scale biorefinery. Estimates are based on our experience.

f. Contractual

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.	Partner to develop optimal fresnel lens for Gen 2 product - Task 2.4	$48,000	$32,000	$16,000	**$96,000**
Georgia Tech	Exemption 4				
MTR - Membrane Technology and Research, Inc.					
The Dow Chemical Company					

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.	Vendor for developing custom robotics to perform lens inspection,	$32,900	$86,500		**$119,400**
Exemption 4					

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

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

FFRDC Name/Organization	Purpose	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Project Total
NREL- National Renewable Energy Laboratory	Exemption 4				
Total Contractual					

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:

Example 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!!!	$28,000	Engineering estimate	Site must be prepared for construction of platform.
Budget Period 1 Total	**$0**		
Budget Period 2			
Budget Period 2 Total	$0		
Budget Period 3			
Budget Period 3 Total	$0		
PROJECT TOTAL	**$0**		

Additional Explanations/Comments (as necessary)

Construction will be sub-contracted, one of our sub-recipient partners, The Dow Chemical Company, will provide ground clearing/ land prep work while the actual construction contractor is TBD. These amounts have been included on the Contractual tab. At the end of the this file there is a tab, Construct Recon, which summarizes the the capitalized costs.

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			
EXAMPLE ONLY!!! Grad student tuition	$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total			
Budget Period 2			
Exemption 4	Exemption 4		
Budget Period 2 Total			
Budget Period 3			
Exemption 4	Exemption 4		
Budget Period 3 Total			
PROJECT TOTAL			

i. Indirect Costs

	Budget Period 1	Budget Period 2	Budget Period 3	Total
Rate applied:	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)

Please see the Indirect Proposal tab at the end of this file for indirects calculation. The amount for Phase I of $Exemption 4 % per the indirects sheet times the Algenol Direct costs.