development of biomass-based fuel production pathways. These teaming efforts are expected to involve specific scientific, engineering, system design, analysis, and project management disciplines that can work together effectively to accomplish the stated project objectives. Such partnerships should include an appropriate mix of U.S. industry, academia, and government and/or non-government laboratories, and could include foreign entities with the appropriate skill sets. Additionally, these partnerships will seek to utilize "best-in-class" technical approaches. DOE is not prescribing a specific number of team members, team structure, or mix of organization types. It will be up to the Consortia to determine the appropriate mix of technical partners. The two topic areas are as follows: (1) Algal Biofuel Consortia for research and development to investigate the potential for algae to commercially produce a variety of biofuels, such as renewable gasoline, diesel or jet fuel; and, (2) Advanced Infrastructure Compatible Biofuels Consortia to develop new and innovative approaches for the conversion of biomass to advanced biofuels that are infrastructure compatible, distinct from current technical pathways for producing hydrocarbons from biomass feedstocks. The headquarters technical point of contact is Leslie Pezzullo who can be reached on (202) 586-1514. The field point of contact is Kevin Craig who can be reached on (303) 275-4955.

Program Activity & Key Activity	**B&R Code-Fund Value-Program Code**	**BA($)**
Biomass Program Integration of Biorefinery Technologies	BM0102060-05794-1004173 (2009)	$81,134,686

Carryover funding in the amount of $81,134,686 is authorized for BM0102060-05794-1004173-Biorefinery (2009). These funds are made available for Solicitation #20452 - *B2 - WBS 8.5.8.3 Commercial Scale Biorefinery Projects (Project 2004010)*. This funding supports an increased federal funding ceiling for two commercial scale integrated biorefinery projects that were competitively selected and awarded within the last two years, but which have encountered delays due to the state of the economy. This Recovery Act funding will serve to reduce risk of the development and deployment and allow for increased confidence by the lending community to provide debt financing the awardees. This will in turn allow them to meet their cost-share requirements and move these projects more rapidly beyond the initial phases of development into final engineering and construction. Ultimately, this will accelerate the timeline for start up and commissioning, and support the timely meeting to the EISA 2007 RFS targets. The headquarters technical point of contact is Valri Lightner who can be reached on (202) 586-0937. The field point of contact is Kevin Craig who can be reached on (303) 275-4955.

Program Activity & Key Activity	B&R Code-Fund Value-Program Code	BA($)
Biomass Program Integration of Biorefinery Technologies	BM0102060-05794-1004173 (2009)	$449,608,954

Carryover funding in the amount of $449,608,954 is authorized for BM0102060-05794-1004173-Biorefinery (2009). These funds are made available for Solicitation #20451 - *B1 - WBS 8.5.8.1 Integrated Biorefinery Pilot and Demonstration Scale FOA (Project 2004000)*. This funding supports awards associated with a solicitation issued under the Recovery Act, DE-FOA-0000096, for integrated biorefinery projects that have the necessary technical and economic performance data that validates their readiness for the next level of scale-up. These integrated biorefineries will produce, as their primary product, a liquid transportation fuel that supports, depending on topic area, meeting the advanced, renewable or advanced biofuels portion of the Energy Independence and Security Act of 2007 (EISA) Renewable Fuel Standards (RFS) or, depending on topic area, a bioproduct that substitutes for petroleum-based feedstocks and products. The six topic areas involve the design, construction, and/or operation of the following (as generally defined, and with acceptable feedstocks, fuels, and products specified by topic in the FOA): (1) a "pilot-scale" biorefinery to produce an "acceptable biofuel" using an "acceptable feedstock"; (2) a "pilot-scale" biorefinery to produce an "acceptable bioproduct"; (3) a "demonstration-scale" biorefinery to produce an "acceptable biofuel" using an "acceptable feedstock"; (4) a "demonstration-scale" biorefinery to produce an "acceptable bioproduct" using a topic-specific "acceptable feedstock"; (5) a "pilot-scale" biorefinery using a topic-specific "acceptable feedstock" to produce an "acceptable biofuel" using an "acceptable feedstock"; or, (6) a "demonstration-scale" biorefinery to produce an "acceptable biofuel" using an "acceptable feedstock". A pilot-scale biorefinery project has been defined as a facility with a throughput of no less than one (1) dry tone of feedstock per day, and a demonstration-scale biorefinery must be designed and constructed for a throughput of at least fifty (50) dry tones of feedstock per day. The headquarters technical point of contact is Valri Lightner who can be reached on (202) 586-0937. The field point of contact is Kevin Craig who can be reached on (303) 275-4955.

Should you have any questions regarding budget matters, please contact Leshawn Sutton who can be reached on (202) 586-9258.

Cathy Zoi, Assistant Secretary
Energy Efficiency and Renewable Energy

cc: Angela Sigala (GO)
Dolores (Dee) Adams (GO)
Edward Loudin (NETL)
Jami Shepherd (GO)
Jeffrey Steich (NETL)

Jennifer Surdi (GO)
Kevin Craig
Leslie Pezzullo
Marlys Kinsey (GO)
Valri Lightner

December 4, 2009

Mr. Craig Smith
Algenol Biofuels Inc.
28100 Bonita Grande Drive, Suite 200
Bonita Springs, FL 34135-6220

Dear Mr. Craig Smith:

SUBJECT: Biomass Funding Opportunity Announcement DE-FOA-0000096, Recovery Act - Demonstration of Integrated Biorefinery Operations

Evaluation of your application received in response to the subject Funding Opportunity Announcement has been completed. After a careful review, I am pleased to inform you that your application has been selected for negotiations leading to an award.

In order to expedite the negotiation process, further information is needed to clarify and supplement your application. Please submit the following information to Molly Hames, Specialist, by January 4, 2010, if the information was not previously provided, or if any information has changed.

1. Complete each of the following required forms, which are available on the Project Management Center website at https://www.eere-pmc.energy.gov/Forms.aspx

    a. Application for Federal Assistance, SF 424;
    b. Budget Information – Non Construction Programs, SF 424A or SF 424 (R&R);
    c. Financial Assistance Pre-Award Information Sheet, PMC 121.1
    NOTE: Complete the PMC 121.1 form first and promptly email it under separate cover to me at the email address listed below;
    d. Financial Information, PMC 410.1;
    e. Representation of Limited Rights Data and Restricted Computer Software;
    f. Environmental Checklist, EF1. (This form should be completed on line at https://www.eere-pmc.energy.gov/nepa.asp)
    g. Statement of Project Objectives;
    h. Commitment Letters from Third Parties Contributing to Cost Sharing;
    i. Copy of your approved Indirect Rate Agreement or a Rate Proposal, following the guidelines in the PMC 400.2 form.

During fiscal year 2008, this office will implement a new electronic, paperless procurement system called STRIPES. Upon implementation of STRIPES, ALL organizations currently doing or wanting to do business with this office MUST BE registered with the Central Contractor Registration (CCR) and with FedConnect. As a result, it is imperative that you read and react to information provided in the document entitled "CCR and FedConnect Registrations" on the above referenced PMC website.

The Financial Assistance Regulations, found at https://www.eere-pmc.energy.gov/forms.aspx, and the OMB Circulars, found at http://www.whitehouse.gov/OMB/circulars/index.html will assist you in understanding your requirements as an award Recipient.

You may incur pre-award costs 90 calendar days prior to award without prior approval or more than 90 calendar days with the prior approval of DOE. All pre-award costs are incurred at your risk (i.e., DOE is under no obligation to reimburse such costs if for any reason you do not receive an award or if the award is less than anticipated and inadequate to cover such costs). All costs must be allowable in accordance with the applicable cost principles.

If you will be unable to provide the information by the date requested or have any questions concerning the requested information, please contact Molly Hames, at 303-275-4864, molly.hames@go.doe.gov.

All projects receiving financial assistance from DOE must be reviewed under NEPA, for potential environmental impacts of the project. Funding for an award is contingent upon successfully completing the negotiations and obtaining the NEPA determination. You are restricted from taking any action using federal funds or your cost share funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE providing either a NEPA clearance or a final NEPA decision regarding the project.

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

This letter constitutes your debriefing for this Funding Opportunity Announcement.

On behalf of the Department of Energy, I would like to express a sincere appreciation of your interest and participation in developing the US bioindustry and look forward to initiating this worthwhile project.

Sincerely,

Fred Gerdeman

Fred Gerdeman
Merit Review Committee Chairperson

GRANTS.GOV™

Grant Application Package

Opportunity Title:	Recovery Act - Demonstration of Integrated Biorefinery
Offering Agency:	Golden Field Office
CFDA Number:	81.087
CFDA Description:	Renewable Energy Research and Development
Opportunity Number:	DE-FOA-0000096
Competition ID:	
Opportunity Open Date:	05/06/2009
Opportunity Close Date:	06/30/2009
Agency Contact:	ibr_foa@go.doe.gov

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here.

If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the "Cancel" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.

☐ **I will be submitting applications on my behalf, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.**

*** Application Filing Name:** Algenol Biofuels Inc. DE-FOA-0000096

Mandatory Documents

Move Form to Complete

Move Form to Delete

Mandatory Documents for Submission

- Application for Federal Assistance (SF-424)
- Project/Performance Site Location(s)
- Other Attachments Form

Optional Documents

- Disclosure of Lobbying Activities (SF-LLL)

Move Form to Submission List

Move Form to Delete

Optional Documents for Submission

Instructions

1 **Enter a name for the application in the Application Filing Name field.**

- This application can be completed in its entirety offline; however, you will need to login to the Grants.gov website during the submission process.
- You can save your application at any time by clicking the "Save" button at the top of your screen.
- The "Save & Submit" button will not be functional until all required data fields in the application are completed and you clicked on the "Check Package for Errors" button and confirmed all data required data fields are completed.

2 **Open and complete all of the documents listed in the "Mandatory Documents" box. Complete the SF-424 form first.**

- It is recommended that the SF-424 form be the first form completed for the application package. Data entered on the SF-424 will populate data fields in other mandatory and optional forms and the user cannot enter data in these fields.

- The forms listed in the "Mandatory Documents" box and "Optional Documents" may be predefined forms, such as SF-424, forms where a document needs to be attached, such as the Project Narrative or a combination of both. "Mandatory Documents" are required for this application. "Optional Documents" can be used to provide additional support for this application or may be required for specific types of grant activity. Reference the application package instructions for more information regarding "Optional Documents".

- To open and complete a form, simply click on the form's name to select the item and then click on the => button. This will move the document to the appropriate "Documents for Submission" box and the form will be automatically added to your application package. To view the form, scroll down the screen or select the form name and click on the "Open Form" button to begin completing the required data fields. To remove a form/document from the "Documents for Submission" box, click the document name to select it, and then click the <= button. This will return the form/document to the "Mandatory Documents" or "Optional Documents" box.

- All documents listed in the "Mandatory Documents" box must be moved to the "Mandatory Documents for Submission" box. When you open a required form, the fields which must be completed are highlighted in yellow with a red border. Optional fields and completed fields are displayed in white. If you enter invalid or incomplete information in a field, you will receive an error message.

3 **Click the "Save & Submit" button to submit your application to Grants.gov.**

- Once you have properly completed all required documents and attached any required or optional documentation, save the completed application by clicking on the "Save" button.
- Click on the "Check Package for Errors" button to ensure that you have completed all required data fields. Correct any errors or if none are found, save the application package.
- The "Save & Submit" button will become active; click on the "Save & Submit" button to begin the application submission process.
- You will be taken to the applicant login page to enter your Grants.gov username and password. Follow all onscreen instructions for submission.

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission:	* 2. Type of Application:	* If Revision, select appropriate letter(s):
☐ Preapplication	☒ New	
☒ Application	☐ Continuation	* Other (Specify)
☐ Changed/Corrected Application	☐ Revision	

* 3. Date Received:	4. Applicant Identifier:
Completed by Grants.gov upon submission.	

5a. Federal Entity Identifier:	* 5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:	7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Algenol Biofuels Inc.

* b. Employer/Taxpayer Identification Number (EIN/TIN):	* c. Organizational DUNS:
REDACTED EXEMPTION 6	800399904

d. Address:

* Street1:	28100 Bonita Grande Drive, Suite 200
Street2:	
* City:	Bonita Springs
County:	
* State:	FL: Florida
Province:	
* Country:	USA: UNITED STATES
* Zip / Postal Code:	34135-6220

e. Organizational Unit:

Department Name:	Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:	Dr.	* First Name:	Craig
Middle Name:			
* Last Name:	Smith		
Suffix:			

Title: Chief Operating Officer

Organizational Affiliation:

* Telephone Number:	239-498-2000	Fax Number:	

* Email: craig.smith@algenolbiofuels.com

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

9. Type of Applicant 1: Select Applicant Type:

Q: For-Profit Organization (Other than Small Business)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Golden Field Office

11. Catalog of Federal Domestic Assistance Number:

81.087

CFDA Title:

Renewable Energy Research and Development

*** 12. Funding Opportunity Number:**

DE-FOA-0000096

* Title:

Recovery Act - Demonstration of Integrated Biorefinery Operations

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

*** 15. Descriptive Title of Applicant's Project:**

Integrated Pilot-Scale Biorefinery for Producing Ethanol from Hybrid Algae

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant: FL-014
* b. Program/Project: TX-014

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 01/01/2010
* b. End Date: 12/31/2014

18. Estimated Funding ($):

* a. Federal	25,000,000.00
* b. Applicant	REDACTED EXEMPTION 4
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- [ ] a. This application was made available to the State under the Executive Order 12372 Process for review on
- [ ] b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- [x] c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

- [ ] Yes
- [x] No

Explanation

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

- [x] ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: Dr.
* First Name: Craig
Middle Name:
* Last Name: Smith
Suffix:

* Title: Chief Operating Officer

* Telephone Number: 239-498-2000
Fax Number:

* Email: craig.smith@algenolbiofuels.com

* Signature of Authorized Representative: Completed by Grants.gov upon submission.
* Date Signed: Completed by Grants.gov upon submission.

Application for Federal Assistance SF-424 Version 02

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

Other Attachment File(s)

*** Mandatory Other Attachment Filename:** Project.pdf

Add Mandatory Other Attachment | Delete Mandatory Other Attachment | View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment | Delete Optional Other Attachment | View Optional Other Attachment

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location(s)

Project/Performance Site Primary Location

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Algenol Biofuels Inc.

DUNS Number: 8003999040000

* Street1: 2301 N Brazosport BLVD

Street2:

* City: Freeport

County: Brazoria

* State: TX: Texas

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 77541-2303

* Project/ Performance Site Congressional District: TX-014

Project/Performance Site Location 1

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City:

County:

* State:

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code:

* Project/ Performance Site Congressional District:

ALGENOL BIOFUELS INC.

Business and Commercialization Plan

I. BUSINESS STRATEGY

Exemption 4

II. TECHNOLOGY AND PROCESSES

Exemption 4

Exemption 4

Exemption 4

III. ALGENOL'S PLANS FOR COMMERCIAL BIOREFINERIES

Exemption 4

Exemption 4

Exemption 4

Exemption 4

REDACTED
EXEMPTION 4

Exemption 4

Exemption 4

IV. THE ETHANOL MARKET

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4
Exemption 4

V. ALGENOL'S CAPABILITIES AND RESOURCES

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

VI. ALGENOL'S VALUE PROPOSITION

Exemption 4

Applicant Name: The Dow Chemical Company Award Number:

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. DE-FOA-0000096	81.087			$4,625,118	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$4,625,118		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) **Totals**
8. DE-FOA-0000096	$1,996,280	Exemption 4		
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$1,996,280			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$2,150,008	$1,156,280	$1,156,280	$1,156,280	$1,156,280
14. Non-Federal	Exemption 4				
15. **Total** (sum of lines 13 and 14)					

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16. DE-FOA-0000096	$1,454,642	$428,295	$292,522	$299,651
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$1,454,642	$428,295	$292,522	$299,651

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

Applicant Name: The Dow Chemical Company Award Number:

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. DE-FOA-0000096	81.087			$2,150,008	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$2,150,008		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) **Totals**
8. DE-FOA-0000096	$537,502		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$537,502			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

Applicant Name: The Dow Chemical Company Award Number:

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. DE-FOA-0000096	81.087			$1,454,642	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$1,454,642		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

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Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) **Totals**
8. DE-FOA-0000096	$573,661		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$573,661			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

Applicant Name: The Dow Chemical Company Award Number:

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. DE-FOA-0000096	81.087			$428,295	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$428,295		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) **Totals**
8. DE-FOA-0000096	$317,074		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$317,074			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

Applicant Name: The Dow Chemical Company Award Number:

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. DE-FOA-0000096	81.087			$292,522	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$292,522		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

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Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) Totals
8. DE-FOA-0000096	$283,131		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$283,131			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

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Applicant Name: The Dow Chemical Company Award Number:

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. DE-FOA-0000096	81.087			$299,651	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$299,651		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) Totals
8. DE-FOA-0000096	$284,912		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$284,912			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

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The Dow Chemical Company
Midland, Michigan 48674

June 16, 2009

Dr. Craig R. Smith
Chief Operating Officer
Algenol Biofuels Inc.
28100 Bonita Grande Drive, Suite 200
Bonita Springs, Florida 34135

Dear Dr. Smith:

The Dow Chemical Company (Dow), with annual sales of $58 billion and 46,000 employees worldwide, is a diversified chemical company that combines the power of science and technology with the "Human Element" to constantly improve what is essential to human progress. Dow delivers a broad range of products and services to customers in around 160 countries, connecting chemistry and innovation with the principles of sustainability to help provide everything from fresh water, food and pharmaceuticals to paints, packaging and personal care products.

Dow confirms its proposal to cooperate with Algenol Biofuels, Inc. (Algenol), by
Exemption 4

per year. Dow would be pleased for the opportunity to be able to work closely with Algenol, Principle Investigator, as described in the proposal entitled "Demonstration of Pilot-Scale Integrated Biorefinery Operations for Producing Ethanol from Algae" submitted to the US Department of Energy in response to the Funding Opportunity Announcement DE-FOA-0000096.

This project complements Dow's efforts in Sustainable Chemistry as stated in our publicly announced 2015 goals and is supported by our Polyethylene and Hydrocarbon and Energy Businesses. Steven Gluck, one of Dow's top experts in analytical chemistry, water treatment and algae technology, will lead the Dow effort.

Dow has dedicated significant resources in research for both alternative energy and minimizing the carbon footprint of manufacturing. Recent announcements include: a projected commercial launch of Building Integrated Photovoltaics for the home (The development of this technology is supported in part by a cooperative agreement with the US Department of Energy Solar America Initiative), an agreement with Alstom to build a pilot facility in West Virginia to capture CO_2 from a coal fired power plant, a joint project with NREL to focus on improving mixed alcohol catalysts for producing ethanol and AIRSTONE™ Systems for Wind Energy. Dow currently is expanding the products

made from renewable resources including RENUVA™ renewable resource technology polyols and the first integrated sugarcane derived ethanol to polyethylene world scale commodity production facility. In addition, Dow has proposed a comprehensive national energy security plan that stresses greater conservation, more use of domestic energy sources, development of natural gas and nuclear power and accelerated development of alternative energy with a reduction in greenhouse gases.

Dow proposes to support this program by providing research, engineering and related
Exemption 4

Dow's participation in this collaboration would be, of course, pursuant to finalization and execution of relevant written contracts or subcontracts governing such collaboration that are acceptable to Dow. The finalization and execution of any such contracts and subcontracts shall be at Dow's sole discretion, and is subject to approval by requisite management or executive leadership.

We look forward to the opportunity to further advance our collaboration with Algenol.

Sincerely,

William F. Banholzer
Executive Vice President and Chief Technology Officer

Environmental Questionnaire for FOA Applicants

PART I: General Information

Applicant Name:	***Algenol Biofuels Inc.***
Proposed Project Title:	***Pilot-Scale Integrated Biorefinery Operations for Producing Ethanol From Hybrid Algae***
Solicitation Number:	***DE-FOA-0000096***
Applicant Preparer:	***Dr. Craig Smith***
Applicant Phone:	***(239) 498-2000***
Applicant Email:	***craig.smith@algenolbiofuels.com***

1. Please describe the intended use of DOE funding in your proposed project. For example, would the funding be applied to the entire project or only support a phase of the project? Describe the activity as specifically as possible, i.e. planning, feasibility study, design, data analysis, education or outreach activities, construction, capital purchase and/or equipment installation or modification.

Algenol Biofuels Response: *Algenol intends to use the DOE funds for this entire pilot-scale integrated biorefinery project, subject to the cost share amounts to be borne by the applicant and its collaborators.*

Algenol today possesses the most advanced third generation biofuel technology in the United States. Algenol makes low cost ethanol directly from CO_2 and seawater using hybrid algae in sealed, clear plastic photobioreactors through its unique, patented Direct to Ethanol™ technology – all powered by the sun. Importantly, this is done without processing or transporting a separate biomass. At its core, Algenol has several components that come together in an integrated biorefinery from upstream CO_2 to final fuel grade ethanol product.

Algenol brings to this project significant capabilities and experience of its own and, together with its world-class partners, seeks to accelerate the commercialization of its Direct to Ethanol™ technology through application for funding by the Department of Energy.

Algenol's technology has culminated in hybrid algae that produce over 6,000 gallons of ethanol per acre per year, compared to corn at 400. Algenol's process achieves an energy balance of over 5 to 1 and a Life Cycle Carbon Analysis in a practical case that demonstrates that Algenol's Direct to Ethanol™ production process has a carbon footprint that is merely 20% of petroleum (an 80% reduction from petroleum). Algenol intends to build commercial scale facilities that can produce ethanol for under $1.50 per gallon. Our group of people, companies, and institutions are extraordinarily talented and possess diverse skills that ensure Algenol can not only execute on its plan to build both this pilot-scale integrated biorefinery, but Algenol will bring the technology to commercial scale in under 5 years.

Algenol, since its inception in 2006, rapidly advanced technology based on work done by one of the founders from 1984 through 1996.

- *Algenol has gone from its first hybrid algae cell, to over 300 hybrid algae cell lines;*
- *From 50ml scale to over 150 photobioreactors each with 300-liters;*
- *Algenol has designed and built 4,500-liter commercial scale flexible film photobioreactors;*
- *Algenol has increased hybrid algae ethanol synthesis over 200 times from the original work; and*
- *Higher ethanol production per square meter leads to lower cost and greater efficiency.*