(d) Release, Publication and Use of Data

(1) The Recipient shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Recipient in the performance of this contract, except to the extent such data may be subject to the Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this contract.

(2) The Recipient agrees that to the extent it receives or is given access to data necessary for the performance of this agreement which contain restrictive markings, the Recipient shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the Contracting Officer.

(e) Unauthorized Marking of Data

(1) Notwithstanding any other provisions of this agreement concerning inspection or acceptance, if any data delivered under this agreement bears any restrictive or limiting markings or notices not authorized by this agreement, the Contracting Officer may at any time either return the data to the Recipient or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.

(i) The Contracting Officer shall make written inquiry to the Recipient affording the Recipient 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;

(ii) If the Recipient fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

(iii) If the Recipient provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer shall consider such written justification and determine whether or not the markings are to be cancelled or ignored. If the Contracting Officer determines that the markings are authorized, the Recipient shall be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer shall furnish the Recipient a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Recipient files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination become final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

(2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.

(f) Omitted or Incorrect Markings

(1) Data delivered to the Government, without any restrictive or limiting markings or notices authorized by this agreement, shall be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Recipient may request, within 6 months (or a longer time approved by the Contracting Officer for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Recipient's expense, and the Contracting Officer may agree to do so if the Recipient--

(i) Identifies the data to which the omitted notice is to be applied;

(ii) Demonstrates that the omission of the notice was inadvertent;

(iii) Establishes that the use of the proposed notice is authorized; and

(iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.

(2) The Contracting Officer may also:

(i) Permit correction at the Recipient's expense of incorrect notices if the Recipient identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized; or

(ii) Correct any incorrect notices.

(g) Rights to Protected Data:

(1) The Recipient may, with the concurrence of DOE, claim and mark as protected data, any data first produced in the performance this award that would have been treated as a trade secret if developed at private expense. Any such claimed "Protected Data" will b clearly marked with the following Protected Rights Notice, and will be treated in accordance with such Notice, subject to the provisio of paragraphs (e) and (f) of this clause.

PROTECTED RIGHTS NOTICE
These protected data were produced under Agreement No. DE-EE0002867 with the U.S. Department of Energy and may not be published, disseminated, or disclosed to others outside the Government until, unless express written authorization is obtained from the recipient. Upon expiration of the period of protection set forth in this Notice, the Government shall have unlimited rights this data. This Notice shall be marked on any reproduction of this data, in whole or in part.
(End of notice).

(2) Any such marked Protected Data may be disclosed under obligations of confidentiality for the following purposes:
(a) For internal DOE evaluation and planning purposes under the restriction that the Protected Data be retained in confidence ar not be further disclosed; or
(b) To DOE staff members or authorized DOE contractors or subcontractors performing work under the Government's program under the restriction that the Protected Data be retained in confidence and not be further disclosed.

(3) The obligations of confidentiality and restrictions on publication and dissemination shall end for any Protected Data:
(a) At the end of the protected period;
(b) If the data become publicly known or available from other sources without a breach of the obligation of confidentiality with respect to the Protected Data;
(c) If the same data are independently developed by someone who did not have access to the Protected Data and such data are made available without obligations of confidentiality; or
(d) If the Recipient disseminates or authorizes another to disseminate such data without obligations of confidentiality.

(4) However, the Recipient agrees that the following types of data are not considered to be protected and shall be provided to the Government when required by this award without any claim that the data are Protected Data: General test results and data that demonstrate progress toward meeting DOE's technical goals to design, construct, build, and operate a demonstration- or pilot-scale integrated biorefinery employing lignocellulosic or algal feedstocks, and in certain special cases starch feedstocks, for the production of (i) liquid transportation fuels, (ii) biobased chemicals, products or co-products, or (iii) substitutes for petroleum-bas feedstocks and products. These results and data will be made available to the public and included in the final project report, an in other reports and presentations, as appropriate. The parties agree that notwithstanding the data enumerated above, nothing precludes the Government from seeking delivery of additional data in accordance with this award, or from making publicly available additional nonprotected data, nor does the preceding enumerated data constitute any admission by the Government th technical data not so enumerated are Protected Data. The general data described above shall not include the following types of data, which Recipient intends, without limitation, to claim and mark as Protected Data:

a) Process Flow Diagrams
b) Mass & Energy Balances
c) Process Performance Parameters and Costs by Unit Operation, including the quality of the data used for those performance parameters, (e.g., scale, replication, degree of integration, range of values, etc.)
d) Capital Cost Estimate and Basis thereof: e.g. factored, vendor quotes, actual purchase prices, etc.
e) Pro Forma with best reproducible results to date with all assumptions listed and the basis/rationale behind all pro forma input parameters explained, including but not necessarily limited to:
    i. Production cost parameters: e.g. consumables, utilities, labor, etc.
    ii. Water consumption requirements and costs
    iii. Waste disposal requirements and costs
f) Any additional financial and technical project information necessary and sufficient to validate the current and actual conversion costs associated with the facility or system as constructed and projected to be operated for converting lignocellulosic or algal feedstocks, and in certain special cases starch feedstocks, into (i) liquid transportation fuels, or (i biobased chemicals, products or co-products, or (iii) substitutes for petroleum-based feedstocks and products.

g) Technical results based on data collected, to enable the analysis, assessment and evaluation of other areas of interest, including but not necessarily limited to life cycle assessments, green house gas emissions, and sustainability metrics.

(5) The Government's sole obligation with respect to any protected data shall be as set forth in this paragraph (g).

(h) Protection of Limited Rights Data

(1)When data other than that listed in subparagraphs (b)(1)(i), (ii), and (iii) of this clause are specified to be delivered under this agreement and such data qualify as either limited rights data or restricted computer software, the Recipient, if the Recipient desires continue protection of such data, shall withhold such data and not furnish them to the Government under this agreement. As a condition to this withholding the Recipient shall identify the data being withheld and furnish form, fit, and function data in lieu thereof.

(2) Notwithstanding subparagraph (h)(1) of this clause, the agreement may identify and specify the delivery of limited rights data, or the Contracting Officer may require by written request the delivery of limited rights data that has been withheld or would otherwise b withholdable. If delivery of such data is so required, the Recipient may affix the following "Limited Rights Notice" to the data and the Government will thereafter treat the data, in accordance with such Notice:

LIMITED RIGHTS NOTICE
(a) These data are submitted with limited rights under Government Agreement No. DE-EE0002867. These data may be reproduced and used by the Government with the express limitation that they will not, without written permission of the Recipient, be used for purposes of manufacture nor disclosed outside the Government; except that the Government may disclose these data outside the Government for the following purposes, if any, provided that the Government makes such disclosure subject to prohibition against further use and disclosure:

(1) Use (except for manufacture) by Federal support services contractors within the scope of their contracts;
(2) These "limited rights data" may be disclosed for evaluation purposes under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;
(3) These "limited rights data" may be disclosed to other contractors participating in the Government's program, of which this Recipient is a part, for information or use (except for manufacture) in connection with the work performed under their awards, an under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;
(4) These "limited rights data" may be used by the Government or others on its behalf for emergency repair or overhaul work under the restriction that the "limited rights data" be retained in confidence and not be further disclosed; and
(5) Release to a foreign government, or instrumentality thereof, as the interests of the United States Government may require, f information or evaluation, or for emergency repair or overhaul work by such government.

(b) This Notice shall be marked on any reproduction of these data, in whole or in part.

(End of notice)

(i) Subaward/Contract

The Recipient has the responsibility to obtain from its subrecipients/contractors all data and rights therein necessary to fulfill the Recipient's obligations to the Government under this agreement. If a subrecipient/contractor refuses to accept terms affording the Government such rights, the Recipient shall promptly bring such refusal to the attention of the Contracting Officer and not proceed with subaward/contract award without further authorization.

(j) Additional Data Requirements

In addition to the data specified elsewhere in this agreement to be delivered, the Contracting Officer may, at anytime during agreement performance or within a period of 3 years after acceptance of all items to be delivered under this agreement, order any data first produced or specifically used in the performance of this agreement. This clause is applicable to all data ordered under this subparagraph. Nothing contained in this subparagraph shall require the Recipient to deliver any data the withholding of which is authorized by this clause or data which are specifically identified in this agreement as not subject to this clause. When data are to be delivered under this subparagraph, the Recipient will be compensated for converting the data into the prescribed form, for reproduction, and for delivery.

(k) The Recipient agrees, except as may be otherwise specified in this agreement for specific data items listed as not subject to this paragraph, that the Contracting Officer or an authorized representative may, up to 3 years after acceptance of all items to be delivered under this contract, inspect at the Recipient's facility any data withheld pursuant to paragraph (h) of this clause, for purposes of verifying the Recipient's assertion pertaining to the limited rights or restricted rights status of the data or for evaluating work performance. Where the Recipient whose data are to be inspected demonstrates to the Contracting Officer that there would be a possible conflict of interest if the inspection were made by a particular representative, the Contracting Officer shall designate an alternate inspector.

(End of clause)

04. FAR 52.227-23 Rights to Proposal Data (Technical) (JUN 1987)

Except for data contained on pages 6-10 of the Project Narrative, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data--General" clause contained in this contract) in and to the technical data contained in the proposal upon which this contract is based.

05. 10 CFR 600.325 Appendix A, Patent Rights (Small Business Firms and Nonprofit Organizations) (OCT 2003)

(a) Definitions

Invention means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

Made when used in relation to any invention means the conception or first actual reduction to practice of such invention.

Nonprofit organization means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

Practical application means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are to the extent permitted by law or Government regulations available to the public on reasonable terms.

Small business firm means a small business concern as defined at section 2 of Public Law 85-536 (16 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3 through 121.8 and 13 CFR 121.3 through 121.12, respectively, will be used.

Subject invention means any invention of the Recipient conceived or first actually reduced to practice in the performance of work under this award, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d) must also occur during the period of award performance.

(b) Allocation of Principal Rights

The Recipient may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this Patent Rights clause and 35 U.S.C. 203. With respect to any subject invention in which the Recipient retains title, the Federal Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the U.S. the subject invention throughout the world.

(c) Invention Disclosure, Election of Title and Filing of Patent Applications by Recipient

(1) The Recipient will disclose each subject invention to DOE within two months after the inventor discloses it in writing to Recipient personnel responsible for the administration of patent matters. The disclosure to DOE shall be in the form of a written report and shall identify the award under which the invention was made and the inventor(s). It shall be

sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to DOE, the Recipient will promptly notify DOE of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Recipient.

(2) The Recipient will elect in writing whether or not to retain title to any such invention by notifying DOE within two years of disclosure to DOE. However, in any case where publication, on sale, or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the U.S., the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Recipient will file its initial patent application on an invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the U.S. after a publication, on sale, or public use. The Recipient will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application, or six months from the date when permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications when such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure to DOE, election, and filing under subparagraphs (c)(1), (2), and (3) of this clause may, at the discretion of DOE, be granted.

(d) Conditions When the Government May Obtain Title

The Recipient will convey to DOE, upon written request, title to any subject invention:

(1) If the Recipient fails to disclose or elect the subject invention within the times specified in paragraph (c) of this patent rights clause, or elects not to retain title; provided that DOE may only request title within 60 days after learning of the failure of the Recipient to disclose or elect within the specified times;

(2) In those countries in which the Recipient fails to file patent applications within the times specified in paragraph (c) of this Patent Rights clause; provided, however, that if the Recipient has filed a patent application in a country after the times specified in paragraph (c) of this Patent Rights clause, but prior to its receipt of the written request of DOE, the Recipient shall continue to retain title in that country; or

(3) In any country in which the Recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum Rights to Recipient and Protection of the Recipient Right to File

(1) The Recipient will retain a non-exclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Recipient fails to disclose the subject invention within the times specified in paragraph (c) of this Patent Rights clause. The Recipient's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Recipient is a party and includes the right to grant sublicenses of the same scope of the extent the Recipient was legally obligated to do so at the time the award was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the Recipient's business to which the invention pertains.

(2) The Recipient's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and the agency's licensing regulation, if any. This license will not be revoked in that field of use or the geographical areas in which the Recipient has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at discretion of the funding Federal agency to the extent the Recipient, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, the funding Federal agency will furnish the Recipient a written notice of its intention to revoke or modify the license, and the Recipient will be allowed thirty days (or such other time as may be authorized by DOE for good cause shown by the Recipient) after the notice to show cause why the license should not be revoked or modified. The Recipient has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and the agency's licensing regulations, if any, concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.

(f) Recipient Action to Protect Government's Interest

(1) The Recipient agrees to execute or to have executed and promptly deliver to DOE all instruments necessary to:

(i) Establish or confirm the rights the Government has throughout the world in those subject inventions for which the Recipient retains title; and

(ii) Convey title to DOE when requested under paragraph (d) of this Patent Rights clause, and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The Recipient agrees to require, by written agreement, its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Recipient each subject invention made under this award in order that the Recipient can comply with the disclosure provisions of paragraph (c) of this Patent Rights clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. The disclosure format should require, as a minimum, the information requested by paragraph (c)(1) of this Patent Rights clause. The Recipient shall instruct such employees through the employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The Recipient will notify DOE of any decision not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.

(4) The Recipient agrees to include, within the specification of any U.S. patent application and any patent issuing thereon covering a subject invention, the following statement: ``This invention was made with Government support under (identify the award) awarded by (identify DOE). The Government has certain rights in this invention."

(g) Subaward/Contract

(1) The Recipient will include this Patent Rights clause, suitably modified to identify the parties, in all subawards/contracts, regardless of tier, for experimental, developmental or research work to be performed by a small business firm or nonprofit organization. The subrecipient/contractor will retain all rights provided for the Recipient in this Patent Rights clause, and the Recipient will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractors' subject inventions.

(2) The Recipient will include in all other subawards/contracts, regardless of tier, for experimental, developmental or research work, the patent rights clause required by 10 CFR 600.325(c).

(3) In the case of subawards/contracts at any tier, DOE, the Recipient, and the subrecipient/contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subrecipient/contractor and DOE with respect to those matters covered by the clause.

(h) Reporting on Utilization of Subject Inventions

The Recipient agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Recipient or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Recipient and such other data and information as DOE may reasonably specify. The Recipient also agrees to provide additional reports in connection with any march-in proceeding undertaken by DOE in accordance with paragraph (j) of this Patent Rights clause. As required by 35 U.S.C. 202(c)(5), DOE agrees it will not disclose such information to persons outside the Government without the permission of the Recipient.

(i) Preference for United States Industry.

Notwithstanding any other provision of this Patent Rights clause, the Recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the U.S. unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the U.S. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the U.S. or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in-Rights

The Recipient agrees that with respect to any subject invention in which it has acquired title, DOE has the right in accordance with procedures at 37 CFR 401.6 and any supplemental regulations of the Agency to require the Recipient, an assignee or exclusive licensee of a subject invention to grant a non-exclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances and if the Recipient, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that:

(1) Such action is necessary because the Recipient or assignee has not taken or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Recipient, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Recipient, assignee, or licensee; or

(4) Such action is necessary because the agreement required by paragraph (i) of this Patent Rights clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the U.S. is in breach of such agreement.

(k) Special Provisions for Awards with Nonprofit Organizations

If the Recipient is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the U.S. may not be assigned without the approval of DOE, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the Recipient;

(2) The Recipient will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when DOE deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the Recipient with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific or engineering research or education; and

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms and that it will give preference to a small business firm if the Recipient determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided that the Recipient is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Recipient. However, the Recipient agrees that the Secretary of Commerce may review the Recipient's licensing program and decisions regarding small business applicants, and the Recipient will negotiate changes to its licensing policies, procedures or practices with the Secretary when the Secretary's review discloses that the Recipient could take reasonable steps to implement more effectively the requirements of this paragraph (k)(4).

(l) Communications

All communications required by this Patent Rights clause should be sent to the DOE Patent Counsel address listed in the Award Document.

(m) Electronic Filing

Unless otherwise Specified in the award, the information identified in paragraphs (f)(2) and (f)(3) may be electronically filed.

[End of clause]

MODIFICATIONS:

Add 'Electronic Signature Defined' statement

Add 'Federal Reporting.gov Admin OFC' statement
(administrative office = 03601)

The purposes of this modification are to:

1) Delete and replace the Special Terms and Conditions;

2) Add the Intellectual Property Provisions, CDSB-1003 (Attachment 1);

3) Add the Statement of Project Objectives (Attachment 2);

4) Add the Federal Assistance Reporting Checklist and Instructions, DOE F 4600.2 (Attachment 3);

5) Add the Budget Information, SF-424A (Attachment 4);

6) Add the Requirements For Contingency Funds for Integrated Biorefinery Projects, Appendix (Attachment 5); and

7) This modification approved only Budget Period 1 of the Project.

All other terms and conditions remain unchanged.

In Block 7 of the Assistance Agreement, the Period of Performance reflects the beginning of the Project Period through the end of the current Budget Period, shown as 01/28/2010 through 09/30/2010. For multiple Budget Periods, see Special Terms and Conditions, Provision 4, "Award Project Period and Budget Periods."

The total amounts reflected in Blocks 12 and 13 of the Assistance Agreement do not include the Federally Funded Research and Development Center (FFRDC) funding amount of $424,480, which will be funded directly.

DOE Award Administrator: Molly Hames
E-mail: molly.hames@go.doe.gov
Phone: 303-275-4864

DOE Project Officer: Christy Sterner
E-mail: christy.sterner@go.doe.gov
Phone: 303-275-4720

Recipient Business Officer: Craig Smith
E-mail: craig.smith@algenolbiofuels.com
Phone: 239-498-2000

Recipient Principal Investigator: Craig Smith
E-mail: craig.smith@algenolbiofuels.com
Phone: 239-498-2000

Department of Energy
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3305

February 16, 2010

Mr. Michael Schledorn
Branch Chief
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd.
Golden, CO 80401

Via e-mail: michael.schledorn@go.doe.gov

Dear Mike:

SUBJECT: REQUEST FOR A CLASS WAIVER OF PATENT RIGHTS FOR INVENTIONS DEVELOPED BY AWARDEES UNDER FUNDING OPPORTUNITY ANNOUNCEMENT DE-FOA-0000096, RECOVERY ACT: DEMONSTRATION OF INTEGRATED BIOREFINERY OPERATIONS, W(C)2009-018

REDACTED
EXEMPTION 5

- deliberative process
- attorney-client privilege

Federal Recycling Program Printed on Recycled Paper

REDACTED
EXEMPTION 5
- deliberative process
- attorney-client privilege

Sincerely,

Glen R. Drysdale

Glen R. Drysdale
Patent Attorney
U.S. Department of Energy
Golden Field Office

STATEMENT OF CONSIDERATIONS

ADVANCE CLASS WAIVER OF PATENT RIGHTS FOR TECHNOLOGY DEVELOPED UNDER THE OFFICE OF BIOMASS PROGRAM FUNDING OPPORTUNITY ANNOUNCEMENT, "RECOVERY ACT: DEMONSTRATION OF INTEGRATED BIOREFINERY OPERATIONS" DE-FOA-0000096, W(C) 2009-018

REDACTED
EXEMPTION 5

- deliberative process
- attorney-client privilege

REDACTED
EXEMPTION 5

- deliberative process
- attorney-client privilege

REDACTED
EXEMPTION 5

- deliberative process
- attorney-client privilege

REDACTED
EXEMPTION 5

- deliberative process
- attorney - client privilege

/Glen R. Drysdale/
Glen R. Drysdale
Patent Counsel
Golden Field Office

Date: November 27, 2009

REDACTED
EXEMPTION 5

- deliberative process
- attorney - client privilege

CONCURRENCE:

John Ferrell
Acting Program Manager
Office of the Biomass Program

Date: 11/15/2010

APPROVAL:

Paul A. Gottlieb
Assistant General Counsel for
Technology, Transfer, and
Intellectual Property, GC-62

Date: 1-28-10

(t) U.S. COMPETITIVENESS

REDACTED
EXEMPTION 5

- deliberative process
- attorney-client privilege

PMC 112.2
(08/27/2009)

U.S. DEPARTMENT OF ENERGY
PROJECT MANAGEMENT CENTER

REQUEST FOR REVIEW

☐ Normal Review ☒ Expedited Review Date: 03/15/2010

Justification for Expedited Review ARRA March 31st Deadline

Award Number: DE-EE0002867 – Algenol Biofuels FOA Number, if new award: N/A

Item(s) For Review: Lift Budget Period 1 Conditions

Total Project: $ REDACTED EXEMPTION 4
Federal Funds: $ 24,331,431

Specialist Listed on Award: Molly Hames Phone: 303-275-4864

Specialist Who Prepared Award: _____ Phone: _____

Note to Specialist: Send 72 Hour Congressional Notification for FOA action reviews, as required.

☐ PEER REVIEW

Comments:

Signature: _____ Date: _____

☐ CONTRACTING OFFICER REVIEW

☐ Approved ☐ Approved subject to comments below/attached ☐ Not Approved; Comments below/attached

Comments:

Signature: _____ Date: _____

☐ INDEPENDENT REVIEW

Comments:

Signature: _____ Date: _____

☐ LEGAL REVIEWS – SEE PAGE 2 (Delete page 2 if not required)

☐ OAFA BRANCH CHIEF REVIEW

☐ Approved ☐ Approved subject to comments below/attached ☐ Not Approved; Comments below/attached

Comments:

Signature: _____ Date: _____

☐ DIRECTOR FINANCIAL ASSISTANCE REVIEW – SEE PAGE 3 (Delete page 3, if not required)

☐ HEAD OF CONTRACTING ACTIVITY REVIEW – SEE PAGE 3 (Delete page 3, if not required)

IPLD REVIEW FOR FUNDING OPPORTUNITY ANNOUNCEMENTS

Comments: IPLD Review Results e-mails on: [insert date]

Signature: _____

IPLD REVIEW FOR NEW AWARDS & MAJOR MODS

Comments: IPLD Review Results e-mails on: [insert date]

LEGAL REVIEW FOR NEW AWARDS, MAJOR MODS & OTHER ACTIONS

Type of Review:
- ☐ New Award
- ☐ Mod, include short explanation:
- ☐ Novation/Name Change
- ☐ Other Action

Total Project: $
Federal Funds: $

Tailored Provisions Require Review for New Awards:
- ☐ Substantial Involvement Provision for Cooperative Agreements
- ☐ At Risk
- ☐ Conditional Availability of Funds
- ☐ NEPA
- ☐ Subcontractor Approval
- ☐ Specify other:

FOA Number: Title:

☐ Legally Sufficient ☐ Legally Sufficient subject to comments below/attached ☐ Legally Insufficient; Comments below/attached

Comments:

Signature: _____ Date: _____

☐ FINANCIAL ASSISTANCE DIRECTOR REVIEW (Required for award actions greater than $25M)

☐ Approved ☐ Approved subject to comments below/attached ☐ Not Approved; Comments below/attached

Comments:

Signature: _____ Date: _____

☐ HEAD OF CONTRACTING ACTIVITY REVIEW (Required for award actions greater than $25M)

☐ Approved ☐ Approved subject to comments below/attached ☐ Not Approved; Comments below/attached

Comments:

Signature: _____ Date: _____

PMC 120.1
(2/08)

U.S. DEPARTMENT OF ENERGY
GOLDEN FIELD OFFICE

FINANCIAL ASSISTANCE COMBINED COST/TECHNICAL EVALUATION AND NEGOTIATION MEMORANDUM

SECTION I - GENERAL INFORMATION

This technical evaluation/negotiation memorandum will be prepared jointly by the assigned DOE/Golden OCPM AND OAFA personnel, to document the specific action being evaluated and supported. Each office is responsible for certain sections of this document. The assigned OCPM and OAFA personnel responsible for the action will both sign this document upon its completion, demonstrating their agreement on its contents.

1. Recipient: Algenol Biofuels Inc.

2. Grant/Cooperative Agreement No.: EE0002867 Modification No. 001
   Requisition No: 10EE003109
   Project Title: Recovery Act: Integrated Pilot-Scale Biorefinery for Producing Ethanol from Hybrid Algae

3. Type of Action: ☐ New Award ☐ Renewal ☐ Continuation ☒ Revision

Description of this Action: (NOTE: Indicate what is addressed by this Action only):

The purpose of this action is to lift the conditions for Budget Period 1 for the Algenol Biofuels project entitled, "Recovery Act: Pilot-Scale Integrated Biorefinery for Producing Ethanol from Hybrid Algae" (DE-EE0002867). Specifically, this action approves the scope, budget, and schedule associated with all Phase 1, or Budget Period 1,
Exemption 4

4. Award type, as determined at Procurement Strategy Meeting (for new awards): ☐ Grant ☒ Cooperative Agreement
If Cooperative Agreement, provide the specifics of the Substantial Involvement. (Note: This language will be used in the Substantial Involvement provision of the award.):

1. Government Insight

   In order to adequately monitor project progress and provide technical direction and/or redirection to the Recipient, DOE must be provided an adequate level of insight into various Recipient activities. Government Insight activities by DOE include attendance at Recipient meetings, reviews and tests, as well as access for DOE's consultants to perform independent evaluations of Recipient's plans and processes. Recipient shall notify the DOE Project Officer of meetings, reviews, and tests in sufficient time to permit DOE participation, and provide all appropriate documentation for DOE review.

2. Specific activities to be conducted by DOE:

   a. Risk Evaluation – DOE will review the Recipient's initial Risk Mitigation Plan (RMP) for quality and completeness. DOE will also monitor updates to the RMP and actions taken by the Recipient during the performance of its award to mitigate risks and improve the probability of successful execution of the integrated Biorefinery project. At DOE's discretion, additional independent risk analyses of the project by DOE consultants may be requested.

   b. Independent Engineering Assessments – DOE will engage a private, independent engineering (IE) firm to assist in assessing the progress of the project and provide timely and accurate reports to DOE. The Recipient will ensure that the IE has access to any and all relevant documentation sufficient to allow the IE

to provide independent evaluations to DOE on the progress of the project. Such documentation includes but is not limited to the following:

- Drawings and specifications
- Construction and Execution plans
- Resource loaded schedules
- Design functions and requirements for the site final design review
- Risk management plans
- Value management and engineering studies and/or plans
- Acquisition strategies
- Project execution plans
- Project controls including earned value management systems
- Qualifications of the integrated project team.
- Financial strategy for funding the construction project
- Updated marketing and business plan
- Invoices submitted to DOE

DOE will evaluate the quality and completeness of information and documentation provided by the Recipient to DOE and its consultants in order to allow DOE to provide technical direction and/or redirection to the Recipient about how best to achieve the purposes of the award. Consultants to DOE may not provide technical direction and/or redirection to the Recipient.

5. New/Revised Project Period for this Award: From: 01/29/2010 To: 12/31/2014
New/Revised Budget Period 1 for this Award: From: 01/29/2010 To: 9/30/2010
New/Revised Budget Period 2 for this Award: From: 10/01/2010 To: 12/31/2014

6. Compliance Assessment (skip if new award):
   a. Deliverables
   The Recipient is current in submitting required reports: ☐ Yes ☐ No
   If no, identify the delinquent report(s), indicate what action(s) have been taken to remedy the situation, and identify what further action(s) are necessary, if any:

N/A

   b. Financial
   The Recipient is current in meeting the cost share requirement: ☐ Yes ☐ No
   If no, indicate what action(s) have been taken to remedy the situation and validate why this new action should proceed:

N/A

7. Check the applicable box for Funding Appropriation: ☒ Energy and Water ☐ Other _____

8. Check the applicable box for Statutory Authority:
   ☒ 109-58, Energy Policy Act 2005
   ☐ 110-140, Energy Independence and Security Act 2007
   ☒ 109-58, Recovery Act (2009)
   ☐ Other: _____

9. Per 10 CFR 600, the preferred payment method for State/Local Governments, Institutions of Higher Education, Hospitals, or Other Non-Profit Organizations is **Advance**. The preferred Payment Method for For-Profit organizations is **Reimbursement**. If the preferred payment method is not planned for a new award, provide an explanation below. Also explain below if the payment method for the award is being changed by this action.

The recipient is receiving ARRA funds and will continue to be on the ACH payment method to monitor their funds to ensure costs outside of Budget Period 1 are not charged to the award.

10. Is the proposed Recipient on the debarred or suspended list? Yes ☐ No ☒
Are any of the proposed subrecipients/subcontractors on the debarred or suspended list? Yes ☐ No ☒
Is the Project Director on the debarred or suspended list? Yes ☐ No ☒
If yes for either response above, award cannot be made without obtaining a waiver. See attached waiver.
The review was conducted on the Internet on 03/15/2010 (Include Printout in permanent STRIPES file)
(Date)

11. A risk determination has been completed on the PMC Form 460.2 Yes ☒ N/A ☐

12. Negotiation:

	Government Negotiator(s)		Recipient Negotiator(s)	
	Name	**Organization**	**Name**	**Position**
1.	Molly Hames	Contract Specialist	Dr. Craig Smith	COO
2.	Christy Sterner	Project Officer	Pat Alm	Assistant Project Manager
3.	Christine English	Navarro Project Engineer	Dax Denman	Assistant Project Manager

SECTION II – NEGOTIATION SUMMARY

1. Please record any significant application or budget submissions that resulted in a revised budget in the Negotiation History Table below (including SF424A, budget justifications, e-mails, etc.):

Application/Budget Submission	Reference Document(s)	Date of Submission	Summary of Change
Original		Jun-09	
Revision #1	123.1; SF424A	1/10/2010	Updated budget to remove some BP2 activities and contigency
Final	123.1;SF424A, SOPO	3/2/2010	Budget and SOPO were adjusted to reflect expedited schedule.

2. Complete Budget Table below (only include the original budget and final negotiated costs – the Percent of Total Negotiated Budget will calculate automatically)
Note: List proposed amounts by category even if there are no differences in the dollar amount.

Element of Cost	Original BP1 Budget Submission	Final BP1 Negotiated Costs (3/2/10)	Percent of Total Negotiated Budget	Fringe Benefits and Indirects	
				Proposed Rate	Negotiated Rate
Personnel	Exemption 4				
Fringe Benefits					
Travel					
Equipment					
Supplies					
Contractual					
Construction					
Other					
Total Direct Charges					
Indirect Charges					
TOTAL					
Program Income	0	0	0%		
DOE Share (non-FFRDC)	$9,669,386	$10,668,903	Exemption 4		
DOE Share (FFDRC)	$0	$424,480			
Total DOE Share	$9,669,386	$11,093,383			
Non-Federal Cost Share	Exemption 4				

SEE ATTACHED SF 424A FOR BUDGET PERIOD BREAKDOWN

3. Total Allowable Adjustment without Concurrence from the Selection Official per the Selection Statement: 10%
   Actual Total Adjustment based on Budget Table Above: 0%

Total Project Costs have not changed from Selection Statement – these are BP1 costs only.

Is the original budget the same as the negotiated budget: ☐ Yes ☒ No

If No, please check all boxes that apply:

☒ Change in the Project Scope
☒ Changes due to Time Delays
☐ Math Errors in Budget
☒ Changes in Indirect/Fringe Costs Caused Changes in Direct Costs or Total Project Costs
☐ Indirect/Fringe Rates incorrectly applied
☐ Other (explain) _____

4. Briefly describe and explain any substantial change(s) to the original Statement of Project Objectives submitted by the recipient:

Project Officer commentary: The original scope and schedule for the project exceeded allowable timelines for Budget Period 1 activities. Therefore, when the Recipient revised the scope and schedule to accommodate the accelerated timeframe for Budget Period 1, the SOPO and associated costs changed. Progress between the original application submittal and negotiations was accounted for in the revised SOPO and budget. All 'final' activities related to engineering and designs were moved to BP2 as were all site/facility related activities. The SOPO, as submitted on 3/2/10, is the final, approved SOPO for BP1. The associated costs for that SOPO are being evaluated here.

SECTION III – TECHNICAL EVALUATION SUMMARY

A. For each cost category, the Project Officer and the Specialist will complete his/her Technical Evaluation of the Negotiated Costs to confirm that they are all reasonable, allowable, and allocable. Additional comments should be added as necessary and as indicated below.

1. Personnel:

Total Negotiated Personnel Costs: $Exemption 4 Not Applicable, the recipient did not propose personnel costs: ☐

Project Officer:

The labor hours proposed in the negotiated budget are reasonable for the scope of work: ☒

The labor mix proposed in the negotiated budget is reasonable: ☒
The supporting documentation detailing labor positions, hours, and rates totals to slightly less than the cost proposed – Exemption 4

positions, experience levels, and rates for technology positions in the industry, the rates are reasonable. While some may seem high, such as the VPs, PI, Mgrs, etc., these positions are for highly experienced personnel and their rates are comparable to higher end rates for these types of positions.

Specialist:

Please fill out the following table with the negotiated costs:

Labor Type	Budget Period 1		
	Hours	Rate	Total
Regulatory/Legal	Exemption 4		
Principal Investigator			
Sr. Prog. Mgr.			
Eng/Construct Mgr.			
Principal Scientist			
Scientists (x3)			
Research Associates (x6)			
Lab Technicians (x2)			
VP R&D			
Sr. Scientists (x2)			
Engineers (x3)			
Sr. Engineers (x2)			
Program Managers (x2)			
Plant Manager			
VP Engineering			
Project Accountant			
Head of Fac. Maint.			
Total:			

Negotiated labor rates are reasonable: ☒
Please detail the basis for the reasonable determination: The Specialist concurs with the discussion above regarding the minor difference in the calculated and requested amounts as well as the basis for determining the rates as reasonable. The Principal Investigator and Construction Manager for this project are leading professionals in the industry and the founders of Algenol. They are very hands on with their project management and oversight efforts for this integrated demonstration-scale biorefinery; therefore, their time and personnel costs are reasonable and essential to the viability of this project.

2. Fringe Benefits:

Total Negotiated Fringe Benefit Costs: $Exemption 4 Not Applicable, the recipient did not propose fringe benefit costs: ☐

Specialist:

Does the Recipient have an approved rate agreement: ☐ Yes ☒ No

If Yes, List the Date of Rate Agreement:_____ Cite Federal Cognizant Agency _____

If No, select one of the following:
☐ Rate proposal was reviewed by the Cost/Price Analyst and found to be reasonable, allowable, and allocable (attach Cost/Price Analyst Determination)
☐ Rate Proposal was reviewed by the Cost/Price Analyst for a previous award (attach Cost/Price Analyst Determination)
List Date of review_____
☐ Specialist determined that rate was reasonable
☒ Other: **Due to time constraints, the "Reopener Clause" will be placed into the Special Terms and Conditions of the award. These costs will be addressed and approved at a later date.**

The fringe benefit costs in the negotiated budget are reasonable: ☐

3. Travel:

Total Negotiated Travel Costs: $Exemption 4 Not Applicable, the recipient did not propose travel costs: ☐

Project Officer:

The number and type of trips proposed in the negotiated budget are reasonable for the scope of work: ☒

The costs per trip proposed in the negotiated budget are reasonable: ☒

Is foreign travel included in the negotiated budget: ☐ Yes ☒ No

☒ Specialist concurs: These costs are necessary for budget period 1 activities.

4. Equipment:

Total Negotiated Equipment Costs: $Exemption 4 Not Applicable, the recipient did not propose equipment costs: ☒

Project Officer:

The type(s) of equipment proposed in the negotiated budget is/are reasonable for the scope of work: ☒

The cost of equipment proposed in the original budget are reasonable: ☒

Is there any proposed equipment with a total cost exceeding $50,000: ☐ Yes ☒ No

☒ Specialist concurs.

5. Supplies:

Total Negotiated Supplies Costs: $Exemption 4 Not Applicable, the recipient did not propose supplies costs: ☒

Project Officer:

The types /quantities of supplies proposed in the negotiated budget are reasonable based on the scope of work: ☒

The costs of supplies proposed in the negotiated budget are reasonable: ☒

☒ Specialist concurs.

6. Contractual:

Total Negotiated Contractual Costs: $Exemption 4 Not Applicable, the recipient did not propose contractual costs: ☐

Project Officer:

The subrecipients proposed in the negotiated budget are appropriate for the scope of work: ☒

The contractual costs proposed in the negotiated budget are reasonable: ☒ Yes

Did the Recipient propose any subrecipients with total costs above $100,000? ☒ Yes ☐ No (If Yes, a separate Technical Evaluation/Negotiation Memorandum is required for each subrecipient/vendor – see below)

☒ Specialist concurs: These costs are covered in a separate Technical Evaluation/Negotiation Memorandum.

7. Construction:

Total Negotiated Construction Costs: $Exemption 4 Not Applicable, the recipient did not propose construction costs: ☒

Project Officer:

The type of construction proposed in the original budget is appropriate for the scope of work: ☒

The construction costs proposed in the original budget are reasonable: ☒

☒ Specialist concurs.

8. Other Direct Costs:

Total Negotiated Other Direct Costs: $Exemption 4 Not Applicable, the recipient did not propose other direct costs: ☒

Project Officer:

The other direct costs proposed in the original budget are reasonable for the scope of work: ☒

The costs proposed in the original budget for other direct costs are reasonable for the scope of work: ☒

☒ Specialist concurs.

9. Indirect Charges:

Total Negotiated Indirect Costs: $Exemption 4 Not Applicable, the recipient did not propose indirect costs: ☐

Specialist:

Does the Recipient have an approved rate agreement: ☐ Yes ☒ No

If Yes, List the Date of Rate Agreement:_____ Cite Federal Cognizant Agency _____

If No, select one of the following:

☐ Rate proposal was reviewed by the Cost/Price Analyst and found to be reasonable, allowable, and allocable (attach Cost/Price Analyst Determination)

☐ Rate Proposal was reviewed by the Cost/Price Analyst for a previous award (attach Cost/Price Analyst Determination) List Date of review_____.

☐ Specialist determined that rate was reasonable

☒ Other: **Due to time constraints, the "Reopener Clause" will be placed into the Special Terms and Conditions of the award. These costs will be addressed and approved at a later date.**

The indirect costs proposed in the original budget are reasonable: ☐

10. Cost Share:

Project Officer:

Project is a: ☒ Research ☒ Development ☐ Demonstration ☐ Other: Pilot Project, BP1 (Explain)

The minimum recipient's cost share required for thi Exemption 4
The recipient proposed cost share for this award is:

Does the proposed cost share meet the minimum requirement: ☒ Yes ☐ No

Specialist:

Is the proposed cost share: ☒ Cash ☐ In-kind (detail the amount and category below for in-kind cost share, if applicable)

All proposed cost share is proposed as cash contributions: Exemption 4
from Membrane Technology and Research, Inc.

	Organization	Type of Cost Share (Cash or in-kind)	Cost Share Amount	Basis of Value (how the recipient calculated value)
	Solazyme, Inc.	Exemption 4		
	DOW Chemical Company			
	Membrane Technology and Research, Inc.			
Total				

Third Party cost share commitment letters have been obtained: ☒ (Please include letters in permanent STRIPES file)
Both MTR and DOW's cost share letters state they will commit Exemption 4 be working on for the duration of the project, which they have met in their budget, MT and
DOW= Exemption 4

B. The following Project Officer and Specialist evaluation and negotiation commentary and recommendations address their agreement on all additional considerations for this award.

1. Please list any other special provisions agreed upon for inclusion in this award and describe the rationale for their inclusion below.

This recipient is receiving ARRA funds, and the Davis Bacon Act applies; therefore, the ARRA provisions have been included in the award. The indirect rates have not been negotiated for the prime and the Reopener provision clause has been added to the Special Terms and Conditions of the award, so that we may address these at a later date. Continuation provision, Funding of Budget Periods, Blanket CX NEPA provision, and Contingency provision have also been included in the special terms and conditions of this award, due to the holds on budget period 2 for the prime and subrecipients.

2. If a negotiation strategy, or strategies, is/are specified in the selection statement, provide a discussion below of how this was addressed and resolved.

Exemption 4 of Total Project Costs must be kept aside from the project budget as contingency for the project. This contingency is applicable total project costs and will be verified by the Project Officer as requested and discussed in the Contingency Appendix that will be attached to the award. Contingency will be reported and tracked as well to address the Exemption 4 requirement per the Selection Statement.

3. Any other comments or concerns of the Project Officer and/or Specialist for this award, and the recommended approach to mitigating them, will be explained and addressed below.

All comments and concerns have been previously noted.

4. Is this a Recovery Act award? ☒ Yes ☐ No

- If Yes, does the Buy American Act apply (see applicability below)? ☐ Yes ☒ No
- If Yes, does Davis Bacon Act apply (see applicability below)? ☒ Yes ☐ No

If the answer to either the Buy American Act or Davis Bacon Act questions is Yes, provide a short discussion below on: 1) the type of entity; 2) what applies; Davis Bacon, Buy American, or both; 3) whether it applies to the prime, subrecipient, or both; and 4) work to be performed that requires applicability of Buy American and/or Davis Bacon.

Algenol Biofuels Inc. is subject to the Davis Bacon Act, particularly in Budget Period 2. It will apply to the Recipient and their subrecipients. Budget Period 2 will include construction activities that are subject to the Davis Bacon Act.

Subrecipient: Georgia Institute of Technology

SECTION II – NEGOTIATION SUMMARY

1. Please record any significant application or budget submissions that resulted in a revised budget in the Negotiation History Table below (including SF424A, budget justifications, e-mails, etc.):

Application/Budget Submission	Reference Document(s)	Date of Submission	Summary of Change
Original		Jun-09	
Revision #1	123.1.; SF424A	1/10/2010	Updated budget to remove some BP2 activities and contigency
Final	123.1: SF424A	3/11/2010	Provided 123.1

2. Complete Budget Table below (only include the original budget and final negotiated costs – the Percent of Total Negotiated Budget will calculate automatically)
Note: List proposed amounts by category even if there are no differences in the dollar amount.

Element of Cost	Original BP1 Budget Submission	Final BP1 Negotiated Costs	Percent of Total Negotiated Budget	Fringe Benefits and Indirects	
				Proposed Rate	Negotiated Rate
Personnel	Exemption 4				
Fringe Benefits					
Travel					
Equipment					
Supplies					
Contractual					
Construction					
Other					
Total Direct Charges					
Indirect Charges					
TOTAL					
Program Income	0	0	0%		
DOE Share (non-FFRDC)	$484,400	$484,400	Exemption 4		
DOE Share (FFDRC)	$0	$0			
Total DOE Share	$484,400	$484,400			
Non-Federal Cost Share	Exemption 4				

SEE ATTACHED SF 424A FOR BUDGET PERIOD BREAKDOWN

3. Is the original budget the same as the negotiated budget: ☒ Yes ☐ No

If No, please check all boxes that apply:

☐ Change in the Project Scope
☐ Changes due to Time Delays
☐ Math Errors in Budget
☐ Changes in Indirect/Fringe Costs Caused Changes in Direct Costs or Total Project Costs
☐ Indirect/Fringe Rates incorrectly applied
☐ Other (explain) _____

4. Briefly describe and explain any substantial change(s) to the original Statement of Project Objectives submitted by the recipient:

Project Officer commentary: The scope of work proposed by Georgia Institute of Technology within Algenol's project has not changed since the original application.

SECTION III – TECHNICAL EVALUATION SUMMARY

A. For each cost category, the Project Officer and the Specialist will complete his/her Technical Evaluation of the Negotiated Costs to confirm that they are all reasonable, allowable, and allocable. Additional comments should be added as necessary and as indicated below.

1. Personnel:

Total Negotiated Personnel Costs: $Exemption 4 Not Applicable, the recipient did not propose personnel costs: ☐

Project Officer:

The labor hours proposed in the negotiated budget are reasonable for the scope of work: ☒

The labor mix proposed in the negotiated budget is reasonable: ☒

Specialist:

Please fill out the following table with the negotiated costs:

Labor Type	Budget Period 1		
	Hours	Rate	Total
Co-PI	Exemption 4		
Co-PI			
Co-PI			
Post-Doc (x3)			
Total:			

Negotiated labor rates are reasonable: ☒ (Please attach supporting documentation e.g. www.salary.com, if applicable)
The calculated total personnel costs are slightly less than the estimated costs due to rounding. The difference is $117 and is considered negligible. Therefore, the recommended approved amount is $Exemption 4

2. Fringe Benefits:

Total Negotiated Fringe Benefit Costs: $Exemption 4 Not Applicable, the recipient did not propose fringe benefit costs: ☐

Specialist:

Does the Recipient have an approved rate agreement: ☒ Yes ☐ No

If Yes, List the Date of Rate Agreement:_____ Cite Federal Cognizant Agency _____

If No, select one of the following:
☐ Rate proposal was reviewed by the Cost/Price Analyst and found to be reasonable, allowable, and allocable (attach

Cost/Price Analyst Determination)
☐ Rate Proposal was reviewed by the Cost/Price Analyst for a previous award (attach Cost/Price Analyst Determination)
List Date of review_____
☐ Specialist determined that rate was reasonable
☒ Other: **Due to time constraints, the "Reopener Clause" will be placed into the Special Terms and Conditions of the award. These costs will be addressed and approved at a later date.**

The fringe benefit costs in the negotiated budget are reasonable: ☐

3. Travel:

Total Negotiated Travel Costs: $Exemption 4 Not Applicable, the recipient did not propose travel costs: ☐

Project Officer:

The number and type of trips proposed in the negotiated budget are reasonable for the scope of work: ☒

The costs per trip proposed in the negotiated budget are reasonable: ☒

Is foreign travel included in the negotiated budget: ☐ Yes ☒ No

☒ Specialist concurs.

4. Equipment:

Total Negotiated Equipment Costs: $Exemption 4 Not Applicable, the recipient did not propose equipment costs: ☐

Project Officer:

The type(s) of equipment proposed in the negotiated budget is/are reasonable for the scope of work: ☒

The cost of equipment proposed in the original budget are reasonable: ☒

Is there any proposed equipment with a total cost exceeding $50,000: ☒ Yes ☐ No (If yes, please fill out the following table with the negotiated costs and basis of cost, i.e. historical price or vendor quote)

Equipment	Total Cost	Justification	Basis of Cost
Exemption 4			

☒ Specialist concurs: This equipment is reasonable and necessary for the tasks in Budget Period 1 of this award. The appropriate documentation has been received.

5. Supplies:

Total Negotiated Supplies Costs: $Exemption 4 Not Applicable, the recipient did not propose supplies costs: ☐

Project Officer:

The types /quantities of supplies proposed in the negotiated budget are reasonable based on the scope of work: ☒

The costs of supplies proposed in the negotiated budget are reasonable: ☒

☒ Specialist concurs.

6. Contractual:

Total Negotiated Contractual Costs: $Exemption 4 Not Applicable, the recipient did not propose contractual costs: ☐

Project Officer:

The subrecipients proposed in the negotiated budget are appropriate for the scope of work: ☒

The contractual costs proposed in the negotiated budget are reasonable: ☒ Yes