

PMC-ND  
(1.08.09.13)  
**U.S. DEPARTMENT OF ENERGY**  
**OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY**  
**NEPA DETERMINATION**



RECIPIENT: Global Algae Innovations, Inc

STATE: CA

PROJECT TITLE : Algae Production CO2 Absorber with Immobilized Carbonic Anhydrase

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0001162	DE-EE0007092	GFO-0007092-001	GO7092

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

**CX, EA, EIS APPENDIX AND NUMBER:**

Description:

**A9 Information gathering, analysis, and dissemination** Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

*[Handwritten signature]*

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Global Algae Innovations (GAI) to develop a small-scale absorber system that would be designed, built, and started up. It would be tested first with neat solutions to explore the operating regimes and attain 80% CO2 capture. Then it would then be integrated with the operation of a small-raceway to demonstrate long-term viability with recycled algae media instead of neat solutions. In parallel with the development of the absorber system, the carbon utilization with carbonated media would be optimized to maintain high growth rates and achieve 90% carbon utilization. At the conclusion of the testing, the techno-economic analysis model would be updated to project cost and performance of commercial-scale implementation of the novel absorber system and improved carbon utilization efficiency.

This NEPA review is limited to process and data validation activities as they are described in Task 0 of the Statement of Project Objectives. Upon completion of this task there will be a go/no go decision made as to whether or not the remaining tasks will be undertaken. If a "go" decision is made, the remaining tasks will require additional NEPA review.

The initial validation includes the Validation Team and the Project Team meeting and working together to complete the technical/financial data sheet and milestones and metrics that would be used to track project progress throughout the life of the project. The effort includes the exchange of information and data; however, no site work or experimentation would be performed during the meeting or prior to the go/no go decision.

Based on a review of the project information and the above analysis, DOE has determined the exchange of information and development of milestones and metric activities would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed project is consistent with actions contained in DOE categorical exclusions A9 "information gathering, analysis and dissemination and is categorically excluded from further NEPA review.

**NEPA PROVISION**

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Task 1. Integration

Task 2. Design, Fabrication, and Testing

This restriction does not preclude you from:

Task 0. Validation

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.

Note to Specialist :

This NEPA determination requires a tailored NEPA provision.

Bioenergy Technologies Office

Review completed by Diana Heyder 09/08/2015

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature:



Electronically Signed By: Kristin Kerwin

Date: 9/8/2015

NEPA Compliance Officer

**FIELD OFFICE MANAGER DETERMINATION**

Field Office Manager review required

**NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:**

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :**

Field Office Manager's Signature:

Date:

Field Office Manager