

PMC-EF2a

(20102)

**U.S. DEPARTMENT OF ENERGY  
EERE PROJECT MANAGEMENT CENTER  
NEPA DETERMINATION**



RECIPIENT: Washington State University

STATE: WA

PROJECT TITLE : Algae Biofuels Research

|   |                               |                     |            |
|---|-------------------------------|---------------------|------------|
| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
| CDP                                     | DE-EE0003112                  | GF0-0003112-001     | EE3112     |

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 (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.
- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

Rational for determination:

Washington State University proposes to use federal funding to advance the technologies associated with the Washington State Algae Alliance. This project will involve the collaboration of 2 private companies – Inventure Chemical & Targeted Growth Inc (TGI). TGI will work to genetically engineer cyanobacteria that will yield high lipid levels and other specialty chemicals. Washington State University will research and develop an algal culture system for the production of algal biomass feedstock throughout the year in northern latitudes. Inventure will focus its work on this project in collaboration with the efforts of TGI & WSU to efficiently harvest usable fuels from the algae, isolate usable components, convert amino acids, and provide feedback on which strains work best for bio-fuels production.

This project will include engineering of advanced algal strains, development of an algal culture system for year-round production in Washington State, development of downstream process technology for the development of algae based bio-fuels and chemicals.

The engineered strains of algae developed by TGI will be sent to Washington State University so they may be grown within their bioreactors. Washington State University will also develop an algae production system that will use phototrophic and heterotrophic culture systems. Each of the locations where work will take place has submitted an R & D Questionnaire for all research and laboratory activities. The R& D Questionnaire thoroughly addresses the chemical and safety handling protocols associated with this project.

Genetically modified organisms will be used in the implementation of this project. The GMO's used in this project qualify for an exemption from reporting in accordance with EPA regulations under TSCA for R & D within a contained laboratory. GMOs are also stored and handled in accordance with Washington State University regulations as stated in Laboratory safety manuals and by Biosafety Committee approval forms 1056 & 1104.

This project is comprised of information gathering as well as conventional research and development; therefore a CX A9 & B3.6 will apply.

**NEPA PROVISION**


DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Eugene Brown 2/13/2011

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

NEPA Compliance Officer Signature: \_\_\_\_\_ **Kristin Kerwin**  Date: 3/3/2011  
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