

PMC-ND  
(1.08.09.13)

**U.S. DEPARTMENT OF ENERGY**  
**OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY**  
**NEPA DETERMINATION**



RECIPIENT: Cellana LLC

STATE: HI

**PROJECT TITLE :** Advancing Commercialization of Algal Biofuels Through Increased Biomass Productivity and Technical Integration

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000811	DE-EE0006637	GFO-0006637-002	GO6637

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:

<b>A9 Information gathering, analysis, and dissemination</b>	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.)
<b>B3.6 Small-scale research and development, laboratory operations, and pilot projects</b>	Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.
<b>B5.15 Small-scale renewable energy research and development and pilot projects</b>	Small-scale renewable energy research and development projects and small-scale pilot projects, provided that the projects are located within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

## Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Cellana LLC. for bioenergy research that would increase algal biomass productivity via technological innovation while reducing operational cost in a seawater-based system.

DOE has completed a previous NEPA determination under this award. GFO-0006637-001 (CX A9, 9/15/2014) reviewed Tasks 0.0 - Improvement in Algal Biomass Productivity which included validating baseline data and developing the milestones and metrics for the full project. This NEPA determination is for the remainder of the proposed project, Tasks 1.0-3.0 as described below.

The proposed project activities would consist of the cultivation and harvesting of marine microalgae, the dewatering of the algal biomass, testing of new harvesting and extraction techniques and data analysis. Cellana would partner with Los Alamos National Laboratory (LANL) and Sandia National Laboratory (SNL) to complete project objectives. Activities at the National Labs would include development and small-scale testing of an acoustic harvester and algal strain cultivation and improvement. The proposed project activities conducted by Cellana would occur at a facility located in Kailua-Kona, HI on land owned by the state of Hawaii and leased to the Natural Energy Laboratory Hawaii Authority (NELHA) which is zoned for algae production activities. Existing indoor laboratories and outdoor algal production ponds would be utilized for the cultivation of algae which would then be harvested and de-watered. Algae strains used for the proposed project would not be genetically modified. Additional equipment would be fabricated for extracting biofuel precursors and installed in the aforementioned laboratory building. The Cellana facility has been previously reviewed by DOE NEPA (GFO-0005996-001, CX A9, B3.6, B5.15, 1/9/2013), and no new construction or facility modifications would occur and no new permits or modifications to existing permits would be required as a result of the proposed project. The project would involve the use and handling of various chemicals and solvents. Existing corporate health and safety policies and procedures would be followed including employee training, proper protective equipment, engineering controls, monitoring, and internal assessments. Any hazardous materials would be managed in accordance with federal, state, and local environmental regulations.

For all work conducted at DOE laboratories, project activities may be subject to additional NEPA review by the cognizant NEPA Compliance Officer for the lab and would be required to meet the labs' health and safety requirements.

Based on a review of the project information and the above analysis, DOE has determined that the proposed project would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined that this project is consistent with actions outlined in DOE categorical exclusion A9 "information gathering," B3.6 "Small-scale research and development, laboratory operations, and pilot projects" and B5.15 "small scale renewable energy research and development," and is therefore categorically excluded from further NEPA review.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

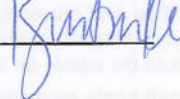
Note to Specialist :

Bioenergy Technologies Office

This NEPA Determination does not require a tailored NEPA provision.

NEPA review completed by Logan Sholar, 11/19/14

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

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin  Date: 11/19/2014  
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