PMC-EF2a
(2.04.02)

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

RECIPIENT: Vermont Sustainable Jobs Fund **STATE:** VT

PROJECT TITLE : Vermont Biofuels Initiative: Carbon Harvest 3

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-FG36-08GO88182	GFO-GO88182-025	GO88182

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:

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:

This NEPA review is for phase 3 of the carbon harvest initiative in the Vermont sustainable jobs fund award, with previous phases listed under control numbers GFO-09-057n and GFO-FO88182-024.

In phase 3 of the carbon harvest project the applicant proposes to expand the photobioreactor and on-site inoculums development, they also propose to engineer & install a microalgae cultivation system on the pilot scale. This project will also involve the development of microalgae biomass sample production and project management & reporting. Like phase 2 of this award, site locations will be the Brattleboro landfill site @ the CHP plant, as well as at UVM's Rubenstein Lab.

The photobioreactor expansion will include the in-lab flat panel reactors from phase 2. Expansion will include the addition of more reactors, not larger reactors. This will occur in the lab and at the field site. Photobioreactors will be the only equipment purchased/expanded with this award.

The pilot scale system will be designed so that it is scalable in terms of biology, energy, and economics. This system should be able process 6,000-8,000L of liquid production when scaled up. Initially it will mirror the in-lab system in terms of production. Downstream equipment and processes will be purchased and developed with other funding sources as they become available.

The micro algae production system will entail the collection of algae samples for periodic harvests and dewatering of the algae into a paste for the production of biofuels and for compositional analysis.

The applicant has submitted and R & D Questionnaire which thoroughly address the chemical and safety handling protocols associated with this project. No GMO's will be used in the application of this project.

This project is comprised of small scale research and development operations in the use of algae for biofuels; therefore a CX 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 4/29/2011

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 5/2/2011
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