

PMC-EF2a

(2010)

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



RECIPIENT: Renewable Energy Institute International

STATE: OH

**PROJECT TITLE :** Demonstration of a Pilot Integrated Biorefinery for the Economical Conversion of Biomass to Diesel Fuel - BP2

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000096	DE-EE0002876	GFO-10-325-001	GO2876

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).
- B5.1** Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

## Rational for determination:

This NEPA determination is for Budget Period 2 (BP2) activities.

The U.S. Department of Energy would provide up to \$19.98 million in financial assistance to Renewable Energy Institute International (REII) to design, construct, and operate an integrated biorefinery in Toledo, Ohio. Funds would be used to upgrade the Red Lion Bioenergy facility at the University of Toledo (UT) Energy Center. The funds would convert the existing thermochemical conversion system from 10 tons to 25 tons per day of woody biomass and rice hulls. Syngas, the result of the thermochemical conversion would then be used to produce diesel fuel.

Construction activities would include pouring a cement pad directly in front of the existing facility. A biomass storage building would be constructed on the west side of the site. The storage building would consist of stacked cement blocks and a fabric tension roof. Equipment construction would consist of replacing the existing Reactor 1 with a new reactor and erecting the liquid fuels production system. Installation of new equipment would take place on the existing cement pad.

All construction will be within or contiguous to an existing facility where roads and utilities are readily accessible. All utilities will be provided by Red Lion Bioenergy. CX B3.6 and B5.1 apply to Budget Period 2 activities.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

None Given.

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

NEPA Compliance Officer Signature: Kristin Kerwin  
NEPA Compliance Officer

Date: 8/23/2010

**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: \_\_\_\_\_  
Field Office Manager

Date: \_\_\_\_\_