PMC-EF2a

(2,04,02)

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



RECIPIENT: Advanced Energy Conversion, LLC

STATE: NY

PROJECT TITLE:

Hydropower from Wastewater

Funding Opportunity Announcement Number

Procurement Instrument Number DE-EE0000403 NEPA Control Number CID Number

GFO-10-176 0

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:

Advanced Energy Conversion, LLC will use congressionally directed funding through DOE to develop an integrated turbine/generator system that would be installed in effluent channels of wastewater treatment plants (WWTPs). This equipment will be designed to be installed into existing WWTPs and allow the plants to generate a portion of their own electricity. Work being conducted under this project is strictly research and development, no actual installation or demonstration will be done.

Prototype fabrication, assembly, and dry testing will take place at Advanced Energy Conversion facilities in Schenectady, NY. Wet testing of the prototype will take place at Alden Research Labs in Holden, MA. An R&D questionnaire has been filled out and submitted which addresses safety and waste stream protocols in place for the facilities.

This project comprises research gathering and conventional research and development activities in establish laboratory and manufacturing facilities; therefore a CX A9 and 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:

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

NEPA Compliance Officer

Date: 2/35/10

vec	Field Office Manager review required	
100	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 Manager's attention.  Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.	
BAS	SED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO:	
ielo	d Office Manager's Signature: Date:	
	Field Office Manager	
	v .	
	demails getracting (including, but for limited to literature enveys, invantorial, audito), date enalytical energy supply request modeling, discussing the property of the energy supply designed, and another property of the energy supply designed another and discussion for the energy supply of demails and subject of the energy of the ener	
	e e	
	mention will be done.  pe fabrication, assembly, and dry toying will interplace at Advanced Energy Convention Incitities in setting. NY West resting of the prohibitor will take place at Akter Research Labs in Holden, MA An R&D arresina has been filled out and subhitted which educates activity and wash sheam protocols in place for the	
	mention will be done.  Se fabrication, severably, and dry touting will interplace at Advancent Energy Convention lecities in extraty, NY. Wait resting of the proletyre will take place at Aiden Research Libbs in Hoteler, MA. An R&D ansing has pein filled out and submitted which adaptees salety and wash stream protected in place for the second second second second second.	
	procedure, assembly, and dry tosting will intra-place at Advancent Energy Convention Incitities in actually. NY West resting of the prohibing will take place at Advancent Loos in Hotsen. MA An R&D prosent has been tilled out and submitted which engresses active and wash stream protocols in place for the security and wash stream protocols in place for the security and wash stream protocols in place for the security and washest assembly guid occupational security and durations in actables.	