PMC-EF2n

(2.04.02)

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

RECIPIENT: Hydro Green Energy **STATE:** IL

PROJECT TITLE : Laboratory Demonstration of a New American Low-Head Hydropower Turbine

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DEA-FOA-0000486	DE-EE0005426	GFO-0005426-001	EE5426

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 Small-scale research and development, laboratory operations, and pilot projects
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.

Rational for determination:

DOE is proposing to provide federal funding to Hydro Green Energy, LLC (HGE) to conduct laboratory research and development activities that advance hydropower technology. DOE funding would be used to design, fabricate and test a scaled, vertically stackable, low-head hydropower turbine.

Hydraulic turbine performance testing would be conducted at the Alden Research Laboratory (ARL) located at 30 Shrewsbury Street, Holden, Massachusetts 01520. Testing would be conducted in Alden's Hooper Test Facility. Water for the facility is supplied from a 150 acre reservoir passing through a forty-inch diameter penstock. The penstock supplies water to three testing lines within the facility.

ARL has completed an R&D questionnaire addressing the protocols for laboratory safety, risk management, chemical handling and waste disposal. ARL complies with standard laboratory safety procedures. Labs are inspected by staff and safety personnel. Internally, the department is monitored by Alden's Safety Coordinator and Safety Committee. Externally, the department is monitored by Alden's insurance provider, AIM.

ARL has all applicable permits in place to conduct research on site. The Hooper Test Facility has a discharge permit: National Pollutant Discharge Elimination System (NPDES) permit # MA0028801.

Based on this information, DOE has determined the work outlined is consistent with activities identified in categorical exclusion B3.6 (indoor bench-scale research and conventional laboratory operation).

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 :

Cristina Tyler 1.17.2012