

PMC-ND  
(1.08.09.13)

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



**RECIPIENT:** Obermeyer Hydro Accessories Inc. dba Obermeyer Hydro Inc.

**STATE:** CO

**PROJECT TITLE**  
: Cost Effective Small Scale Pumped Storage Configuration

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0001455	DE-EE0008014	GFO-0008014-002	G08014

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, analysis, and dissemination** 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.)

**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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Obermeyer Hydro Accessories, Inc. (Obermeyer) to design a cost effective, small-scale, adjustable speed, pumped storage hydro (AS-PSH) system optimized for U.S. energy storage requirements. The proposed project would be divided into two Budget Periods with a down-select between Budget Period 1 and Budget Period 2.

Budget Period 1 was reviewed as part of NEPA determination GFO-0008014-001 (CX A9). This NEPA review is for Budget Period 2 (BP2).

BP2 would involve scalability analyses, market analysis, design work, and reporting to be completed at Obermeyer's facilities in Wellington, CO. BP2 activities included in the Statement of Project Objectives (SOPO) would be limited to intellectual, academic, or analytical activities. Obermeyer is also proposing to fabricate and test a scale model pump, and use the information gathered during testing to further refine the design prior to final design and final reports. The scale model fabrication and testing are not included in the statement of project objectives and are not included in the proposed project budget. However, these activities are connected to the proposed action and are included in this NEPA review.

Obermeyer would fabricate a bronze scale model runner pump and test it at their testing facility in Wellington, CO. The pump to be fabricated would be approximately 20 inches in diameter and would pump water through a twelve foot tall acrylic tube. This system would be tested on Obermeyers existing closed loop test stand. The test stand is connected to a fire protection tank which permanently holds water for fire protection. The test would circulate approximately 400 gallons of water for each test. Once circulated, the water would be returned of the fire protection tank.

The Obermeyer facility conducts pump fabrication and testing work in its ordinary course of business. No changes to Obermeyer's facility would be required for the testing. All applicable health and safety procedures would be followed.

Based on the review of the proposal, DOE has determined the proposal fits within the class of action(s) and the integral elements of Appendix B to Subpart D of 10 CFR 1021 outlined in the DOE categorical exclusion(s) selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR 1021.410(2)) related to the proposal that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not

connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action. This proposal is 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 the Recipient intends to make changes to the scope or objective of this project, the Recipient is required to contact the Project Officer, identified in Block 15 of the Assistance Agreement before proceeding. The Recipient must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved. If the Recipient moves forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of a final NEPA decision, the Recipient is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

Water Power Program

This NEPA determination does not require a tailored NEPA provision  
NEPA review completed by Roak Parker 7/18/18

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

NEPA Compliance Officer Signature: \_\_\_\_\_

 Electronically  
Signed By: Kristin Kerwin  
NEPA Compliance Officer

Date: 7/18/2018

**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: \_\_\_\_\_