

PMC-ND
(1.08.09.13)

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

**RECIPIENT:** University of Utah**STATE:** UT

PROJECT TITLE: Enhancing Existing Water and Wastewater System Infrastructure to Develop Pumped Storage Hydropower

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001836	DE-EE0008779	GFO-0008779-001	GO8779

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), 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.)

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to the University of Utah to design and complete an analysis, including an economic analysis, of a pumped storage hydropower system that could utilize existing water and wastewater infrastructure.

Work would include:

- Identification of six project partners in California who have sites that could be analyzed;
- Audit of project sites to collect energy and other use data;
- Review of potential hydraulic models that could be used to simulate pumping operations;
- Development of an implementation plan;
- Analysis of data collected from sites to model pumping demand load shapes;
- Estimate potential energy storage capacity at all potential sites across California;
- Analysis of California's need for energy grid services and assessment of ability of the system to offer grid services;
- Preliminary design for piping, pumping and tank installation to develop pumped hydro storage capacity;
- Development and optimization of an operational strategy;
- Preliminary and final economic analysis;
- Estimation of timeline to commission a system, and;
- Preparation of a final report.

All work would be limited to intellectual, academic, and analytical activities, including computer modeling, engineering, economic analysis, and data collection and analysis. Work would be completed at the University of Utah in Salt Lake City, Utah. Some work would be completed by Lincus Inc. at Lincus Inc.'s office in Tempe, Arizona. No changes to existing facilities would be required.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

This NEPA review does NOT require a tailored NEPA provision
Water Power Technology Office

NEPA Review completed by Roak Parker, 7.2.19

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically
Signed By: **Kristin Kerwin**
NEPA Compliance Officer

Date: 7/3/2019

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
 Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____