

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



RECIPIENT: Emrgy, Inc.

STATE: GA

PROJECT TITLE : Emrgy's Spillway Turbine: Making Low-head-low-flow Hydropower Economically Viable

Notice of Funding Opportunity Number
2731-1559

Procurement Instrument Number
DE-EE0011044

NEPA Control Number
GFO-0011044-002

CID Number
GO11044

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.)

B5.25 Small-scale renewable energy research and development and pilot projects in aquatic environments

Small-scale renewable energy research and development projects and small-scale pilot projects located in aquatic environments. Activities would be in accordance with, where applicable, an approved spill prevention, control, and response plan, and would incorporate appropriate control technologies and best management practices. Covered actions would not occur (1) within areas of hazardous natural bottom conditions or (2) within the boundary of an established marine sanctuary or wildlife refuge, a governmentally proposed marine sanctuary or wildlife refuge, or a governmentally recognized area of high biological sensitivity, unless authorized by the agency responsible for such refuge, sanctuary, or area (or after consultation with the responsible agency, if no authorization is required). If the proposed activities would occur outside such refuge, sanctuary, or area and if the activities would have the potential to cause impacts within such refuge, sanctuary, or area, then the responsible agency shall be consulted in order to determine whether authorization is required and whether such activities would have the potential to cause significant impacts on such refuge, sanctuary, or area. Areas of high biological sensitivity include, but are not limited to, areas of known ecological importance, whale and marine mammal mating and calving/pupping areas, and fish and invertebrate spawning and nursery areas recognized as being limited or unique and vulnerable to perturbation; these areas can occur in bays, estuaries, near shore, and far offshore, and may vary seasonally. No permanent facilities or devices would be constructed or installed. Covered actions do not include drilling of resource exploration or extraction wells, use of large-scale vibratory coring techniques, or seismic activities other than passive techniques.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Emrgy, Inc. to design, develop, fabricate, and test sub-scale and full-scale prototypes of a low head hydropower system. These activities would demonstrate the feasibility of a complete, scalable hydropower system deployed in non-powered dam environments.

The proposed award is divided into two Budget Periods (BPs) with a Go/No-Go decision point in between the BPs. DOE previously completed a NEPA Determination (ND) for Tasks 1-10 and Tasks 12-16 (GFO-0011044-001 CX A9, B3.6, B3.16, 02/05/2024). Since that time, the proposed location of the full-scale prototype test site has been identified. This ND applies to Task 11, which would involve test site preparation and prototype installation in the South Columbia Basin Irrigation District (Pasco, WA).

Award activities would include site survey, site preparation, crane placement, safety plan creation, installing the hydropower system, and commissioning and critical testing all the systems. The preassembled power generating unit would be approximately 50 kW in size. It would be placed in the existing canal structure, and there would be no modifications to the existing canal. Onshore equipment would be placed on an area of disturbed land approximately 150 square feet. This would be 125 feet long by the canal and 15 feet perpendicular to the canal. Some compacting, leveling, and excavation would be required in order to place a concrete pad for placing the installed equipment. Minimal vegetation removal would occur, as the area has been previously disturbed.

All Occupational Safety and Health Administration (OSHA) and industry standards to mitigate construction and electricity hazards would be adhered to. The power generating unit would be installed in a hazardous environment, with moving water. A buoy barrier would be strategically installed upstream from the power generating unit to mitigate hazards. The recipient would adhere to all applicable federal, state, and local health, safety, and environmental regulations. All permits required for the execution of the project at the above-referenced locations would be the responsibility of the recipient.

The U.S. Fish and Wildlife Service Endangered Species Program website (IPaC) identifies four threatened or endangered species, Yellow-billed Cuckoo, Bull Trout, Monarch Butterfly, and Suckley's Cuckoo Bumblebee are believed to occur in the project area. Migratory bird species of conservation concern may be present seasonally within the project areas. However, because the equipment installations would be aquatic in nature, DOE has determined that no adverse impacts to species of concern are to be expected because of the proposed activities at this location. Additionally, the test site would be in the W B Five K Wasteway, which is a manmade channel that does not serve as a habitat for fish species.

DOE has considered potential impacts on resources, including those of an ecological, historical, cultural, and socioeconomic nature. DOE does not anticipate impacts on these resources that would be considered significant or require DOE to further consult with agencies or stakeholders.

EERE is aware of the November 12, 2024, decision in *Marin Audubon Society v. FAA*, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, EERE has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500-1508, in addition to DOE's procedures/regulations implementing NEPA at 10 C.F.R. Part 1021, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

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: _____



Matthew Blevins

NEPA Compliance Officer

Date: 5/19/2025

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: _____