

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



RECIPIENT: Natel Energy Holdings, Inc.

STATE: CA

PROJECT TITLE : Hydropower turbines as safe downstream fish passage: Laboratory and field evaluation of eastern US migratory fish passage through Restoration Hydropower Turbines

Notice of Funding Opportunity Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002801	DE-EE0011091	GFO-0011091-002	GO11091

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:

B3.3 Research related to conservation of fish, wildlife, and cultural resources

Field and laboratory research, inventory, and information collection activities that are directly related to the conservation of fish and wildlife resources or to the protection of cultural resources, provided that such activities would not have the potential to cause significant impacts on fish and wildlife habitat or populations or to cultural resources.

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 Natel Energy Holdings, Inc. (Natel) to develop a laboratory strike test and a field test for American Eel passage through a restoration hydropower turbine (RHT) that would reduce fish mortality rates.

A previous NEPA Determination (ND) was written for this award (GFO-0011091-001; 01/16/2024; CXs: A9, B3.3, B3.6) covering Tasks 1, 2, 3, Subtask 4.1 and Task 6. These tasks covered the design and testing of an in-lab strike test rig, fish collection system design, laboratory fish passage trials through an RHT, project management, and reporting.

This ND applies to Subtasks 4.2, 4.3, 4.4, 4.5 and Task 5, which includes identifying and briefing key Tribal and local community-based leadership, field passage test preparation, permit acquisition, eel acquisition, field passage test execution, data analysis, and reporting.

All award activities would be carried out by Natel (Alameda, CA), with test plan assistance from the Pacific Northwest National Laboratory (Richland, WA), S.O. Conte Anadromous Fish Research Laboratory (Turners Falls, MA), and Museum of Comparative Zoology, Harvard (Cambridge, MA). Natel would also design and fabricate the strike rig, and house the eels for the duration of the trials.

Outdoor testing would take place at Garvins Falls (Bow, NH), at an operational hydropower plant located on the Merrimack River. Temporary infrastructure would be installed to conduct fish passage testing, including an induction system, an x-ray station, and a swim chamber. The eel induction system would measure 70 inches (in.) x 29 in. x 42 in., the x-ray station would measure at least 6 feet (ft.) with 15 ft. clearance for safety, and the swim chamber would measure 164 in. x 45 in. All temporary structures would be installed on a flat paved parking area and in the adjacent area, both of which are pre-disturbed and heavily managed.

Eels would be tagged prior to release with either a PIT or balloon tag. They would be released into the dam intake via the induction system and would travel through the turbine through the old intake. The balloon tag would cause the eel to surface downstream for collection. All fish would be removed from the water downstream.

Natel shall complete and comply with all applicable permitting processes prior to undertaking installation or fish testing activities, including A Restricted Species permit issued by the California Dept. Of Fish and Wildlife for the import of American Eel into California. All fish would be obtained from a fish farm; thus, no federal permits would be required.

All proposed project work would occur at preexisting purpose-built facilities. Natel's existing recirculating aquaculture system would be expanded to accommodate a strike rig and additional tank. The system is located outdoors on a paved area next to the Natel building; therefore, equipment installation would not involve any ground disturbance or clearing. Award activities would involve typical hazards associated with hydropower testing facilities and animal husbandry, including possible disease transmission, animal bites, operation of potentially hazardous equipment, and site-specific environmental hazards. A portable x-ray device would be used to assess fish mortality and injury. Only those with x-ray training would perform x-rays and a lead apron and thyroid collar would be mandatory during use. Existing health, safety, and environmental policies and procedures would be followed to mitigate hazards to acceptable levels. All activities would comply with existing federal, state, and local laws, regulations, and permits.

DOE has considered the scale, duration, and nature of proposed activities to determine potential impacts on resources, including those of an ecological, historical, cultural, and socioeconomic nature. DOE does not anticipate impacts on these resources which would be considered significant or require DOE to consult with other agencies or stakeholders.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Water Power Technologies Office
Review completed by Alex Colling on 3/19/2026.

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposal fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE's NEPA Implementing Procedures (June 30, 2025). To fit within the classes of actions listed in Appendix B to 10CFR Part 1021, or Appendix B of DOE's NEPA Implementing Procedures, a proposal must satisfy the conditions that are integral elements of the classes of actions in Appendix B of both 10 CFR Part 1021 and DOE's NEPA Implementing Procedures.

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.

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: **Nicole Serio**

NEPA Compliance Officer

Date: 3/19/2026

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: _____