

PMC-ND
(1.08.09.13)

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



RECIPIENT: Natel Energy, Inc.

STATE: CA

PROJECT TITLE: Advanced Compact Generation Module with Fish Safe Runner Technology

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002080	DE-EE0008946	GFO-0008946-002	

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.)

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 to develop the concept design for a low-head generation hydroelectric turbine. Natel Energy would focus on the development of modular turbine designs that can provide safe passage for fish, as well as turbine runner blades that would reduce fish mortality rates. A prototype turbine runner would be developed, fabricated, and tested as part of the project. A goal of the project is to develop a runner that it is more fish friendly than previous runners.

This project would be completed over two Budget Periods (BPs), with a Go/No-Go Decision Point in between each BP. DOE completed one previous NEPA determination covering all BP1 tasks except for subtasks 2.2 and 2.3. (GFO-0008946.001 CX A9; B3.6 3/31/2020). This review is for subtasks 2.2 and 2.3 only.

In subtask 2.2 and 2.3 Natel would conduct testing on live and sensor fish at the Monroe Drop site hydro facility. The facility is a small hydroelectric facility on an irrigation canal near Opal, Oregon. Natel would prepare the proposed test site which could include installing a new test runner on a preexisting turbine. Natel and partner Pacific Northwest National Lab (PNNL) would release tagged small trout and electronic sensor fish into the turbine flow, and then recover the fish after they flow through the turbine. Fish would be removed from the irrigation canal and returned to PNNL where they would be disposed of. Natel and PNNL would then analyze data collected regarding fish mortality.

Natel would obtain all necessary permits for handling and release of live and sensor fish in the irrigation canal. The Monroe Drop hydro facility is a preexisting facility with an existing turbine. No new construction would be required and no new turbines would be installed.

According to the US Fish and Wildlife Service (USFWS) iPAC website, the irrigation canal is in a county where

endangered bull trout are found. However, the irrigation canal is screened and should not contain bull trout. Department of Energy contacted USFWS and discussed the proposed project. USFWS identified no concern with the proposed project in regards to the bull trout. While it is unlikely bull trout could enter the irrigation canal, even if there was such a fish in the canal, the action of testing an existing runner, or replacing the runner on an existing turbine, would not have an additional effect on the fish. Thus, DOE has determined that the proposed action would have no effect on the bull trout.

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 conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Budget Period 1

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Budget Period 2

Notes:

Water Power Technologies Office

This NEPA determination does require a tailored NEPA provision.

Review completed by Roak Parker, 07/21/2020

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.

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

 Electronically Signed By: Roak Parker

NEPA Compliance Officer

Date: 7/22/2020

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: _____