

PMC-ND
(1.08.09.13)

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

**RECIPIENT:** Columbia Power Technologies, Inc.**STATE:** VA

PROJECT TITLE: Reduction of System Cost Characteristics Through Innovative Solutions to Installation, Operations, and Maintenance

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001310	DE-EE0007347	GFO-0007347-003	GO7347

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.)

B3.6 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 federal funding to Columbia Power Technologies (CPT) to demonstrate the Columbia Power Wave Energy Converter (CPwr WEC) in a grid connected open ocean environment.

The CPT project is one of three proposed projects that have been selected under the Funding Opportunity Announcement DE-FOA-0001310. Each of the three proposed projects would consist of three budget periods (BP). DOE previously completed a NEPA review for BP 1 and 2 of the proposed project, which included Tasks 1-17 (GFO-0007347-001; CX A9; 3/18/2016 and GFO-0007347-002; CX A9; 7/19/2017). DOE is now proposing to fund BP 3 activities. This NEPA determination applies to certain BP 3 activities proposed to be undertaken by CPT.

In BP3 CPT originally proposed to undertake 7 tasks, tasks 18-24.

Task 18 would include project management. Task 19 would include updating the risk register and risk management plan. These tasks are academic in nature and would take place at CPT's corporate offices in Corvallis, Oregon.

Task 20, as originally proposed, would have been a tank test of the CPwr WEC. CPT, however, has cancelled this task and thus it will not be included in this NEPA review.

Task 21 would involve the manufacturing and fabrication of the CPwr WEC device. The WEC would be 20.4 m long (66.9 feet), 21.9 m wide (71.8 feet), and 22 m high (72.2 feet), when floating in its operational configuration. The device would be a 600 metric ton WEC. Expected mass contribution will come from: steel (~239,100 kg); perma-ballast slurry (~148,000 kg); aluminum (~4,000 kg); permanent magnets (~1,000 kg); and biodegradable lubrication (~30 kg). A further estimated ~4,700 kg of batteries and ~8,400 kg from electronics makes up the balance. The device would be coated with approximately 400 gallons of anti-fouling paint.

Fabrication of the device would occur at Thompson Metal Fabrication (TMF) in Vancouver, Washington. TMF is a ship building and structural fabrication facility which includes eleven bays, 374,000 square feet of indoor fabrication space, a 15 acre yard for assembly and fit-up, hydro cranes, 40-ton moving dollies, as well as a coatings department. TMF regularly conducts the type of ship building work that would occur here. Expected hazards common in the industry include: chemical (welding fumes, solvents, paints, etc.) physical (noise, heat stress), and safety (fires, confined spaces, falls, heavy equipment). Typical heavy lift hazards include: failure of lifting equipment and falling loads. TMF is a qualified commercial metal fabrication facility. Employees at TMF are trained for the type of work they conduct. All corporate health, safety, and environmental practices would be adhered to. No modifications to any facilities would be required. No new permits would be required.

Task 22 would involve deployment and operation of the WEC at the Kaneohe Bay test facility. Deployment and operation of this type of device fits within the analysis in the Navy's Wave Energy Test Site final environmental assessment. Consultation with the National Marine Fisheries Service (NMFS) regarding this proposed deployment is currently ongoing. Because consultation has not yet been completed there is not enough information to meaningfully review Task 22. As such, Task 22 is restricted until additional NEPA review can be completed. Tasks 23 (decommissioning) and 24 (analysis and close out) are dependent upon Task 22 and thus are also restricted pending further NEPA review.

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 - All Tasks

Budget Period 2 - All Tasks

Budget Period 3:

Task 18 (Project Management)

Task 19 (Update Risk Register and Risk Management Plan)

Task 21 (WEC Manufacturing and Fabrication)

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

Task 20 (Tank Test)

Task 22 (WEC Operations)

Task 23 (WEC Decommissioning)

Task 24 (Project Closeout)

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: _____


NEPA Compliance Officer

Date: 8/1/2019

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: _____