U.S. Department of Energy
Categorical Exclusion Determination Form

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Proposed Action Title: Integral Consulting Inc. - Cost-Effective Real Time Wave Assessment Tool

Program or Field Office: Advanced Research Projects Agency - Energy (ARPA-E)

Location(s) (City/County/State): Santa Cruz, CA; Santa Barbara, CA; Albuquerque, NM; Kaneohe, HI

Proposed Action Description:

Funding will support efforts to continue the development of Wave Assessment Tool, a wave buoy technology that can measure its own movements and relay real-time wave properties at a fraction of the cost of current technologies, enabling cost-efficient assessment of the best locations to place wave energy converter (WEC) arrays, optimized design for WEC systems, and active tuning of WEC systems. Analytical and development-based project tasks and controlled laboratory testing activities will be conducted on a small-scale, pilot basis at Integral Consulting Inc.'s (Integral) laboratory and office facilities (Santa Cruz, CA and Santa Barbara, CA) and at Sandia National Laboratories (Albuquerque, NM). In addition, nearshore field testing will be conducted at previously approved test sites, including in Santa Cruz Harbor and in authorized boating zones of the Monterey Bay National Marine Sanctuary (MBNMS). Integral has also expanded field testing to the Wave Energy Test Site (WETS), a dedicated wave energy testing facility operated by the U.S. Navy off the coast of Kaneohe, HI.

Nearshore field testing covered under this determination will involve small-vessel deployments of the wave buoy and commercial off-the-shelf wave measurement devices for validation and performance evaluation. The proposed testing sites are not in close proximity to areas of high biological sensitivity and are not within areas of hazardous natural bottom conditions. Moreover, the proposed field testing activities do not have potential to cause impacts in the MBNMS. Field testing in the MBNMS will be conducted in accordance with Federal regulations governing the MBNMS (15 C.F.R. Part 922).

Categorical Exclusion(s) Applied:

A9 - Information gathering, analysis, and dissemination

B3.6 - Small-scale research and development, laboratory operations, and pilot projects

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

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

☑ The proposal 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 proposal that may affect the significance of the environmental effects of the proposal.

☑ The proposal 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.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: Date Determined: 08/26/2014