PMC-ND

(1.08.09.13)

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



RECIPIENT: WPTO STATE: Mult

PROJECT TITLE: PRIZE: Innovating Distributed Embedded Energy Prize (InDEEP)

Funding Opportunity Announcement Number Procurement Instrument Number NEPA Control Number CID Number

Prize_ME_InDEEP GFO-InDeepPrize-001

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

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

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 authorize the administration of a prize competition, known as the "Innovating Distributed Embedded Energy Prize (InDEEP)," designed to explore and develop concepts in the area of distributed embedded energy converter technologies (DEEC-Tec). The prize competition would be a three-phase competition offering up to a combined \$2.3 million in cash prizes over two years. The prize competition would be administered by DOE and the National Renewable Energy Laboratory (NREL).

Prize competitors would work on the development of DEEC-Tec for wave energy converter (WEC) applications, that is technologies which combine small energy converters (i.e., transducers) into a larger structure (i.e., metamaterial) which could be used as part of a WEC. Phase I would involve the completion of concept papers to explain the fundamentals of their ideas. Phase II would involve the fabrication and laboratory testing at the transducer level. Phase III would involve the fabrication and testing at the metamaterial level. During the prize, competitors would have access to trainings, webinars, networking opportunities, office hour sessions, prototyping and testing facilities through the American-Made Network. The prize includes a diversity, equity, and inclusion (DEI) plan which encourages the inclusion of individuals from underrepresented groups in fields of science, technology, engineering, and mathematics (STEM).

Although competitors are unknown at this time, all facilities for testing activities would be preexisting purpose-built facilities for the type of work to be conducted for this prize. Facility modifications would not be required. Testing activities would involve typical hazards associated with laboratory testing, including handling and use of hazardous materials and operation of potentially hazardous equipment. Existing health, safety, and environmental policies and procedures would be followed to mitigate hazards to acceptable levels. Mitigated hazards would pose negligible risks to the public and environment. All activities would comply with existing federal, state, and local laws and regulations.

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 (WPTO) NEPA review completed by Dan Cahill, 03/23/2023.

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: | Signed By: Andrew Montano | Date: | 3/28/2023 |
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| | NEPA Compliance Officer | | |
| FIELD OFFICE MANAGER DETERMIN | NATION | | |
| ✓ Field Office Manager review not require☐ Field Office Manager review required | ed | | |
| BASED ON MY REVIEW I CONCUR W | ITH THE DETERMINATION OF THE NCO: | | |
| Field Office Manager's Signature: | | Date: | |
| | Field Office Manager | | |