

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



RECIPIENT: Electric Power Research Institute, Inc.

STATE: TN

PROJECT TITLE: Field Demonstration of Cold Climate Heat Pump Water Heaters for Multi-Family Buildings

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002788	DE-EE0010924	GFO-0010924-001	GO10924

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.)

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Electric Power Research Institute, Inc. (EPRI) to field test a near-to-market commercial cold-climate heat pump (CCCHP) water heater in occupied and operational commercial, and/or high-rise residential buildings, and monitor CCCHP water heater to assess performance during specific times of the year.

This project spans three budget periods (BP) and 10 tasks. BP1 includes project management and planning, design and optimization, market potential assessment, field site identification, and field site design and demonstration. BP2 includes assessment, development, and field demonstration. BP3 includes market assessment, technology transfer, and field demonstrations.

Award activities would occur at Electric Power Research Institute in Knoxville, TN and Palo Alto, CA; Oak Ridge National Laboratory in Oak Ridge, TN; and Rheem Manufacturing Company in Montgomery, AL. Field demonstration locations have not yet been determined.

Proposed work in Tasks 1, 2, 3, 4, 6, 8, and 9 would be limited to intellectual, administrative, or analytical activities in nature and occur entirely within existing research and development facilities that are purpose-built for the type and scale of activities being proposed. No change in the use, mission, or operation of existing facilities would arise out of this effort, for these tasks.

Field demonstration activities would occur in BP1 Task 5, BP2 Task 7, and BP3 Task 10.

Award activities would involve handling and use of hazardous materials, including liquified flammable gas or refrigerant. Handling, storage, and disposal of such materials would occur within controlled settings with award facilities and would follow existing health, safety, and environmental policies and procedures, including personnel training, proper personal protective equipment (PPE), engineering controls, monitoring, and internal assessments.

DOE has considered the scale, duration, and nature of the proposed activities in Tasks 1, 2, 3, and 4 to determine potential impacts on sensitive resources, including those of an ecological, historical, cultural, and socioeconomic nature, and found no effects that would be expected to result from the proposed project activities.

This NEPA Determination (ND) only applies to BP1 Tasks 1, 2, 3, and 4, it does not apply to BP1 Task 5, BP2 or BP3 activities. Additional NEPA review is required for BP1 Task 5, BP2, and BP3 activities. BP1 Task 5, BP2, and BP3 would include ground disturbing activities and/or modification to boiler rooms. Impacts associated with installation activities are unknown and will depend on the designs and specific demonstration locations that are selected. Further NEPA review will be required for the remaining project activities once those activities have been defined.

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, Tasks 1, 2, 3, and 4](#)

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

[Budget Period 1, Task 5](#)

[Budget Period 2, Tasks 6 and 7](#)

[Budget Period 3, Tasks 8, 9, and 10](#)

Notes:

[Building Technologies Office \(BTO\)](#)

[NEPA review completed by Dustin Hill, 3/6/2024](#)

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:  _____ Date: 3/7/2024

NEPA Compliance Officer

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: _____ Date: _____