

PMC-ND
(1.08.09.13)**U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION**

RECIPIENT: Department of the Army, Fort Carson

STATE: CO

PROJECT
TITLE:

Demonstration of an Advanced Natural Gas Heat Pump & Air Conditioner

Funding Opportunity Announcement Number **Procurement Instrument Number** **NEPA Control Number** **CID Number**
DE-FOA-0002143 DE-EE0009044**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.)
- B1.31 Installation or relocation of machinery and equipment** Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.
- B1.4 Air conditioning systems for existing equipment** Installation or modification of air conditioning systems required for temperature control for operation of existing equipment
- B2.4 Equipment Qualification** Activities undertaken to (1) qualify equipment for use or improve systems reliability or (2) augment information on safety-related system components. These activities include, but are not limited to, transportation container qualification testing, crane and lift-gear certification or recertification testing, high efficiency particulate air filter testing and certification, stress tests (such as "burn-in" testing of electrical components and leak testing), and calibration of sensors or diagnostic equipment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to the Department of the Army, Fort Carson (Fort Carson, CO) to install a natural gas heat pump and air conditioning unit (HVAC unit) at a fixed installation building at Fort Carson. A production-ready HVAC unit produced by project partner Thermolift would be installed and monitored over a period of approximately 18 months (i.e. 6 months installation and 12 months of operations/monitoring). Data acquired from the system installation and operation would be used to inform future commercialization efforts.

Proposed project activities would consist of building selection, building preparation, HVAC unit installation, system commissioning/verification, system operation and monitoring, data collection, and reporting. A building would be selected at Fort Carson that currently has an HVAC system in place, as well as an existing natural gas connection. The building would likely have an area of between 2,000 and 4,000 sq. ft. Building preparation would consist of on-site characterization, development of design specifications, permitting (e.g. gas authorization and permit to install), and establishment of mechanical, electric, and plumbing connections.

The new HVAC unit would be integrated into existing HVAC infrastructure (e.g. existing gas connections, piping, etc.). Modifications would be made to existing HVAC infrastructure to accommodate the connection of the new HVAC unit. However, no ground disturbing activities, outdoor installation work, or changes to the use or mission of existing facilities would be required. All permitting activities would be coordinated by Fort Carson. Fort Carson would obtain any and all applicable permits or authorizations prior to performing associated work activities.

Fort Carson would oversee all project activities. System installation, verification, and operation would be administered

in coordination with project partners AECOM (contractor) and Thermolift (parts supplier). Additional, third-party contractors may be selected to perform select work activities, including system installation.

Because Fort Carson is part of a Federal agency it is required to comply with NEPA for this project. This would include completing an environmental review for the project including any necessary consultations and geotechnical or other surveys prior to a decision whether to proceed. If Fort Carson proceeds with the proposed project after their NEPA review they would be required to obtain all necessary permits and follow appropriate environment, health and safety measures. Fort Carson must provide its final NEPA determination(s) to their DOE FEMP Technical Project Officer or point of contact.

This DOE grant is a secondary funding source for this project and comprises approximately 50% of total project funding. Primary funding will come from Fort Carson.

NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

The Recipient is a Federal agency and is also required to comply with NEPA. When the Recipient has completed its NEPA review process for the proposed project, the Recipient will provide its final NEPA determination(s) to their DOE FEMP Technical Project Officer or point of contact.

Notes:

Federal Energy Management Program
This NEPA determination requires a tailored NEPA provision.
Review completed by Jonathan Hartman, 11/19/2020

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.

The proposed action is categorically excluded from further 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: 11/20/2020

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: _____