

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



**RECIPIENT:** E3: Energy Efficiency Empowerment

**STATE:** PA

**PROJECT TITLE :** Biggest Climate Impact for Least Cost

<b>Funding Opportunity Announcement Number</b> Buildings Up Prize	<b>Procurement Instrument Number</b> Buildings Up Prize Phase 3	<b>NEPA Control Number</b> GFO-BuildingsUP3-001	<b>CID Number</b>
--	--	--	-------------------

**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.)

**B5.1 Actions to conserve energy or water**

(a) Actions to conserve energy or water, demonstrate potential energy or water conservation, and promote energy efficiency that would not have the potential to cause significant changes in the indoor or outdoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, manufacturers, and designers), organizations (such as utilities), and governments (such as state, local, and tribal). Covered actions include, but are not limited to weatherization (such as insulation and replacing windows and doors); programmed lowering of thermostat settings; placement of timers on hot water heaters; installation or replacement of energy efficient lighting, low-flow plumbing fixtures (such as faucets, toilets, and showerheads), heating, ventilation, and air conditioning systems, and appliances; installation of drip-irrigation systems; improvements in generator efficiency and appliance efficiency ratings; efficiency improvements for vehicles and transportation (such as fleet changeout); power storage (such as flywheels and batteries, generally less than 10 megawatt equivalent); transportation management systems (such as traffic signal control systems, car navigation, speed cameras, and automatic plate number recognition); development of energy-efficient manufacturing, industrial, or building practices; and small-scale energy efficiency and conservation research and development and small-scale pilot projects. Covered actions include building renovations or new structures, provided that they occur in a previously disturbed or developed area. Covered actions could involve commercial, residential, agricultural, academic, institutional, or industrial sectors. Covered actions do not include rulemakings, standard-settings, or proposed DOE legislation, except for those actions listed in B5.1(b) of this appendix. (b) Covered actions include rulemakings that establish energy conservation standards for consumer products and industrial equipment, provided that the actions would not: (1) have the potential to cause a significant change in manufacturing infrastructure (such as construction of new manufacturing plants with considerable associated ground disturbance); (2) involve significant unresolved conflicts concerning alternative uses of available resources (such as rare or limited raw materials); (3) have the potential to result in a significant increase in the disposal of materials posing significant risks to human health and the environment (such as RCRA hazardous wastes); or (4) have the potential to cause a significant increase in energy consumption in a state or region.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funds to Energy Efficiency Empowerment (E3) through the third phase of a four-phase prize competition known as the "National Building Upgrade Prize." E3's third phase activities would include upgrading water heaters, HVAC systems, and weatherization and energy efficient upgrades within select residences in the Pittsburgh, Pennsylvania metro region.

DOE previously completed two NEPA Determinations (ND) for this prize (GFO-National Building Upgrade Prize-001; A9; 11/23/2022, and GFO-National Building Upgrade Prize-002; A9; 06/12/2023). Those NDs covered the development of concept plans (phase 1s and 1) and further development of concept and implementation plans (phase 2) of the prize. This ND covers activities in phase 3 of E3: Energy Efficiency Empowerment's prize. Future phases of the prize would be dependent on the outcome of phase 3 and would require additional NEPA review.

This ND only applies to activities numbered 1 through 5 in the list below, it does not apply to activities numbered 6 through 9. These activities would require additional NEPA review once locations are identified. The Recipient would

submit an Environmental Questionnaire 1 form (EQ1) (found at <https://www.eere-pmc.energy.gov/NEPA.aspx>) to initiate the review. The Recipient would not initiate any activities without approval from their DOE Contracting Officer.

Phase 3 of E3's prize activities would include:

1. Identification of houses and structures targeted for upgrades.
2. Installation and replacement of traditional hot water heaters with air source heat pump water heaters.
3. Installation and replacement of traditional HVAC heating systems with air source heat pumps.
4. Installation and replacement of dated or gas-powered household appliance with energy efficient electric appliances.
5. Weatherization installations such as wall insulation (not spray foam), air sealing, and attic and basement insulation.
6. Installation of updated gutters, downspouts, and downspout extensions to maintain dry foundations.
7. Spray-foam insulation to seal cracks and gaps.
8. Spray-foam insulation in the attic of select houses.
9. Flat roof replacement of select houses.

DOE is required to consider floodplain management and wetland protection as part of its environmental review process (10 CFR 1022). As part of this required review, DOE determined requirements set forth in Subpart B of 10 CFR 1022 are not applicable to the activities reviewed in this NEPA determination. If such activities were to occur in the 100-year floodplain (hereinafter "floodplain") or wetland, these activities would not cause short or long-term adverse impacts. These activities consist of minor modifications of existing facilities to improve environmental conditions. All other integral elements and environmental review requirements are still applicable.

Minimal air emissions may result from the use of diesel-powered vehicles and equipment during the installation of upgrades. However, significant air impacts are not anticipated as emissions would be temporary and intermittent. Installation of upgrades may expose installation crews to hazards such as power tools, machinery, scaffolding and lifts, working with electricity, and potential exposure to lead-based paint and asbestos. Employee training, proper protective equipment, and internal safety reviews and assessments would be utilized to mitigate hazards. The Recipient and their subcontractors would comply with all applicable federal, state, and local health, safety, and environmental regulations. DOE does not anticipate any impacts to resources of concern due to the proposed activities listed within this ND.

## NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

This NEPA determination applies to the following proposed activities:

1. Identification of houses and structures targeted for upgrades
2. Installation and replacement of traditional hot water heaters with air source heat pump water heaters
3. Installation and replacement of traditional HVAC heating systems with air source heat pumps.
4. Installation and replacement of dated or gas-powered household appliance with energy efficient electric appliances
5. Weatherization installations such as wall insulation (not spray foam), air sealing, attic and basement insulation

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

This NEPA determination does not apply to the following proposed activities:

1. Installation of updated gutters, downspouts, and downspout extensions
2. Spray-foam insulation to seal cracks and gaps
3. Spray-foam insulation in the attic
4. Flat roof replacement

Include the following condition in the financial assistance agreement:

1. If propose activities are not identified within the list below, or do not meet all conditions of applicability, the Recipient must contact their DOE Project Officer for an individual NEPA review. An individual NEPA review would require the submission of an Environmental Questionnaire 1 form (EQ1) (found at <https://www.eere-pmc.energy.gov/NEPA.aspx>). Recipients would not initiate any activities without approval from their DOE Contracting Officer.
  - a. Identification of houses and structures targeted for upgrades
  - b. Installation and replacement of traditional hot water heaters with air source heat pump water heaters
  - c. Installation and replacement of traditional HVAC heating systems with air source heat pumps.

- d. Installation and replacement of dated or gas-powered household appliance with energy efficient electric appliances
- e. Weatherization installations such as wall insulation (not spray foam), air sealing, attic and basement insulation

Notes:

Building Technologies Office (BTO)

This NEPA Determination requires legal review of the tailored NEPA provision.

NEPA review completed by Amy Lukens, 7/10/2024.

#### 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:



Whitney Donoghue

NEPA Compliance Officer

Date: 7/10/2024

#### 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: