

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



RECIPIENT: Electric Power Research Institute

STATE: CA

PROJECT TITLE: DESIRED – Deep Efficiency and Smart Grid-Integrated Retrofits in Disadvantaged Communities

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002206	DE-EE0009783	GFO-0009783-002	GO9783

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.)
- B1.7 Electronic equipment** Acquisition, installation, operation, modification, and removal of electricity transmission control and monitoring devices for grid demand and response, communication systems, data processing equipment, and similar electronic equipment.
- 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.
- B5.23 Electric vehicle charging stations** The installation, modification, operation, and removal of electric vehicle charging stations, using commercially available technology, within a previously disturbed or developed area. Covered actions are limited to areas where access and parking are in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to the Electric Power Research Institute (EPRI) to analyze, design, and demonstrate Grid Interactive and Efficient Buildings (GEB) technologies at selected sites in Connected Communities (CC) in Seattle, WA and New York, NY, in order to provide energy options to Low-to-Moderate Income (LMI) households within the CCs. Neighborhoods would be technologically retrofitted by utilizing coordinated control of buildings and community-scale Distributed Energy Resources (DERs) to optimize customer

energy bills and grid services.

EPRI (Palo, Alto) would design the CC technology packages, as well as developing the Distributed Energy Resource (DER) platform. EPRI would work with the Gas Technology Institute (GTI) (Des Plaines, IL), Vistar Energy (Rocklin, CA), and Seattle City Light (Seattle, WA) for developing measurement metrics, data analyses, development of virtual energy audit platform, controls platform for flexible building loads, providing electrical engineering support, and occupant surveys.

This award would be carried out in five budget periods (BPs). A previous NEPA Determination (ND; GFO-0009783-001; A9; 04/15/2021) was completed for Budget Period (BP) 1. This ND would include the remaining BPs, 2-5, aside from PV installation. There is not currently enough information to review the PV installation the project locations. Information gathered in BPs 2-5 will provide necessary details for future PV installation and installation of new heat pump systems.

The proposed award activities in BPs 2-5 would consist of the replacement of heat pumps, heat pump based water heating, centralized refrigerant flow systems, and electric vehicle (EV) charging stations. Award activities would include permit obtention, field demonstration, data gathering, analyses and reporting, modeling, evaluations, and final reporting.

Proposed award activities would be carried out at different sites in Seattle, Washington and New York, New York. The sites and their specific DERs are listed below.

1. Oleta – 1816 Bellevue Avenue, Seattle WA 98122: Heat Pumps, Centralized Heat Pump Water Heater, Neuro Edge with Distributed Energy Resource Management Systems (DERMS)
2. Seneca – 1214 Boylston Avenue, Seattle WA 98101: Heat Pumps, Heat Pump attachments, EV Charging with Networked Electric Vehicle Supply Equipment (EVSE), Neuro Edge with DERMS
3. Helen V – 1321 East Union Street, Seattle WA 98122: Heat Pumps, Centralized Heat Pump Water Heater, bifacial Solar PV, Neuro Edge with DERMS
4. Elizabeth James – 109 23rd Avenue East, Seattle WA 98112: Heat Pumps, Neuro Edge with DERMS
5. 12th Ave Arts – 1660 12th Avenue, Seattle WA 98122: Neuro Edge with DERMS
6. Broadway Crossing – 815 East Pine Street, Seattle WA 98122: EV Charging with Networked EVSE, Neuro Edge with DERMS
7. 830 Amsterdam Ave – 830 Amsterdam Ave, New York, NY: Centralized Heat Pump Water Heater and System, Neuro Edge with DERMS
8. 1700 Hoe Ave – 1700 Hoe Ave, Bronx, NY: Heat Pumps, Centralized Heat Pump Water Heater, Neuro Edge with DERMS
9. LIC NYCHA – 24-02 49th Ave, Long Island City, NY 11101: EV Charging with Networked EVSE, Neuro Edge with DERMS

Individuals working on this project could be exposed to physical hazards associated with DER installation. Physical modifications to existing facilities may include replacement of boilers and/or cooling units with new heat pumps and HVAC.

Minimal ground disturbance would occur as a result of award activities. Outdoor water heating system components would be placed on the buildings' terraces or replacing existing systems that may be placed outdoors.

Activities taking place at the following locations would require building and operating permits:

- 1) 12th Arts Avenue
- 2) Broadway Crossing
- 3) Elizabeth James
- 4) Helen V
- 5) Oleta
- 6) Seneca

Activities taking place at the following locations would require operating permits:

- 1) Amsterdam Ave
- 2) LIC NYCHA
- 3) Hoe Ave

DOE has considered the scale, duration, and nature of the proposed activities 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.

DOE has made a conditional NEPA determination.

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

[Budget Period 2-5 activities except for PV installation](#)

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

[PV installation in any Budget Period](#)

Notes:

[Building Technologies Program \(BTO\)](#)
[Review completed by Alex Colling, 09/12/2024.](#)

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: 9/26/2024
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: _____
Field Office Manager