

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



RECIPIENT: Post Road Foundation

STATE: CA

PROJECT TITLE : Evaluating Transactive Energy for Rural America

| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|--|--------------------------------------|----------------------------|-------------------|
| DE-FOA-0002206 | DE-EE0009780 | GFO-0009780-001 | GO9780 |

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.) |
| B2.2 Building and equipment instrumentation | Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, water consumption monitors and flow control systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment). |
| B3.6 Small-scale research and development, laboratory operations, and pilot projects | 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 is proposing to provide funding to the Post Road Foundation to develop and deploy transactive control software that would connect and control groups of existing distributed energy resources (DERs). The control software Transactive Energy Service System (TESS) would be used to analyze data to meet energy policy goals, such as achieving load flexibility, occupant comfort in a cost-effective and equitable manner, and a substantial reduction in carbon dioxide emissions. The proposed project would involve software development, analytical simulation, equipment testing, and software demonstration in rural communities in Maine and New Hampshire, called Connected Communities.

All physical modifications to selected homes, including installation of DERs, would be done regardless of this proposed project and DOE involvement. No project funding is going toward the installation of these technologies and the DOE has no control or discretion over which technologies may be selected for installation or which participant may choose to install those technologies. As such, DOE's NEPA review is limited to the scope of the DOE funded project which involves focusing on software development, testing, and deployment.

The proposed project activities would take place in several locations. Software development, equipment testing, and analytical simulation would occur at the Post Road Foundation in Oakland, CA, SLAC National Accelerator Lab (SLAC) in Menlo Park, CA, Knowledge Problem LLC (KP) in Chicago, IL, and New Hampshire Electric Cooperative (NHEC) in Plymouth, NH. Equipment testing to verify the functionality of TESS would take place primarily at SLAC. Some testing may occur at NHEC and Efficiency Maine Trust (EMT) in Augusta, ME.

The proposed project activities would focus mainly on software upgrades to communicate with hundreds of buildings via broadband installation, including linking the software with a wide range of existing DERs, ranging from electric charging infrastructure and heat-pump-based HVACs systems to solar PV and thermal storage. This would be coordinated using TESS. TESS would be installed in the Connected Communities, which would be comprised of participants solicited by NHEC, including a focus on low-income communities. The project and preliminary plans for

TESS observation and experimentation would be submitted to the cognizant Institutional Review Board (IRB) to determine if any of the proposed activities are considered human subjects research and, if so, IRB approval in accordance with 10 CFR 745.103 would be obtained prior to initiating the proposed activities in the field. Cybersecurity plans would also be developed for the Connected Community.

The testing of software and DERs would be done at SLAC and NHEC's laboratories and thus would present no hazard to the public. Electrical activities would be performed by certified electricians, and would be done according to federal, state, and local regulations. Although exact locations have not yet been selected, DOE has determined that the project activities would have no potential to cause effects to historic properties, assuming they were present, therefore DOE has no further obligations under section 106 of the National Historic Preservation Act. DOE does not anticipate any impacts to resources of concern due to the proposed activities of the project.

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:

Building Technologies Office (BTO)
Review completed by Alex Colling on 03/31/2022.

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:



Casey Strickland

NEPA Compliance Officer

Date: 4/5/2022

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: _____