

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Electric Power Research Institute**STATE:** CA

PROJECT TITLE: SECURE - Solar Energy CommUnity REsiliency

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA0002243	DE-EE0009336	GFO-0009336-001	GO9336

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.)

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 (DOE) is proposing to provide funding to Electric Power Research Institute (EPRI) to develop a decentralized control architecture for use in microgrid applications. The project would be completed over three Budget Periods (BPs), with a GO/No-Go Decision Point in between each BP.

Proposed project activities would include conceptual design work, data analysis, computer modeling, technoeconomic analysis, software development, laboratory testing of microgrid hardware, and field testing of integrated hardware. Laboratory testing would consist of controller hardware-in-the-loop simulations. Software developed as part of the project would be integrated into microgrid devices (e.g., photovoltaic (PV) inverters, controller hardware, communication hardware, etc.) and its performance capabilities would be assessed.

EPRI would coordinate all project activities and perform data analysis, conceptual design work, computer modeling, and algorithm/software development at its offices in Palo Alto, CA and Knoxville, TN. ComEd would perform computer modeling and analysis at its office in Oakbrook Terrace, IL. The University of Wisconsin Madison would perform conceptual design work at its campus in Madison, WI. The National Renewable Energy Laboratory (NREL) would perform microgrid hardware (e.g., PV inverter, controller hardware, communication hardware) testing at its laboratory facilities in Golden, CO. Office and laboratory based activities would not require any physical modifications to existing facilities, ground disturbance, or changes to the use, mission, or operation of existing facilities. No additional permits or authorizations would be required.

Field testing would be performed at two existing utility operated energy distribution sites. The first site location is the Bronzeville Community Microgrid, operated by Commonwealth Edison (ComEd) in Chicago, IL. Field testing at this location would consist solely of software testing. Software would be integrated into the existing distribution system to verify functionality. Controller software developed as part of the project would be integrated into existing microgrid equipment and its performance capabilities would be validated. No hardware installations, ground disturbance, or changes to the use, mission, or operation of existing facilities would be required at this site location.

The second field testing location would be an existing PG&E Applied Technology (PG&E) distribution site, selected from its service territory in CA. The exact site would be determined after the project has commenced, based on negotiations with PG&E. Software developed as part of the project would be integrated into the existing distribution system to verify functionality. Existing distribution equipment would be utilized, though minor hardware modifications/retrofits may also be required, including the installation of sectionalizing switches and microgrid controllers. These modifications would be made to existing equipment and would not require any ground disturbance or changes to the use, mission, or operation of existing facilities. During field testing it is possible that some utility customers would be without power during brief and announced times of testing. PG&E would coordinate with existing customers by providing advance warning and minimizing the duration of the impact. Though the exact location of the second field testing site is not known, DOE has determined that there would be no potential to adversely impact sensitive resources since installation work would only occur on previously installed equipment at an actively use utility distribution site.

Project work would involve the use and handling of high voltage equipment. All such handling would occur in controlled laboratory and designated outdoor testing sites. To mitigate potential hazards, all participating entities would adhere to established health and safety policies and procedures. Protocols would include personnel training, the use of personal protective equipment, engineering controls, monitoring, and internal assessments.

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:

Solar Energy Technologies Office

This NEPA determination does not require a tailored NEPA Provision.

NEPA review completed by Jonathan Hartman, 04/06/2021

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: **Kristin Kerwin**

NEPA Compliance Officer

Date: 4/7/2021

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: _____