

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Operant Networks**STATE:** CA

PROJECT TITLE: Cybersecure Utility DER Networking with Integrated Multi-Party Trust

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002064	DE-EE0009029	GFO-0009029-001	GO9029

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 Operant Networks to develop and test networking software for utility scale solar photovoltaic (PV) applications. Specifically, multi-party trust (MPT) solutions would be developed for distributed energy resources (DER) applications. MPTs refer to trust models for smart devices that are accessed by multiples parties for the sending/receiving of remote commands. Operant Networks would develop an MPT solution for DERs which would seek to mitigate cybersecurity concerns associated with the current state of the technology. The project would be completed over three Budget Periods (BPs), with a Go/No-Go Decision Point in between each BP.

Project work would largely focus on software development. Proposed activities would include stakeholder engagement (e.g. requirements development, standardization, industry needs discussions, etc.), software development, computer modeling/simulations (e.g. cyberattack simulations), business plan development, technology demonstration/field testing.

All project activities would be coordinated by Operant Networks and performed at existing, purpose-built facilities. Software development would be performed by Operant Networks (Santa Rosa, CA) and its project partners University of California Los Angeles ('UCLA' – Los Angeles, CA) and Pollere (Montara, CA) at office spaces operated by each entity. Additional software development would be performed at the National Renewable Energy Laboratory ('NREL' – Golden, CO) and by an individual software contractor, working out of a home office in Barcelona, Spain. Field work would be performed at a utility-scale solar PV site operated by Exelon. The exact site location would be selected at a later date, based on project requirements. Field work would consist of the temporary installation of gateways onto existing solar PV arrays for software testing. The gateways would either be fabricated by an original equipment manufacturer (OEM) or assembled by Operant using off-the-shelf parts. The gateways would be removed upon completion of testing.

No physical modifications to existing facilities, construction of new facilities, ground disturbing activities, or changes

to the use, mission, or operation of existing facilities would be required. No additional permits, licenses, or authorizations would be required.

Work activities would consist primarily of software development, computer-based analysis/modeling, and stakeholder engagement. Accordingly, health and safety risks would be minimal. Installation work (e.g. gateways installation) would be performed by qualified personnel, in compliance with existing corporate health and safety policies. Operant Networks and its project partners would follow all applicable health, safety, and environmental regulations.

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, 01/30/2020

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.

DOE has determined that work to be carried out outside of the United States, its territories and possessions is exempt from further review pursuant to Section 5.1.1 of the DOE Final Guidelines for Implementation of Executive Order 12114; "Environmental Effects Abroad of Major Federal Actions."

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____


NEPA Compliance Officer

Date: 2/3/2020

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: _____