

PMC-ND
(1.08.09.13)

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

**RECIPIENT:** Eaton Corporation**STATE:** WI

PROJECT TITLE: Risk-informed Hierarchical Control of Behind-the-Meter DERs with AMI Data Integration

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002064	DE-EE0009023	GFO-0009023-001	GO9023

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 Eaton Corporation (Eaton) to develop and test control architecture (i.e. algorithms/software) for the provision of behind-the-meter (BTM) solar photovoltaic (PV) and distributed energy resources (DER). The control architecture would be designed to improve load forecasting capabilities, aggregate control of DERs, and the user interface experience.

The project would be completed over three Budget Periods (BPs), with a Go/No-Go Decision Point in between each BP. BP1 and BP2 would focus primarily on the design, development, and validation of the control architecture. Proposed project activities would include algorithm development, data collection/analysis, use case testing, hardware development (e.g. smart meter design/assembly), and stakeholder engagement.

All research and development activities would be coordinated by Eaton and performed at purpose-built laboratory facilities operated by Eaton or its project partners. Software development, modeling, and analysis would be performed by Eaton at its engineering facility in Plymouth, MN and at its laboratory space within the National Renewable Energy Laboratory (NREL) in Golden, CO. NREL would also support computer-based research activities. Additional software development would be performed by the Electric Power Research Institute at its laboratory/office facility in Knoxville, TN). Pecan Street would support project management activities at its laboratory/office facility in Austin, TX. Hardware would be developed by Eaton at its engineering facility in Rockville, MD.

At the end of BP2 and continuing on throughout all of BP3, smart meter devices and associated equipment (e.g. radio repeaters) would be deployed to between 20 – 30 residential homes in Provo, UT for field testing of the control architecture. Field testing would be coordinated with project partner Provo City Power, and would be performed at the residences of select customers within its service territory. Residences would be selected during BP2. Testing would be performed for approximately 3 – 4 months. Device installation would occur both indoors and outdoors. All outdoor meter components would be installed onto existing equipment. No new solar PV or storage equipment

would be installed onto residences. The project would not include the construction of new facilities, ground disturbing activities, or changes to the use, mission, or operation of existing facilities. No additional permits, licenses, or authorizations would be required.

Provo City Power's service area includes a number of sites listed with the National Register of Historic Places. However, because installations would consist solely, of small metering devices installed onto existing equipment, DOE has determined that the project would not have the potential to affect historic properties.

Customer participation in the field testing program would be wholly voluntary and residences would be selected through public solicitation, as well as through direct contact by Provo City Power personnel. Candidate customers would be informed about the logistics of the testing and would sign consent forms prior to participating.

Established corporate health and safety policies and procedures would be adhered to at all times in order to mitigate against any risks associated with the performance of project activities. Research and development would be performed at controlled access locations. Field testing would be performed by qualified personnel, trained to perform installation and monitoring work. Eaton and its project partners would observe all applicable Federal, state, and local health, safety, and environmental regulations.

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, 02/24/2020

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.

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: 2/24/2020

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: _____