

PMC-ND

(1.08.09.13)

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



RECIPIENT: AE Solar Energy, Inc.

STATE: OR

PROJECT TITLE : Transforming PV installations toward dispatchable, schedulable energy solutions

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
FOA-0000479	DE-EE0005340	GFO0005340-002	GO5340

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

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.

B5.15 Small-scale renewable energy research and development and pilot projects

Small-scale renewable energy research and development projects and small-scale pilot projects, provided that the projects are located within a previously disturbed or developed area. Covered actions would be 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:

This is the second NEPA review for this project and focuses on Phase 2 activities. The first review allowed Phase 1 activities (Tasks 0-4) to proceed. These involved planning, research, and laboratory activities and were categorically excluded from further NEPA review.

For Phase 2 (BP2 and BP3), AE Solar Energy, Inc. is proposing to use DOE funding to advance solar photovoltaic (PV) technology by developing and demonstrating power electronic (inverter) technologies that address barriers to high penetration of PV on distribution feeders. The project would involve further economic analysis, planning and laboratory testing (at their facility previously reviewed) of their prototype inverter developed in Phase 1 of this project. AE Solar Energy would then demonstrate their prototype inverter at an existing solar facility.

The demonstration portion of the project would involve the installation of a moderate sized (300 kW / 300 kWh) lithium ion battery stack and inverter. AE Solar is proposing to install and test the technologies at the Oregon Department of Transportation's (ODT) "Baldock" PV facility. It is located adjacent to the ODT's rest area at exit 281.6 off Interstate 5.

Baldock is a 1.75 MW solar facility that provides renewable power to the local electric utility, Portland Gas and Electric (PGE). The site is contained inside a security fence complete with fiber optic detection. AE Solar has permission (through and in coordination with) ODT and PGE to perform long term demonstrations on the site as part of this project.

Installation would include a small amount of land clearing to prepare the site with a concrete pad prior to the installation of the battery stack and inverter. The prototype battery and inverter would temporarily replace one of the existing AE Solar inverters currently utilized on site. The area would be cleared of vegetation and leveled prior to having a cement pad pored. The area would be approximately 10 ft. by 30 ft. and be placed in an area that has been previously disturbed from the installation of the PV facility. The pad and proto-type technologies would be placed adjacent to the existing electrical infrastructure to minimize external conduit lengths. Existing roadways would be used to access the site during construction and operational periods.

Due to the small size of the land clearing and the use of an area previously disturbed by prior construction, impacts to wildlife habitat and historical resources would be negligible. The secure fencing and electronic monitoring would minimize hazards and impacts to public safety.

DOE has determined that this project is consistent with actions covered under DOE CX B3.6 (conventional laboratory

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NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

NEPA review completed by Laura Margason on October 17, 2013

This NEPA Determination does not require a tailored NEPA provision.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically Signed By Lori Gray
NEPA Compliance Officer

Date: 10/17/2013

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____