

PMC-ND

(1.08.09.13)

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



RECIPIENT: Next Energy Technologies

STATE: CA

PROJECT TITLE: Building Windows with Transparent Photovoltaics to Lower Costs, Tier 2

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001640	DE-EE0008133	GFO-0008133-002	GO8133

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.
- B5.16 Solar photovoltaic systems** The installation, modification, operation, and removal of commercially available solar photovoltaic systems located on a building or other structure (such as rooftop, parking lot or facility, and mounted to signage, lighting, gates, or fences), or if located on land, generally comprising less than 10 acres 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:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Next Energy Technologies (NEXT) to fabricate and certify small, transparent photovoltaic modules via slot-die coating initially demonstrated on a small, high-throughput scale.

Proposed project activities would include the design, development, fabrication (including wet coating), and initial reliability and certification testing of fully developed prototypes, as well as limited field testing. This award received a previous NEPA determination (GFO-0008133-001, CX-A9, and CX-B3.6, 08/17/2017) for activities associated with Tasks 1, 3-7, and 9-10 as described in the Statement of Project Objectives which include the design, development, fabrication (including wet coating), and initial reliability and certification testing of fully developed prototypes. At the time of this review, locations for field testing were not yet determined and NEPA review of those activities was not possible. Since that time, decisions have been made regarding the locations for field testing activities. Therefore, this review will focus on field testing activities associated with Tasks 2 and 8 as described in the Statement of Project Objectives.

Further information has clarified that Task 2 testing activities would occur in-lab rather than outdoors. Activities associated with Task 2 are in line with the scope of activities previously reviewed and facilities supporting those activities are the same facilities reviewed previously. Task 2 activities would not introduce any new hazardous materials or potential to effect sensitive resources not previously considered and are therefore covered by CX B3.6 as applied in the previous review of this project.

Task 8 would involve outdoor testing of prototypes. A small, temporary, outdoor demonstration wall composed of 8 transparent modules (14"x20") would be constructed at one or all of the following locations: Next Energy Technologies' site in Santa Barbara, CA; the Walters and Wolf site in Fremont, CA; and/or the Viracon site in Owatonna, MN. At the Next Energy Technologies site, the demonstration wall would replace either an existing window wall on the southwest side of the building or would be built as a free-standing structure approximately 49" x 71" on an unused portion of the parking lot on the southwest side of the building. At the Walters and Wolf site, there is an existing outdoor demonstration wall where NEXT's transparent modules would replace existing demonstration modules currently at the site. This site sits on a concrete pad just adjacent to a manufacturing facility. Likewise, at the Viracon site, there is an existing outdoor demonstration wall designed to host 14"x20" modules where NEXT's modules would replace other existing demonstration windows. The selected facilities in which this field testing would occur are pre-existing,

purpose-built and currently in use for the type of activities being proposed and lie in very disturbed and developed areas. Therefore, no adverse impacts to sensitive resources are expected as a result of the proposed project.

At Next Energy Technologies' site proposed activities would involve the use of various hazardous materials. All such handling and use would occur in dedicated laboratory facilities equipped with industry standard safety equipment and using proper safety, material handling, and disposal practices. Existing corporate health and safety policies and procedures will be followed including employee training, use of personal protective equipment, engineering controls, monitoring, and internal assessments. Hazardous waste is stored in a dedicated outdoor storage containment system designed for hazardous waste which includes secondary containment, and a fire suppression system. Non-hazardous wastes typical of lab work such as gloves, booties, paper towels, metal shavings, etc. are expected to be generated as a result of this proposed project and would be disposed of through normal municipal waste streams. There would be no introduction of new hazardous materials or processes at the other two previously existing locations.

Based on the review of the proposal, DOE has determined that Tasks 2 and 8 fit within the class of action(s) and the integral elements of Appendix B to Subpart D of 10 CFR 1021 outlined in the DOE categorical exclusion(s) selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR 1021.410(2)) related to these Tasks that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action. Tasks 2 and 8 of the proposal are categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If the Recipient intends to make changes to the scope or objective of this project, the Recipient is required to contact the Project Officer, identified in Block 15 of the Assistance Agreement before proceeding. The Recipient must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved. If the Recipient moves forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of a final NEPA decision, the Recipient is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

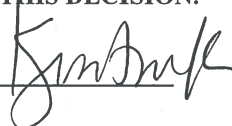
Note to Specialist :

Solar Energy Technologies Office
This NEPA determination does not require a tailored NEPA provision.
Review completed by Rebecca McCord 11/06/2017.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

 Electronically Signed By: Kristin Kerwin
NEPA Compliance Officer



Date: 11/9/2017

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: _____