PMC-EF2a

(2.04.02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION

RECIPIENT: Solexel, Inc. **STATE:** CA

PROJECT TITLE : Development and Productization of High-Efficiency, Low-Cost Building-Integrated Photovoltaic Shingles Using Monocrystalline Silicon Thin Film Solar Cells

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
0493-1589	DE-EE0005436	GFO-0005436-002	GO5436

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:

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.

Rational for determination:

The U.S. Department of Energy (DOE) proposes to provide federal funding to Solexel to install and monitor the performance of building integrated solar photovoltaic (BIPV) roofing shingles.

Previous NEPA determination under this award and for similar activities is GFO-0005436-001 (A9, B1.7, B3.6, B5.16; 12-8-2011).

Solexel would select materials, design and manufacture the Gen2 prototype PV shingles. The work would be performed at Solexel Inc., located at 1530 McCarthy Blvd., Milipitas, California 95035. The surrounding area consists of commercial buildings.

Owens Corning, in partnership with Solexel, would install one 5 kW BIPV shingle system on a test roof deck and four 6 kW BIPV shingle systems on existing, unoccupied ranch style test structures. The shingles would be installed directly onto the roof over a water barrier underlayment material, and would include wiring and balance of system components to conduct electricity from the shingles to the building electrical system. The installation would be monitored for at least four months to collect performance data.

Work would be performed at Owens Corning Science and Technology Center located at 2790 Columbus Rd., Granville, Ohio 43023. It is a 524 acre site with 20 buildings and approximately 659,251 sq. ft. of laboratories, prototyping and office areas. There are freshwater ponds located on the property but DOE has determined that these waters would not be affected because the proposed scope of work would occur at existing structures on the property.

The proposed project would be installed at a previously disturbed site surrounded by a fence. The U.S. Fish and Wildlife Service Endangered Species Program website identifies the Bald Eagle and Indiana Bat as endangered or threatened species within Licking County, Ohio. DOE has determined that these species would not be affected by the BIPV installations. The proposed scope of work would not have adverse effects on historic or cultural resources, as these resources are not known to occur at the proposed site.

Solexel and Owens Corning address the protocols in place for laboratory safety, risk management, chemical handling and waste disposal. The facilities comply with standard laboratory safety procedures and labs are inspected by staff and safety personnel. Environmental, Safety, and Security policies and procedures are in place throughout campus with individual responsibilities enforced by management. The facility operates under all applicable permits to conduct

research. Liquid effluents consisting of solvents, acids, bases, chemical reagents, and other liquid wastes will be disposed of by licensed contractors.

Based on review of proposed project information and the above analysis, DOE has determined the installation and monitoring of BIPV shingles would not have a significant individual or cumulative impact to human health and/or environment. The proposed project is consistent with the actions identified in categorical exclusions A9 (information gathering, analysis, and dissemination) and B3.6 (small-scale research and development, laboratory operations, and pilot projects) and is 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 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 :

Diana Scott 9.21.2012

DOE Funds: $5,167,200
Recipient Funds: $5,176,200
Total Project Cost: $10,334,400

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 9/24/2012
NEPA Compliance Officer

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: _____ Date: _____
Field Office Manager