

PMC-ND
(1.08.09.13)

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



RECIPIENT: Glint Photonics, Inc.

STATE: CA

PROJECT TITLE : Stationary Concentrator Daylighting System

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|--|--------------------------------------|----------------------------|-------------------|
| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
| DE-FOA-0001383 | DE-EE0007687 | GFO-0007687-001 | |

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:

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|--|---|
| 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.) |
| B3.11 Outdoor tests and experiments on materials and equipment components | Outdoor tests and experiments for the development, quality assurance, or reliability of materials and equipment (including, but not limited to, weapon system components) under controlled conditions. Covered actions include, but are not limited to, burn tests (such as tests of electric cable fire resistance or the combustion characteristics of fuels), impact tests (such as pneumatic ejector tests using earthen embankments or concrete slabs designated and routinely used for that purpose), or drop, puncture, water-immersion, or thermal tests. Covered actions would not involve source, special nuclear, or byproduct materials, except encapsulated sources manufactured to applicable standards that contain source, special nuclear, or byproduct materials may be used for nondestructive actions such as detector/sensor development and testing and first responder field training. |

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Glint Photonics, Inc. (Glint) to develop the Glint Stationary Concentrator Daylighting System (SCDS) into a full-scale integrated prototype and evaluate its performance in a demo installation. The SCDS consists of sunlight collecting panels and optics that redirect sunlight into the interior of a building. Project work would take place at the Glint research facility in Burlingame, California and a demonstration site that has yet to be determined.

Project activities include the design, development, fabrication, and testing (indoor and outdoor) of the SCDS. Laboratory work at Glint's facility would involve the use and handling of various hazardous materials such as solvents and adhesives in assembling the panels for the SCDS. All such handling would occur in-lab with no risk to the public. All project workers would be subject to the standard risks inherent in laboratory research using common chemicals and equipment so all project workers receive relevant safety training prior to beginning laboratory work. Glint has multiple layers of protection for workers, including ventilation, containment, safety equipment, and procedures. Glint has procedures in place to safely store, transport, and dispose of hazardous solid and liquid wastes in accordance with applicable federal, state, and local requirements. Anticipated air emissions under the proposed project would be within air quality requirements/limits and managed in accordance with federal, state, local requirements or facility specific guidelines. Prototype daylighting systems would be installed on the rooftop of Glint's facility for a period of at least six months.

Glint's facility is less than one mile from San Francisco International Airport. Regulatory authority regarding glare impacts from projects occurring outside of airport property is not clear but for projects occurring on airport property the Federal Aviation Administration (FAA) has established guidelines for measuring the ocular impact of glare. If a project has no potential for glint or glare in the air traffic control tower (ATCT) cab and has no potential for glare or low potential for after-image to aircraft along the final approach path, the FAA would have no objection to the project. Glint completed a solar glare hazard analysis to assess any glare impacts of testing the prototype system to the ATCT or aircraft arriving along the final approach path. Glint's glare hazard analysis showed that the prototype system would have no potential for glare to the ATCT and only a low potential for temporary after-image for aircraft on final approach at two miles away from the runway for eleven minutes during a few days in mid-March and late September. Based on this analysis, DOE does not anticipate any adverse impacts to the airport or arriving aircraft as a result of project

activities. DOE found no other potential impacts to resources of concern during review of the proposed project activities. Task 6 of the project is a demo installation at a site that has not been determined. At this time, there is not enough information to complete a thorough review of the installation activities for the off-site demo; therefore, Task 6 activities are prohibited until additional information has been submitted by the recipient and an additional NEPA review has been completed by DOE.

Based on the review of the proposal, DOE has determined that all tasks of the proposal except Task 6 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 the proposal 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. All tasks of the proposal except Task 6 are categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Task 6.0 - Demo Installation (including Subtasks)

This restriction does not preclude you from:

All Tasks and Subtasks other than Task 6.0 (including Subtasks)

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Insert the following language in the award:

You are required to:

The recipient is required to submit a new EQ-1 with installation and site location details for demo installation activities in Task 6 to the DOE for additional NEPA review prior to the recipient beginning work on those activities.

Note to Specialist :

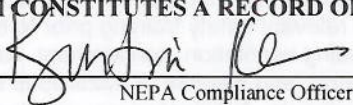
Building Technologies Office

This NEPA determination requires a tailored NEPA provision.

NEPA review completed by Casey Strickland 08/15/16

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



NEPA Compliance Officer

Date: _____

8/15/2016

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: _____