

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Solar Dynamics LLC**STATE:** CO

PROJECT TITLE: Optimization of Parabolic Trough Operations & Maintenance (OPTOM)

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002243	DE-EE0009379	GFO-0009379-001	

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.)

B1.31 Installation or relocation of machinery and equipment Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Solar Dynamics LLC to develop a new software program to track the maintenance needs and activities for solar fields in concentrating solar power (CSP) plants.

Proposed project activities would involve data analysis, software development, and testing of the developed software at an existing CSP plant. The software would be developed in various home offices of Solar Dynamics personnel. Solar Dynamics has an agreement in place with the Solana Generating Station just outside of Gila Bend, Arizona to conduct the proposed testing.

The proposed project would be limited primarily to intellectual, academic, and analytical activities, specifically the development of algorithms and a software product. However, the end goal of the proposed project would be to demonstrate the new software at an operating CSP plant, which would require setting up and testing the software in-person. The software would require data that would be largely provided by plant personnel; some testing of existing plant equipment would be included in the effort (e.g., measuring the reflectivity of mirrors with the plant's existing reflectometer). Small-scale test equipment may be installed to monitor soiling rates or particulates in the air to provide data to the software.

Potential facility modifications would be limited to the installation of certain instrumentation on existing solar collectors and/or a plant weather station to monitor the soiling of mirrors. No new permits or modifications to existing permits would be required. No change in the use, mission, or operation of existing facilities would arise out of this effort. No decommissioning of any equipment or materials would be necessary at the conclusion of the proposed project.

The project would entail some testing of mirror reflectivity on solar collectors. The solar field uses parabolic trough solar collectors to concentrate sunlight to heat a fluid to 750 degrees Fahrenheit. Because this is an operating power plant, such testing is considered a part of normal operations and management (O&M) at this location. Project

personnel would be appropriately trained and supervised as necessary and would follow established Environmental Health and Safety (EH&S) requirements for all work to be performed.

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 Whitney Doss Donoghue, 3/4/2021

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: 3/8/2021

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: _____