

PMC-EF2a

0.04.02

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

**RECIPIENT:**Nanosolar, Inc.**STATE:** CA**PROJECT****TITLE :**

Delivering Grid-Parity Solar Electricity: exXco Project (Salem, Oregon)

Funding Opportunity Announcement Number

DE-PS36-06GO96034

Procurement Instrument Number

DE-FC3607GO17047

NEPA Control Number

GFO-GO17047-002

CID Number

GO17047

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:****Rational for determination:**

A9 Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modelling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring. (Also see B3.1.)

B3.1 Onsite and offsite site characterization and environmental monitoring, including siting, construction (or modification), operation, and dismantlement or closing (abandonment) of characterization and monitoring devices and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, and radar), geochemical, and engineering surveys and mapping, including the establishment of survey marks; (b) Installation and operation of field instruments, such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools; (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants; (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities, including assessment of potential wind energy resources; (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

DOE proposes to provide federal funding to Nanosolar, Inc. (Nanosolar) to instrument and telemeter two prototype copper-indium-gallium-selenide (CIGS) solar electric cell arrays. The prototype installations would consist of two 525 kilo-watt (kW) photovoltaic (PV) arrays; one located in rural Yamhill County, Oregon northwest of the city of Salem, and the second at the Camp Perry Army National Guard Base (Camp Perry) located in Ottawa County, Ohio. The Oregon array would be installed, owned and operated by exXco, Inc. (exXco), an owner/operator corporation separate from Nanosolar. The Ohio array would be installed, owned and operated by Romanoff Electric, Inc. (Romanoff), a corporation that is also separate from Nanosolar. Nanosolar, exXco, and Romanoff have agreed to allow Nanosolar to telemeter the arrays. DOE funds would be used to install telemetry instruments, and collect and analyze data to document performance of the PV arrays.

The prototype PV arrays are being installed independent of any Nanosolar or DOE funded actions, and as such the installations have "independent utility" and are not subject to NEPA review by DOE at this time. This NEPA

determination addresses the telemetry work only. No DOE or cost share funds would be expended in support of array installations.

Telemetry instruments include sensor mounts on the PV arrays and buried wire for data transmission to storage/communication equipment. Wire installation for equipment would use existing trenching. All installation and operation would follow appropriate OSHA and state construction and electricity generation regulations. No hazardous waste would be generated as a result of telemetry installation and operation.

DOE has determined that equipment installations on two prototype PV arrays near Salem, OR and on Camp Perry, OH comprises environmental monitoring via the installation and operation of field interments and information gathering and data analysis. As such CXs B3.1 and A.9 apply.

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 :

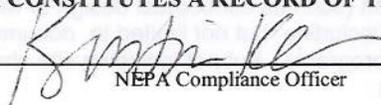
John DuWaldt 11-07-2011

TOTAL PROJECT COST
DOE Funds: \$19,407,713
Cost Share: \$23,952,817
Total Funds: \$43,360,530

Note: It is estimated that total cost for Task 16 would be \$251,000 (DOE share: \$84,165).

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



NEPA Compliance Officer

Date: _____

11/7/2011

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: _____