PMC-EF2a

(2/4/02)

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

RECIPIENT: Solar Junction **STATE:** CA

PROJECT TITLE : Large Scale Commercialization of Dilute Nitride Triple Junction Solar Cells

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000566	DE-EE0005738	GFO-0005738-001	

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:

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.
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.
B5.1 Actions to conserve energy or water	(a) Actions to conserve energy or water, demonstrate potential energy or water conservation, and promote energy efficiency that would not have the potential to cause significant changes in the indoor or outdoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, manufacturers, and designers), organizations (such as utilities), and governments (such as state, local, and tribal). Covered actions include, but are not limited to weatherization (such as insulation and replacing windows and doors); programmed lowering of thermostat settings; placement of timers on hot water heaters; installation or replacement of energy efficient lighting, low-flow plumbing fixtures (such as faucets, toilets, and showerheads), heating, ventilation, and air conditioning systems, and appliances; installation of drip-irrigation systems; improvements in generator efficiency and appliance efficiency ratings; efficiency improvements for vehicles and transportation (such as fleet changeout); power storage (such as flywheels and batteries, generally less than 10 megawatt equivalent); transportation management systems (such as traffic signal control systems, car navigation, speed cameras, and automatic plate number recognition); development of energy-efficient manufacturing, industrial, or building practices; and small-scale energy efficiency and conservation research and development and small-scale pilot projects. Covered actions include building renovations or new structures, provided that they occur in a previously disturbed or developed area. Covered actions could involve commercial, residential, agricultural, academic, institutional, or industrial sectors. Covered actions do not include rulemakings, standard-settings, or proposed DOE legislation, except for those actions listed in B5.1(b) of this appendix. (b) Covered actions include rulemakings that establish energy conservation standards for consumer products and industrial equipment, provided that the actions would not: (1) have the potential to cause a significant change in manufacturing infrastructure (such as construction of new manufacturing plants with considerable associated ground disturbance); (2) involve significant unresolved conflicts concerning alternative uses of available resources (such as rare or limited raw materials); (3) have the potential to result in a significant increase in the disposal of materials posing significant risks to human health and the environment (such as RCRA hazardous wastes); or (4) have the potential to cause a significant increase in energy consumption in a state or region.

Rational for determination:

The U.S. Department of Energy (DOE) is proposing to provide $5,415,177 in federal funding to Solar Junction to perform equipment installation and building retrofits for a solar wafer manufacturing facility.

Solar Junction would utilize their existing facility, 401 Charcot Avenue, San Jose, California 95131 and would lease another existing building, located at 1170 Sonora Ct., Sunnyvale, California 94086. The Sunnyvale location has previously functioned as a fabrication operation using similar materials. Solar Junction would renovate 15,000 interior sq. ft. at the Sunnyvale location to construct office space and the wafer production line.

The San Jose facility is approximately 55,600 sq. ft. and is located in an existing industrial park. Task 1, expitaxial process transfer to IQE, would be performed at the San Jose location.

The majority of the project, manufacturing of 150 mm substrates, would occur at the Sunnyvale facility, which is located in an existing industrial park. The site was previously used for fabrication of semiconductor optical devices by another company. The building was constructed in 1999. Solar Junction would change the existing electrical, mechanical and plumbing systems to accommodate the installation of wafer processing equipment. The office area would also be reorganized. There would not be any additional square footage added to the facility or significant external site work.

Solar Junction will comply with standard safety procedures and will adhere to the protocols for laboratory safety, risk management, chemical handling and waste disposal. Chemicals will be used in a controlled laboratory setting executed by trained personnel and supervised by a trained professional.

Solar Junction will acquire the following permits for the proposed project: Occupancy, Waste Water Discharge, On-site Hazardous Waste Treatment, Bay Area Air Quality Management District (BAAQMD) Source, BAAQMD permit to construct (add new sources), Hazardous Materials Business Plan, Hazardous Waste Generator, Hazardous Materials Storage, Compressor Operation, Aboveground Storage Tank, On-site Treatment Financial Assurance, and National Pollutant Discharge Elimination System storm water permit.

Based on review of the project information and the above analysis, DOE has determined the installation of the proposed equipment would not have a significant impact on human health and/or environment. DOE has determined the proposed project is consistent with the actions contained in A9 "Information gathering, analysis, and dissemination," B1.31 "Installation or relocation of machinery and equipment," B3.6 "Small-scale research and development, laboratory operations, and pilot projects," and B5.1 "Actions to conserve energy or water," 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:

Note to Specialist :

Diana Scott 6.21.2012

DOE Funding = $5,415,177
Cost Share = $16,245,534
Total Project Cost = $21,660,711

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 6/21/2012
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.