PMC-EF2a

(20402)

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

RECIPIENT: Tigo Energy, Inc. **STATE:** CA

PROJECT TITLE : Low Cost Arc-Fault Detection and Protection for PV Systems-Tigo Energy, Inc.

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-13-001	GO28308

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.

Rational for determination:

BACKGROUND

The SunShot Incubator project represents a significant component of the U.S. Department of Energy (DOE) business strategy of partnering with U.S. industry to accelerate the commercialization of solar energy system research and development (R&D) to meet aggressive cost and installed capacity goals. This specific partnership leverages technical capabilities and resources within the National Renewable Energy Laboratory (NREL) and other DOE laboratories/facilities to enhance and support areas of expertise within a small business in order to accelerate the development of the small business's technology. This early-stage assistance in crossing the technological barriers to commercialization also provides a better level of understanding and development for the investment community to base decisions on.

The Subcontractor for this proposed project is Tigo Energy, Inc. (Tigo) of Los Gatos, CA and the proposed project duration is 24 months. The objective of the proposed project would be to advance to the pilot production of an innovative and low-cost DC arc-fault detector which would enhance the safety of photovoltaic arrays, reduce ongoing operating and maintenance (O&M) costs for system owners, and comply with all applicable codes and standards for new and retrofit applications in residential, commercial, and utility-scale systems.

PROPOSED ACTION

Under this proposed action Tigo would establish an assembly and test location in the US for pilot-scale production of the arc fault detectors in accordance with Subtasks 2.4 and 4.4 of the Appendix A-1 Tigo Energy, Inc. Statement of Work dated September 20, 2011, which is uploaded to the PMC. The proposed location is an existing semiconductor manufacturing facility operated by Flextronics, Inc. and is located at 847 Gibraltar Dr., Milpitas, CA 95035. The facility is located in a light industrial area and no modifications to the facility would be required to conduct this proposed action. Proposed activities at this facility would consist of pilot-scale production of a low-cost DC arc-fault detector, which would enhance the safety of photovoltaic arrays, reduce ongoing O&M costs for system owners, and comply with all applicable codes and standards for new and retrofit applications. This would consist of light manufacturing, final product assembly, and testing over a two year period.

PREVIOUS NEPA DETERMINATIONS

NREL-11-029 is hereby incorporated by reference. A provisional NEPA EF2a determination (NREL-11-029) was signed on 11/29/2011, which authorized all activities specified in the Appendix A-1 Tigo Energy, Inc. Statement of Work dated September 20, 2011 for Subtasks 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 4.1, 4.2, and 4.3. Subtasks 2.4 and 4.4 were conditioned under NEPA until additional information was available. This NEPA determination addresses Subtasks 2.4 and 4.4 now that a proposed location is available.

IMPACTS OF PROPOSED ACTION
Given the nature of the proposed action, no impacts to endangered or threatened species, critical habitat, other protected species, historic and cultural resources, floodplains, wetlands, or prime farmlands, are anticipated. The Flextronics facility in Milpitas, CA is located in a Coastal Management Zone, however the types of activities proposed would not require a Coastal Zone Consistency Determination.

Flextronics currently operates under several federal and local permits. A table listing the permits, permit number, regulatory agency, active dates, and current status has been uploaded to this database. No additional permits or modifications to existing permits would be required.

Flextronics has procedures in place for chemical handling and storage, and for hazardous waste disposal through a licensed waste disposal vendor (Advanced Chemical Transport Inc.). The use of PPE is defined and documented, and personnel are trained in these procedures. Refresher training occurs regularly as required to be in compliance with company protocols. The facility also has documented procedures in place for disposal of contaminated and non-contaminated liquid effluent. Fume hoods are used for chemical handling and bulk chemicals are stored in a chemical storage shed.

De minimis air pollutant emissions may be generated during this proposed project, therefore exhaust hoods would be used to capture any emissions from chemicals and gasses. Proper air emissions abatement equipment is already in operation at this facility and all air emissions would be in accordance with Bay Area Air Quality Management District regulations.

NEPA DETERMINATION
DOE has determined that proposed action is consistent with the classes of actions contained within DOE Categorical Exclusion B3.6.

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 :

EF2a prepared by Rob Smith on 10/03/2012.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Lori Gray Lori Gray Date: 10/4/2012
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