

PMC-EF2a

(20402)

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



RECIPIENT: County of Somerset

STATE: NJ

**PROJECT TITLE :** Somerset County Renewable Energy Initiative

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
	DE-EE0003199	GFO-0003199-001	GO3199

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:

**B5.16 Solar photovoltaic systems** The installation, modification, operation, and removal of commercially available solar photovoltaic systems located on a building or other structure (such as rooftop, parking lot or facility, and mounted to signage, lighting, gates, or fences), or if located on land, generally comprising less than 10 acres within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

**Rational for determination:**

The U.S. Department of Energy is proposing to provide federal funding to the County of Somerset, New Jersey through the Somerset County Improvement Authority for the purchase of solar photovoltaic (PV) equipment that would be leased to and installed by two private solar developers, Sun Light General Capital (SLGC) and Power Partners Mastec. The private developers would then sell the generated power to participating local units within the County through a Power Purchase Agreement.

The DOE funded aspect of the project includes capital buy-down and project management. The proposed equipment would be utilized for approximately 1.273 MW of solar installation at two sites, Somerville and Bridgewater.

The Somerville installation would be located at the Bernie Field Parking Deck which was built in 1986. The parking deck is east of and adjacent to the Somerset County Administration Building, located at 20 Grove Street, Somerville, New Jersey 08876. The parking deck is owned and maintained by Somerset County. The entrance to the parking deck is on High St., adjacent to East Main St. to the south and Mechanic St. to the east. The proposed 322 kW solar PV array would be installed on the top level and fifth level of the existing six-story, 60 ft. tall parking garage.

The system would consist of two separate steel structures, one on the north half of the parking deck and one on the south half. The system would have vertical steel columns, supporting a horizontal steel grid beam system. The solar panels would be attached to the beam system and would be oriented to the south at a pitch of 5 degrees above horizontal. The system would be connected to the existing main electrical service panel of the County Administration Building. The system would have routine maintenance, performance monitoring and failure monitoring completed by SLGC.

The Bridgewater installation would be located on the East and West parking lots of the TD Bank Baseball Stadium, located at 1 Patriots Park, Bridgewater, New Jersey 08807. The 1,004.85 kW system would be installed on six canopy installations consisting of 18 in. by 6 in. welded steel columns spaced 27 ft. apart at a height of 14 ft. with a cantilevered roof. The solar PV arrays would be Canadian Solar CS6X-290M modules with dimensions of 76.97 in. by 38.7 in. The canopies would follow the parking bay configuration and be spaced accordingly. The eastern lot would consist of four canopy installations totaling 468.93 kW. The canopy lengths would be 150 ft., 230 ft., 290 ft., and 190 ft. The western lot would consist of two canopy installations totaling 535.92 kW with lengths of 600 ft.

The solar PV array would be grid connected. Inverters and switchgear would be located on inverter pads, one for the eastern lot and one for the western lot. Each inverter pad would be at a height sufficient to exceed the 100 year flood level by 1 ft. No permits are in place presently and a construction permit, electrical permit and flood hazard area certificate are required prior to construction. There would be approximately 1400 linear ft. of trenching at a maximum depth of 2 ft. for electrical wiring. Both systems would have routine maintenance, performance monitoring and failure

monitoring completed by SLGC.

In letters dated April 24 and April 30, 2012 the New Jersey State Historic Preservation Office found that the solar PV arrays proposed for the Somerville and Bridgewater sites would have no adverse effect on historic properties. The Bridgewater location is located within a 100 year floodplain. A supplemental floodplain analysis has been performed and the DOE has determined the floodplain management requirements of 10 CFR Part 1022 are not applicable to the DOE proposed action.

The State of New Jersey is designated nonattainment for the eight-hour ozone National Ambient Air Quality Standard (NAAQS) and Somerset County is designated as nonattainment for the annual and 24-hour Particulate Matter (PM) 2.5 and Carbon Monoxide (CO) NAAQS. Due to the minimal amount of construction expected and the nature of the project, DOE has determined that the PV solar installations would not have any adverse impacts to emission levels of ozone, PM 2.5 and CO.

The U.S. Fish and Wildlife Service Endangered Species Program website identifies two species in Somerset County, New Jersey; the Indiana Bat and the Bog Turtle. DOE has determined that PV solar installations would have minimal ground disturbance at a previously disturbed site and is not likely to adversely affect the resources in the area.

Based on review of the project information and the above analysis, DOE has determined that the installation of the roof and ground mounted PV systems at the Somerville and Bridgewater sites would not have significant individual or cumulative impact to human health and/or environment. DOE has determined that the work outlined is consistent with the actions identified in Categorical Exclusion B5.16 "solar photovoltaic systems" and is categorically excluded from further NEPA review under CX B5.16.

#### 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 :

Kelly Daigle 10/25/2012

DOE Total: \$2,000,000  
 Cost Share: \$2,528,922  
 Total Project Cost: \$4,528,922

#### SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION

NEPA Compliance Officer Signature: \_\_\_\_\_



Electronically Signed By: Kristin Kerwin  
 NEPA Compliance Officer

*Kristin Kerwin*

Date: 11/8/2012

#### 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: \_\_\_\_\_