DOE/EA-1638

FINDING OF NO SIGNIFICANT IMPACT
DEPARTMENT OF ENERGY LOAN GUARANTEE TO SOLYNDRA, INC. FOR CONSTRUCTION OF A PHOTOVOLTAIC MANUFACTURING FACILITY AND LEASING OF AN EXISTING COMMERCIAL FACILITY IN FREMONT, CA

AGENCY: U.S. Department of Energy, Loan Guarantee Program Office

ACTION: Finding of No Significant Impact

SUMMARY: The U.S. Department of Energy (DOE) has conducted an environmental assessment (EA) that analyzed the potential environmental impacts associated with (1) the proposed construction and operation of a photovoltaic manufacturing facility and accompanying administrative offices in Fremont, California; and (2) the leasing of an existing commercial facility for assembly and packaging of the photovoltaic panels. The proposed manufacturing facility would be developed on a 30-acre vacant portion of a 42.8-acre parcel at 47422 Kato Road, Fremont, California, and an additional 300,000 square feet would be leased within 25 miles of the proposed manufacturing facility for finishing processes and packaging. DOE, through its Loan Guarantee Program Office (LGPO), proposes to provide a Federal loan guarantee in the amount of $535 million pursuant to Title XVII of the Energy Policy Act of 2005 (EPAct 2005) to Solyndra, Inc. to support the construction of the proposed manufacturing facility and leasing of the existing facility. The purpose and need for agency action is to comply with DOE's mandate under EPAct 2005 by selecting eligible projects that meet the goals of the Act.

Solyndra has developed a breakthrough, thin-film cylindrical photovoltaic module that substantially reduces the cost of electricity derived from solar sources. Photovoltaic panels generate electricity without producing carbon emissions, except for emissions associated with panel production and installation. By displacing natural gas and other fossil fuels used to produce electricity, photovoltaic installations reduce generation of carbon dioxide (CO_2) and other greenhouse gasses. Over its estimated 30-year projected life, Solyndra expects the proposed combination of the manufacturing facility and the leased facility to produce photovoltaic panels sufficient to generate 12.6 gigawatts of electricity under peak conditions. Over the life of these panels, they can be expected to generate over 400 trillion kilowatt-hours of emission-free electricity. Assuming that this capacity displaces electricity produced by conventional power plants and combined-heat-and-power plants, Solyndra estimates that the proposed combination of facilities would reduce greenhouse gases and other air pollutants as follows: 245 million metric tons of carbon dioxide; 1 million metric tons of sulfur dioxide; and 380 thousand metric tons of nitrogen oxides.

All discussion and analysis related to the potential impacts of construction and operation of the proposed manufacturing facility and leasing of an existing facility are contained in the Final EA (DOE/EA-1638), which is incorporated by reference. DOE examined potential impacts on the following resources and found none to be significant: land use; visual resources; air quality; noise; geology and seismicity; water resources; biological resources; cultural resources;

socioeconomics and environmental justice; public health and safety, including terrorism-related impacts; and cumulative effects, including global climate change.

In an effort to demonstrate their environmental stewardship, Solyndra incorporated the following elements into the design of the proposed manufacturing facility; however, these elements are not necessary to mitigate any significant impacts from the project: the manufacturing facility is designed to achieve Leadership in Energy and Environmental Design (LEED) Silver certification, would generate a portion of their electricity needs by installing solar panel arrays on the rooftop, and would include water recycling measures to reduce water consumption when the Alameda County Water District completes a planned expansion of its utilities to include separate piping for reclaimed water.

The City of Fremont assumed the role of lead agency for compliance with the California Environmental Quality Act, which requires state and local public agencies to identify the environmental impacts of proposed projects, determine if the impacts will be significant, and identify mitigation measures that will substantially reduce or eliminate those impacts. At a hearing on November 3, 2008, the City of Fremont adopted the Environmental Impact Assessment and Mitigated Negative Declaration (MND) for the project, completing the required review.

In accordance with applicable regulations and policies, DOE sent a notification letter regarding the Department's determination to prepare an EA to the California State Clearinghouse and the City of Fremont on October 2, 2008. The letter described the proposed action and stated that a draft EA would be sent to the state for review. On February 24, 2009, DOE sent the draft EA to the California State Clearinghouse and the City of Fremont and invited their comments on the draft. The draft EA was also posted on the Loan Guarantee Program Office website. DOE received no comments on the draft EA.

DETERMINATION: On the basis of the Final EA, DOE has determined that providing a Federal loan guarantee to Solyndra, Inc. to support construction of the proposed photovoltaic manufacturing facility and accompanying administrative offices and leasing of an existing facility in Fremont, California, will not have a significant affect on the human environment. The preparation of an environmental impact statement is therefore not required, and DOE is issuing this Finding of No Significant Impact.

Copies of the Final EA are available at the DOE Loan Guarantee Program Office website at www.lgprogram.energy.gov or from

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Additional information on the DOE NEPA process is available from

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