

FINDING OF NO SIGNIFICANT IMPACT
DEPARTMENT OF ENERGY LOAN GUARANTEE TO AE POLYSILICON
CORPORATION FOR CONSTRUCTION AND STARTUP OF THEIR PHASE 2
POLYSILICON PRODUCTION FACILITY IN FAIRLESS HILLS, PENNSYLVANIA

AGENCY: U.S. Department of Energy, Loan Programs Office

ACTION: Finding of No Significant Impact

SUMMARY: The U.S. Department of Energy (DOE) conducted an environmental assessment (EA) that analyzed the potential environmental impacts associated with the construction and startup of a Phase 2 commercial polysilicon production unit to be developed by AE Polysilicon Corporation (AEP) within the Keystone Industrial Port Complex in Fairless Hills, Bucks County, Pennsylvania. The project would occupy 15 acres of a 32-acre site adjacent to AEP's existing Phase 1 polysilicon production unit. DOE, through its Loan Programs Office, proposes to provide a Federal loan guarantee pursuant to Title XVII of the Energy Policy Act of 2005, as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, to AEP to support the construction and startup of the proposed production unit.¹ The purpose of DOE's proposed action is to expedite the deployment of a new energy technology into commercial use in the United States, and to reduce emissions of greenhouse gases and other air pollutants. DOE is using the National Environmental Policy Act process to assist in determining whether to issue a loan guarantee to AEP to support the proposed project.

The proposed Phase 2 expansion would add three additional production units, and could increase AEP's total annual polysilicon production maximum capacity by an estimated 5,400 metric tons to 7,200 metric tons. The polysilicon product would be used in the subsequent manufacture by others of solar photovoltaic cells and modules. This product would facilitate productivity and innovation in high-speed, high-volume solar cell and module manufacturing.

AEP is commercializing an innovative polysilicon production process using fluidized bed technology that constitutes an important and significant advance over other currently used production processes. AEP's closed loop fluidized bed reactor production method benefits from both a lower operating temperature and higher throughput from its continuous operation, thus resulting in lower energy consumption and fewer by-products compared to traditional batched crystal-growth commercial technologies.

All discussions and analyses related to the potential impacts of construction and operation of the proposed facility are contained in the Final EA (DOE/EA-1727), 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; water resources; natural resources; cultural resources; socioeconomics; environmental justice; health and safety including

¹ The amount requested for the loan guarantee is not being disclosed at this time because it is business sensitive. Moreover, should DOE approve a loan guarantee, the amount may differ from the original request.

terrorism-related impacts; transportation; and cumulative effects, including global climate change.

In accordance with applicable regulations and policies, DOE sent a notification letter regarding the DOE's determination to prepare an EA to the Pennsylvania Department of Environmental Protection (PADEP) on November 13, 2009. The letter described the proposed action and stated that a draft EA would be sent to the state for review. On October 8, 2010, DOE sent the draft EA to the PADEP and invited their comments on the draft. The draft EA was also posted on the Loan Programs Office website. DOE received a supportive comment letter from PADEP dated October 26, 2010 stating they found no significant negative impacts and observed numerous benefits.

DETERMINATION: On the basis of the Final EA, DOE has determined that providing a Federal loan guarantee to AEP to support construction and startup of the proposed Phase 2 polysilicon production unit in Fairless Hills, Bucks County, Pennsylvania, will not have a significant impact 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.

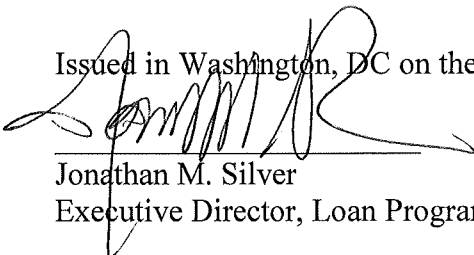
Copies of the Final EA are available at the DOE Loan Programs Office website at www.lgprogram.energy.gov or from

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Additional information on the DOE NEPA process is available from

Office of NEPA Policy and Compliance
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
202-586-4600 or 1-800-472-2756

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