

## **Record of Categorical Exclusion for**

Project Eagle Phase 1 Direct Wafer/Cell Solar Facility  
1366 Technologies

### **Description of Proposed Action:**

The Department of Energy (DOE) proposed action is for the use of a federal loan guarantee by 1366 Technologies (1366) to support the renovation of an existing building, located at 6-8 Preston Court, Bedford, Massachusetts, into a solar wafer production facility. The new facility would constitute Phase 1 of Project Eagle and accommodate 20 megawatts (MW) of multicrystalline silicon wafer production, laboratory areas, offices, and ancillary spaces. Phase 2 of Project Eagle is covered by an existing DOE Categorical Exclusion and would occur at a site in [REDACTED].

The Phase 1 facility in Bedford, MA is an existing building of approximately 54,391 square feet on a site approximately 5 acres. 1366 would renovate 41,071 square feet of the interior of the facility to provide office space, research and development space, laboratories, a 20 MW/year wafer production line, and support space. ARE-MA Region No. 25, LLC, a Delaware Limited Liability Company, is the current owner of the Bedford facility. The building was constructed in 1972 and renovated in 2002. The facility is subdivided into 4 sections, 3 of which would be combined into 1 and used by 1366. The facility is currently vacant.

No buildings would be demolished at the Bedford site. The project includes extensive interior renovations of the existing structures. Exterior enhancement would include some new windows, a pad for process gas tanks, an industrial trash compactor, and potentially a back-up generator. Dry coolers for the wafer manufacturing process would be added to the roof. Existing transformers for electrical power distribution to the site may be increased in capacity. The total acreage of these external modifications is anticipated to be less than 0.3 acres. All exterior renovations would be conducted on previously disturbed, existing hard surfaces at the site.

The facility is expected to generate hazardous waste and is not expected to be a major source of criteria air pollutants (i.e., emit more than 100 tons per year of a criteria air pollutant). In addition, based on the low levels of estimated emissions, it is expected that the facility would be exempt from requirements for obtaining a Minor Source Permit for air emissions.

The proposed loan guarantee would be made pursuant to Title XVII of the Energy Policy Act of 2005 which authorized DOE to make loan guarantees for projects that "avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued." The two principal goals of the Title XVII loan guarantee program are to encourage commercial

use in the United States of new or significantly improved energy-related technologies and to achieve substantial environmental benefits.

**Number and Title of Categorical Exclusion:**

The actions that would be taken pursuant to the loan guarantee for Phase I of the 1366 Project Eagle Direct Wafer manufacturing project are consistent with and are covered by categorical exclusion B1.31 for the retooling and reequipping of the facility in Bedford, MA. The full text of the categorical exclusion is as follows:

B1.31, as provided in 10 CFR § 1021, Appendix B to Subpart D, Relocation of machinery and equipment, such as analytical laboratory apparatus, electronic hardware, maintenance equipment, and health and safety equipment, including minor construction necessary for removal and installation, where uses of the relocated items will be similar to their former uses and consistent with the general missions of the receiving structure.

**Regulatory Requirements defined in 10 CFR § 1021.410 (b):**

The loan guarantee and related actions described above were subjected to an environmental due diligence review by DOE Loan Programs Office (LPO) staff to ensure they are consistent with the specific category of actions (categorical exclusion) contained in Appendix B of 10 CFR Part 1021 and the conditions for applying categorical exclusions specified in Section 410 of Part 1021. To ensure that the requirements of Appendix B were met, LPO Environmental Compliance Division staff reviewed an Environmental Report submitted April 20, 2012, a Phase I Environmental Site Assessment prepared and submitted in April 2012, and information provided in email exchanges and telephone conversations between LPO staff and 1366 representatives. In addition to the environmental documentation reviewed, a site visit by LPO was conducted at the Bedford, MA facility on April 24, 2012. The results of the environmental due diligence review produced the following findings:

- The project does not threaten a violation of applicable statutory, regulatory or permit requirements for environmental, safety and health, including DOE and /or Executive Orders;
- The project does not require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities;
- The proposed action is not a connected action as set forth in 40 CFR § 1508.25(a)(2)); and
- The proposed action is not part of a DOE proposal for which an EIS is being prepared and therefore a categorical exclusion is not precluded by 40 CFR § 1506.1 or 10 CFR § 1021.211.

The environmental due diligence review also determined that the proposed project associated with the loan guarantee does not adversely affect any environmentally sensitive resources, including the following:

- Property of historic, archaeological, or architectural significance designated by Federal, state, or local governments or property eligible for listing on the National Register of Historic Places;
- Federally-listed threatened or endangered species or their habitat (including critical habitat), Federally-proposed or candidate species or their habitat, or state-listed endangered species or their habitat;
- Wetlands regulated under the Clean Water Act (33 U.S.C. 1344) and floodplains; or
- Special sources of water (such as sole source aquifers, wellhead protection areas, and other water sources) that are vital in a region.

The Comment section below is provided for any necessary clarifications concerning the findings listed above. Signature by 1366's designated representative in the Corporate Validation section is an indication of 1366's concurrence with the findings and determinations presented above.

**Comment:** \_\_\_\_\_  
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**Corporate Validation:**

Name and Title (Print): JOHN TATTERSFIELD, COO

Signature:  Date: 5/2/12

**Determination:**

Based on my review of information conveyed to me and in my possession concerning the proposed action, as NEPA Compliance Officer (as prescribed by DOE Order 451.1B), I have determined that the proposed loan guarantee and associated actions involve no extraordinary circumstances (10 CFR 1021.410(b)) and fit within the specified category of actions in Appendix B of 10 CFR 1021 described above, and are hereby categorically excluded from further review under the National Environmental Policy Act (42 USC 4321, as amended).

  
Signature

Matthew McMillen  
NEPA Compliance Officer  
Loan Programs Office

May 3, 2012  
Date