## STATEMENT OF CONSIDERATIONS

PETITION FOR ADVANCE WAIVER OF PATENT RIGHTS BY BP SOLAR INTERNATIONAL LLC ("BP SOLAR") UNDER AGREEMENT NO. DE-FG36-07GO17049 BETWEEN BP SOLAR AND DOE; W(A)-08-015; CH-1450

The Petitioner, BP SOLAR, has requested a waiver of domestic and certain foreign patent rights for all subject inventions that may be conceived or first actually reduced to practice under the above-identified agreement, and subcontracts thereof. The agreement is entitled "Reaching Grid Parity using BP Solar Crystalline Silicon Technology."

Petitioner has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the attached U.S. Competitiveness provision paragraph (t). In brief, the Petitioner has agreed that products sold in the U.S. embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the U.S., unless the Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so. Although Petitioner has agreed to domestically manufacture PV systems sold in the U.S., it is also important that Petitioner have the ability to locally or regionally manufacture PV systems that will be sold outside of the U.S. due to the high cost of transporting PV modules overseas. The ability of Petitioner to implement in the U.S. plants embodying any waived inventions will be accelerated if it has the ability use the waived inventions for the development of plants overseas.

Petitioner's work under the agreement is based on an accelerated development of mutlicrystalline silicon technology for use in the residential and commercial photovoltaic (PV) markets, using product specifically designed for these applications. The goal of the program is to achieve grid parity and to increase PV production volume. To meet these goals, BP SOLAR's objective is to substantially reduce PV module cost to 67% of today's cost by 2010 and to 50% of today's cost by 2015; and PV system cost to 60% of today's cost by 2010 and 36% of today's cost by 2015. Achieving these goals will require the involvement of the entire product chain including BP SOLAR's key vendors. Key components of the program include: silicon purification process development of solar grade silicon and improvements in casting, wafering, and cell processing technologies.

The current project is part of the DOE's Solar America Initiative (SAI) which is an effort to make solar electricity from photovoltaics cost-competitive with conventional forms of electricity from the utility grid by 2015. The strategy pursues complementary activities in research and development (R&D) and in market transformation. The goals are to reduce costs through R&D and to eliminate market barriers through deployment.

The total cost of the sub-contract is approximately \$39,693,363 with the Petitioner and its subcontractors providing about 50% cost sharing. This waiver is

contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentage over the course of the agreement.

As noted in its waiver petition, Petitioner, and its predecessor, Solarex, have been pioneers in the development of photovoltaics. These companies have invented, developed, and commercialized solar cells manufactured from semi-crystalline silicon and thin films. BP SOLAR is currently one of the largest manufactures of PV cells in the world and invests significant amounts of its profits each year into research and development.

As set out in the attached waiver petition, Petitioner has also requested a waiver of patent rights in the subject inventions of its lower tier subcontractors, provided that they agree to the same terms and conditions by which Petitioner will be granted the advance waiver. It is believed that this approach will facilitate timely commercialization of the technology by furthering the establishment of business and technical relationships between the parties and providing a mechanism for obtaining meaningful cost sharing between the parties. This waiver contemplates that the parties will allocate title or other rights to inventions among themselves as they deem appropriate during the course of their association consistent with the terms of this waiver. Accordingly, title will be waived directly to a subcontractor upon mutual agreement of the Petitioner and the subcontractor. However, this waiver will only apply to such subcontractor(s) who provide a letter to DOE acknowledging their right to ask for a waiver and agreeing to the terms of this waiver. This waiver shall not impact the rights of those parties subject to Public Law 96-517, as amended, nor shall it grant any rights in inventions made by employees of the National Laboratories.

Considering Petitioner's technical expertise and significant investment in this technology including sizable cost sharing in this agreement, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this agreement.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. There are numerous manufacturers of photovoltaics including Sharp, Q-cells, Kyocera, Schott Solar and Sanyo. If anything, the technology forming the subject matter of the collaboration may stimulate competition and will enhance the development of domestic manufacturing capacity for PVs.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the agreement in a fashion which will make the above technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.

/Brian J. Lally/
Brian J. Lally
Assistant Chief Counsel
Intellectual Property Law Division

**DOE Chicago Office** 

Date: April 29, 2009

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the agreement, where through such modification or extension, the purpose, scope or cost of the agreement has been substantially altered.

**CONCURRENCE:** 

Joann Milliken
Acting Program Manager
Office of Solar Energy
Technology Program EE-2A

Date: <u>5/18/09</u>

APPROVAL:

Paul A. Gottlieb Assistant General Counsel for Technology Transfer Intellectual Property

Date: <u>1-/9-0</u>/

## **WAIVER ACTION - ABSTRACT** W(A)-08-015

REQUESTOR BP SOLAR

**RATIONALE FOR DECISION** 

CONTRACT SCOPE
The objective of the project is reaching grid parity using BP Solar Crystalline Silicon Technology

50% Cost Sharing

## (t) U.S. Competitiveness

The Contractor agrees that products sold in the United States (U.S.) embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the U.S., unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized such as by providing a recoupment of the Government's investment or in some other appropriate manner. The Contractor further agrees to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license or other transfer of rights in the waived invention is suspended until approved in writing by the DOE. Contractor's agreement as set forth herein to manufacture in the U.S. will be met if the waived invention or a product produced through the use of a waived invention is used in the U.S. to manufacture photovoltaic (PV) cells, PV modules, or PV systems.