

## STATEMENT OF CONSIDERATIONS

REQUEST BY SOLAREX FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER NREL SUBCONTRACT NO. NREL-RAK-7-17619, UNDER DOE CONTRACT NO. DE-AC02-83CH10093; W(A)-98-007; CH-0945

The Petitioner, Solarex, has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under the above referenced subcontract entitled "Research on Amorphous Silicon Solar Cells and Modules."

The subcontract involves research on amorphous silicon multi-junction solar cells, and the objectives of the research are to develop improved amorphous and microcrystalline thin film materials, new high performance device structures, improved fabrication processes, and new characterization tools that can be incorporated into Petitioner's thin film photovoltaic (PV) manufacturing plants.

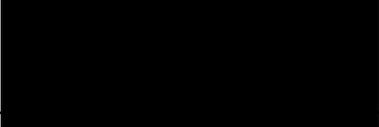
The total cost of the subcontract is expected to be \$4.7 million, with the Petitioner contributing \$2.5 million, for approximately fifty three percent (53%) cost sharing. The period of performance of this subcontract is expected to be about three years. The waiver is contingent upon the Petitioner maintaining the above cost sharing percentage during the course of the subcontract.

As noted in its waiver petition, Petitioner, a business unit of Amoco and Enron Solar, is the largest U.S. owned PV manufacturing company in the United States, and has been involved in research on thin-film amorphous silicon PV devices since 1983. As shown in the waiver petition, based on its years of continued research in this field, Petitioner has an extensive portfolio of patents and has published numerous papers describing its research in this field. Petitioner states that it holds about 12% of the world market for PV and sells several megawatts of crystalline silicon solar cells and about 0.5 megawatts of amorphous silicon solar cells per year. To date, Petitioner has invested more than \$10 million in the research, engineering and process development of amorphous silicon PV. In addition, Petitioner has constructed a manufacturing facility in Virginia, representing an investment in excess of \$25 million, that is capable of producing 10 megawatts per year of multi-junction amorphous silicon PV modules. Considering Petitioner's technical expertise, established market position, and significant investment in this technology including sizable cost sharing in this subcontract, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this subcontract.

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 U.S. competitiveness provisions as attached to this Statement. In brief, Petitioner has agreed that products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so. Further, Petitioner has agreed that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. There are currently numerous competing technologies, as well as competitors, in the field of PV cells and modules. The success of this subcontract can be expected to stimulate additional investment, not only in this technology, but also in other competing technologies as well.

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 subcontract 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 Part 784, all of which have been considered, it is recommended that the requested waiver be granted.

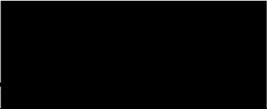
  
Thomas G. Anderson  
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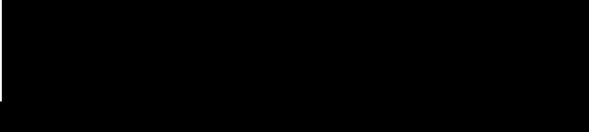
Date: 6/11/98

  
Daniel D. Park  
Patent Attorney  
Office of Intellectual Property Law

Date: 6/11/98

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 subcontract, where through such modification or extension, the purpose, scope or cost of the subcontract has been substantially altered.

CONCURRENCE: 

  
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Director Office of  
Photovoltaics and Wind  
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Date: 7/15/98

APPROVAL:

  
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Assistant General Counsel for  
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Date: 7/16/98