

STATEMENT OF CONSIDERATIONS

**REQUEST BY GOLDEN PHOTON INC. FOR AN ADVANCE
WAIVER OF DOMESTIC AND FOREIGN RIGHTS UNDER A
PROPOSED NOVATION TO NREL SUBCONTRACT NUMBER:
ZN-0-19019-1 UNDER DOE CONTRACT NO: DE-AC02-83CH10093;
W(A)-93-033; CH-0818**

Golden Photon Inc. (GPI), a wholly owned subsidiary of Golden Technologies Company, Inc., a large business, has petitioned for an Advance Waiver of Patent Rights under a proposed novation of NREL Subcontract No. ZN-0-19019-1 under DOE Contract No DE-AC02-83CH10093. The subcontract is currently with Photon Energy, Inc. (PEI), a domestic small business. GPI has requested this waiver in conjunction with acquiring the business and assets of PEI.

The object of the subcontract is to develop improved materials technology and fabrication processes for production of CdS/CdTe photovoltaic modules, with particular emphasis on stability and efficiency of the modules. As a result of GPI's novation of the PEI subcontract, GPI's total cost share under the novated subcontract will be about \$903,096 (approximately 30 percent) of the total contract cost of \$2,946,7634, measured over the effective period of performance (including PEI's work) beginning on June 18, 1990 and continuing through July 1, 1994.


As set out in the attached waiver petition, GPI has requested domestic and foreign title to inventions reduced to practice in the course of or under the novation by GPI and its subcontractors, other than domestic small businesses, universities and nonprofit organizations within the meaning of P.L. 96-517, as amended. GPI has already obtained the concurrence of a number of its subcontractors to this approach and has agreed to make each subcontractors' acceptance of this condition a condition precedent to the Government's advance waiver of patent rights to GPI of that subcontractor's inventions. It is believed that this approach will minimize fragmentation of invention rights among the parties as the program progresses, while at the same time expediting GPI's subcontract negotiations. As a practical matter, this approach also gives GPI a mechanism to obtain meaningful cost sharing or other rights to facilitate timely commercialization of the technology. In this connection, it should be noted that this also contemplates the parties allocating title or other rights to inventions among themselves as they deem appropriate during the course of their negotiations consistent with the terms of this waiver. In such cases, title may be waived directly to GPI's subcontractor upon mutual agreement of GPI and the subcontractor involved.

GPI has agreed that this waiver shall be subject to the standard march-in and preference for U.S. industry provisions, as well as the attached background patent and U.S. competitiveness provisions. Additionally, GPI has agreed to comparable background patent and data licensing provisions. Briefly summarized, in principle GPI has agreed to license its background patents and data to third parties' on DOE's request if GPI fails to continue development and ultimately build a manufacturing facility in the United States within eight years of executing the novation.

GPI appears to be fully committed to the development and ultimate commercialization of this technology. As brought out in items 5 and 6 of its waiver petition, GPI and its affiliated companies appear to have assembled and developed a substantial technical base and potential commercial position in photovoltaic module technology, and in particular CdS/CdTe photovoltaic modules. Additionally, as indicated in items 7-9, GPI has invested about \$2.5 million in this and related technologies to date and expects to provide funding support of more than \$12 million during the next five years. This activity and associated investment, and GPI's agreement to establish a U.S. manufacturing facility, clearly demonstrates GPI's commitment to the technology and indicates a likelihood of successful efforts to commercialize the results of this agreement.

Referring to item 10, granting this waiver is not anticipated to have any adverse impact on competition. There are currently a variety of companies pursuing a number of photovoltaic technologies. The success of any one of these technologies would normally be expected to stimulate investment in other competing technologies.

Considering the foregoing, it is believed that granting this waiver will provide GPI with the necessary incentive to invest its resources in the commercialization of the results of the contract in a fashion which will make the contract's benefits available to the public in the shortest practicable time. Therefore, in view of the objectives and considerations set forth in 41 CFR 9-9.109-6 all of which have been considered, it is recommended that the requested waiver be granted subject to GPI, either directly or indirectly based on its subcontractors' or others' contributions through GPI, contributing at least 30 percent (30%) of the total cost of the subcontract, in aggregate over the term of the agreement.



Thomas G. Anderson
Assistant Chief Counsel
Intellectual Property Law Division, CH

Date 10-21-93

Based on the foregoing Statement of Considerations and the 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 a modification or extension of this contract where, through such modification or extension, the purpose, scope or cost of the contract has been substantially altered.

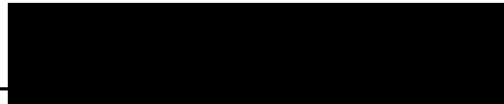
CONCURRENCE:

APPROVAL:



Robert H. Annan
Director, Office of Solar
Energy, HQ

Date 11/12/93



Richard E. Constant
Assistant General Counsel
for Intellectual Property, HQ

Date 11/16/93

U.S. Competitiveness

The Contractor agrees that any photovoltaic modules or major components thereof, embodying any waived inventions, or produced through, the use of any waived invention, will be manufactured substantially in the United States until the earlier of five (5) years after submission by Contractor of the final report as required under paragraph (e)(2) of this clause or start-up by the Contractor (alone or in association with others) of a U.S. based manufacturing plant having an annual capacity to produce photovoltaic modules with a total rated modular capacity of at least ten megawatts, unless the Contractor can show to the satisfaction of the Contracting Officer that it is not commercially feasible to do so. In the event the Contracting Officer agrees to foreign manufacture in exception to the foregoing, there will be a requirement that the Government's support of the area of technology which was the subject of this waiver petition be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

Background Patents.

(1) "Background Patent" means a domestic patent covering an invention or discovery which is not a Subject Invention and which is owned or controlled by the Contractor at any time through the completion of this contract:

(i) Which the Contractor, but not the Government, has the right to license to others without obligation to pay royalties thereon, and

(ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this contract.

(2) The Contractor agrees to and does hereby grant to the Government a royalty-free, nonexclusive license under any Background Patent for purposes of practicing a subject of this contract by or for the Government in research, development, and demonstration work only.

(3) If (i) the Contractor is unwilling or unable to participate under reasonable terms and conditions in further work under this contract, or any follow-on contracts, or if the Contractor subsequently fails to make reasonable efforts to commercialize the technology forming the subject matter of this agreement, and (ii) the Contractor is not during a period of eight (8) years after execution of this contract novation actively pursuing start-up of a manufacturing facility in the United States having an annual capacity for producing photovoltaic modules rated for at least a total of ten megawatts of rated modular capacity, or if Contractor is not during a period following eight (8) years after execution of this contract novation operating such a manufacturing facility, then the Contractor also agrees that upon written application by DOE, it will grant to responsible parties for purposes of practicing a subject of this contract nonexclusive licenses under any Background Patent on terms that are reasonable under the circumstances. If, however, the Contractor believes that exclusive or partially exclusive rights are necessary to achieve expeditious commercial development or utilization, then a request may be made to DOE for DOE approval of such licensing by the Contractor.

(4) Notwithstanding the foregoing paragraph (k)(3), the Contractor shall not be obligated to license any Background Patent if the Contractor demonstrates to the satisfaction of the Secretary or his designee that:

(i) a competitive alternative to the subject matter covered by said Background Patent is commercially available or readily introducible from one or more other sources; or

(ii) the Contractor or its licensees are supplying the subject matter covered by said Background Patent in sufficient quantity and at reasonable prices to satisfy market needs, or have taken effective steps or within a reasonable time are expected to take effective steps to so supply the subject matter.

(5) "Subject of this contract" for purposes of this paragraph (k) shall include only research and development of cadmium telluride photovoltaic modules and of processes for manufacturing such modules.

(6) No action shall be taken by the DOE under this paragraph (k) prior to a period ending five (5) years following expiration or termination of this contract.