

STATEMENT OF CONSIDERATIONS

REQUEST BY CARLISLE CONSTRUCTION MATERIAL, INC. (CARLISLE) FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER DOE AWARD NO. DE-EE0005435; W(A) 2011-059

CARLISLE has requested a waiver of domestic and foreign patent rights of the United States of America in all subject inventions arising from its participation under the above referenced cooperative agreement entitled "High Efficiency Solar Integrated Roof Membrane Product."

According to CARLISLE's petition, the project funded by the cooperative agreement is to assess and develop manufacturing technologies and equipment capable of producing low-cost, high-efficiency, flexible building-integrated PV (BIPV) solar cells on roofing membranes (thermoplastic olefin and ethylene-propylene-diene-monomer based materials). "Various integration technologies will be evaluated including multi-layered roll lamination, press forming and heat lamination during and after production of the membrane as the based layer using CARLISLE's manufacturing competencies and thin film or flexible PV cell technology as the basis for developing the encapsulation materials and lamination equipment. CARLISLE will also use its vast repository of experience and knowledge to develop guidelines for proper installation and roof integration product." This project supports the Solar Energy Technology Program objective, under the of Extreme Balance of System Hardware (BOS-X) Funding Opportunity Announcement (DE-FOA-0000493), to develop "new methods to integrate PV cells or modules within a BIPV application that will result in lower installed cost as well as higher efficiencies of the encapsulated/embedded PV module."

The cooperative agreement has three phases. The total anticipated cost of the cooperative agreement, including the three phases is \$7,616,710. The total cost for phase I is \$2,498,750 with CARLISLE providing \$498,750 as cost share for a cost percentage of 20%. Although the total cost and cost share amounts for phases II and III are still under review and subject to DOE's approval, the total anticipated cost for phase II is \$3,000,000 with CARLISLE providing \$1,500,000 as cost share for a cost share percentage of 50% and the total anticipated cost for phase III is \$2,000,000 with CARLISLE providing \$1,000,000 of cost share for a cost share percentage of 50%. This waiver is contingent upon CARLISLE maintaining at least a 20% cost share for Phase I and, to extent Phases II and III are approved, at least a 50% cost share for each of Phases II and III.


As set forth in its petition, "Carlisle Construction Materials Incorporated is a well known manufacturer of roofing membranes in the commercial Building and construction industry. With Carlisle's core competencies being in manufacture and marketing of high efficiency insulation and highly reflective white roofing membranes to improve energy conservation in buildings." Its new business division, CARLISLE Energy Services, is based on using CARLISLE's core competencies to provide energy independence fir building owners by integrating the PV system into the building system itself. CARLISLE believes that it can be successful in this area due to its accessibility, experience and bankability of the billions of square feet of highly efficient roof

membranes it has installed over the last few decades. Moreover, CARLISLE developed, marketed, and currently manufactures the first generation of the proposed BIPV product. CARLISLE invested an estimated \$1,000,000 in manufacturing capabilities, testing and validation in connection with the first generation of the BIPV product.

CARLISLE 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, CARLISLE has agreed to the U.S. competitiveness provision as attached to this Statement. In brief, CARLISLE has agreed that products embodying any waived invention or made through the use of any waived invention shall be substantially manufactured in the United States, and that CARLISLE 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, in granting this waiver, ASI does not expect that the granting of the waiver will have an anti-competitive effect. If anything, ASI expects it will help keep the market competitive. The market is already quite competitive. Each competitor offers its own technology that should not be impacted by a waiver. However, the waiver should allow ASI to better protect and commercialize its technology and help maintain a competitive marketplace by continuing to offer its unique technology solutions.

Considering the foregoing, it is believed that granting this waiver will provide ASI with the necessary incentive to invest its resources in commercializing the results of the cooperative agreement in a manner that will make the above technology available to the public in the shortest 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.



Glen R. Drysdale
Patent Attorney
Golden Field Office


Date: 11/30/11

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 determined above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the cooperative agreement, where through such modification or extension, the purpose, scope, or cost of the agreement has been substantially altered.

CONCURRENCE:

APPROVAL:


Rameshmoorthy Ramesh
Program Manager
Solar Energy Technology


John H. Lucas
Assistant General Counsel for Technology
Transfer and Intellectual Property

Date: 2/15/12

Date: 2/22/2012

U.S. COMPETITIVENESS

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States, unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible to do so. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner. e.g., recoupment of the Government's investment, etc. 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 any waived invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in any waived invention is suspended until approved in writing by DOE.