

## STATEMENT OF CONSIDERATIONS

REQUEST BY CASCADE ENGINEERING, INC. (CASCADE) FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER DOE AWARD NO. DE-EE0005440; W(A) 2011-070

CASCADE 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 "Innovative Ballasted Flat Roof Solar PV Racking System."

According to the Statement of Project Objectives, the objectives of the project funded by the cooperative agreement are to "[d]esign, develop, engineer, manufacture, and market a flat roof solar PV racking system. This racking system will offer a cost advantage from a materials and installation labor (mechanical and electrical) perspective. It will be flexible enough to accommodate the majority of the common crystalline modules on the market. Product cost savings will be achieved by placing material only where it is needed. Labor installation savings will be achieved by eliminating subassembly processes that are currently needed with existing racking systems. The goal is to reduce the BOS cost by 25%." The cooperative agreement is under the "Extreme Balance of System Hardware Cost Reductions (BOS-X)" Funding Opportunity Announcement (DE-FOA-0000493).

The cooperative agreement includes two phases. Phase I includes designing a product that meets the target definition, will perform the intended use, and withstand the longevity. The process of concept through prototype testing will be done more than once. Various scaled and representational prototypes will be built to simulate the intended environment. The total anticipated cost of phase I is \$429,684 with CASCADE providing a 20% cost share of \$85,937. If approved by DOE, Phase II includes building production ready tools, equipment, and fixtures needed to produce a production part; insure the product will withstand the intended environment for the expected length of time through product testing; and create a manufacturing cell and run at full production rate. The total anticipated cost of phase II is \$517,752 with CASCADE providing a 50% cost share of \$258,876. This waiver is contingent upon CASCADE maintaining at least the foregoing cost share by phase.

As set forth in its petition, CASCADE has nearly 40 years experience in the injection molding business focused on large parts comprised of engineering grade polymers specifically formulated for each application. CASCADE has earned awards on its products in several industries. It maintains an American Association for Laboratory Accreditation (A2LA) laboratory to support material evaluations, has broad experience in different roofing installations (e.g., residential, flat commercial roof, and ground mount systems), and has 39 filed or issues U.S. patents. Prior to this cooperative agreement, CASCADE has invested approximately \$50,000 in research and development and other efforts towards the evolution PV racking systems. Moreover, if this project is successful and this waiver is granted, CASCADE anticipates investing an additional \$4,000,000 in further engineering development efforts and commercialization related activities to bring the resulting technologies to market.

CASCADE 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, CASCADE has agreed to the U.S. competitiveness provision as attached to this Statement. In brief, CASCADE 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 CASCADE 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, CASCADE does not expect that the granting of the waiver will have an anti-competitive effect. If anything, CASCADE expects the patent waiver will help keep the market competitive. The market is already quite competitive. More than 30 companies offer a racking product. There is no one dominating company. Each competitor offers its own technology that should not be impacted by this waiver. However, the waiver should allow CASCADE to better protect and commercialize its technology and help maintain a competitive marketplace by continuing to offer its technology solutions.

Considering the foregoing, it is believed that granting this waiver will provide CASCADE 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.



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Glen R. Drysdale  
Patent Attorney  
Golden Field Office

Date: 12/6/11

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:



Ramamoorthy Ramesh  
Program Manager  
Solar Energy Technology

Date:

*19 Jan 2012*

APPROVAL:



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

Date:

JAN 24 2012