

STATEMENT OF CONSIDERATIONS

REQUEST BY CREE, INC. (CREE) FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER NREL SUBCONTRACT NGB-3-23028-01; W(A)-2013-019

The Petitioner, Cree, has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under the above referenced subcontract entitled "Development of Medium Voltage, Hybrid Silicon/Silicon Carbide Power Module for Next Generation Drivetrain," Cree is a subcontractor to the National Renewable Energy Laboratory (NREL). Under its subcontract with NREL, Cree is performing work funded under DE-FOA-0000439, U.S. Wind Power: Next Generation Drivetrain Development. Under this award, NREL is leading the NREL Drivetrain Partnership.

The objective of the subcontract is to 1) develop and test a 4.5 kV hybrid Si IGBT/SiC JBS diode power module based upon the Mitsubishi CM900HG-90H 4.5 kV HVIGBT power module from Powerex, utilizing the Cree 4.5 kV SiC Junction Barrier Shottky (JBS) free-wheeling diodes; 2) work with NREL and NREL team members in establishing an acceptable single pole, three-level power converter utilizing the hybrid modules; and 3) contribute to the NREL cost of energy estimation.

The total project cost of the subcontract with NREL is \$250,016, with Cree providing a total cost share of \$62,517, or 25%. This waiver is contingent upon the Petitioner maintaining the above cost sharing percentage over the course of the agreement.

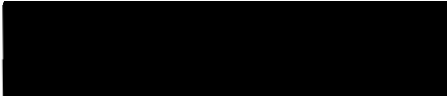
The technology developed under this subcontract is directly aligned with Cree's core business. Cree must own enabling intellectual property that may be developed under this subcontract to maintain its competitive advantage and to justify the investment required for commercialization of the subject inventions. Cree is a leading producer of SiC-based diodes and transistors. Cree is the owner of or exclusive licensee of over 800 domestic patents, and over 1300 related foreign patents concerning semiconductor technology, and invests substantial portions of its annual revenue in research and development activities. Cree is a leader in implementing wide bandgap semiconductor devices such as SiC and GaN. Cree's annual revenues for Fiscal Year 2012 were over \$1,164 million. Power and RF products represented 6% of Cree's revenues for Fiscal Year 2012. Cree's Research Triangle Park facility alone has a staff of more than 100 full-time employees dedicated to power research, development, and manufacturing. Cree has previously executed a number of government research contracts that led, with additional support from internal R&D funding, to new product releases.

Cree has committed to sharing \$62,517 of the costs of this proposed advanced product development effort, which represents a substantial investment in the work to be performed. In addition, Cree will continue to dedicate through R&D investments funded by Cree or other non-governmental sources a substantial effort toward the commercialization of the technology developed under this program. Cree's Research Triangle Park facility has a staff of more than 250 full-time employees dedicated to power research, development, and manufacturing.

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 intellectual property developed under this agreement shall be substantially manufactured in the United States, and that Petitioner 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 because Cree's ownership of any patent rights that arise from its performance under the subcontract will not result in Cree obtaining a sole dominant position in the industry, nor allow Cree to prevent competitors from commercializing other inventions that have a similar commercial effect. Rather, the ownership of these patent rights will allow Cree to continue to compete in this space.

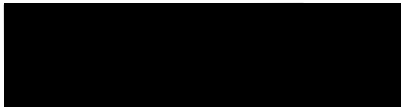
Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in commercializing the results of the agreement in a manner that will make the above technology available to the public in the shortest time. Therefore, upon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


Julia Cook Moody
Deputy Chief Counsel for Intellectual Property
Golden Field Office

Date: 8/14/13

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

CONCURRENCE:



Jose R. Zayas
Program Manager
Wind and Hydropower
Technologies
EE-2B

Date: 10/3/2013

APPROVAL:



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

Date: 10/8/2013

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.