STATEMENT OF CONSIDERATIONS

REQUEST BY OSRAM SYLVANIA FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN INVENTION RIGHTS UNDER DOE CONTRACT NO. DE-EE0000611; W(A)-09-067, CH-1538

The Petitioner, Osram Sylvania (Osram) was awarded this cooperative agreement for the performance of work entitled, "Highly Efficient Small Form Factor LED Retrofit Lamp." According to its response to question 2, the work under this agreement will develop Osram's laboratory-proven high optical efficiency white light engine into a complete MR 16 retrofit prototype suitable for commercial production. The high system efficiency is mostly due to the remote phosphor configuration and the ceramic phosphor substrate material's unique physical properties. The ceramic provides low optical loss, high thermal conductivity, and acts as a diffuser that obscures direct viewing of the blue LED sources and results in diffuse, eye-friendly light emission similar to a frosted incandescent bulb. Use of the ceramic enables the size of the remote phosphor to be minimized while maintaining a sufficient thermal path for phosphor—generated heat. A small electrical driver for conversion of 12VAC to the necessary DC output with ≥ 90% efficiency will be designed to fit inside the maximum MR 16 dimensions, shape the output beam pattern, and provide the required thermal dissipation. A complete field ready prototype will be demonstrated.

The total estimated cost of the contract is \$1,609,033 with Osram providing a 20% costshare or \$321,807. DOE is providing the remaining 80% share of \$1,287,226. The period of performance is from October 1, 2009 through September 30, 2011.

In its response to questions 5 and 6 of the attached waiver petition, Osram has described its technical competence in the field of LED lighting. It develops and offers for sale a large portfolio of LED systems for architectural, decorative, display/refrigeration, general lighting and signage applications. Osram states it has the competitive advantage in the arena of LED systems with years of experience in designing and developing LEDs, LED modules and electronic drivers. Osram Sylvania and Osram Opto Semiconductors work together to offer a complete line of cutting-edge, award-winning, LED products for the automotive industry. Osram has attached selected patents and publications, as well as the resumes of its key personnel that document its expertise in this area. Osram's response demonstrates its technical competency in the field of LED lighting technologies.

In its response to question 10 of the attached waiver petition, Osram states that grant of the waiver will not have a negative effect on competition in the LED marketplace. Several other LED-based companies are actively pursuing their own innovative methods for increasing LED system efficacy for favorable position in the emerging LED replacement and new installation markets. In addition, existing LED and fluorescent lighting technologies, as well as developing organic electroluminescent (OLED) technologies are expected to compete with any products developed with technology under this waiver. Therefore grant of the waiver will have a positive effect on competition and market concentration.

In addition, this project is under the Solid State Lighting Program (SSL) Program, and subject to a Determination of Exceptional Circumstances (EC). The Solid State Lighting Program is to develop advanced solid state lighting technologies that, compared to conventional lighting technologies, are much more energy efficient, longer lasting, and cost-competitive, by targeting a product system efficiency of 50 percent with lighting that accurately reproduces sunlight spectrum. The SSL program has a multi-tier structure. One tier consists of a competitively selected SSL Partnership whose membership includes organizations that have or will have the capacity to

manufacture SSL systems, i.e., the entire package from wall plug to illumination. Another tier is the Core Technology Program, which will focus on finding solutions to the more difficult shared technical barriers identified by the SSL partnership. It focuses on the R&D efforts of universities, national laboratories, and other research institutions. There is also a Product Development tier which focuses on developing or improving commercially usable materials, devices or systems. This cooperative agreement is in the Product Development Program. Under the SSL EC, any entity having the right to use or sell any subject invention in the United State and/or any other country must agree that any products embodying the subject invention or produced through the use of the subject invention will be substantially manufacture in the United States.

The subject contract will be modified to add the Patent Rights--Waiver clause in conformance with 10 CFR 784.12, wherein Philips has agreed to the provisions of 35 U.S.C §§ 202, 203, and 204. This waiver clause will also include a paragraph entitled U.S. Competitiveness, in which Osram agrees to substantial U.S. manufacture of subject inventions (attached hereto). Additionally, Osram agrees not to transfer subject inventions to any other entity unless that other entity agrees to these same requirements.

Considering the foregoing, it is believed that granting the waiver will provide the Petitioner with the necessary incentive to invest resources in the commercialization of the results of the agreement in a fashion which will make the agreement's benefits available to the public in the shortest practicable time. In addition, it would appear that grant of the above requested waiver would not result in an adverse effect on competition nor result in excessive market concentration. Therefore, 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, as set forth above, be granted.

Mark P. Dvorscak
Deputy Chief Counsel
Office of Intellectual Property Law

Date Dec. 15 2009

Based on the foregoing Statement of Considerations and the representations in the attached waiver petition, it is determined that the United States and the general public will best be served by a waiver of rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of this agreement, where through such modification or extension, the purpose, scope, or cost of the agreement is substantially altered.

CONCURRENCE:

James Brodrick Office of Energy Efficiency and Renewable Energy Office of Building Technology, EE-2J

Date September 13, 2010

APPROVAL:

Paul A. Gottlieb John T. Lucas, Acting Assistant General Counsel for Technology Transfer and Intellectual Property, GC-62

Date 9/17/10

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Date September 13, 2010	Date

Mark P. Dvorscak
Deputy Chief Counsel

(t) 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 the DOE that it is not commercially feasible to do so. In the event the 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 agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.