# STATEMENT OF CONSIDERATIONS

ADVANCE CLASS WAIVER OF PATENT RIGHTS FOR TECHNOLOGY DEVELOPED UNDER DOE FUNDING AGREEMENTS RELATING TO DOE'S SOLID STATE LIGHTING U.S. MANUFACTURING - ROUND 3; DOE FUNDING OPPORTUNITY ANNOUNCMENT DE-F0A-0000561; W(C)-2011-011; CH1631

The Department of Energy Office of Energy Efficiency and Renewable Energy anticipates providing federal financial assistance in the form of cooperative agreements that seeks to achieve cost reduction of sold-state lighting for general illumination through improvements in manufacturing equipment, processes, or techniques. It is anticipated that success will lead to a more rapid adoption/installation of high-quality SSL products resulting in a significant reduction of energy se and a corresponding reduction of environmental pollutants. A secondary objective is to maintain, in the case of light emitting diodes (LEDs), or establish, in the case of organic light emitting diodes (OLEDs), the manufacturing and technology base within the United States.

This FOA contains four (4) Program Areas of Interest (AOI) to which an applicant must identify it is applying. These AOIs are: 1) Luminaire/Module Manufacturing; 2) Test and Inspection Equipment; 3) OLED Deposition Equipment; and, 4) OLED Materials Manufacturing. Recipients of cooperative agreements in these two areas must provide an aggregate cost share among project participants of at least 20%.

DOE expects to make between 2 and 8 awards with a maximum DOE share or range of \$4,000,000 per award.

All types of domestic entities including DOE/NNSA National Laboratories (as defined by EPAct 2005, Section 989) are eligible to apply, except for other Federal agencies and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

The goal of this FOA is to develop, by 2025, 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 the sunlight spectrum. With the assistance of DOE's Core Technologies Research and Product Development programs, industry has rapidly advanced state-of-the-art for SSL technologies.

Laboratory high brightness LED (HB-LED) devices commonly exceed 100 lumens per watt (lwp) and have reached efficacies in excess of 200 lpw. As laboratory devices improve, products continue to be introduced to the market at an increasing pace. As verified by programs such as DOE's Commercially Available LED Product Evaluation and Reporting (CALiPER) program, the quality and performance of the commercial products are advancing at a similar pace to those in the lab. Due to the often-compelling long-term cost-of-ownership considerations, industry has seen increasing numbers of commercial installations of LED systems. However, even as technical advances continue and improved luminaire fixtures appear on the market, there remain technical manufacturing challenges that must be addressed before prices fall to a level where LED lighting will become competitive with existing lighting on a first-cost basis. Two of the five major LED companies have manufacturing operations in the U.S. These five hold critical intellectual property (IP) for LEDs which is cross licensed and allows the group to dominate the market. In addition, the U.S. has a strong base of equipment for LED manufacturing and testing/characterization. The U.S. also has a strong base of luminaire manufacturers built on years of expertise for traditional light sources. The opportunity exists to maintain and expand a strong well-rounded technology base and expertise within the U.S. for LEDrelated technologies. Although OLED technology is not as mature as LED, recent advancements in the laboratory have shown good promise. Laboratory OLED devices have been reported that exceed 100 lpw.

Considering the above, it is the purpose of this class waiver to vest title in new inventions made under this program by large business awardees and subawardees in a fashion enabling them to expediently commercialize the various technologies. Accordingly, DOE will waive the Government's title to subject inventions, other than inventions made by Bayh-Dole participants pursuant to P.L. 96-517, as amended, or National Laboratories, to the above identified large business entities. Since cost sharing is at least 20%, it is expected that patent rights will be allocated among the participants on the basis of cost.

This advance class waiver of the Government's rights in inventions is subject to the usual advance patent waiver terms and conditions--Government license, march-in rights, and preference for U.S. industry provisions comparable to those set out in 35

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U.S.C. §§ 202-204. This advance patent waiver also includes the attached U.S. Competitiveness clause which requires that products embodying any waived invention or produced through the use of any waived invention be manufactured substantially in the United States unless the participant 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 will further agree to make this 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 the waived invention is suspended until approved in writing by DOE.

The grant of this class waiver is not expected to result in adverse effects on competition or market concentration. Rather the waiver should enhance competition and growth of the electrical utility industry of the United States. DOE has the right to require reports of the utilization or the efforts at utilization that are being made for the waived inventions.

This advance class waiver shall apply to cooperative agreements made to large business entities who meet the minimum cost-sharing requirement as set forth above for the four AOIs, and who have provided written notice to DOE of their acceptance of the terms and conditions of this class waiver. The waiver will remain in effect as long as such cost sharing is maintained, in the aggregate, over the term of the agreement. No separate waiver petition is required to be submitted.

Considering the foregoing, and in view of the statutory objectives to be obtained and the factors to be considered under DOE's waiver regulation, 10 C.F.R. 784, all of which have been considered, it has been determined that this class waiver as set forth above will best serve the interest of the United States and the general public. It is recommended that the waiver be granted.

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Mark P. Dvorscak Deputy Chief Counsel Intellectual Property Law Division

Date:

Based on the foregoing Statement of Considerations, 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, EE-2J Office of Energy Efficiency And Renewable Energy

Date: February 21, 2012

## APPROVAL:

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

Date:

#### 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.