STATEMENT OF CONSIDERATIONS

REQUEST BY 3M COMPANY ("3M") FOR AN ADVANCE WAIVER OF PATENT RIGHTS UNDER DOE AWARD NO. DE-EE0005795; W(A) 2013-022

3M has requested a waiver of patent rights of the United States of America for all subject inventions arising from its participation under the above-referenced award entitled "Next Generation Solar Collectors for CSP."

The purpose of the award is to (i) develop a new set of technology elements, including reflective surfaces, reflector panels, framing structural elements and dual axis drives that can be used as "open source" elements for the next generation solar collector design; (ii) design and build a large format heliostat incorporating these new technology elements, suitable for high and ultra-high concentrating power tower systems; (iii) install and field test the heliostat design at the National Solar Thermal Test Facility (at Sandia National Laboratories); and (iv) analyze the impact of new heliostat design on LCOE for multiple power receiver formats.

The total anticipated cost of the project is $9,772,718 with 3M providing 50% cost share or $4,886,359. This waiver is contingent upon 3M maintaining, in aggregate, a cost sharing percentage of at least 50% during the course of the award.

The period of performance for the grant is September 1, 2012 through April 30, 2015.

As noted in the waiver petition, the project funded by the award draws on multiple 3M technology platforms such as multilayer optic films, fluoro-materials, adhesives, films, light management, vapor disposition, and accelerated weathering. 3M is a recognized leader in optical film development, manufacturing and characterization. It has one of the largest accelerated weathering laboratories in the country. 3M has developed a proprietary ray tracing code to be used in conjunction with optical modeling of film based reflectors. This tool is well suited towards optical modeling of solar concentrating applications. 3M also has established finite element and flow modeling capabilities including access to supercomputer time for simulations. 3M has commercial experience with large area solar troughs that is directly relevant to this project. Its technical competence is evident by its numerous patents, patent applications, and other publications.

According to 3M, it has made multi-million dollar investments in capital equipment for film manufacturing for many commercial applications, established a Renewable Energy Division to focus on industry needs and opportunities, and invested in commercialization efforts to bring an improved new solar collector base technology to the market for CSP applications.

3M 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, 3M has agreed to the attached U.S. Competitiveness provision, paragraph (t). In brief, 3M has agreed that products embodying a waived invention or produced through the use of a waived invention will be manufactured substantially in the United States unless 3M can show to the satisfaction of the DOE that it is not commercially feasible to do so.

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Referring to item 10 of the waiver petition, granting this waiver is anticipated to have a minimal effect on limiting competition. Competitors already offer and sell competing glass based products and other film based mirror CSP products. The waiver will have no impact on the availability of these competing products. 3M believes any preferred position that it may achieve would be justified and based on its past and on-going investments, including significant investments outside of this award, in the technology.

Considering the foregoing, it is believed that granting this waiver will provide 3M with the necessary incentive to invest its resources in commercializing the results of the award 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.

[redacted]

Glen R. Drysdale
Patent Attorney
Energy Efficiency and Renewable Energy
Department of Energy

Date: 10/03/13

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

CONCURRENCE:

[redacted]

Minh Le
Program Manager
Solar Energy Technologies Program

Date: 1-13-14

APPROVAL:

[redacted]

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

Date: 1-23-14

(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.