STATEMENT OF CONSIDERATIONS

REQUEST BY SIEMENS ENERGY, INC. ("SEIMENS") FOR AN ADVANCE WAIVER OF PATENT RIGHTS UNDER DOE AWARD NO. DE-EE0005493; W(A) 2012-024

Siemens 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 "Offshore 12 MW Turbine Rotor with Advanced Materials and Passive Design Concepts."

The purpose of the award is to develop, demonstrate, and commercialize wind turbine rotor technologies that will, if successful, enable a reduction in cost of energy by at least 20 percent. The technologies include development of a prototype rotor that will be installed on the Siemens 2.3 MW test turbine located at the National Renewable Energy Laboratory's National Wind Technology Center site. The size of the rotor will be 15-20 percent larger than the current 101-meter rotor. The award will also fund the development of a conceptual design of an advanced offshore wind turbine. This turbine will have a proposed 12-MW capacity with a 200-meter rotor.

The total anticipated cost of the project is $8,186,371, with Siemens cost sharing $4,093,186. This waiver is contingent upon Siemens maintaining, in aggregate, a cost sharing percentage of at least 50% during the course of the award. The period of performance for the award is October 1, 2011 through September 30, 2016.

As noted in the waiver petition, Siemens is one of the world's leading suppliers of both onshore and offshore wind power solutions. Siemens has over 13,700 MW of installed wind power generation worldwide, including 5,700 MW in the United States. Siemens has commercialized innovative technology that allows the utility industry to continually improve economics, while generating environmentally safe and reliable electrical power. The initiative to develop new power generation technology for the future is vital to Siemens' continued commitment to U.S. electric power production that is clean, efficient, affordable, and fuel-flexible. These technology advancements have been enabled through an experienced, dedicated, and full-time engineering staff. The expertise of this staff includes mechanical design, aerodynamics, computational fluid dynamics, acoustics, finite element and probabilistic analysis, material systems, testing, diagnosis, and sensors. Siemens employs more than 360,000 people around the world, including over 27,000 working in research and development.

Siemens has made an investment of over $100 million to set up the manufacturing of wind turbine blades in Fort Madison, Iowa, and wind turbine nacelles in Hutchinson, Kansas. In addition to its manufacturing facilities, Siemens has established a wind research and development office in Boulder, Colorado and service locations in Texas and Oklahoma. These investments have included both engineering development dollars and capital investment in new manufacturing and test facilities.

Siemens 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, Siemens has agreed to the attached U.S. Competitiveness provision,

paragraph (t). In brief, Siemens 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 Siemens can show to the satisfaction of the DOE that it is not commercially feasible to do so.

Referring to item 10 of the waiver petition, granting this waiver is anticipated to have a minimal effect on limiting competition. Siemens competes in the global marketplace with other companies that have the potential to develop advanced wind turbine rotors for offshore wind power applications. The inventions for which this waiver is sought pertain to just a portion of the global power market. All other forms of generating electrical power, such as gas and steam turbine technology, nuclear power, hydroelectric facilities, represent competition within the global power market. Furthermore, granting this waiver will not place Siemens in a preferred position in this field, but it will allow the petitioner to remain competitive in a global marketplace.

Considering the foregoing (*e.g.*, Siemens's technical experience and competence and past and on-going investments in this technology), it is believed that awarding this waiver will provide Siemens 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 awarded.

[redacted]

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

Date: 7/24/12

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 awarded. This waiver shall not apply to any modification or extension of the award, where through such modification or extension, the purpose, scope, or cost of the award has been substantially altered.

CONCURRENCE:

[redacted]

José Zayas
Program Manager
Wind & Hydropower Technologies Program

Date: 3/2/2013

APPROVAL:

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

Date: 4/3/2013

(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.