## 1 STATEMENT OF CONSIDERATIONS

REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS ABB INC., UNDER CONTRACT NO. 9F-96670 AS A SUBCONTRACT UNDER DOE AWARD NO. DE-AC02-06CH11357; W(A)-2019-002, CH-1809

Petitioner, ABB Inc., has requested a waiver of: (a) domestic and foreign patent rights for all subject inventions conceived solely by Petitioner and (b) Petitioner's undivided interest, based on its employee's contributions, to joint domestic and foreign patent rights for all subject inventions conceived, arising under the above referenced award.

The objective of Petitioner's contract is to develop and apply a cost-effective protection design for AC/DC hybrid power solar panel systems. The aim of the work is to develop new fault detection, location and protection coordination algorithms to achieve timely fault isolation and minimize fault impacts. In Particular, Petitioner will model and simulate in a software simulation package such as Matlab/Simulink.

The total anticipated cost of the award is \$124,997.00 including the Petitioner's contribution of \$24,997.00, or <u>about</u> twenty percent (20%) of the total cost of the work under the award. This waiver is contingent upon Petitioner maintaining, in aggregate, the above cost sharing percentage over the course of the award. The period of performance is from 4 April 2019 to 3 April 2020.

Referring to items 5-9 of the waiver petition, Petitioner is a leader in AC and DC power systems which form the foundation for hybrid AC/DC systems. Petitioner has technical competence in both AC and DC distribution protection and AC and DC stability analysis and control. Petitioner has significant number of patents in the field relating to AC stability and protection and AC and DC power systems. Petitioner's sales of devices for stability and protection in low voltage and medium voltage systems and in solar power integration are greater than \$2 billion. Petitioner has engaged in both AC and DC distribution protection and AC and DC stability analysis and control. Petitioner will continue to further develop the contracted work and will develop protection products based on the project.

Petitioner has agreed that this waiver will be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the attached U.S. Competitiveness provision (paragraph (t)). The Petitioner further has agreed to the attached revised paragraph (h) to submit annual reports on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by Petitioner and any of its licensee or assignees. If sold or transferred this reporting obligation will pass on to the buyer or transferree.

Petitioner 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 the Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so.

Petitioner has further agreed to make the above conditions binding on any assignee or licensee or any entity otherwise acquiring rights in the waived inventions, including subsequent assignees and licensees. Should Petitioner or other such entity receiving rights in a 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 inventions is suspended until approved in writing by DOE.

Referring to item 10 of the waiver petition, granting this waiver will not have an adverse impact on competition. There are no commercial products currently offered by ABB and no vendors offer similar or closely competing products and systems targeting hybrid AC/DC protection. Other vendors may be developing their own version of these features which may compete with ABB products. Thus, granting the Petition will not hinder competition in the field.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the agreement in a fashion which will make the technology available to the public in the shortest practicable 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.

Karen L. Blouin Assistant Chief Counsel Intellectual Property Law Division

Date: 25 June 19

Michael J. Dobbs Deputy Chief Counsel Intellectual Property Division

Date: 3 July 19

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the U.S. and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver will not apply to any modification of extension of the award, where through such modification or extension, the purpose, scope or cost of the award has been substantially altered.

Charne Gay
Director of Solar Energy Technologies
Energy Efficiency and Renewable Energy,
EE-4S

Date: 9 July 2019

APPROVAL:

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