Statement of Considerations

REQUEST BY ABB ENTERPRISE SOFTWARE, INC. (ABB) FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN RIGHTS IN SUBJECT INVENTIONS MADE IN THE COURSE OF OR UNDER BATTELLE MEMORIAL INSTITUTE (BMI) SOLICITATION 558534 UNDER PRIME CONTRACT NO. DE-AC05-76RL01830; DOE WAIVER DOCKET W(A)2020-003 [ORO-825]

ABB Enterprise Software, Inc. (Petitioner) has made a timely request for an advance waiver to worldwide rights in Subject Inventions made in the course of or under BMI Solicitation No. 558534 entitled "Verification and Validation Assuring Reliability and Security (VARS)" under BMI Prime Contract No. DE-AC05-76RL01830. The scope of work is to (1) conduct a landscape assessment and develop a value at risk metric; (2) develop the VARS framework and (3) designing, development, and demonstration of the web tool. The work is sponsored by the Solar Energy Technologies Office in the Office of Energy Efficiency & Renewable Energy.

The dollar amount of the expected effort is \$715,000 with Petitioner proposing to cost share a minimum of 20% of the estimated work. The period of performance is approximately 31 months from March 2020 to September 2022. ABB has requested a fixed price subcontract for the first year with a total value of \$186,439.1 and the remaining years will be subcontracted out later this year. This waiver is intended to cover the entire scope of work of the subcontracts.

Petitioner's experience and expertise will contribute substantially to the development of the inventions made under the proposed subcontract. Petitioner states it is a global leader in power technologies and provides products, systems, software, and service solutions across the power value chain. The proposed subcontract's scope builds upon the established experience of Petitioner's both cyber- and cyber-physical security testing of its entire range of power grid products. Petitioner possesses several patents and publications (as shown in its waiver petition) in these industries, as well as the specific area of energy delivery systems (EDS) control and protection products and systems. The proposed verification and validation framework and web-based tool may be used by Petitioner for testing its products for self-certification and customer demonstration purpose, particularly as the industry standards evolve and the framework is adopted for testing by the industry.

Petitioner has made a significant investment of private funding which will directly assist and further promote development of the work to be performed under the subcontract. Moreover, during the course of the project, Petitioner anticipates developing new technologies that will contribute to VARS technologies, including control and protection system testing related to cyber-physical security aspects.

Under this proposed subcontract, Petitioner will identify potential gaps in its present technology and product offerings which may lead to inventions that specifically improve Petitioner's products and technologies. Because these potential improvements are specific to it products and technologies, such enhancements do not interfere or restrict DOE's intent to make the resulting testing criteria framework from this project widely available to enable a broad range of developers to verify the proposed functionality of a different cybersecurity solutions (and not be owned or controlled by one vendor).

Petitioner has confirmed that it wishes to obtain to rights in inventions specific to the Petitioner's products and technologies. Petitioner intends to purse patent rights for products specific to the Petitioner's already-existing technologies or new products potentially developed by Petitioner under the proposed subcontract. Accordingly, the proposed verification and validation framework and the web based tool will be widely available and will be vendor-agnostic.

In addition, Petitioner produces many technologies and products for the electric utility industry, and thus the advancements resulting from this project, if successful, will greatly benefit the industry by paving the path for demonstrating other concepts.

Petitioner has agreed to accept the standard DOE waiver terms and conditions if the requested waiver is granted. Specifically, Petitioner agrees to abide by the conditions set forth at 35 U.S.C. §202-204 relating to the Government license, march-in rights, preference for U.S. industry, as well as a U.S. Competitiveness provision.

Petitioner 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 Petitioner 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. Petitioner further agrees to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Should Petitioner 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.

Granting of the waiver should have little effect on competition since there are several technology options, this being one of many previously or yet-to-be developed in the marketplace. Currently, there are no commercial products from Petitioner and no vendor offers similar or closely competing products and systems. Different technologies can be adopted to develop commercial products for VARS, while also contributing to the open source portion of it. This waiver will enable Petitioner to maintain its competitive position with respect to the technologies that are also being developed and targeted for this market. The results of this project will enable Petitioner to offer differentiating product features but they will not monopolize the market as other vendors may develop their own version of these features. Thus, there should not be undue market concentration of Petitioner products.

In view of the objectives and considerations set forth in 10 CFR 784.4, all of which have been considered, it is recommended that the requested waiver for worldwide patent rights in Subject Inventions be granted.

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Emily G. Schneider	
Assistant Chief Counsel for	
Intellectual Property	

Date

Based on the foregoing Statement of Considerations and the representations in the attached Waiver Petition, it is determined that the interest of the United States and the general public will best be served by a waiver of U.S. and foreign patent rights, and therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the subcontract where, through such a modification or extension, the purpose, scope or cost of the subcontract has been substantially altered.

C	CONCURRENCE:	APPROVAL:
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S	Sean Plankey	Brian Lally
Р	Principal Deputy Assistant Secretary	Assistant General Counsel for Technology
C	Office of Cybersecurity, Energy Security, and	Transfer and Intellectual Property
E	Emergency Response (CESER)	
_		5.6.2020
	Date	Date