STATEMENT OF CONSIDERATIONS

REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS BY PALO ALTO RESEARCH CENTER, A XEROX COMPANY, UNDER DOE AWARD NO. DE-OE0000872; W(A) 2017-009, CH-1787

Petitioner, Palo Alto Research Center, a Xerox Company, 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 or first reduced to practice, arising under the above referenced award.

The object of the award is to support the DOE Office of Electricity Delivery and Energy Reliability through the development of a Transformer Real-time Assessment Intelligent System with Embedded Network of Sensors and Optical Readout ("TRANSENSOR"), a low-cost, distributed grid asset monitory platform. TRANSENSOR provides a platform for economically enabling state awareness across numerous grid and distributed energy resource (DER) assets using Petitioner's low-cost optical sensing system and model-based algorithms for effective asset management. The initial target application for this project is to provide distribution transformers, a critically vulnerable asset class for accelerated DER acceptance. The monitoring system will build on Petitioner's novel compact wavelength-shift detector that lowers the cost of high-resolution, high-frequency, multiplexed optical sensing. Some of the background technology elements integrated into TRANSENSOR were funded at least in part under the Advanced Research Projects Agency-Energy (ARPA-E) award DE-AR0000274 (described in the U.S. Patents and Patent Applications listed in Exhibit A of the Petition for Advance Waiver of Patent Rights), but otherwise are not related to the work under the above referenced award.

The total anticipated cost of the above referenced award is \$2,121,273 including DOE's contribution of \$1,499,956 and Petitioner, and its subcontractors, total contribution of \$621,317 as provided in the Table below. Petitioner is contributing \$332,577, or about twenty one percent (21%) of its share of the award of \$1,592,730 (which includes that portion of DOE's award allocated to Petition of \$1,260,153 and Petitioner's portion of \$332,577) again as provided in the Table below. This waiver is contingent upon Petitioner maintaining, in the aggregate, at least 20% cost share for work assigned to the Petitioner under the DE-OE0000872. The period of performance is from 1 October 2017 to 31 December 2019.

	Palo Alto	GE Power	Con Edison	Total
Contribution	\$332,577	\$182,000	\$106,740	\$621,317
DOE Portion	\$1,260,153	\$155,500	\$84,303	\$1,499,956
Subtotal	\$1,592,730	\$337,500	\$191,043	\$2,121,273
% Contribution	21%	54%	56%	

This waiver shall also apply to any domestic large business that is a subrecipient (at any tier) if the domestic large business accepts the terms and conditions of this waiver, including maintaining, in the aggregate, at least 20% cost share for work assigned to it under DE-OE0000872. A domestic large business, as used herein, is any for-profit entity that does not qualify as a "small business" under Bayh-Dole and is incorporated (or otherwise formed) under the laws of a particular State or territory of the United States and is not owned, controlled, or influenced by a foreign government, agency, firm, corporation or person. A large business, that does not accept the terms of this waiver, or is otherwise ineligible (e.g. owned, controlled, or influenced by a foreign government, agency, firm, corporation or person), may petition for an advanced or identified patent waiver.

Referring to items 5-9 of the waiver petition, Petitioner is a globally renowned research organization who has invested over \$3 Million of its own funds in relevant, related technologies. Petitioner has a talented, experienced, multidisciplinary group with a broad complementary skill set from related technological areas such as sensing systems and system health monitoring with numerous years of relevant experience, in addition to a substantial portfolio of granted/pending patents and published journal and conference papers listed in in Exhibit A of the Petition for Advance Waiver of Patent Rights. Accordingly, Petitioner has significant experience in developing technology within this field and will continue to further develop the contracted work.

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)).

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 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, its subcontractors, or any other 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 competing monitoring designs in use. Thus, the grant of this waiver will not inhibit the development or competing monitoring designs and in fact is anticipated to promote healthy competition and maximize relevant market impact from TRANSENSOR.

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.

Timothy L. Harney Patent Attorney Intellectual Property Law Division

Date: <u>05/25/2018</u>

Michael J. Dobbs Deputy Chief Counsel Intellectual Property Division

Date: 05/25/2018

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.

CONCURRENCE:	APPROVAL:
Michael Pesin Deputy Assistant Secretary, Advanced Grid Research and Development OE-10	Brian V. Lally Assistant General Counsel for Technology Transfer and Intellectual Property, GC-62
Date: 08-09-18	Date: 8/3/18