

## **Statement of Considerations**

CLASS WAIVER OF THE U.S. GOVERNMENT'S U.S. AND FOREIGN PATENT RIGHTS IN INVENTIONS MADE AND TO BE MADE BY SUCCESSFUL AWARDEES, SUBAWARDEES AND TEAM MEMBERS, IN THE COURSE OF WORK UNDER FUNDING OPPORTUNITY ANNOUNCEMENT DE-FOA-00001285, FOR A U.S. - CHINA CLEAN ENERGY RESEARCH CENTER (CERC): ENERGY AND WATER, AND FUNDING OPPORTUNITY ANNOUNCEMENT DE-FOA-0001542 FOR A U.S.-CHINA CERC: MEDIUM AND HEAVY DUTY TRUCKS

### **W(C) 2017-005**

The United States and China are the world's largest economies. They are top global energy consumers, energy producers, and greenhouse gas emitters, together accounting for about 40% of annual global greenhouse gas emissions. In order to facilitate the rapid development and commercialization of clean energy technologies, on November 17, 2009, the U.S. Department of Energy (DOE), Chinese Ministry of Science and Technology (MOST) and Chinese National Energy Administration (NEA) agreed to implement a U.S.-China Clean Energy Research Center (CERC) through a signed Protocol<sup>1</sup>. Over the five years, the CERC has successfully conducted joint research and development on clean energy topics by teams of scientists and engineers from the U.S. and China.

Originally the CERC program operated three technical tracks: building energy efficiency, clean vehicles, and advanced coal technologies with carbon capture, utilization and/or sequestration, which were the subject of, and are covered by, DOE Class Patent Waiver W(C) 2010-007. The current waiver is directed to Subject Inventions made by awardees, subawardees and team members under two subsequent FOAs: (1) DE-FOA-00001285, directed to Energy and Water research track and (2) DE-FOA-0001542, directed to Medium-Heavy Truck research.

Each track amounts to the equivalent of a \$50 million commitment over 5 years which comprises \$25 million for the U.S. effort and \$25 million for the China effort. In the U.S., this is arranged as \$5 million per track annually, with \$2.5 million in DOE funds and matched by another \$2.5 million in non-Federal cost-share by the respective consortia.

### **Funding Opportunity Announcement DE-FOA-0001285 FOR CERC: ENERGY AND WATER**

Following the success of the first 5 years of CERC, a renewal and expansion was jointly announced by the two countries on November 12, 2014. In addition to renewing the three existing CERC tracks, the two countries agreed to establish a new track devoted to water-related aspects of energy production and use, sometimes referred to as the energy-water nexus. To operationalize this fourth track, on March 4, 2015, the U.S. Department of Energy (DOE) issued a Funding Opportunity Announcement for the formation of a Consortium: Energy and Water to pursue five identified R&D topics at the nexus of energy and water: (1) water use reduction at thermoelectric plants; (2) treatment and management of non-traditional waters; (3) improving

---

<sup>1</sup> Protocol between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China for Cooperation on a Clean Energy Research Center (the Protocol).



sustainable hydropower design and operation; (4) climate impact modeling, methods, and scenarios to support improved energy and water systems understanding; and (5) data and analysis to inform planning, policy, and other decisions.

**Funding Opportunity Announcement DE-FOA-0001542 FOR CERC: MEDIUM AND HEAVY DUTY TRUCKS**

In September 2015, the two countries announced a fifth CERC track aimed at improving the energy efficiency of medium-duty and heavy-duty trucks. To operationalize this new track, DOE issued DE-FOA0-001542 and subsequently made awards to a U.S. consortium to undertake a first-rate collaborative research program in conjunction with researchers in China in the following areas: (1) advanced internal combustion engine and powertrain systems; (2) overall energy management (system level efficiency improvements); (3) hybrid electric powertrain; (4) other key truck technologies; and (5) applied research, test, and evaluation.

In order to expedite the commercialization of technologies emanating from these two additional CERC research tracks, DOE is providing this waiver of rights. Section 152 of the Atomic Energy Act of 1954, (42 U.S.C. 2182), and section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974, (42 U.S.C. 5908) provide that the Government obtains title to any invention made under a DOE award that is not subject to the Bayh-Dole Act (35 U.S.C. 200-212), (Pub.L. 96-517, as amended), unless title is waived by DOE in accordance with these Acts, and implementing regulations at 10 C.F.R. 784. It is the purpose of this class waiver to waive, to the applicable awardees, subawardees, team members or participants in other relevant subagreements, title to the inventions made by the respective awardees'/subawardees'/ team members'/subagreement participants' employees, in a fashion enabling such awardees/subawardees/ team members/participants, to seek to expeditiously commercialize the various technologies. Inventions "made", in this context, shall mean inventions conceived or first actually reduced to practice under any contract, subcontract, or other arrangement which includes research, development or demonstration work. Accordingly, DOE will waive the Government's title to subject inventions to the applicable awardees/subawardees/team members/participants agreeing to the terms of this waiver. This class waiver does not apply to inventions made by the Bayh-Dole participants pursuant to Pub.L. 96-517, as amended, or National Laboratories who already have the right to elect title.

This class waiver of the Government's rights in inventions is subject to the usual Government license, march-in rights, and preference for U.S. industry provisions set out in 35 U.S.C. 202-204. This class waiver also includes the attached U.S. Competitiveness clause, paragraph (t), which requires that, for use or sale in the U.S.A., products embodying any waived invention or produced through the use of any waived invention, be manufactured substantially in the United States, unless the relevant participant demonstrates to the satisfaction of DOE Patent Counsel, with the concurrence of the Cognizant DOE Program, that it is not programmatically or commercially feasible to do so. The participants further agree to make the above condition binding on any entity acquiring rights to any waived invention, including subsequent assignees or licensees. Should the participants or other 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.



Since awards under this FOA require 50% cost-sharing in the aggregate, e.g., among awardees, subawardees and other team members, and since this substantial cost-share will be provided by these various team members, there is ample consideration for this class waiver. Over the five year period of performance, the awardee secures \$12.5 M of external funds and DOE provides \$12.5 M of funding. Normally, DOE requires 20% cost-share for a contractor or awardee to qualify for an advance patent waiver.

The grant of this class waiver is not expected to have any adverse effects on competition or market concentration. Rather, the waiver should enhance U.S. economic and energy security through the development of new energy technologies that will compete with existing technologies and other new emerging technologies. In any event, if a participant who is subject to this waiver who has obtained title to an invention arising under the project is not making reasonable efforts to utilize a waived invention, DOE can exercise march-in rights.

For those who may choose not to accept some of the terms of this class waiver, they may still request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of their agreement. Even if such waiver is not requested or the request is denied, the recipient or team member will have a continuing right under the award to request a waiver of the rights of the United States in the title to identified inventions, i.e., individual inventions conceived or first actually reduced to practice in performance of the award.


Considering the foregoing, and in view of the statutory objectives to be obtained and the factors to be considered under DOE's statutory waiver policy, all of which have been considered, it has been determined that this class waiver as set forth above will best serve the interests of the United States and the general public. It is recommended that the waiver be granted.

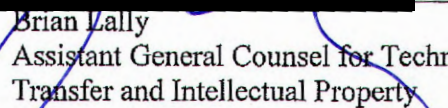
[REDACTED]  
Linda P. Field  
Patent Counsel

Based upon the foregoing Statement of Considerations, it is determined that the interests of the United States and the general public will best be served by a waiver of the United States and foreign patent rights as set forth herein, and, therefore, the waiver is granted. This waiver shall not affect any waiver previously granted.

CONCURRENCE:

APPROVED:

  
Maria DiGiulian, IA-31  
International Relations Specialist

  
Brian Lally  
Assistant General Counsel for Technology  
Transfer and Intellectual Property

Date:

4/30/18

Date:

5/1/18