STATEMENT OF CONSIDERATIONS

CLASS WAIVER OF PATENT RIGHTS TO INVENTIONS MADE UNDER THE OFFICE OF ENERGY EFFICIENCY AND RENEWALBE ENERGY (EERE) FUNDING OPPORTUNITY ANNOUCEMENTS RELEASED DURING FISCAL YEARS 2015 AND 2016 - W(C) 2014-003

This is a class patent waiver of the Government's right to title in inventions conceived or made by a domestic large business in the course of or under an EERE funding agreement. The waiver is limited to funding agreements selected through a funding opportunity announcement ("FOA") released by EERE during fiscal years 2015 and 2016. The waiver is subject to a Government license, march-in rights, and preference for U.S. industry provisions set out in 35 U.S.C. 202-204. The waiver is further subject to a U.S. competitiveness provision that requires products embodying any waived invention or produced through the use of any waived invention be manufactured substantially in the United States or a U.S. manufacturing plan that provides measurable commitments by the domestic large business to support U.S. manufacturing of the technologies related to the EERE funding agreement when approved by the cognizant DOE patent counsel.

DOE takes title to inventions conceived or made by a domestic large business, unless DOE waives its right to title. A patent waiver is warranted when it is determined that the interests of the United States and the general public will best be served with the patent waiver. When making such a determination, DOE should have the following objectives: (1) make the benefits of the energy research, development and demonstration program funded by EERE widely available to the public in the shortest time; (2) promote the commercialization of the EERE-funded inventions; (3) encourage participation in the programs funded by EERE; and (4) encourage competition.

DOE may grant an advance patent waiver for a particular contractor or a class patent waiver for a class of contractors. A class patent waiver is appropriate when all members of a particular class would likely qualify for an advance patent waiver. As demonstrated below, domestic large businesses performing work under an EERE funding agreement constitute a class of contractors in which all of the members would likely qualify for an advance patent waiver.

The DOE patent waiver regulations provide a list of considerations that must be used when determining whether an advance patent waiver will best serve the interests of the United States and the general public. The following is a list of those considerations along with an analysis on how each consideration applies to a domestic large business performing work under an EERE funding agreement:

(a) The extent to which the participation of the contractor (referred to as "recipient" in EERE awards) will expedite the attainment of the purposes of the program.

EERE offices/programs include buildings, advanced manufacturing, vehicles, biomass, geothermal, hydrogen, solar, and wind and water. Each program issues FOAs for work in areas that the program has determined will lower the cost associated with its respective technology so that the technology will be more broadly adopted and used across the U.S.

The funding program selects the recipients through a competitive process based on the merit criteria set forth in the FOA. Specifically, the program selects each recipient based on the determination that the recipient is most likely to achieve the purpose of the FOA compared to the other organizations that applied for funding. Therefore the participation of a particular domestic large business was determined by the funding program to be the best means of attaining the program's purposes.

(b) The extent to which a waiver of all or any part of such rights in any or all fields of technology is needed to secure the participation of the particular contractor.

Waiving patent rights encourages participation in EERE funded research, development and demonstration projects. With patent rights, an organization is more likely to invest (*e.g.*, cost share) in research, development and demonstration projects that may lead to valuable inventions.

Congress recognized the value of patent rights with the passage of the Bayh-Dole Act, 35 U.S.C. §§ 200-212 ("Bayh-Dole"). One of the objectives of Bayh-Dole was to encourage participation in federally funded research, development and demonstration projects. Congress understood that more organizations would participate in federally funded research, development and demonstration projects when the organizations can own the rights to the inventions conceived or first actually reduced to practice in performance of the work under a funding agreement (referred to as "subject inventions"). Therefore, Bayh-Dole requires that funding agencies generally allow domestic small businesses and non-profit organizations the right to retain title to their subject inventions. Bayh-Dole was extended to all types of contractors, including domestic large businesses, under Executive Order 12591, to the extent permitted by law. However, Section 9 of the Federal Non-nuclear Research and Development Act of 1974 (42 U.S.C. § 5908) provides that title to subject inventions vests with DOE unless title is waived. Because of this provision, the Executive Order does not extend Bayh-Dole to domestic large businesses under EERE funding agreements and the right for large businesses to retain title to subject inventions must be granted through the patent waiver process. But the same policy reasoning behind Bayh-Dole and the Executive Order applies here to domestic large businesses (*i.e.*, allowing large businesses to take title to their subject inventions will encourage their participation) under EERE funding agreements. Therefore granting a patent waiver encourages the participation of domestic large businesses

(c) The extent to which the work to be performed under the contract is useful in the production or utilization of special nuclear material or atomic energy.

EERE programs are focused on clean energy technologies. It is highly unlikely that the work under an EERE funding agreement would be useful in the production or utilization of special nuclear material or atomic energy.

(d) The extent to which the contractor's commercial position may expedite utilization of the research, development, and demonstration results.

The utilization of the research, development, and demonstration results is more likely expedited with a domestic large business having patent rights instead of the Government retaining the patent rights. With the patent rights, the domestic large business is more likely to be able and willing to make the necessary investment to commercialize the results.

In order to progress the technology beyond research, development and demonstration to commercialization, a business must make a significant investment in time, equipment and other resources. The investment is not guaranteed due to the risk associated with being the first one to introduce a new technology to the market place. A business is less likely to make the investment and accept the risks, if it does not have the patent protection to prevent its competitors from copying the technology if and once the business establishes a market for the new technology.

Congress recognized that federally funded technology was more likely to be utilized and commercialized when the organizations that made the inventions had the patent rights to the inventions with the passage of Bayh-Dole. Congress passed Bayh-Dole, in part, to promote the utilization of federally funded inventions by domestic small businesses and non-profit organizations. Executive Order 12591 implicitly recognized that the same policy considerations behind Bayh-Dole also apply to large business contractors. This same reasoning also applies to domestic large businesses under EERE funding agreements.

(e) The extent to which the Government has contributed to the field of technology to be funded under the contract.

The Government has made significant and strategic contributions to clean energy technologies. Although the Government's contributions have been important, the contributions by private industry have been significant as well. In addition to cost share provided under a particular funding agreement, it is typical that the work of the funding agreement relies significantly on past investments made by a domestic large business and will rely on future investments from the domestic large business in order to commercialize the technology.

(f) The purpose and nature of the contract, including the intended use of the results developed thereunder.

EERE funding agreements selected through an EERE FOA are financial assistance instruments. The principal purpose of financial assistance is to transfer a thing of value to a recipient to carry out a public purpose of support or stimulation authorized by law rather than acquiring property or services for the direct benefit or use of the U.S. government. The purpose of the EERE funding agreements is to lower the cost associated with clean energy technologies so that the technologies are more broadly adopted and used across the U.S. Granting a waiver encourages participation and supports commercialization of the technologies. Therefore, granting a waiver is consistent with the purpose of the EERE funding agreements.

(g) The extent to which the contractor has made or will make substantial investment of financial resources or technology developed at the contractor's private expense which will directly benefit the work to be performed under the contract.

Under EERE funding agreements, domestic large businesses are usually required to meet certain cost share requirements. Specifically, under Section 988 of the Energy Policy Act of 2005, a large business is usually required to provide at least a 20% cost share for research and development activities and at least a 50% cost share for demonstration activities.

In addition to cost share, a domestic large business will typically have made a past investment and intend to make a future investment beyond the funding agreement related to the technology subject to an EERE funding agreement. The past and anticipated future investment varies from domestic large business to domestic large business. However, based on past patent waiver requests, it is typical that the work to be done under a funding agreement by a large business is built upon and benefits from a past investment by the large business (*e.g.*, use of equipment and facilities and background intellectual property). It is also typical that a large business has the intent and capability of making future investments in promising technologies resulting from work under the funding agreement. In any event, patent waivers are subject to march-in rights that would require licensing the technologies to others if the large business fails to make reasonable efforts to utilize the technologies.

(h) The extent to which the field of technology to be funded under the contract has been developed at the contractor's private expense.

The extent to which a large business has developed a particular technology at private expense will vary. It is typical, however, for a large business to rely on its past investments to perform the work under an award.

(i) The extent to which the Government intends to further develop to the point of commercial utilization the results of the contract effort.

A particular large business may receive additional federal funding related to the technology subject to an EERE funding agreement. However, it would be unusual for the Government to conduct any development work on clean energy technologies by itself related to an EERE funding agreement. Any additional federal funding to a large business is likely to be made through a competitive process, in support of other EERE program objectives, and subject to the required terms and conditions for receiving federal funding (*e.g.*, 50% cost share for demonstration activities).

(j) The extent to which the contract objectives are concerned with the public health, public safety, or public welfare.

The purpose of the EERE funding agreements is to lower the cost associated with clean energy technologies so that the technologies are broadly adopted and used across the U.S. The adoption of clean energy technologies would indirectly benefit the public health, safety and welfare through the use of more environmentally friendly sources of energy. Granting a waiver should expedite the adoption of clean energy technologies. Therefore, granting a waiver is in the interest of public health, safety and welfare.

(k) The likely effect of the waiver on competition and market concentration.

Energy is a globally competitive market. In order to be commercially viable, clean energy must compete with more conventional sources of energy. Within clean energy, the different types of technologies (*e.g.*, wind, water, solar, biomass, and geothermal) compete among themselves. Moreover, even within a particular type of technology, there are typically several different approaches and systems competing among themselves (*e.g.*, silicon based solar cells versus non-silicon based solar cells).

Typically, a patent waiver encourages a large business to make the necessary investments needed to bring its particular technology solution to the market. A patent waiver should not have an impact of the other technology solutions in the market. By encouraging the large business to bring another technology solution to the market and not impacting the other solutions already in the market, a patent waiver supports competition in energy.

(l) In the case of a domestic nonprofit educational institution under an agreement not governed by Chapter 18 of Title 35, United States Code, the extent to which such institution has a technology transfer capability and program approved by the Secretary or designee as being consistent with the applicable policies of this section.

This consideration is not applicable to a domestic large business.

(m) The small business status of the contractor under an agreement not governed by Chapter 18 of Title 35, United States Code.

This consideration is not applicable to a domestic large business.

(n) Such other considerations, such as benefit to the U.S. economy, that the Secretary or designee may deem appropriate.

Most patent waivers include a U.S. competitiveness provision that requires products embodying any waived invention or produced through the use of any waived invention be manufactured substantially in the United States. In the past, DOE has agreed to other commitments to the U.S. economy in lieu of the U.S. competitiveness provision. This class waiver will be subject to the standard U.S. competitiveness provision or a U.S. manufacturing plan that provides for measurable commitments to U.S. manufacturing.

As shown above, a domestic large business performing work in an EERE funding agreement is likely to qualify for an advance patent waiver because, based on the requisite considerations of the DOE patent waiver regulations, it best serves the interests of the U.S. and the general public. This analysis is consistent with Bayh-Dole.

Historically DOE has agreed to the proposition that domestic large businesses qualify for advance patent waivers under EERE funding agreements because the objectives and considerations set forth in the DOE patent waiver regulations are usually met by domestic large business. For example, DOE has granted advance patent waivers for 58 domestic large businesses under EERE funding agreements in 2010, 2011 and 2012. It did not reject any request for a patent waiver during that time. DOE also has used class patent waivers for EERE FOAs during the American Recovery Act and for all ARPA-E awards under several FOAs. Moreover, DOE granted similar class patent waivers for EERE FOAs released in FY2013 and in FY2014. DOE's past practice is consistent with the above analysis that domestic large businesses working under a funding agreement made through a FY2015 or FY2016 EERE FOA would likely qualify for an advance patent waiver.

This class patent waiver shall be subject to the terms and conditions that follow this statement of considerations. The terms and conditions include the usual Government license, march-in rights, and preference for U.S. industry provisions set out in 35 U.S.C. 202-204. The class waiver also includes the following U.S. Competitiveness clause:

> 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.

The terms and conditions are the standard terms and conditions used in DOE advance patent waivers except that the contractor does not retain any rights to an invention in the event that the above U.S. Competitiveness clause or the utilization reporting requirement is breached.

EERE may require applicants to its FOAs to submit U.S. manufacturing plans as part of their proposals. A U.S. Manufacturing Plan represents an applicant's measurable commitment to support U.S. manufacturing of the technologies related to its potential EERE funding agreement. The nature and specificity of the applicants' U.S. Manufacturing Plans will vary based on the FOA and the program issuing the FOA. The weight given to the U.S. Manufacturing Plans during the review and selection process will also vary based on the particular FOA and may be part of the evaluation or merit criteria. The DOE Patent Counsel supporting the FOA, in consultation with the responsible program/office official for the FOA, may agree to use the U.S. manufacturing plan in lieu of the U.S. competitiveness provision for a particular domestic large business when the DOE Patent Counsel determines that the U.S. manufacturing plan provides adequate and enforceable support to the U.S. manufacturing of the technology related to the EERE funding agreement.

This class patent waiver is available to any domestic large business that (1) is a recipient, or subrecipient at any tier, to a funding agreement issued under an EERE FOA released in FY2015 or in FY2016 and (2) is providing at least the statutory minimum cost share for the work assigned to it under the funding agreement (*i.e.*, at least 20% for research and development activities and at least 50% for demonstration activities, even when a domestic large business would have otherwise qualified for a cost share waiver) . A domestic large business, as used in this class patent waiver, 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.

Unless otherwise instructed by DOE patent counsel, this class patent waiver shall be incorporated into each funding agreement issued under an EERE FOA released in FY2015 or in FY2016 to a domestic large business that is providing at least the statutory minimum cost share for the work assigned to it under the funding agreement. The acceptance of the funding agreement with the class patent waiver will constitute that recipient's notice to DOE of its acceptance of the terms and conditions of this class waiver. This class patent waiver shall be effective for any domestic large business who is

a sub-recipient of a funding agreement issued under an EERE FOA released in FY2015 or in FY2016 upon written notice to DOE patent counsel that the domestic large business accepts the terms and conditions of the class patent waiver and is providing at least the statutory minimum cost share for the work assigned to it under the funding agreement. In addition to any requirements provided for in the terms and conditions, the class patent waiver shall remain in effect for each domestic large business that provided notice of acceptance to DOE conditioned on it maintaining the cost share requirement previously discussed.

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 interest of the United States and the general public. It is recommended that the waiver be granted.

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Glen R. Drysdale
DOE Patent Counsel

Date: 9-11-14

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:

[redacted]

Office of Energy Efficiency and Renewable Energy

Date: 09/26/14

APPROVAL:

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