STATEMENT OF CONSIDERATIONS

CLASS WAIVER OF GOVERNMENT PATENT RIGHTS FOR PROPRIETARY USERS OF FACILITIES ESTABLISHED UNDER THE PHOTOVOLTAIC MANUFACTURING INITIATIVE (DE-FOA-0000259)
DOE WAIVER NO. W(C) 2011-004

The following is a class patent waiver of the rights of the United States to inventions made or conceived of during the use of facilities that were funded, in at least part, through the Photovoltaic Manufacturing Initiative ("PVMI") by proprietary users. The waiver applies only to the inventions of proprietary users as defined below. In order to avail itself of this class patent waiver, a proprietary user must report the inventions to DOE.

DOE's Solar Energy Technologies Program launched PVMI to support the creation of a robust photovoltaic (PV) manufacturing base in the U.S. The U.S. is a leader in the research and development of PV technologies. However, this leadership in research and development has not translated to significant manufacturing activities in the U.S. For example, at the time of this waiver, U.S.-made products constitute less than 10% of the world output of PV products and systems.

The Funding Opportunity Announcement (FOA) for PVMI invited proposals covering a broad range of technologies and development models that would support the creation of a more robust manufacturing base in the U.S.[1] The FOA had two topic areas: (1) University-Led consortia for conducting industry-relevant research and development projects related to PV manufacturing; and (2) Industry-Led consortia or organizations for accelerating the development and implementation of PV manufacturing-related technologies.

The first topic area is intended to provide universities with a competitive funding source to perform industry-relevant R&D. Awards under the first topic area are not intended to establish multi-user facilities and proprietary users of such facilities. Therefore, awards of the first topic area are not impacted or material to this class waiver.

The second topic area is intended to provide the U.S. PV industry with resources to rapidly develop pre-competitive and competitive manufacturing technologies. To this end, the second topic area allowed for an industry consortia model, a manufacturing development facility model, or a combination of the two (also referred to as a hybrid model). The industry consortia model is the forming of a consortium of industry partners, universities, and national laboratories to conduct collaborative research and development projects related to PV manufacturing. The manufacturing development facility model is the establishment of a multi-user facility that provides prototype or pilot-scale production capabilities, utilizing a baseline of processes and equipment that could be leveraged by companies coming into the facility. The intent is that individual companies will bring materials, processes, or equipment to develop or optimize at the manufacturing environment provided at the facility. Each company would pay a fee for the total cost associated with its use of the facility. In the hybrid model, an awardee would establish both a research and development consortium and a multi-

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user facility. Based on the proposals received and the merit review of the proposals, DOE selected two proposals under topic area 2.

One award is to SVTC's Solar Photovoltaic Manufacturing Development Facility. PV companies and other users will have access to the facility that includes a range of services and equipment, such as complete manufacturing lines, access to individual tools, manufacturing experts, secure fab space for users' proprietary tools, and pilot production services, in an intellectual property secure environment for a fee. Each user will pay a fee that constitutes the total cost associated with the use of the facility by the user.

Another award is to the U.S. PV Manufacturing Consortium. ("PVMC").[2] This award includes the forming of a research and development consortium and a multi-user facility. The consortium will include universities, national laboratories, and industry members. The facility will allow for collaborative research projects of the consortium that is partially funded with federal funds through the award and proprietary research projects in which a user or group of users will pay a user fee that represents the total cost for its use of the facility.

The intent for both awards is that facilities will become self-sufficient by the end of the award, (*i.e.*, continue to operate after the end of the award period without the need of additional federal funding). In both cases, the intent is that the facilities will be collecting adequate user fees or member dues to cover the operational cost of running the facilities.

DOE believes the establishment of these two research and development facilities in the U.S. will help to address the lack of domestic PV manufacturing, develop a highly trained workforce in the U.S. with the critical required skills, and speed the implementation of new cutting edge technologies. An increase in domestic PV manufacturing will increase competition in the PV field between foreign and domestic manufacturers. However, in order for the facilities to achieve long-term success, including self-sufficiency, the facilities must be able to attract a broad range of users to the facilities.

A "proprietary user" is a user that is fully funding its use of the facility without any federal funds and provides full cost recovery to the facility including any administrative and labor cost incurred by the facility from use of the facility by the user.[3] Each proprietary user will enter into an agreement with the facility that will govern the terms and conditions of the use of the facility, including the fee that provides full cost recovery to the facility ("proprietary user agreement").

The primary purpose of the proprietary user agreement is for use of the facility for the private benefit of the user. Any public gain from the private use of the facility is only an indirect benefit and no property or services are being obtained for the direct benefit or use by the Federal Government. Therefore, a proprietary user agreement does not take the form of a research contract, cooperative

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[2] A primary partner for this proposal and consortium is SEMATECH. Therefore this award is sometimes referred to as the "SEMATECH award."

[3] Under the SEMATECH award, the members of the consortium conducting collaborative research projects of the consortium are not proprietary users because the collaborative research projects are partly funded by federal funds through the PVMI award.

agreement, or grant as these terms are used in the Federal Grant and Cooperative Agreement Act of 1977[4] and implementing guidance by OMB and OFPP. Also, a proprietary user agreement does not fall under the definition of a "funding agreement" under the Bayh-Dole Act[5] because, under the full cost recovery model, the Federal Government is not funding, in whole or part, the use of the facility by the user.

However, a proprietary user agreement may fall under the broad definition of contract of DOE's Federal Nonnuclear Energy Research and Development Act of 1974 ("Nonnuclear Act").[6] The Nonnuclear Act defines a contract as "any contract, grant, agreement, understanding or arrangement, which includes research, development, or demonstration work, and includes any...subcontract executed or entered into thereunder." Although the proprietary user is paying full cost for its use, the proprietary user is using a facility furnished with equipment that was obtained with DOE assistance and operated, during the period of the award, with some federal funds. This may be viewed as an "understanding or arrangement" under the Nonnuclear Act.

The Nonnuclear Act vests title in the U.S. to any invention made or conceived in the course of or under the understanding or arrangement. However, under the Nonnuclear Act and DOE regulations regarding patent waivers,[7] DOE may waive the rights of the U.S. upon a determination that such a waiver would best serve the interests of the U.S. and the general public. In making such a determination, DOE is required to consider a number of objectives and factors listed in the Nonnuclear Act and DOE regulations waiver.

DOE has considered each of these objectives and factors and has determined that this waiver is warranted. The objectives and factors include promoting the commercialization of subject inventions, increasing competition, and attaining DOE programmatic goals. The intent of the facilities is to provide resources to the domestic PV industry to speed the implementation or commercialization of new cutting edge technologies. The use of the new cutting edge technologies should allow more competition between U.S. and foreign manufacturers and achieve DOE's goal of supporting a robust domestic manufacturing base. Therefore, supporting the long-term success of the facilities also supports many of the same objectives and factors of a patent waiver.

However, as noted earlier, the long-term success of the facilities, depend of the ability of the facilities to attract proprietary users. DOE believes that this waiver will help to attract proprietary users to the facilities. From the proprietary user's perspective, it is paying full cost for its work at the facility without any federal funding or assistance. Therefore the proprietary user is expecting to take title to any results, including subject inventions, from its work. Indeed the model of the facility is to allow proprietary users to work in an intellectual property secure environment in which the proprietary users' work is protected and for the sole benefit of the proprietary users. Any change to this model or the proprietary users' expectation will make it less likely for proprietary users to use the facilities. Without a

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[4] 31 U.S.C. §§ 6303-05
[5] 35 U.S.C. §§ 200-212
[6] 42 U.S.C. § 5908
[7] *Id.* and 10 C.F.R. Part 784

broad proprietary user base, the facilities are less likely to collect sufficient fees to ensure the continual operation of the facilities.

A proprietary user is paying for the total cost for its use of one of the facilities without federal funding. The proprietary user willingness to pay total cost is a strong indicator that the proprietary user is committed to the commercialization of any inventions conceived of or made during its use of the facility. In fact, the intent is that a proprietary user would use one of the facilities in order to facilitate the proprietary user's commercialization efforts. Therefore, encouraging proprietary users to use the facilities not only supports the long-term success of the facilities, it also encourages the commercialization of certain technology in the U.S., which is another strong consideration for the granting of this waiver.

In view of the foregoing, to the extent that the U.S. has rights to any inventions of a proprietary user conceived of or made during the use of the facilities described herein, DOE waives those rights of the U.S. However, this waiver is conditioned upon the proprietary user reporting the waived inventions to DOE. Specifically, in order for a proprietary user to avail itself of this waiver, the proprietary user must comply with the reporting requirement of the Nonnuclear Act.[8]

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[8] See 42 U.S.C. § 5908(b)

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 rights as set forth herein, and, therefore, the waiver is granted. This waiver shall not affect any waiver previously granted.

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