

## STATEMENT OF CONSIDERATIONS

### CLASS WAIVER OF PATENT RIGHTS TO INVENTIONS MADE UNDER CERTAIN OFFICE OF FOSSIL ENERGY AND CARBON MANAGEMENT (FECM) FUNDING OPPORTUNITY ANNOUNCEMENTS RELEASED DURING OR AFTER FISCAL YEAR 2022 W(C) 2021-001

This is a class patent waiver of the Government's right to title in inventions made or conceived by a domestic large business in the course of or under a FECM financial assistance (FA) agreement selected through a funding opportunity announcement (FOA) released by FECM during or after fiscal year 2022. The waiver is granted in extendable one (1) year terms beginning the first day of fiscal year 2022 and will be automatically extended at the beginning of each subsequent fiscal year unless cancelled or superseded by the Assistant General Counsel for Technology Transfer and Intellectual Property. To ensure appropriate program cognizance, each year, approximately 60 days prior to the beginning of the next fiscal year, a memo similar to the one in Attachment B, will be sent to FECM providing notice that the class waiver will renew on October 1, unless objected to by the Assistant Secretary for FECM.

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 and is not owned, controlled, or influenced by a foreign government, agency, firm, corporation or person. The requirement that the recipient, or subrecipient at any tier be a domestic entity may be waived by DOE Patent Counsel with program concurrence. 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.

DOE takes title to inventions made or conceived by a 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 FECM widely available to the public in the shortest time; (2) promote the commercialization of FECM-funded inventions; (3) encourage participation in the programs funded by FECM; and (4) encourage competition.

DOE may grant an advance patent waiver for a particular recipient or a class patent waiver for a class of recipients. 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 a FECM FA agreement constitute a class of recipients 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 addressed 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 a FECM FA agreement:

- (a) The extent to which the participation of the recipient will expedite the attainment of the purposes of the program.

Each FECM program issues FOAs for work in areas that the program has determined will help provide clean, secure and affordable energy with its respective technology so that the technology will be more broadly adopted and used worldwide.

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 recipient.

The Government waiving patent rights encourages participation in FECM 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 recipients, including domestic large businesses, under Executive Order 12591, to the extent permitted by law. However, Section 9 of the Federal Non-nuclear Energy 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 FECM funding agreements and so the right for large businesses to retain title to subject inventions must be granted through the patent waiver process. Nonetheless, 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 FECM FA 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 FA agreement is useful in the production or utilization of special nuclear material or atomic energy.

FECM programs are focused on fossil energy technologies. It is highly unlikely that the work under a FECM FA agreement would be useful in the production or utilization of special nuclear material or atomic energy.

- (d) The extent to which the recipient'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 its subject inventions.

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 when 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 recipients. This same reasoning also applies to domestic large businesses under FECM FA agreements.

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

The Government has made significant and strategic contributions to fossil energy and carbon management 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 FA agreement, it is typical that the work under the 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.

- (e) The purpose and nature of the FA agreement, including the intended use of the results developed thereunder.

FECM agreements selected through a 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 purposes of the FECM FA agreements help the United States meet its continually growing need for secure, reasonably priced and environmentally sound fossil energy. Granting a waiver encourages participation and supports commercialization of the technologies. Therefore, granting a patent waiver is consistent with the purpose of the FECM FA agreements.

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

Under FECM FA agreements, domestic large businesses are usually required to meet certain cost share requirements. For example, under Section 988 of the Energy Policy Act of 2005, as amended, 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 FA agreement related to the technology being developed under the FECM agreement. The past and anticipated future investment varies with the domestic large business. However, based on past patent waiver requests, it is typical that the work to be done under a FA 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 FA agreement. In any event, patent waivers are subject to march-in rights that would require licensing the subject inventions to others if the large business fails to make reasonable commercialization efforts.

- (h) The extent to which the field of technology to be funded under the FA agreement has been developed at the recipient'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, and additionally, to further fund the field of technology at its private expense.

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

A particular large business may receive additional federal funding related to technology developed under a FECM FA agreement. However, it would be unusual for the Government to conduct any commercialization efforts on a technology developed by a

large business under a FECM FA agreement without the entity that developed the technology. Furthermore, as recognized by Bayh-Dole, any effort to commercialize a technology is most effective when the commercialization is done by the entity that developed the technology.

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

The purpose of FECM FA agreements is to help the United States meet its continually growing need for secure, reasonably priced and environmentally sound fossil energy. The adoption of fossil energy technologies would indirectly benefit the public health, safety and welfare through the use of more environmentally friendly and domestic sources of energy. Granting a patent waiver should expedite the adoption of fossil energy technologies. Therefore, granting a patent 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, fossil energy must compete with other sources of energy, including renewable energy that has substantially less or no harmful emissions. Within fossil energy, the different types of technologies (*e.g.*, clean coal, oil, natural gas, carbon sequestration, engine efficiency, etc.) compete among themselves. Moreover, even within a particular type of technology, there are typically several different approaches and systems competing among themselves.

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 on 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 recipient 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. This class patent waiver will be subject to the standard U.S. competitiveness provision.

Historically DOE has agreed to the proposition that domestic large businesses qualify for advance patent waivers under FECM FA agreements because the objectives and considerations set forth in the DOE patent waiver regulations are usually met by domestic large businesses. For example, DOE has granted advance patent waivers for at least 47 domestic large businesses under FECM FA agreements in FY2012, FY 2013 and FY 2014. DOE did not reject any request for a patent waiver during that time. DOE also has used class patent waivers for several FECM FOAs over many years, including for various clean coal technologies demonstration FOAs; DOE's Office of Energy Efficiency and Renewable Energy (EERE) FOAs during the American Recovery Act; and for all Advanced Research Projects Agency – Energy (ARPA-E) awards under several FOAs. Moreover, DOE granted similar class patent waivers for EERE FOAs released since FY2013 as well as FECM FOAs released between FY2015 and FY2016, and between FY2017 and FY 2021. DOE's past practice is consistent with the above analysis that domestic large businesses working under a cost-shared financial assistance agreement made as a result of a FECM FOA released during or after fiscal year 2022 would qualify for advanced patent waivers with DOE's standard patent waiver terms, including the U.S. Competitiveness clause requiring substantial U.S. manufacture.

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 patent waiver also includes the following U.S. Competitiveness clause:

The Recipient agrees that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the Recipient can show to the satisfaction of DOE that it is not commercially feasible. 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., alternative binding commitments to provide an overall net benefit to the U.S. economy. The Recipient agrees that it will not license, assign or otherwise transfer any subject invention to any entity, at any tier, unless that entity agrees to these same requirements. Should the Recipient or other such entity receiving rights in the invention(s): (1) undergo a change in ownership amounting to a controlling interest, or (2) sell, assign, or otherwise transfer title or exclusive rights in the invention(s), then the assignment, license, or other transfer of rights in the subject invention(s) is/are suspended until approved in writing by DOE. The Recipient and any successor assignee will convey to DOE, upon written request from DOE, title to any subject invention, upon a breach of this paragraph. The Recipient will include this paragraph in all subawards/contracts, regardless of tier, for experimental, developmental or research work.


The terms and conditions of this class patent waiver are the standard terms and conditions used in DOE advance patent waivers except that the recipient does not retain any rights to a subject invention in the event that the above U.S. Competitiveness clause or the subject invention utilization reporting requirement is breached.

In the unlikely event that this class patent waiver will not best serve the interests of the United States and the general public for work under a particular FECM FOA, as described above and in the DOE patent waiver regulations, the FECM FOA will include a statement that the FECM class patent waiver does not apply. A domestic large business working under a FECM FOA excluded from this class patent waiver may later petition for an advanced or identified patent waiver.

Unless otherwise specified in a specific FECM FOA, this class patent waiver is automatic and available to any domestic large business that (1) is a recipient, or subrecipient at any tier, to a FA agreement issued under a FECM FOA released during or after fiscal year 2022, (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), and (3) accepts the terms and conditions of the class patent waiver. A large business, whether a recipient or sub-recipient, that does not accept the terms of this waiver, or is otherwise ineligible (*e.g.*, specifically excluded in the FECM FOA or owned, controlled, or influenced by a foreign government, agency, firm, corporation or person), may petition for an advanced or identified patent waiver. The requirement that the recipient, or subrecipient at any tier be a domestic entity may be waived by DOE Patent Counsel with program concurrence.

Unless otherwise specified in a specific FECM FOA or instructed by DOE patent counsel, this class patent waiver shall be incorporated into each FA agreement issued under a FECM FOA released during or after fiscal year 2022 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. Unless otherwise specified in the FECM FOA or instructed by DOE patent counsel, this class patent waiver shall also apply to any domestic large business who is a sub-recipient (at any tier), including a sub recipient to a DOE Laboratory, of such a FA agreement. The sub-recipient must accept the terms and conditions of the class patent waiver and provide at least the statutory minimum cost share for the work assigned to it under the funding agreement. The requirement that the subrecipient be a domestic entity may be waived by DOE Patent Counsel with program concurrence.


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 patent 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.

  
Michael J. Dobbs  
Deputy Chief Counsel  
Intellectual Property Law

Date: 9/28/2021


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:

  
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Jennifer Wilcox  
Acting Assistant Secretary  
Office of Fossil Energy and  
Carbon Management

Date: 09/29/2021

APPROVAL:

  
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Brian J. Lally  
Assistant General Counsel  
Technology, Transfer, and  
Intellectual Property, GC-62

Date: 09.29.21



## **Attachment A – Terms and Conditions of FE Class Patent Waiver**

### **Patent Rights - Waiver (10 C.F.R. 784, DOE Patent Waiver Regulations) (7/9/2020)**

(a) Definitions.

As used in this clause:

Background patent means a domestic patent covering an invention or discovery which is not a Subject Invention and which is owned or controlled by the Recipient at any time through the completion of this contract:

- (i) Which the Recipient, but not the Government, has the right to license to others without obligation to pay royalties thereon, and
- (ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this contract.

Contract means any contract, grant, agreement, understanding, or other arrangement, which includes research, development, or demonstration work, and includes any assignment or substitution of parties.

DOE patent waiver regulations means the Department of Energy patent waiver regulations at 10 CFR Part 784.

Invention as used in this clause, means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code or any novel variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321 *et seq.*).

Made when used in relation to any invention means the conception or first actual reduction to practice of such invention.

Nonprofit organization means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

Patent Counsel means the Department of Energy Patent Counsel assisting the procuring activity.

Practical application means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the

public on reasonable terms.

Secretary means the Secretary of Energy.

Small business firm means a small business concern as defined at Section 2 of the Pub. L. 85-536 (15

U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

Subject invention means any invention of the Recipient conceived or first actually reduced to practice in the course of or under this contract, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act (7 U.S.C. 2401(d)) must also occur during the period of contract performance.

(b) Allocation of principal rights.

Whereas DOE has granted a waiver of rights to subject inventions to the Recipient, the Recipient may elect to retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. §§ 202 and 203. With respect to any subject invention in which the Recipient elects to retain title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention disclosure, election of title, and filing of patent applications by Recipient.

(1) The Recipient shall disclose each subject invention to the Patent Counsel within six months after conception or first actual reduction to practice, whichever occurs first in the course of or under this contract, but in any event, prior to any sale, public use, or public disclosure of such invention known to the Recipient. The disclosure to the Patent Counsel shall be in the form of a written report and shall identify the inventors and the contract under which the invention was made. It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and physical, chemical, biological, or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale, or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the Patent Counsel, the Recipient shall promptly notify the Patent Counsel of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Recipient.

(2) The Recipient shall elect in writing whether or not to retain title to any such invention by notifying the Patent Counsel at the time of disclosure or within 8 months of disclosure, as to those countries (including the United States) in which the Recipient will retain title; provided, that in any case where publication, on sale, or public use has initiated the 1-year statutory period wherein valid patent protection can still be obtained in the United States, the

period of election of title may be shortened by the Agency to a date that is no more than 60 days prior to the end of the statutory period. The Recipient shall notify the Patent Counsel as to those countries (including the United States) in which the Recipient will retain title not later than 60 days prior to the end of the statutory period.

(3) The Recipient will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, at least 60 days prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. If the Recipient files a provisional application as its initial patent application, it shall file a non-provisional application within 10 months of the filing of the provisional application. The Recipient will file patent applications in additional countries or international patent offices within either ten months of the first filed patent application or six months from the date permission is granted by the Commissioner of Patents to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure to the Patent Counsel, election, and filing may, at the discretion of DOE, be granted, and will normally be granted unless the Patent Counsel has reason to believe that a particular extension would prejudice the Government's interest.

(d) Conditions when the Government may obtain title notwithstanding an existing waiver. The Recipient shall assign and hereby assigns to DOE, , title to any subject invention--

(1) If the Recipient elects not to retain title to a subject invention;

(2) If the Recipient fails to disclose or elect the subject invention within the times specified in paragraph (c) of this clause;

(3) In those countries in which the Recipient fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Recipient has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior to its receipt of the written request of DOE, the Recipient shall continue to retain title in that country;

(4) In any country in which the Recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention;

(5) If the waiver authorizing the use of this clause is terminated as provided in paragraph (p) of this clause; or

(6) Upon a breach of paragraph (h) or paragraph (t) of this clause.

(e) Minimum rights to Recipient when the Government retains title.

(1) The Recipient shall retain a nonexclusive, royalty-free license throughout the world in

each subject invention to which the Government obtains title under paragraph (d) of this clause except if the Recipient fails to disclose the subject invention within the times specified in paragraph (c) of this clause or breaches or paragraph (h) or (t). The Recipient's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Recipient is a part and includes the right to grant sublicenses of the same scope to the extent the Recipient was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the Recipient's business to which the invention pertains.

(2) The Recipient's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions in 37 CFR part 404 and DOE licensing regulations. This license shall not be revoked in that field of use or the geographical areas in which the Recipient has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Recipient, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, DOE shall furnish the Recipient a written notice of its intention to revoke or modify the license, and the Recipient shall be allowed 30 days (or such other time as may be authorized by DOE for good cause shown by the Recipient) after the notice to show cause why the license should not be revoked or modified. The Recipient has the right to appeal, in accordance with applicable agency licensing regulations and 37 CFR part 404 concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.

(f) Recipient action to protect the Government's interest.

(1) The Recipient agrees to execute or to have executed and promptly deliver to DOE all instruments necessary to:

(i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Recipient elects to retain title, and

(ii) convey title to DOE in subject inventions when DOE obtains title pursuant to paragraphs (d) and (n)(2) of this clause, and to enable the Government to obtain patent protection throughout the world in that subject invention.

(2) The Recipient agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Recipient each subject invention made under contract in order that the Recipient can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information

required by paragraph (c)(1) of this clause. The Recipient shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) Not less than 60 days before the expiration of any period required by the relevant patent office (including all extension requests available as a matter of right by the relevant patent office), the Recipient shall notify Patent Counsel of any decision not to:

- (i) continue the prosecution of a patent application;
- (ii) file a U.S. non-provisional patent application within the statutory period for claiming priority to the initial patent application; and
- (iii) pay maintenance fees or defend in a reexamination or opposition proceeding on a patent, in any country.

(4) The Recipient agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement: "This invention was made with Government support under (identify the contract) awarded by DOE. The Government has certain rights in this invention."

(5) The Recipient shall establish and maintain active and effective procedures to assure that subject inventions are promptly identified and disclosed to Recipient personnel responsible for patent matters within 6 months of conception and/or first actual reduction to practice, whichever occurs first in the course of or under this contract. These procedures shall include the maintenance of laboratory notebooks or equivalent records and other records as are reasonably necessary to document the conception and/or the first actual reduction to practice of subject inventions, and records that show that the procedures for identifying and disclosing the inventions are followed. Upon request, the Recipient shall furnish the Patent Counsel a description of such procedures for evaluation and for determination as to their effectiveness.

(6) The Recipient agrees, when licensing a subject invention, to arrange to avoid royalty charges on acquisitions involving Government funds, including funds derived through Military Assistance Program of the Government or otherwise derived through the Government; to refund any amounts received as royalty charges on the subject invention in acquisitions for, or on behalf of, the Government; and to provide for such refund in any instrument transferring rights in the invention to any party.

(7) The Recipient shall furnish the Patent Counsel the following:

- (i) Interim reports every 12 months (or such longer period as may be specified by the Patent Counsel) from the date of the contract, listing subject inventions during that period and certifying that all subject inventions have been disclosed or that there are no such inventions.

- (ii) A final report, within 3 months after completion of the contracted work, listing all subject inventions or certifying that there were no such inventions, and listing all subcontracts at any tier containing a patent rights clause or certifying that there were

no such subcontracts.

(8) The Recipient shall promptly notify DOE in writing upon the award of any subcontract at any tier containing a patent rights clause by identifying the subrecipient, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of DOE, the Recipient shall furnish a copy of such subcontract, and no more frequently than annually, a listing of the subcontracts that have been awarded.

(9) The Recipient shall provide the filing date, serial number and title, a copy of the patent application (including an English-language version if filed in a language other than English), and patent number and issue date for any subject invention for which the Recipient has retained title.

(10) Upon request, the Recipient shall furnish the Government an irrevocable power to inspect and make copies of the patent application file.

(g) Subcontracts.

Unless otherwise directed by the Contracting Officer, the Recipient shall include the clause at 37 CFR 401.14, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, or research work to be performed by a small business firm or nonprofit organization, except where the work of the subcontract is subject to an Exceptional Circumstances Determination by DOE. If “Department of Energy Determination of Exceptional Circumstances under the Bayh-Dole Act to Further Promote Domestic Manufacture of DOE Science and Energy Technologies” issued 6/7/2021 is applicable paragraph (t) U.S. Competitiveness must be included in the subrecipient’s patent clause as paragraph (m) U.S. Competitiveness. Additionally, the following item (4) must be added to paragraph (d) of the subrecipient’s patent clause “(4) Upon a breach of paragraph (m) U.S. Competitiveness of this clause.” In all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work, the Recipient shall include the patent rights clause at 48 CFR 952.227- 13 (suitably modified to identify the parties).

(1) The Recipient shall not, as part of the consideration for awarding the subcontract, obtain rights in the subrecipient's subject inventions.

(2) In the case of subrecipient s at any tier, the Department, the subrecipient, and Recipient agree that the mutual obligations of the parties created by this clause constitute a contract between the subrecipient and the Department with respect to those matters covered by this clause.

(h) Reporting on utilization of subject inventions.

(1) The Recipient agrees to submit annual reports on the utilization of each waived subject invention or on efforts at obtaining such utilization that are being made by the Recipient and any of its licensees or assignees including compliance with paragraph (t) of this clause. Each

report shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Recipient, products that embody or are made through the use of the waived subject invention, manufacturing locations of such products and such other data and information as DOE may reasonably specify.

(2) The Recipient also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceedings undertaken by DOE in accordance with paragraph (j) of this clause.

(3) To the extent data or information supplied under this paragraph is considered by the Recipient, its licensee or assignee to be privileged and confidential and is so marked, DOE agrees that, to the extent permitted by law, it shall not disclose such information to persons outside the Government.

(i) Preference for United States industry.

Notwithstanding any other provision of this clause, the Recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in rights.

The Recipient agrees that with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in 48 CFR 27.304-1(g) to require the Recipient, an assignee, or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Recipient, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that--

(1) Such action is necessary because the Recipient or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Recipient, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Recipient, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Background Patents [reserved]

(l) Communications.

All reports and notifications required by this clause shall be submitted to Patent Counsel, unless otherwise directed by Patent Counsel. For reporting to the Patent Counsel under subsection (c) or and when providing a copy of a patent issued under subsection (f), the Recipient should use the iEdison system or its successor, unless otherwise directed by Patent Counsel.

(m) Other inventions.

Nothing contained in this clause shall be deemed to grant to the Government any rights with respect to any invention other than a subject invention, except with respect to Background Patents, above.

(n) Examination of records relating to inventions.

(1) DOE shall, until 3 years after final payment under this contract, have the right to examine any books (including laboratory notebooks), records, and documents of the Recipient relating to the conception or first actual reduction to practice of inventions in the same field of technology as the work under this contract to determine whether--

(i) Any such inventions are subject inventions;

(ii) The Recipient has established and maintains the procedures required by paragraphs (f)(2) and (f)(5) of this clause; and

(iii) The Recipient and its inventor have complied with the procedures.

(2) If DOE learns of an unreported Recipient invention which DOE believes may be a subject invention, the Recipient may be required to disclose the invention to DOE for a determination of ownership rights.

(3) Any examination of records under this paragraph shall be conducted in such a manner as to protect the confidentiality of the information involved.

(o) Withholding of payment.

NOTE: This paragraph does not apply to subcontracts or grants.

(1) Any time before final payment under this contract, the Contracting Officer may, in the Government's interest, withhold payment until a reserve not exceeding \$50,000 or 5 percent of



the amount of the contract, whichever is less, shall have been set aside if, in the Contracting Officer's opinion, the Recipient fails to--

- (i) Establish, maintain, and follow effective procedures for identifying and disclosing subject inventions pursuant to paragraph (f)(5) of this clause;
- (ii) Disclose any subject invention pursuant to paragraph (c)(1) of this clause;
- (iii) Deliver acceptable interim reports pursuant to paragraph (f)(7)(I) of this clause;
- (iv) Provide the information regarding subcontracts pursuant to paragraph (f)(6) of this clause; or
- (v) Convey to the Government, using a DOE-approved form, the title and/or rights of the Government in each subject invention as required by this clause.

(2) Such reserve or balance shall be withheld until the Contracting Officer has determined that the Recipient has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause.

(3) Final payment under this contract shall not be made before the Recipient delivers to the Patent Counsel all disclosures of subject inventions required by paragraph (c)(1) of this clause, an acceptable final report pursuant to paragraph (f)(7)(ii) of this clause, and all past due confirmatory instruments, and the Patent Counsel has issued a patent clearance certification to the Contracting Officer.

(4) The Contracting Officer may decrease or increase the sums withheld up to the maximum authorized above. If the maximum amount authorized above is already being withheld under other provisions of the contract, no additional amount shall be withheld under this paragraph. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(p) Waiver Terminations.

Any waiver granted to the Recipient authorizing the use of this clause (including any retention of rights pursuant thereto by the Recipient under paragraph (b) of this clause) may be terminated at the discretion of the Secretary or his designee in whole or in part, if the request for waiver by the Recipient is found to contain false material statements or nondisclosure of material facts, and such were specifically relied upon by DOE in reaching the waiver determination or the cost share requirement as set forth in the applicable statement of considerations is not met. Prior to any such termination, the Recipient will be given written notice stating the extent of such proposed termination and the reasons therefor, and a period of 30 days, or such longer period as the Secretary or his designee shall determine for good cause shown in writing, to show cause why the waiver of rights should not be so terminated. Any waiver termination shall be subject to the Recipient's minimum license as provided in paragraph (e) of this clause.

(q) Atomic Energy.

No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Recipient or its employees with respect to any invention or discovery made or conceived in the course of or under this contract.

(r) Publication.

It is recognized that during the course of work under this contract, the Recipient or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the Recipient, approval for release of publication shall be secured from Patent Counsel prior to any such release or publication. In appropriate circumstances, and after consultation with the Recipient, Patent Counsel may waive the right of prepublication review.

(s) Forfeiture of rights in unreported subject inventions.

(1) The Recipient shall assign and hereby assigns to the Government, all rights in any subject invention which the Recipient fails to report to Patent Counsel within six months after the time the Recipient:

- (i) Files or causes to be filed a United States or foreign patent application thereon; or
- (ii) Submits the final report required by paragraph (f)(7)(ii) of this clause, whichever is later.

(2) Pending written assignment of the patent application and patents on a subject invention determined by Patent Counsel to be forfeited (such determination to be a Final Decision under the Disputes clause of this contract), the Recipient shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph shall be in addition to and shall not supersede any other rights and remedies which the Government may have with respect to subject inventions.

(t) U. S. Competitiveness

The Recipient agrees that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the Recipient can show to the satisfaction of DOE that it is not commercially feasible. 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., alternative binding commitments to provide an overall net benefit to the U.S. economy. The Recipient agrees that it will not license, assign or otherwise transfer any subject invention to any entity, at any tier, unless that entity agrees to these same requirements. Should the Recipient or other such entity receiving rights in the invention(s): (1) undergo a change in ownership amounting to a controlling interest, or (2) sell, assign, or otherwise transfer title or exclusive rights in the invention(s), then the assignment, license, or other transfer of rights in the subject invention(s) is/are suspended until approved in writing by DOE. The Recipient and any successor assignee will convey to DOE, upon written request from DOE, title to any subject invention, upon a breach of this paragraph. The Recipient will include this paragraph in all subawards/contracts, regardless of tier, for experimental, developmental or research work.

*(End of clause)*