**ATTACHMENT 2:**

**ARPA-E INTELLECTUAL PROPERTY PROVISIONS**

**FOR COOPERATIVE AGREEMENT WITH**

**LARGE BUSINESSES—WAIVER (PATENT RIGHTS)**

**INCLUDING ENHANCED U.S. COMPETITIVENESS IN SUBAWARDS**

1. Patent Rights - (Large Business Firms – Class Waiver issued in accordance with 10 CFR 784); [including U.S. Competitiveness provisions in Section (t)]
2. 2 CFR Part 910, Subpart D, Appendix A, Rights in Data - Programs Covered Under Special Data Statutes (OCT 2003)
3. FAR 52.227-1 Authorization and Consent (DEC 2007) Alternate I (APR 1984)
4. FAR 52.227-2 Notice and Assistance Regarding Patent and Copyright

Infringement (DEC 2007)

 *The above clause is not applicable if the award is for less than $100,000, in aggregate.*

1. Subawards

NOTE: In reading these provisions, any reference to “*contractor*” shall mean “*recipient*,” and any reference to “contract” or “*subcontract*” shall mean “award” or “*subaward*.”

NOTE: Please refer to Attachment 4 (ARPA-E Reporting Checklist and Instructions) for guidance on complying with the intellectual property reporting obligations referenced herein.

1. **Patent Rights -** (Large Business Firms – Class Waiver issued in accordance with

10 CFR 784); [including U.S. Competitiveness provisions in Section (t)]

(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:

1. 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 hereof) 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 shall file its United States patent application on an elected invention within 1 year after election, but not later than 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. The Recipient shall file patent applications in additional countries (including the European Patent Office and under the Patent Cooperation Treaty) within either 10 months of the corresponding initial patent application or 6 months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where foreign 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, upon written request from 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 (provided that DOE may only request title within 60 days after learning of the Recipient's failure to report or elect within the specified times);

(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 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 when requested under 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) The Recipient shall notify DOE of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.

(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 (enter the award number starting with DE-AR) awarded by DOE, Office of ARPA-E. 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 Contracting Officer the following:

(i) Interim reports every 12 months (or such longer period as may be specified by the Contracting Officer) 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 the Contracting Officer 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 the Contracting Officer, 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) In the event of a refusal by a prospective subrecipient to accept one of the clauses in subparagraph (g)(1) or (2) below, the Recipient –

(i) Shall promptly submit a written notice to the Contracting Officer setting forth the subrecipient's reasons for such refusal and other pertinent information that may expedite disposition of the matter; and

(ii) Shall not proceed with such subcontracting without the written authorization of the Contracting Officer.

(10) The Recipient shall provide, upon request, 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.

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

(g) Subcontracts.

(1) See Section 5 of this Attachment 2 for instructions regarding intellectual property provisions, for subawards under this agreement.

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

(3) In the case of subrecipients 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 on request periodic reports no more frequently than annually 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, products that embody or are made through the use of the waived such invention, manufacturing locations of such products and such other data and information as DOE may reasonably specify. The report shall further include a certification from the Recipient that the Recipient, including its licensees, is in compliance with the requirements of this clause.

(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.

 For reporting to the Patent Counsel under subsection (c) in this clause, the Recipient should use iEdison at <https://s-edison.info.nih.gov/iEdison/>. All questions concerning this Patent Rights clause should be sent to the DOE Patent Counsel via email at GC-62@hq.doe.gov.

 (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) The Contracting Officer or any authorized representative 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 the Contracting Officer determines that an inventor has not disclosed a subject invention to the Recipient in accordance with the procedures required by paragraph (f)(5) of this clause, the Contracting Officer may, within 60 days after the determination, request title in accordance with paragraphs (d)(2) and (d)(3) of this clause. However, if the Recipient establishes that the failure to disclose did not result from the Recipient's fault or negligence, the Contracting Officer shall not request title.

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

(4) 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;

1. Disclose any subject invention pursuant to paragraph (c)(1) of this clause;
2. Deliver acceptable interim reports pursuant to paragraph (f)(7)(I) of this clause;
3. 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 forfeit and assign to the Government, at the request of the Secretary of Energy or designee, 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) However, the Recipient shall not forfeit rights in a subject invention if, within the time specified in paragraph (n)(1) of this clause, the Recipient:

(i) Prepares a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract and delivers the decision to Patent Counsel, with a copy to the Contracting Officer; or

(ii) Contending that the subject invention is not a subject invention, the Recipient nevertheless discloses the subject invention and all facts pertinent to this contention to the Patent Counsel, with a copy to the Contracting Officer, or

(iii) Establishes that the failure to disclose did not result from the Recipient's fault or negligence.

(3) Pending written assignment of the patent application and patents on a subject invention determined by the Contracting Officer 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 waived invention or produced through the use of any waived 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 to do so. 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., recoupment of the Government's investment, etc. The Recipient further agrees to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Recipient or other such 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 any waived invention is suspended until approved in writing by DOE.

(End of clause)

**2.**  **2 CFR Part 910, Subpart D, Appendix A, Rights in Data - Programs Covered Under Special Data Statutes (OCT 2003)**

(a) Definitions

*Computer databases*, as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

*Computer software*, as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the computer program to be produced, created or compiled. The term does not include computer data bases.

*Data*, as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to administration, such as financial, administrative, cost or pricing or management information.

*Form, fit, and function data*, as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability as well as data identifying source, size, configuration, mating and attachment characteristics, functional characteristics, and performance requirements except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

*Limited rights data*, as used in this clause, means data (other than computer software) developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged.

*Restricted computer software*, as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and confidential or privileged; or is published copyrighted computer software; including modifications of such computer software.

*Protected data*, as used in this clause, means technical data or commercial or financial data first produced in the performance of the award which, if it had been obtained from and first produced by a non-federal party, would be a trade secret or commercial or financial information that is privileged or confidential under the meaning of 5 U.S.C. 552(b)(4) and which data is marked as being protected data by a party to the award.

*Protected rights*, as used in this clause, mean the rights in protected data set forth in the Protected Rights Notice of paragraph (g) of this clause.

 *Technical data*, as used in this clause, means that data which are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base.

 *Unlimited rights*, as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose whatsoever, and to have or permit others to do so.

(b) Allocation of Rights

1. Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights in-­

(i) Data specifically identified in this agreement as data to be delivered without restriction;

(ii) Form, fit, and function data delivered under this agreement;

* 1. Data delivered under this agreement (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this agreement; and
	2. All other data delivered under this agreement unless provided otherwise for protected data in accordance with paragraph (g) of this clause or for limited rights data or restricted computer software in accordance with paragraph (h) of this clause.
	3. (2) The Recipient shall have the right to:
1. Protect rights in protected data delivered under this agreement in the manner and to the extent provided in paragraph (g) of this clause;

(ii) Withhold from delivery those data which are limited rights data or restricted computer software to the extent provided in paragraph (h) of this clause;

(iii) Substantiate use of, add, or correct protected rights or copyrights notices and to take other appropriate action, in accordance with paragraph (e) of this clause; and

(iv) Establish claim to copyright subsisting in data first produced in the performance of this agreement to the extent provided in subparagraph (c)(1) of this clause.

(c) Copyright

(1) Data first produced in the performance of this agreement. Except as otherwise specifically provided in this agreement, the Recipient may establish, without the prior approval of the Contracting Officer, claim to copyright subsisting in any data first produced in the performance of this agreement. If claim to copyright is made, the Recipient shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including agreement number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For such copyrighted data, including computer software, the Recipient grants to the Government, and others acting on its behalf, a paid-up nonexclusive, irrevocable, worldwide license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government, for all such data.

(2) Data not first produced in the performance of this agreement. The Recipient shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this agreement any data that are not first produced in the performance of this agreement and that contain the copyright notice of 17 U.S.C. 401 or 402, unless the Recipient identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause; provided, however, that if such data are computer software, the Government shall acquire a copyright license as set forth in subparagraph (h)(3) of this clause if included in this agreement or as otherwise may be provided in a collateral agreement incorporated or made a part of this agreement.

1. Removal of copyright notices. The Government agrees not to remove any copyright notices placed on data pursuant to this paragraph (c), and to include such notices on all reproductions of the data.

(d) Release, Publication and Use of Data

1. The Recipient shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Recipient in the performance of this contract, except to the extent such data may be subject to the Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this contract.

(2) The Recipient agrees that to the extent it receives or is given access to data necessary for the performance of this agreement which contain restrictive markings, the Recipient shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the Contracting Officer.

(e) Unauthorized Marking of Data

1. Notwithstanding any other provisions of this agreement concerning inspection or acceptance, if any data delivered under this agreement bears any restrictive or limiting markings not authorized by this agreement, the Contracting Officer may at any time either return the data to the Recipient or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.
	1. The Contracting Officer shall make written inquiry to the Recipient affording the Recipient 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;
	2. If the Recipient fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

(iii) If the Recipient provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer shall consider such written justification and determine whether or not the markings are to be cancelled or ignored. If the Contracting Officer determines that the markings are authorized, the Recipient shall be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer shall furnish the Recipient a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Recipient files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination become final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

1. The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.
2. Omitted or Incorrect Markings
	1. Data delivered to the Government without the limited rights or restricted rights notice as authorized by paragraph (h) of this clause, the protected data notice as authorized in paragraph (g), or the copyright notice required by paragraph (c) of this clause, shall be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Recipient may request, within 6 months (or a longer time approved by the Contracting Officer for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Recipient's expense, and the Contracting Officer may agree to do so if the Recipient:
3. Identifies the data to which the omitted notice is to be applied;

(ii) Demonstrates that the omission of the notice was inadvertent;

1. Establishes that the use of the proposed notice is authorized; and
2. Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.
	1. The Contracting Officer may also:
	2. Permit correction at the Recipient's expense of incorrect notices if the Recipient identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized; or
	3. Correct any incorrect notices.
3. Rights to Protected Data

(1) The Recipient may, with the concurrence of DOE, claim and mark as protected data, any data first produced in the performance of this award that would have been treated as a trade secret if developed at private expense. Any such claimed ”protected data'' will be clearly marked with the following Protected Rights Notice, and will be treated in accordance with such Notice, subject to the provisions of paragraphs (e) and (f) of this clause.

PROTECTED RIGHTS NOTICE

These protected data were produced under agreement no.\_\_\_\_ with the U.S. Department of Energy and may not be published, disseminated, or disclosed to others outside the Government until 10 years after development of information under this agreement, unless express written authorization is obtained from the recipient. Upon expiration of the period of protection set forth in this Notice, the Government shall have unlimited rights in this data. This Notice shall be marked on any reproduction of this data, in whole or in part. (End of notice).

1. Any such marked Protected Data may be disclosed under obligations of confidentiality for the following purposes:

(a) For evaluation purposes under the restriction that the ``Protected Data'' be retained in confidence and not be further disclosed; or

(b) To subrecipients or other team members performing work under the Government's program of which this award is a part, for information or use in connection with the work performed under their activity, and under the restriction that the Protected Data be retained in confidence and not be further disclosed.

(3) The obligations of confidentiality and restrictions on publication and dissemination shall end for any Protected Data.

(a) At the end of the protected period;

(b) If the data becomes publicly known or available from other sources without a breach of the obligation of confidentiality with respect to the Protected Data;

(c) If the same data is independently developed by someone who did not have access to the Protected Data and such data is made available without obligations of confidentiality; or

* 1. If the Recipient disseminates or authorizes another to disseminate such data without obligations of confidentiality.

(4) However, the Recipient agrees that the following types of data are not considered to be protected and shall be provided to the Government when required by this award without any claim that the data are Protected Data. The parties agree that notwithstanding the following lists of types of data, nothing precludes the Government from seeking delivery of additional data in accordance with this award, or from making publicly available additional non-protected data, nor does the following list constitute any admission by the Government that technical data not on the list is Protected Data.

* General/high-level descriptions or graphics of off-gas treatment process and equipment, also to include descriptions of expected improvements relative to current state-of-the art technology. This includes descriptions of the hypotheses being tested. General high-level description refers to a non-specific level of detail that does not inform process development details or specifications, or extrapolation of quantitative performance characteristics.
* General descriptions of physics and chemistry being modeled, and the high-level approach being used to determine, design, and build commercially viable off-gas treatment process and equipment and processes and to establish relevant regulatory frameworks.
* Summary of results of off-gas treatment process and equipment testing, including experimental set-up, and comparison to SOA and project goals.
* Summary of design and measurements of noble gas treatment using metal-organic frameworks
* Summary of results from system integration and testing
* Summary of results from waste stream and waste form assessments.
* Qualitative description of the results from techno-economic analysis.  All results will be presented relative versus absolute term (e.g., %cost relative to current state-of-the-art technology), unless mutually agreed upon by the ARPA-E project Program Director and the awardee.
* On an ad hoc basis, any data and/or information mutually determined by the ARPA-E project Program Director and awardee to be critical and important for ARPA-E to use in both internal DOE and external communications, reports, etc.
* All data and information publicly released by the performer team, such as through journal articles, workshop and conference presentations, press releases, and social media

(5) The Government's sole obligation with respect to any protected data shall be as set forth in this paragraph (g).

1. Protection of Limited Rights Data

When data other than that listed in subparagraphs (b)(1)(i), (ii), and (iii) of this clause are specified to be delivered under this agreement and such data qualify as either limited rights data or restricted computer software, the Recipient, if the Recipient desires to continue protection of such data, shall withhold such data and not furnish them to the Government under this agreement. As a condition to this withholding the Recipient shall identify the data being withheld and furnish form, fit, and function data in lieu thereof.

(i) Subaward/Contract

The Recipient has the responsibility to obtain from its subrecipients/contractors all data and rights therein necessary to fulfill the Recipient's obligations to the Government under this agreement. If a subrecipient/contractor refuses to accept terms affording the Government such rights, the Recipient shall promptly bring such refusal to the attention of the Contracting Officer and not proceed with subaward/contract award without further authorization. See Section 5 of this Attachment 2 for instructions regarding intellectual property provisions for subawards under this agreement.

(j) Additional Data Requirements

In addition to the data specified elsewhere in this agreement to be delivered, the Contracting Officer may, at any time during agreement performance or within a period of 3 years after acceptance of all items to be delivered under this agreement, order any data first produced or specifically used in the performance of this agreement. This clause is applicable to all data ordered under this subparagraph. Nothing contained in this subparagraph shall require the Recipient to deliver any data the withholding of which is authorized by this clause or data which are specifically identified in this agreement as not subject to this clause. When data are to be delivered under this subparagraph, the Recipient will be compensated for converting the data into the prescribed form, for reproduction, and for delivery.

(k) The Recipient agrees, except as may be otherwise specified in this agreement for specific data items listed as not subject to this paragraph, that the Contracting Officer or an authorized representative may, up to three years after acceptance of all items to be delivered under this contract, inspect at the Recipient's facility any data withheld pursuant to paragraph (h) of this clause, for purposes of verifying the Recipient's assertion pertaining to the limited rights or restricted rights status of the data or for evaluating work performance. Where the Recipient whose data are to be inspected demonstrates to the Contracting Officer that there would be a possible conflict of interest if the inspection were made by a particular representative, the Contracting Officer shall designate an alternate inspector.

**3. FAR 52.227-1 Authorization and Consent (Dec 2007)-Alternate I (APR 1984)**

(a) The Government authorizes and consents to all use and manufacture of any invention described in and covered by a United States patent in the performance of this contract or any subcontract at any tier.

(b) The Recipient shall include the substance of this clause, including this paragraph (b), in all subcontracts that are expected to exceed the simplified acquisition threshold. However, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.

(End of clause)

**4. FAR 52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement (Dec 2007)**

(a) The Recipient shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Recipient has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in the Recipient's possession pertaining to such claim or suit. Such evidence and information shall be furnished at the expense of the Government except where the Recipient has agreed to indemnify the Government.

(c) The Contractor shall include the substance of this clause, including this paragraph (c), in all subcontracts that are expected to exceed the simplified acquisition threshold.

(End of clause)

**5. Subawards**

(a) Small Business Subawardees: The Recipient shall incorporate all of the intellectual property provisions found in Attachment 2 (Domestic Small Businesses) INCLUDING ENHANCED U.S. COMPETITIVENESS of the ARPA-E Model Cooperative Agreement (published at <http://arpa-e.energy.gov/>) in all subawards with domestic small businesses. In incorporating the above-referenced intellectual property provisions, the Recipient shall expressly require compliance with their terms and conditions.

(b) University and Nonprofit Organization Subawardees: The Recipient shall incorporate all of the intellectual property provisions found in Attachment 2 (Domestic Universities and Nonprofit Organizations INCLUDING ENHANCED U.S. COMPETITIVENESS) of the ARPA-E Model Cooperative Agreement (published at <http://arpa-e.energy.gov/>) into all subawards with domestic universities or domestic nonprofit organizations. In incorporating the above-referenced intellectual property provisions, the Recipient shall expressly require compliance with their terms and conditions.

(c) Large Business and Foreign Entity Subawardees:

(1) If a large business receiving a subaward provides cost sharing of at least 20% under its subaward the Recipient shall incorporate all of the intellectual property provisions found in this Attachment 2 (Large Businesses)—Waiver (Patent Rights) INCLUDING ENHANCED U.S. COMPETITIVENESS IN SUBAWARDS of the ARPA-E Model Cooperative Agreement (published at http://arpa-e.energy.gov/) into its subaward with the large business.

(2) If a large business receiving a subaward does not provide cost sharing of at least 20% under its subaward or a foreign entity receiving a subaward, the Recipient shall incorporate all of the intellectual property provisions found in Attachment 2 (Large Businesses)—No Waiver (Patent Rights) INCLUDING ENHANCED U.S. COMPETITIVENESS IN SUBAWARDS of the ARPA-E Model Cooperative Agreement (published at http://arpa-e.energy.gov/) into its subaward with the large business or foreign entity. Upon request to Patent Counsel for good cause shown, the right to use the Attachment 2 (Large Businesses)—Waiver (Patent Rights) INCLUDING ENHANCED U.S. COMPETITIVENESS IN SUBAWARDS in the award to the large business or foreign entity may be granted.

(3) In incorporating the above-referenced intellectual property provisions, the Recipient shall expressly require compliance with their terms and conditions.

(d) Subaward Unlimited Rights Data List: For any subaward/subcontract with a for-profit entity (including subcontracts with for-profit vendors) for experimental, developmental or research work, the Recipient will insert the unlimited rights data list found in paragraph (g)(4) under the Rights in Data clause into the corresponding Rights in Data provision in the subaward/subcontract.

(End of clause)