#### STATEMENT OF CONSIDERATIONS

CLASS WAIVER OF THE GOVERNMENT'S DOMESTIC AND FOREIGN PATENT RIGHTS ARISING FROM THE USE OF DOE GOVERNMENT-OWNED, GOVERNMENT-OPERATED FACILITY, NATIONAL ENERGY TECHNOLOGY LABORATORY, UNDER A CONTRIBUTED FUNDS AGREEMENT: DOE WAIVER NO. W(C)-2024-005.

This class patent waiver applies to research and development activities and technical services and studies performed at the Department of Energy's ("DOE's") National Energy Technology Laboratory ("NETL"), a Government-Owned, Government-Operated ("GOGO") facility, under a Contributed Funds Agreement ("CFA" or "Agreement") that is fully funded by a non-Federal sponsor. NETL has authority under 42 U.S.C. § 7278 "to accept lands, buildings, equipment, and other contributions from public and private sources and to prosecute projects in cooperation with other agencies, Federal, State, private, or foreign." NETL uses a CFA to implement this statute and perform fully funded work for a non-Federal sponsor.

This is a class patent waiver of the DOE's rights to title in any invention conceived or first actually reduced to practice under an Agreement fully funded by a non-Federal sponsor under the authority of the Atomic Energy Act of 1954, as amended, (42 U.S.C. § 2182), and section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. § 5908) and the patent waiver regulations at 10 C.F.R. Part 784 promulgated thereunder.

Under an Agreement, NETL makes Federal employees, contractors, subcontractors and/or facilities accessible to non-Federal sponsors and provides for full cost reimbursement of NETL's associated costs resulting from the work. A class patent waiver is necessary to permit a non-Federal sponsor to have the option to elect title to inventions made by NETL Federal employees, as well as NETL site support contractors and subcontractors, under an Agreement that is fully funded by the non-Federal sponsor.

Over the years, DOE has a history of granting patent waivers to non-Federal sponsors who fully fund work at DOE facilities and resources.1

### **DOE'S NETL FACILITY**

DOE considers NETL to be a unique and valuable national resource that should be made available to the extent feasible for non-Federal research and development activities and technical services and studies. NETL drives innovation and delivers solutions for an environmentally sustainable and prosperous energy future, ensuring affordable, abundant, and reliable energy that propels a robust economy and national security while developing technologies to manage carbon across the full life cycle and enabling environmental sustainability. NETL's core competencies include Computational Sciences and Engineering, Materials Engineering and Manufacturing,

<sup>&</sup>lt;sup>1</sup> See Patent Waiver W(A)-82-017 issued on June 3, 1982, granting title to the third-party sponsors for inventions arising from the use of DOE Government-Owned Contractor-Operated (GOCO) facilities and resources through a Work for Others Agreement which was fully funded by the third-party sponsor. Similarly, see also class patent waiver W(C)-2011-009 issued in May 2012 under similar third party fully funded agreements arising from the use of DOE GOCO facilities and resources.

Geological and Environmental Systems, Energy Conversion Engineering, and Strategic Systems Analysis and Engineering. NETL conducts a variety of research activities and programs including carbon management, resource sustainability, key lab initiatives, energy technology development, direct air capture center, net-zero laboratory, hydrogen research and development, and methane emissions reduction program.

NETL supports non-Federal sponsors in their commercialization of technologies relevant to DOE's and NETL's missions, and, where appropriate, to other than mission-related activities that are fully funded by a non-Federal sponsor by providing access to NETL's unique facilities and expertise.

### NEED FOR A CLASS PATENT WAIVER

Under the broad title vesting authorities of the Atomic Energy Act of 1954, as amended, (42 U.S.C. § 2182), and Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. § 5908), DOE takes title to inventions made or conceived in the course of or under "any contract, grant, agreement, understanding, or other arrangement, which includes research, development, or demonstration work," with DOE unless the DOE waives its rights to such title via its patent waiver authority, or because another statutory authority specifically supersedes the default title vesting authority provided in sections 2182 and 5908.<sup>2</sup> This includes inventions conceived or first actually reduced to practice under an Agreement ("Subject Invention").

Absent such a patent waiver, a non-Federal sponsor that wishes to obtain title for inventions conceived or first actually reduced to practice under a fully non-Federally funded Agreement is required to submit an advance or identified patent waiver petition, which is reviewed on a case-by-case basis in accordance with DOE patent waiver regulations. The cumbersome nature of the waiver process as well as the delays incurred in its application serve as a barrier to making NETL's facilities and research and development capabilities widely utilized by non-Federal sponsors. Non-Federal sponsors are reluctant to fully fund NETL research work without assurance that they would be afforded adequate rights to Subject Inventions made under an Agreement.

Accordingly, while no statutory mechanism other than Bayh-Dole provides relief from DOE's vesting statutes, it is within the authority provided in DOE's patent waiver regulations for the Assistant General Counsel for Technology Transfer and Intellectual Property to "waive all or any part of the rights of the United States, subject to required terms and conditions, with respect to any invention or class of inventions ... if it is determined that the interests of the United States and the general public will best be served by such a waiver." 10 CFR 784.3.

As explained in detail below, this class patent waiver (i) is appropriate based on DOE patent waiver regulations, 10 CFR 784, (ii) will help implement DOE's and NETL's mission, and (iii) will reduce the administrative burden of both DOE and non-Federal sponsors.

-

<sup>&</sup>lt;sup>2</sup> The title taking rights to nonprofit organizations and small business firms under the Bayh-Dole Act ("Bayh-Dole") do not apply to fully funded non-Federal sponsor Agreements because these Agreements are not funding agreements as defined in 35 U.S.C. § 201(b).

#### PRIMARY CONSIDERATIONS FOR A CLASS PATENT WAIVER

A patent waiver is appropriate when it is determined that the interests of the Government and the general public will best be served with the patent waiver. DOE may grant a class patent waiver when all members of a particular class would likely qualify for an advance patent waiver. As demonstrated below, non-Federal sponsors fully funding an Agreement to procure research and development and related technical services and studies from NETL constitute a class of entities in which all 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 non-Federal sponsor fully funding an Agreement to procure research and development and related technical services and studies from NETL:

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

  NETL supports non-Federal entities in their commercialization of technologies relevant to DOE's and NETL's mission, when NETL provides access to and use of NETL's unique facilities and expertise. In addition, providing access to NETL's unique facilities for non-mission related work can benefit the Government and the public in many ways, including promoting the commercialization of technologies that benefit the U.S. economy and/or the health and safety of the public.
- (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 non-Federal sponsor.

  Non-Federal sponsors that wish to obtain title for inventions made or conceived under a fully funded Agreement are required to submit advance or identified patent waiver petitions, which are reviewed on a case-by-case basis in accordance with DOE patent waiver regulations. The cumbersome nature of the waiver process as well as the delays incurred in its application serve as a barrier to making NETL's facilities and research and development capabilities widely utilized by non-Federal sponsors. Non-Federal sponsors are reluctant to fully fund work at NETL without assurance that they would be afforded title to inventions developed under Agreements.
- (c) The extent to which the work to be performed under the Agreement is useful in the production or utilization of special nuclear material or atomic energy.

  Work at NETL under Agreements fully funded by non-Federal sponsors is unlikely to be related to the production or utilization of special nuclear material or atomic energy.
- (d) The extent to which the non-Federal sponsor'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 non-Federal sponsor having patent rights instead of the Government retaining the patent rights. With the patent rights, a non-Federal sponsor is more likely to be able and willing to make the necessary investments to commercialize the results.

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

The purpose of entering into an Agreement is to assist a non-Federal sponsor to develop technology that it has developed at its private expense. 10 CFR 784.11 provides that a basis for granting advance waivers that includes situations such as work for others agreements and user facility agreements involving DOE-approved private use of Government facilities where the waiver requestor is funding a substantial part of the costs. Here, the non-Federal sponsor is fully funding the Agreement for such use of NETL facilities and resources.

- (f) The purpose and nature of the agreement, including the intended use of the results developed thereunder.
- The purpose and nature of the CFA, authorized under 42 U.S.C. § 7278, is for NETL "to accept ... other contributions from public and private sources and to prosecute projects ... with other agencies, Federal, State, private, or foreign." NETL uses a CFA to implement this statute and perform work, fully funded by a non-Federal sponsor, using NETL's capabilities and expertise, for a non-Federal sponsor in the commercialization of its technologies.
- (g) The extent to which the non-Federal sponsor has made or will make substantial investment of financial resources or technology developed at the non-Federal sponsor's private expense which will directly benefit the work to be performed under the agreement. Non-Federal sponsors will typically have made a past investment and intend to make a future investment beyond the Agreement related to the technology. The past and anticipated future investment varies. However, it is typical that the work being funded by a non-Federal sponsor is built upon, and benefits from, a past investment, and that the non-Federal sponsor has the intent and capability of making future investments in promising technologies resulting from Agreement work performed by NETL.
- (h) The extent to which the field of technology to be funded under the agreement has been developed at the participating entity's private expense.

  A non-Federal sponsor is fully funding an Agreement to procure research and development and related technical services and studies using NETL facilities and resources to further its previously developed technology.
- (i) The extent to which the Government intends to further develop to the point of commercial utilization the results of the effort.

  It would be unusual for the Government to conduct any further development efforts on the technology investigated under an Agreement fully funded by a non-Federal sponsor. NETL benefits by supporting non-Federal entities in their commercialization of technologies that are beneficial to the U.S. economy and/or to the U.S. taxpayers.
- (j) The extent to which the agreement objectives are concerned with the public health, public safety, or public welfare.

DOE's mission includes improving U.S. economic prosperity, national security, and environmental well-being. The adoption of new and improved energy technologies would indirectly benefit the public welfare of the U.S. Granting a waiver will encourage participation of non-Federal sponsors and should expedite the adoption of more efficient energy technologies.

Therefore, granting a waiver is in the interest of public health, safety and welfare of the U.S.

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

  Energy is a globally competitive market. To be commercially viable, all energy sources must compete with other energy sources. Typically, a patent waiver encourages a non-Federal sponsor to make the necessary investments needed to bring its technology solution to the market. A patent waiver should not have a negative impact on the other technology solutions in the market. Instead, by encouraging a non-Federal sponsor to bring another technology solution to the market while not impacting the other solutions already in the market, a patent waiver supports competition in energy. Similarly situated non-Federal sponsors can have access to fully fund NETL facilities and expertise that support NETL's mission.
- (l) In the case of a domestic non-profit 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.
- (m) The small business status of the non-Federal sponsor under an agreement not governed by Chapter 18 of Title 35, United States Code.

  This consideration is not applicable.
- (n) Such other considerations, such as benefit to the U.S. economy, that the Secretary or designee may deem appropriate.

  This consideration is not applicable.

As shown above, a non-Federal sponsor that is fully funding an Agreement to procure research and development and related technical services and studies using NETL facilities and resources is likely to qualify for an advance patent waiver because, based on the requisite considerations of the DOE patent waiver regulations, it best serves the interests of the U.S. and the general public.

# TERMS AND CONDITIONS OF THE CLASS PATENT WAIVER

This class patent waiver shall be subject to the terms and conditions provided in Appendix A which follows this statement of considerations as may be administratively updated by the Assistant General Counsel for Technology Transfer and Intellectual Property. Substantial modifications to the terms and conditions may be approved in writing by the Assistant General Counsel for Technology Transfer and Intellectual Property with concurrence from the Director of NETL. Alternate terms and conditions have been approved by the Assistant General Counsel for Technology Transfer and Intellectual Property with concurrence from the Director of NETL and may be used on a limited case-by-case basis as determined by NETL Patent Counsel as set forth in the alternate terms and conditions.

This class patent waiver does not apply the Government's march-in rights to Subject Inventions, consistent with other class patent waivers for non-Federal entities fully funding activities at DOE facilities or with DOE expertise.<sup>3</sup> Although rarely, if ever, exercised, these rights are often

.

<sup>&</sup>lt;sup>3</sup> See W(C)2011-009.

perceived as a barrier by industry to utilize DOE facilities or DOE expertise and are not statutorily mandated in the case full funding from a non-Federal sponsor. Because the Government still retains a Government use license in any Subject Inventions, the Government's interests are believed to be adequately protected in the absence of such march-in rights.

# **APPLICABILITY OF THE CLASS PATENT WAIVER**

This class patent waiver applies to any invention conceived or first actually reduced to practice under an Agreement fully funded by a non-Federal sponsor for research and development and related technical services and studies from NETL.

This class patent waiver applies to domestic entities and to foreign entities that are approved in accordance with DOE Policy 485.1A (current version). DOE may deny application of this class patent waiver to an otherwise eligible entity that is under foreign ownership, control, or influence, for example, as described in DOE O 470.4B (current version), as determined solely by DOE. Entities to which this class patent waiver is not applicable may petition for an advance or identified patent waiver under 10 CFR 784.

The class patent waiver may be granted without a request or petition by the non-Federal sponsor, upon a determination from NETL Patent Counsel that: (1) the Subject Invention is not subject to international agreements or treaties; and (2) the terms and conditions of the Agreement with the non-Federal sponsor comply with this class patent waiver.

In addition, there are certain situations where a waiver of rights in Subject Inventions to the non-Federal sponsor may be denied including: (1) where the non-Federal sponsor declines the waiver; (2) when any Subject Invention is a research tool, and there is a DOE and public interest in having the tool available to many potential research and commercial organizations; or (3) because the DOE, based on a determination of NETL Patent Counsel, finds that it is not in the best interest of the United States and the general public to allow the non-Federal sponsor to retain title to Subject Inventions under the Agreement. NETL Patent Counsel is the final determiner that the waiver of rights should be denied with input from the Associate Laboratory Director for Research and Innovation or designee. DOE shall retain title to any Subject Invention which is not retained by the non-Federal sponsor.

This class patent waiver has no impact on the applicability or continuation of other existing patent waivers.

# WAIVER TERMINATION OR SUSPENSION

In addition to any other requirements set forth above or in the terms and conditions, this class patent waiver may be denied, terminated or suspended with respect to any non-Federal sponsor that is found to have made materially false statements or nondisclosure of material facts in connection with the Agreement or fails to comply with all applicable Agreement requirements.

# RECOMMENDATION AND APPROVAL OF THE CLASS PATENT WAIVER

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

Christine Hartmann

DOE Patent Counsel

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

APPROVAL:

CONCURRENCE:

Brian J. Lally

Assistant General Counsel for Technology
Transfer and Intellectual Property

CONCURRENCE:

Marianne C. Walck, Ph.D.

Director

National Energy Technology Laboratory