

Memorandum of
Understanding Between
U. S. Department of Energy

And
U. S. Department of Commerce

Concerning Cooperation in a Strategic Partnership to
Enhance the Diffusion of Energy Technology and
Advanced Manufacturing Techniques, and Foster
U.S. Economic Growth

I. Purpose

The purpose of this Memorandum of Understanding (MOU) is to identify a framework for cooperation and partnership between the Department of Energy (DOE) and the Department of Commerce (DOC), hereinafter also referred to each as a Party or collectively as the Parties. This partnership will strengthen the coordination of and amplify existing efforts dedicated to advancing the Administration's goal of accelerating the commercialization of Federally funded research and development (R&D), enhancing the diffusion of energy technology and advanced manufacturing technologies, and fostering economic growth. This MOU is intended as an umbrella agreement under which particular activities related to: 1) the promotion of and support of domestic business; 2) the understanding and dissemination of knowledge about the economic opportunities afforded by innovation and energy technologies; and 3) the expansion of international trade in energy technologies, can be furthered.

II. Legal Authority

DOE enters into this MOU under the authority of section 646 of the Department of Energy Organization Act (Pub. L. 95-91, as amended; 42 U.S.C. § 7256). DOC enters into this MOU under the authority of the NIST Act, as amended (15 U.S.C. § 271 et seq.), 15 U.S.C. § 278k, and 15 U.S.C. § 3710(g).

II. Background

The Federal government invests over \$130 billion on research and development each year, conducted at universities, Federal laboratories, and companies; this

work has yielded extraordinary long-term economic benefits through the creation of new knowledge and ultimately new industries. Federally funded R&D nurtured a wide range of life-changing commercial technologies — from the Internet, to the Global Positioning System (GPS), to leading-edge vaccines. Federally funded R&D has historically led to dramatic economic growth, and there is significant potential to increase the public's return on this investment in terms of innovation, job creation, societal impact, competitiveness, and economic prosperity.

The DOC has a broad mission to assist U.S. industry in matters of trade and civilian technology. The civilian technology mission includes both development and deployment aspects, which are best represented by the National Institute of Standards and Technology (NIST). The technology development function is represented by NIST's Laboratories, User Facilities and Standards Services (data, materials, and calibrations). The technology deployment function is represented by NIST's Hollings Manufacturing Extension Partnership (MEP). The MEP is a nationwide network of extension Centers whose goal is to help manufacturers — particularly smaller firms — become aware of the benefits of applying advanced technology to their businesses, learning how to choose and apply technologies and advanced manufacturing practices that are best suited to their needs, and implementing technology- and manufacturing-practice-related decisions on the factory floor. The MEP Centers assist companies by providing on-site consultations and other services to manufacturers. Where appropriate and necessary, the MEP Centers locate and link to resources in the private sector, academia, and Federal laboratories that can address specific technology needs of those manufacturers in a timely manner.

The DOE maintains the largest laboratory system of its kind in the world, comprised of a wide variety of unique facilities, sophisticated scientific instrumentation, and world-class expertise in such areas as advanced materials, high-performance computing, advanced manufacturing, energy and environmental technologies, and diagnostics and instrumentation. The core competencies of the DOE and its laboratories, facilities and sites, hereinafter referred to as DOE laboratories, provide the basis for the DOE's statutory mission assignments in national security, energy research and development, environmental clean-up, and fundamental research. This substantial national resource of technology, technology assistance, and technology deployment activities is authorized and directed by the Stevenson-Wydler Technology Innovation Act, the Energy Policy Act of 2005, and other statutes and Presidential guidance such as the 2011 Presidential Memorandum -- Accelerating Technology Transfer and Commercialization of Federal Research

in Support of High-Growth Businesses¹.

The Parties share many common goals and objectives in relation to technology deployment. The statutory mandates of the two agencies have resulted in complementary capabilities which provide important opportunities for collaboration, particularly among DOE laboratories and the MEP in concert with NIST's Laboratories, facilities and services, to ensure that products and services that result from any collaboration meet appropriate standards. Close collaboration between DOC and DOE will enhance the effectiveness of programs in both agencies and maximize the benefits of these programs to both the public and private sectors.

IV. Framework and Objectives

Specific objectives covered under this MOU include, but are not limited to:

- i. Accelerating the commercialization of Federally funded R&D;
- ii. Expanding international trade in products and services based on new technology and specifically energy technology;
- iii. Leveraging synergies of mission to encourage adoption of advanced manufacturing techniques;
- iv. Enhancing knowledge of, and access to, the technical expertise resident in the DOE labs by U.S. industry;
- v. Supporting the domestic clean energy industry with business and market acumen;
- vi. Increasing the understanding and dissemination of knowledge about the economic opportunities afforded by innovative technology developed in any sector; and
- vii. Engaging in collaborative outreach with small manufacturers to solve technical engineering problems around advanced manufacturing technologies, product realization, materials research, and performance analysis.

A formalized partnership between the Parties will amplify existing efforts and advance the Administration's goal of accelerating the commercialization of Federally funded R&D in areas including, but not limited to, energy technology diffusion, advanced manufacturing promotion, and economic growth.

¹ <https://www.whitehouse.gov/the-press-office/2011/10/28/presidential-memorandum-accelerating-technology-transfer-and-commercial>

DOC and DOE intend by this MOU to set the strategic direction of enhanced partnership between the agencies to develop and conduct cooperative activities relating to high priority strategic needs, where such cooperation contributes to the efficiency, productivity, and overall success of both agencies.

A key purpose of this MOU is to facilitate timely and effective collaborations between DOE laboratories and individual MEP Centers for meeting the needs of smaller manufacturers, and to learn to use the service delivery system of the MEP network as a major outlet for DOE technologies to reach smaller manufacturers. Major areas of initial emphasis will include pollution prevention, waste minimization, energy efficiency and access to those DOE core competencies available to assist smaller manufacturers and other partners identified through MEP Center referrals. This MOU provides a framework for the Parties to collaborate on joint activities that build on their complementary capabilities. This MOU expressly does not cover or concern any interactions between the DOC, the MEP Centers, and those DOE Institutes which are a part of the National Network for Manufacturing Innovation. The intent of this MOU is to ensure that collaborative programmatic efforts efficiently draw upon the expertise of each Party and to avoid redundancies among these two Federal departments.

The Parties acknowledge the significant positive collaboration that already exists between DOE and DOC and intend through this MOU to strengthen and broaden that cooperation.

V. Roles and Responsibilities of the Parties

The DOC and DOE intend to carry out the following roles and responsibilities in pursuance of this MOU:

- i. Supplemental interagency agreements (IAAs) or other appropriate agreements between DOC and DOE may be developed pursuant to this MOU to define specific undertakings. Such agreements may provide for the shared use of facilities and personnel under cooperative projects, subject to the laws and regulations pertaining to the respective agencies. This MOU will be referenced, as appropriate, in supplemental agreements or amendments prepared to document details of cooperative efforts carried out by the Parties.
- ii. Cooperation will be needed in planning and conducting joint outreach and other technology transfer activities, including partner feedback, performance measurement, and process improvement workshops, that contribute to the combined effectiveness of the two agencies as related to

- this MOU.
- iii. The agencies will encourage and facilitate partnering agreements between the various MEP Centers and various DOE laboratories. Such agreements may be established at the independent discretion of the MEP Centers and DOE laboratories to set out the basic terms and conditions of the collaboration.
 - iv. Each Party to this MOU will provide to the other for review and concurrence within 5 business days, prior to any public release, any proposed outreach materials, press releases, journal articles and conference papers, or other public affairs information where such materials or information is to be made available as a direct result of this collaborative effort. In the event of disagreement, the POCs shall negotiate an acceptable resolution or decide not to release.
 - v. Each Party will seek to ensure sufficient funding to carry out projects that are mutually agreed upon under this MOU.
 - vi. The Parties will develop a joint action plan that establishes clearly stated strategies and objectives for the collaborative activities. Performance measures for evaluating the effectiveness of this collaboration between the two organizations will be identified, utilized, and reviewed at least annually.

Each Party to this MOU intends to carry out its responsibilities through the organizations identified as follows:

DOE: Through the Offices listed below, DOE intends to make available appropriate personnel, facilities and information about various technologies, especially with respect to clean energy manufacturing, at each of the laboratories, participating at their discretion, for which the Office is responsible or to which it provides funding.

- i. Under Secretary for Science and Energy
- ii. Under Secretary for Management
- iii. Under Secretary for Nuclear Security

DOC: Through NIST, DOC intends to encourage MEP Centers participating at their discretion to make available appropriate personnel, facilities and information about various technologies, especially with respect to clean energy technologies and/or energy efficiency as they relate to manufacturing.

In direct pursuit of the goals set forth in "Section 1. Purpose," the Parties intend to facilitate and encourage effective collaborations between DOE laboratories and the MEP Centers with support from the NIST Labs and other units, as appropriate:

- i. To support the DOC/NIST MEP Program by providing laboratory equipment or manufacturing process resources and/or technical expertise to the MEP Centers or their clients for performance, review, or consultation in areas of mutual interest, subject to program priorities and budgetary constraints.
- ii. To support the transfer of technical information from DoE laboratories to MEP Centers, participating in their sole discretion, – through databases, information systems, clearinghouses, conferences, technology showcases and other means – on research, development and demonstration projects and technology transfer opportunities and activities in language understood by small manufacturers.
- iii. To assist the DOC/NIST MEP Centers, participating in their sole discretion, in the selection and assessment of technology transfer projects and to support approved technology assistance efforts. Detailed responsibilities will be more specifically identified in agreements prepared to document specific technology identification, deployment, and transfer activities.
- iv. To regard DOC/NIST MEP Centers, participating in their sole discretion, as a key outreach mechanism for delivering DOE technologies to small and medium-sized manufacturers.
- v. To review and implement, where permitted by law, policies and procedures at DOE laboratories aimed at easing financial burdens on smaller manufacturers or other partners as appropriate. Existing policies and practices which have been identified as barriers to participation of smaller manufacturers who are clients of the MEP Centers include: requirements for advanced payments, added factor, depreciation, full cost recovery in the case where the costs incurred in performing the work substantially exceed the estimated price to the company prior to commencement of the project, the significant time periods associated with legal and regulatory paperwork in preparing for a project, and time delays in execution of the work compared to that estimated prior to commencement of the project.²
- vi. To provide DOE and its laboratories with a high quality, technology service delivery system capable of reaching the greatest practical number of the Nation's small and medium-sized manufacturers, and with information on the technology needs of those companies. It is understood that MEP Centers, in referring such companies for assistance, will exercise their own sound judgment, taking into account the needs of their small and medium-sized manufacturing clients.

² Matthew Stepp, Sean Pool, Nick Loris, and Jack Spencer, *Turning the Page: Reimagining the National Labs in the 21st Century Innovation Economy*, The Information Technology and Innovation Foundation, Center for American Progress and the Heritage Foundation, June 2013.

V. Implementation

DOC and DOE intend by this MOU to set the strategic direction of enhanced partnership between the agencies in order to develop and conduct cooperative activities relating to high priority strategic needs, where such cooperation contributes to the efficiency, productivity, and overall success of both agencies.

The DOE's Principal Point of Contact (POC) for this agreement is the Director of the Advanced Manufacturing Office (AMO) or his/her designee. The NIST Principal POC is the Director of the MEP Program or his/her designee.

Contact information for the DOE and NIST MEP is provided below.

DOE:
1000 Independence Avenue SW
Washington, DC 20585
202-586-9488

DOC:
100 Bureau Drive
Gaithersburg, MD 20899-4800
301-975-5020

Subject to legal and fiscal limitations, each Party plans to engage relevant programs, offices, and other entities within their agency to provide or coordinate resources or activities; support development of appropriate tools or training; and make staff available or otherwise provide employee support for collaboration.

Both Parties expressly acknowledge that the activities under this MOU shall be subject to the availability of agency resources in conjunction with agency programmatic requirements and priorities.

For DOE, the Deputy Secretary, and for DOC, the Deputy Secretary, shall ultimately be responsible for the oversight of this MOU within their respective agencies. For DOC, the NIST MEP Director shall facilitate implementation of the MEP activities and consultations with NIST's laboratories and other DOC operating units, as appropriate, under this MOU and ensure that issues cutting across organizational lines in either agency are resolved expeditiously. The DOE POC shall also ensure that issues cutting across organizational lines in either agency are resolved expeditiously.

The NIST MEP Director or his/her designee, and the Director of the Advanced Manufacturing Office or his/her designee, shall be POCs to coordinate technology deployment, development of outreach activities, facility access, information exchange, and other areas of mutual interest. NIST MEP intends to provide leadership and expertise from its MEP Program staff to facilitate coordination with its nationwide network of MEP Centers, participating at their discretion, to support the activities of the DOE Laboratories under this MOU. As indicated in Section I of this MOU, opportunities may be identified that may benefit from collaborative efforts in specific focus areas between NIST MEP Centers and individual DOE Laboratories. To help guide these potential collaborations, NIST MEP and DOE intend to jointly develop documents that will provide guidance to facilitate the formation, operation, and management of these collaborations.

VI. Funding

Each Party intends to coordinate its funding and resource decisions when practical to maximize the benefits of cooperation under this MOU. Any transfer of funds or sharing of resources between the Parties will be pursuant to a separate agreement.

VII. General

Work under this MOU will be jointly planned and monitored by the DOC and DOE. The Parties intend to develop metrics and annual targets related to the Parties' goals, and to work collaboratively to seek continuous improvement and enhanced performance over time.

This MOU is strictly for internal management purposes for each of the Parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either Party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.

This MOU in no way restricts either of the Parties from participating in any activity with other public or private agencies, organizations, or individuals.

All agreements herein are subject to, and will be carried out in compliance with, all applicable Federal laws, regulations, and other legal requirements.

This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the Parties to expend,

exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value. This MOU may be terminated by mutual written agreement of the Parties, or by either Party upon 30 days written notice to the other Party.

VIII. Contacts/Designated Representatives

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IX. Duration of Agreement

This MOU is effective on the date of the final signature and will remain in effect for a period of five years. This MOU may be modified at any time by written agreement of the Parties. Nothing in this MOU shall be interpreted to limit or otherwise affect any authorities, powers, rights, or privileges accorded to DOC or DOE or any of the officers, employees, or organizational units under any statute, rule, regulation, contract, or agreement.

Deputy Secretary of Energy


Date May 1, 2016

Deputy Secretary of Commerce


Date APR 19 2016