IMPLEMENTATION AGREEMENT

BETWEEN

THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA AND

THE MINISTRY OF ENERGY OF THE STATE OF ISRAEL FOR COOPERATION ON A JOINT ENERGY RESEARCH AND DEVELOPMENT CENTER

The Department of Energy of the United States of America (USDOE) and the Ministry of Energy (formerly the Ministry of National Infrastructure, Energy and Water Resources) of the State of Israel (ILMOE), each a "Party" and collectively herein the "Parties,"

ACTING pursuant to Article V(b) of the Agreement between the Department of Energy of the United States of America and the Ministry of National Infrastructure, Energy and Water Resources For Cooperation in the Field of Energy and Water Resources signed February 22, 2000, as amended (hereinafter the "Cooperation Agreement");

NOTING the success of, and a desire to create an additional mechanism to implement activities discussed under the U.S. - Israel Energy Dialogue launched in August 2011 to promote increased trade, investment, cooperation, and collaboration on energy-related subjects;

RECOGNIZING that economic growth and energy security are among the highest priorities for the United States and Israel, and that cooperation between the two countries is critical to promoting these issues;

SEEKING to expand the Parties' cooperation regarding energy research, development, education exchanges, demonstration, analysis, and implementation of basic and advanced energy technologies to include, but not limit to, fossil energy, the energy-water nexus, energy cyber and physical security in critical infrastructure, and energy storage;

CONSIDERING that science and technology have long been a cornerstone of cooperation between the United States and Israel, given their importance for economic and social development;

ACKNOWLEDGING the interest of the United States and Israel in the abundant opportunities for cooperation between their two countries on low-cost clean energy and water technologies that are resilient, efficient, and flexible;

SHARING an interest in expanding collaboration to advance innovative low-cost clean and efficient energy and water technologies and related analytical efforts by building upon their ongoing scientific and technological cooperation in this area among research institutes, universities, and companies;

CONSIDERING that their support of research and development activities on the basis of equality and reciprocity will provide mutual benefits to both Parties' countries; and

DESIRING to establish the U.S.-Israel Center of Excellence in Energy, Engineering and Water Technology (hereinafter the "Center") that aims to accelerate development and more rapid deployment of critical and innovative technologies for natural gas, energy cyber and physical security, the energy-water nexus, energy storage, and other areas of energy that are needed to diversify energy supply and promote higher efficiency,

HAVE AGREED AS FOLLOWS:

I. Purpose and Priorities

- 1. The Parties shall establish the Center to facilitate joint research and development on energy areas by teams of scientists and engineers from the United States and Israel, and related joint activities, in energy research and development. Initial priority areas to be addressed are fossil energy (particularly natural gas), cyber and physical security protections for critical energy infrastructure, energy storage, and the energy-water nexus.
- 2. This Implementing Agreement is subject to and governed by the Cooperation Agreement.

II. Areas of Cooperation

- 1. The research topics shall include, but are not limited to:
 - a. energy storage;
 - b. energy cyber and physical security in critical infrastructure;
 - c. fossil energy; and
 - d. the energy-water nexus.
- 2. Related joint efforts shall focus on, but not be limited to:
 - a. development, validation, and optimization of functionality, durability, and cost-effectiveness of new methods and technologies.
 - b. resource, infrastructure, and economic analysis to inform investment decisions, operational strategies, and action plans;
 - c. development and implementation of decision support tools for use by government decision-makers, business and technical partners, and other stakeholders; and
 - d. sharing best practices by facilitating:

- i. access to R&D infrastructure
- ii. technology transfer practices from academic institutions and National Laboratories for application by industry in the United States and Israel.
- iii. workforce training and educational programs
- iv. student exchange and postdoctoral exchange
- 3. Other areas of collaboration may be added by the Parties' mutual written consent.

III. Principles

Cooperative activities shall be conducted on the basis of the following principles:

- 1. equality, mutual benefit, and reciprocity;
- 2. timely exchange of data and information relevant to cooperative activities;
- 3. effective protection of intellectual property rights;
- 4. peaceful, non-military uses of the results of collaborative activities; and
- 5. respect for the applicable legislation of each Party's country.

IV. Project Annexes

- 1. Cooperative activities under this Implementation Agreement may be undertaken by the Parties or, as appropriate, laboratories or contractors of the Parties. Each such cooperative activity that may involve the sharing of costs or that may give rise to intellectual property shall be set forth in a Project Annex, which shall be subject to the terms of this Implementation Agreement.
- 2. Each Project Annex shall include detailed provisions for conducting and managing the cooperation, and shall cover such matters as technical scope, work plan, staffing requirements, funding sources and budget, protection and allocation of intellectual property, exchange of proprietary information, and any undertakings, obligations or conditions necessary to the proposed activity.

V. Management

- 1. The Parties' designated Coordinators shall oversee the management of the Center in accordance with Article IV of the Cooperation Agreement.
- 2. The Parties, in conjunction with other appropriate governmental bodies of both Parties' countries (and in the case of Israel, the Israeli Innovation Authority (IIA)), shall monitor the activities conducted under this Implementation Agreement and assess the progress of the Center regularly as part of the U.S.-Israel Energy Dialogue.
- 3. The Parties may establish other management structures as mutually decided in

writing.

VI. Funding Mechanism

- 1. Subject to the availability of funds authorized and made available by each Party's government and subject to paragraph 2 of this Section, funding for the activities under this Implementation Agreement shall be borne by the Parties, to help ensure the long-term and stable financial support to move the objectives of the Center forward. Private industry and academia also may provide funding in accordance with written terms to be mutually decided by the Parties.
- 2. The ILMOE or IIA shall fund only research and development activities performed by Israeli participants, and USDOE shall fund only research and development activities performed by United States participants, in collaborative activities, unless agreed otherwise in writing by the Parties for specific projects in accordance with Article VIII (a) of the Cooperation Agreement. The Parties may also explore and establish additional funding mechanisms as mutually agreed in writing.

VII. Information Sharing and Intellectual Property

- 1. The protection and allocation of intellectual property created or furnished under this Implementation Agreement shall be governed by Annex I Intellectual Property of the Cooperation Agreement.
- 2. Each Party shall make available to the other technical information first produced under projects under this Implementation Agreement that is (1) relevant to or necessary for projects under this Implementation Agreement; and (2) either in the Party's possession or available to it, and which it has the right to disclose.

VIII. General Provisions

- 1. Any question concerning the interpretation or application of this Implementation Agreement shall be resolved by consultations between the Parties.
- 2. Each Party shall conduct the activities under this Implementation Agreement in accordance with applicable laws, regulations and international obligations and within its legal authority.
- 3. Nothing in this Implementation Agreement shall be interpreted to constitute an obligation of funds.

IX. Entry into Force, Extension, Amendment, and Termination

- 1. This Implementation Agreement shall enter into force upon signature by both Parties.
- 2. This Implementation Agreement may be terminated by mutual written consent, or by either Party by written notice to the other Party at any time ninety (90) days prior to the intended termination date. Commitments to fund any specific programs made by either Party prior to termination shall remain in effect notwithstanding termination.
- 3. Subject to paragraph 2 of this Section, this Implementation Agreement shall remain in effect for the duration of the Cooperation Agreement.
- 4. This Implementation Agreement may be amended by mutual written consent of the Parties.
- 5. Unless otherwise agreed by the Parties in writing, any activity undertaken under this Implementation Agreement and not completed upon termination of this Implementation Agreement may be continued to completion according to the terms of this Implementation Agreement, provided the Cooperation Agreement remains in force.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Governments, have signed this Implementation Agreement.

DONE at WASHINGTON, in duplicate, on the 25th day of June, 2018.

FOR THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA:

FOR THE MINISTRY OF ENERGY OF THE STATE OF ISRAEL: