Memorandum

Of

Understanding

Between

U.S. Department of Defense, Office of the Assistant Secretary of Defense for Sustainment

And

U.S. Department of Energy, Office of the Assistant Secretary for the Office of Electricity

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Memorandum of Understanding

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Concerning a Collaboration to Enhance Energy Resilience

I. Purpose

As the velocity and variety of threats continues to increase, the Nation must urgently address the energy resilience of military installations and the associated commercial electric grid to achieve national security objectives. This purpose of this memorandum of understanding is to establish a framework for collaboration and partnership between the U.S. Department of Defense (DoD), Office of the Assistant Secretary of Defense for Sustainment (OASD (S)) and the U.S. Department of Energy (DOE), Office of the Assistant Secretary for Electricity (OAS(OE)) to strengthen coordination of efforts related to energy resilience and the protection of military installations and defense critical electric infrastructure (DCEI).

The authorities that shall govern this partnership include, but are not limited to:

- Title 10 U.S.C. § 2911, *Energy policy of the Department of Defense;*
- Section 215A of the Federal Power Act (16 U.S.C. § 824o-1); and,
- Section 646 of the Department of Energy Organization Act (42 U.S.C. § 7256).

II. Background

As defined in 10 U.S.C. § 101(e)(6), energy resilience means the ability to avoid, prepare for, minimize, adapt to, and recover from anticipated and unanticipated energy disruptions in order to ensure energy availability and reliability sufficient to provide for mission assurance and readiness, including mission essential operations related to readiness, and to execute or rapidly reestablish mission essential requirements.

As discussed by the 2018 National Defense Strategy, the variety and velocity of global threats continues to rapidly evolve. The homeland is no longer a sanctuary, and we must anticipate potential attacks and mitigate risks to our critical defense, government, and economic infrastructure. In this environment, maintaining secure access to energy resources is critical to the execution of national security priorities, and ensuring the energy resilience of our military installations and DCEI that support them.

The Parties acknowledge the significant positive collaboration that already exists between DOE and the DoD and intend, through this MOU, to strengthen and broaden that cooperation. Existing agreements and partnerships should continue. Any agreed upon projects or cost sharing agreements between OASD(S) and DOE-OE will be vetted and coordinated appropriately between the two parties.

III. Objectives & Activities

This interagency partnership will focus on the following objectives:

1. Ensure the energy resilience of military installations and DCEI;
2. Establish a strategic and centralized approach to pursue energy resilience and DCEI efforts between OASD(S) and OAS(OE);
3. Inform the development of DoD and DOE energy resilience policy; and
4. Identify funding authorities and resources to advance energy resilience objectives focused on DCEI.

The following activities shall be pursued to achieve the stated objectives:

- Meet title 10 energy resilience requirements, such as:
  - Assurance of engineering load analysis and right-sizing of emergency generation;
  - Inclusion of critical energy requirements, such as critical loads and performance measures, in restoration and prioritization plans of utilities and the local authorities; and,
  - Improvement in operation, maintenance, testing, and exercising of infrastructure, fuel, equipment, and generation.

- Develop joint pilot project and/or programs for energy resilience, where mutually beneficial. This includes material as well as non-material pilot projects and/or programs. Non-material programs may include, but are not limited to, environmental, emissions, and air quality programs to enhance the ability of black start exercises or collaborations with utility providers for restoration planning. Material programs may include, but are not limited to, technology demonstration programs. In the pursuit of material joint pilot program programs, the parties shall identify funding to advance pilot projects and/or programs on military installations, subject to the availability of appropriations, and explore negotiated cost-sharing agreements to advance research and development (R&D) pilot programs.

- Pursue advanced energy resilience technologies. This includes, but is not limited to, energy efficiency, fossil fuels and renewable energy sources, alternative fuels, transportation technologies and fueling infrastructure, micro grids, cyber, smart grid, storage, waste-to-energy, basic science research, mobile/deployable power, small modular reactor nuclear energy, and other energy technologies where mutually

beneficial.

- Ensure that DOE National Laboratories and Federally Funded Research and Development Centers (FFRDCs) work with OASD(S) and OAS (OE) to align lab activities to cost-effectively meet DoD national security and energy resilience requirements. Create standard engineering design criteria to address DCEI site and energy resilience requirements cost effectively. Apply life cycle cost principles to all engineering designs. Explore utilization of existing energy assets (such as generators and on-site renewables) to cost effectively optimize energy resilience and DCEI objectives. Leverage current industry practices to maximize existing tools and frameworks for the efficient and effective implementation of engineering designs.

- Engage with Utility and energy service companies for the purposes of accomplishing the objectives and in alignment with the roles, responsibilities, and authorities within this MOU.

IV. Roles, Responsibilities, and Authorities

Any activities conducted through this MOU that impact one or more military installations will be coordinated in advance with the appropriate Military Department.

U.S. Department of Energy

- The role of DOE in addressing energy resilience for electric infrastructure serving facilities designated as critical to the defense of the United States is established in Section 215A of the Federal Power Act (16 U.S.C. § 824o-1). Among other authorities, the section provides for DOE regularly consulting with owners and operators of DCEI as defined by the Act.

- OAS(OE) will leverage existing authorities and relationships with utility providers to ensure the prioritization of DCEI and installation energy resilience. OAS (OE) will also assist OASD(S) in partnering with state and local authorities to enhance the effectiveness of full-scale and routine exercising and testing at military installations, to include emissions limit re-evaluation, re-permitting and/or waivers as needed to ensure reliability of installed emergency diesel generators for mission assurance readiness.

- OAS(OE) will act as the central management agent through which DOE National Laboratories seeking to support OASD(S) energy resilience requirements will work through for proposals to meet the intent of this MOU. OAS(OE) will ensure all proposals, projects, technologies, and tools brought forward by DOE National Laboratories align with OASD(S) requirements and have the ability to provide

energy resilience benefits and meet OASD(S) mission assurance requirements.

- OAS(OE) will identify funding, subject to the availability of appropriations, and resourcing for DCEI activities, to include DoD energy resilience projects and/or pilot programs on military installations. OAS(OE) will present cost sharing proposals to OASD(S) for those projects and/or pilot programs which are mutually beneficial. OAS(OE) will work with OASD(S) to implement and transfer technologies through the appropriate processes and procedures.

- OAS(OE) will partner with ODASD (Energy) to determine which Federal or private entities could enhance the accomplishment of the core objectives outlined in this MOU.

U.S. Department of Defense

- Title 10, U.S.C, Section 2911, establishes energy policy for the DoD. It grants the authority to the Secretary of Defense to ensure the readiness of the armed forces for their military missions by pursuing energy security and energy resilience. DoDI 4170.11, *Installation Energy Management,* implements the authority under title 10, U.S.C., Section 2911 by establishing energy resilience requirements for DoD Components. DoDI 4170.11 directs the DoD Components to pursue installation energy resilience.

- The OASD(S) is responsible for meeting installation energy resilience requirements, per DoDI 4170.11.

- ODASD(Energy) will support the development of joint pilot programs, leveraging the use of established research and development programs accessible to the DoD. ODASD(Energy) will be the central authority by which all DoD FFRDCs work through for the evaluation for energy resilience technologies for lines of effort developed through this MOU partnership between OASD(S) and ODASD(Energy). ODASD(Energy) will partner with OAS(OE) for mutually beneficial programs and projects where each party agrees to cost sharing based on its own requirements associated authorities. ODASD(Energy) will agree to fund, subject to the availability of appropriations, and resource for any and all programs or projects they independently develop and wish to pursue.

- ODASD(Energy) will partner with OAS(OE) to determine which Federal or private entities could enhance the accomplishment of the core objectives outlined in this MOU.

V. Implementation

Ensure the energy resilience of military installations and DCEI

The ODASD (Energy) and OAS(OE) will establish forums with Utility providers, energy service companies, and industry to improve the prioritization of DCEI and military installations by leveraging existing authorities and relationships. This includes relationships with Utility providers to ensure the prioritization of DCEI and military installations on their emergency load shed lists, emergency restoration plans, routine maintenance and testing plans, mutual aid, and any other action or plan deemed beneficial to the reliability and resilience of DCEI and military installations. Further, the parties will collaborate with Utility providers to provide input on Integrated Resource Plans (IRPs), future generation and other infrastructure siting, rates, and the prioritization of certain generation within transmission queues. The parties will seek to engage with local and state regulatory agencies for the purpose of obtaining re-permitting and/or obtaining exemptions to emissions limitations as needed for energy resilience related exercises on military and DCEI installations.

To ensure the appropriate DOD-DOE priorities are reflected effectively and consistently with outside entities, the parties agree to meet at least monthly to prioritize efforts and how to best reflect critical energy requirements to outside entities. This includes establishing a process to share information between DoD and DOE, and any non-Federal entity.

Establish a strategic and centralized approach to pursue energy resilience

OAS(OE) will establish a coordinated process for DOE National Laboratories to work on energy resilience and DCEI-related efforts developed through this MOU in an effective and efficient manner. DoD will establish a centralized process for DoD FFRDCs to work on energy resilience and DCEI-related efforts in an effective and efficient manner. This centralized, strategic approach does not impact existing agreements with the military departments and DOE labs or DoD FFRDCs. It is intended to efficiently and effectively inform future DoD-DOE strategic energy resilience and DCEI-related efforts that result from this MOU.

A Federal technical team will be established from DoD and DOE technical experts in the energy field to review proposals, projects, technologies, and tools from DOE labs or DoD FFRDCs to enhance the implementation of priorities within this MOU. The Federal technical team will be selected by lead representatives appointed by OAS(OE) and ODASD (Energy).

For purposes of fulfilling these objectives, any officer or employee of a DOE management and operating contractor will be treated as an officer or employee of the Department when serving as a member of this Federal technical team. Any member of this Federal technical team from DoD must be a full-time or permanent part-time Federal employee, or active duty service member. Should the Federal technical team engage others external to DoD or DOE, such as industry experts, educators, and nonprofit stakeholders, it will only be to receive information from such stakeholders or

when those stakeholders are presenting their individual advice and recommendations to DoD or DOE. To avoid any appearance that non-governmental entities are fixed members of the Federal technical team, or that the Federal technical team is giving preferential treatment to any individual or group, the Federal technical team must avoid the regular and systematic participation of the same stakeholders at meetings. Non-governmental entities may not participate in the group decision-making processes.

Establish funding authorities and resources to advance energy resilience

The DoD and DOE will agree to identify funding and resourcing of both material and non-material pilot projects to support the objectives in this MOU. The parties agree to establish cost sharing agreements and scoped proposals of mutual benefit before pursuit of any pilot project. These proposals will be reviewed and approved by the Federal technical team by majority vote.

The OASD(S) and OAS(OE) will look to maximize existing funds and programs to meet the objectives of this MOU and to deploy pilot programs, such as Energy Resilience and Conservation Investment Program (ERCIP), Environmental Security Technology Certification Program (ESTCP), the title 17 loan program, grant programs, federal disaster relief funding, tax incentives from the Department of the Treasury, the identification of funding which meets the purpose of this project, and interactions with R&D agencies such as the Advanced Research Projects Agency – Energy (ARPA-E), and others as appropriate.

VI. General Provisions

1) **Funds and Manpower.** This MOU neither documents nor provides for the obligation of funds by any of the signatories or the commitment of any personnel support to another signatory, nor does it make any commitment of funds or resources. All activities described in this MOU are subject to the availability of appropriated funds and each Party's budget priorities.

2) **Effective Date and Termination of MOU.** This MOU is effective on the date of the final signature and will remain in effect until it is terminated by mutual agreement of the Parties or by either Party providing ninety days' written notice to the other. 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 DoD or DOE or any of the officers, employees, or organizational units under any statute, rule, regulation, contract, or agreement.

3) **Non-Binding Obligation.** The signatories acknowledge that this MOU memorializes a good faith intention to achieve the information-sharing and collaboration objectives contemplated herein. This MOU is not legally enforceable and will not be construed to create any legal obligation on the part of any Party, and this MOU will not be construed to provide a private right or cause of action for or by

any person or entity. Further, this MOU does not identify all the legal authorities that may govern activities in relation to the Energy Sector or constitute concurrence of the signatories as to the interpretation of the nature and extent of these authorities.

4) **Points of Contacts to Implement MOU.** The following individuals are appointed to implement the actions within this MOU: Dr. Ariel Castillo, ariel.s.castillo.civ@mail.mil, 571-372-6830 and Mr. Sanjay Bose, sanjay.bose@hq.doe.gov, 202-586-8557.

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Date: 9/28/2020

For the U.S. Department of Energy:

Bruce J. Walker
ASSISANT SECRETARY, OFFICE OF ELECTRICITY

Date: 9/24/20