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116-

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EXPANDING ACCESS TO SUSTAINABLE ENERGY ACT OF  
2019

SEPTEMBER --, 2020.—Ordered to be printed

Mr. PALLONE, from the Committee on Energy and Commerce,  
submitted the following

R E P O R T

together with

VIEWS

[To accompany H.R. 4447]

[Including cost estimate of the Congressional Budget Office]

The Committee on Energy and Commerce, to whom was referred the bill (H.R. 4447) to establish an energy storage and microgrid grant and technical assistance program, having considered the same, reports favorably thereon with an amendment and recommends that the bill as amended do pass.

The amendment is as follows:

Strike all after the enacting clause and insert the following:

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “Expanding Access to Sustainable Energy Act of 2019”.

**SEC. 2. DEFINITIONS.**

(a) **DEFINITIONS.**—In this Act:

(1) **ELIGIBLE ENTITY.**—The term “eligible entity” means—

(A) a rural electric cooperative; or

(B) a nonprofit organization working with at least 6 rural electric cooperatives.

(2) **ENERGY STORAGE.**—The term “energy storage” means the use of equipment or facilities relating to the electric grid that are capable of absorbing and converting energy, as applicable, storing the energy for a period of time, and dispatching the energy, that—

(A) use mechanical, electrochemical, biochemical, or thermal processes, to convert and store energy that was generated at an earlier time for use at a later time;

(B) use mechanical, electrochemical, biochemical, or thermal processes to convert and store energy generated from mechanical processes that would otherwise be wasted for delivery at a later time; or

(C) convert and store energy in an electric, thermal, or gaseous state for direct use for heating or cooling at a later time in a manner that avoids the need to use electricity or other fuel sources at that later time, as is offered by grid-enabled water heaters.

(3) ISLAND.—The term “island mode” means a mode in which a distributed generator or energy storage device continues to power a location in the absence of electric power from the primary source.

(4) MICROGRID.—The term “microgrid” means an interconnected system of loads and distributed energy resources, including generators and energy storage devices, within clearly defined electrical boundaries that—

(A) acts as a single controllable entity with respect to the electric grid; and

(B) can connect to, and disconnect from, the electric grid to operate in both grid-connected mode and island mode.

(5) RENEWABLE ENERGY SOURCE.—The term “renewable energy source” has the meaning given the term in section 609(a) of the Public Utility Regulatory Policies Act of 1978 (7 U.S.C. 918c(a)).

(6) RURAL ELECTRIC COOPERATIVE.—The term “rural electric cooperative” means an electric cooperative (as defined in section 3 of the Federal Power Act (16 U.S.C. 796)) that sells electric energy to persons in rural areas.

(7) SECRETARY.—The term “Secretary” means the Secretary of Energy.

### SEC. 3. ENERGY STORAGE AND MICROGRID ASSISTANCE PROGRAM.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish a program under which the Secretary shall—

- (1) provide grants to eligible entities under subsection (c);
- (2) provide technical assistance to eligible entities under subsection (d); and
- (3) disseminate information to eligible entities on—

(A) the activities described in subsections (c)(1) and (d); and

(B) potential and existing energy storage and microgrid projects.

(b) COOPERATIVE AGREEMENT.—The Secretary may enter into a cooperative agreement with an eligible entity to carry out subsection (a).

(c) GRANTS.—

(1) IN GENERAL.—The Secretary shall award grants to eligible entities for identifying, evaluating, designing, and demonstrating energy storage and microgrid projects that utilize energy from renewable energy sources.

(2) APPLICATION.—To be eligible to receive a grant under paragraph (1), an eligible entity shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(3) USE OF GRANT.—An eligible entity that receives a grant under paragraph (1)—

(A) shall use the grant—

(i) to conduct feasibility studies to assess the potential for implementation or improvement of energy storage or microgrid projects;

(ii) to analyze and implement strategies to overcome barriers to energy storage or microgrid project implementation, including financial, contracting, siting, and permitting barriers;

(iii) to conduct detailed engineering of energy storage or microgrid projects;

(iv) to perform a cost-benefit analysis with respect to an energy storage or microgrid project;

(v) to plan for both the short- and long-term inclusion of energy storage or microgrid projects into the future development plans of the eligible entity; or

(vi) to purchase and install necessary equipment, materials, and supplies for demonstration of emerging technologies; and

(B) may use the grant to obtain technical assistance from experts in carrying out the activities described in subparagraph (A).

(4) CONDITION.—As a condition of receiving a grant under paragraph (1), an eligible entity shall—

(A) implement a public awareness campaign, in coordination with the Secretary, about the project implemented under the grant in the community in which the eligible entity is located;

(B) submit to the Secretary, and make available to the public, a report that describes—

(i) any energy cost savings and environmental benefits achieved under the project; and

(ii) the results of the project, including quantitative assessments to the extent practicable, associated with each activity described in paragraph (3)(A); and

(C) create and disseminate tools and resources that will benefit other rural electric cooperatives, which may include cost calculators, guidebooks, handbooks, templates, and training courses.

(5) **COST-SHARE.**—Activities under this subsection shall be subject to the cost-sharing requirements of section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352).

(d) **TECHNICAL ASSISTANCE.**—

(1) **IN GENERAL.**—In carrying out the program established under subsection (a), the Secretary shall provide eligible entities with technical assistance relating to—

(A) identifying opportunities for energy storage and microgrid projects;

(B) understanding the technical and economic characteristics of energy storage or microgrid projects;

(C) understanding financing alternatives;

(D) permitting and siting issues;

(E) obtaining case studies of similar and successful energy storage or microgrid projects;

(F) reviewing and obtaining computer software for assessment, design, and operation and maintenance of energy storage or microgrid systems; and

(G) understanding and utilizing the reliability and resiliency benefits of energy storage and microgrid projects.

(2) **EXTERNAL CONTRACTS.**—In carrying out paragraph (1), the Secretary may enter into contracts with third-party experts, including engineering, finance, and insurance experts, to provide technical assistance to eligible entities relating to the activities described in such paragraph, or other relevant activities, as determined by the Secretary.

**SEC. 4. AUTHORIZATION OF APPROPRIATIONS.**

(a) **IN GENERAL.**—There is authorized to be appropriated to carry out this Act \$5,000,000 for each of fiscal years 2021 through 2025.

(b) **ADMINISTRATIVE COSTS.**—Not more than 5 percent of the amount appropriated under subsection (a) for each fiscal year shall be used for administrative expenses.

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## I. PURPOSE AND SUMMARY

Representatives Tom O'Halleran (D-AZ) and Markwayne Mullin (R-OK) introduced H.R. 4447, the "Expanding Access to Sustainable Energy Act of 2019", on September 20, 2019. H.R. 4447 establishes an energy storage and microgrid grant and technical assistance program at the United States Department of Energy (DOE) to expand access to renewable energy and build resiliency.

H.R. 4447 requires DOE to award grants, provide technical assistance, and disseminate information to assist rural electric cooperatives and other non-profit entities with identifying, evaluating, designing, and demonstrating energy storage and microgrid projects that utilize energy from renewable energy sources.

## II. BACKGROUND AND NEED FOR LEGISLATION

Energy storage systems and micro grids have the potential to improve electric grid reliability and resilience by increasing the ability to withstand and recover from hazards that interrupt electric supply, including deliberate attacks, accidents, or naturally occurring threats such as severe weather. Other potential benefits include enhancing the integration of distributed and variable energy resources, managing peak electric loads, and using energy resources more efficiently.

Energy storage comprises a diverse set of technologies used at various levels of the grid and can provide different services. Major existing energy storage technologies currently include hydropower pumped storage, compressed air energy storage, liquid air energy storage, flywheels, flow batteries, lead-acid batteries, lithium-ion batteries, and other chemical systems.<sup>1</sup> Energy storage technologies decrease the need for generation at peak demand times and produce energy when variable generation does not meet demand. These technologies also provide power quality service by smoothing variations in voltage supply or frequency and serve as backup generation when parts of the grid go down. Additionally, transmission and distribution use storage technologies as a means to defer upgrades and alleviate transmission congestion by providing power locally.<sup>2</sup>

Microgrids are small systems made up of generation units connected to nearby users, such as neighborhoods or critical infrastructure. Microgrids can be operated with, or independent from, the local bulk transmission system, and can incorporate diverse generation sources including renewable energy and energy storage. Due to their ability to operate independently, microgrids can be an important source of power when weather or security related outages occur, improve local management of power supply and demand, help defer or avoid system upgrades, and be used to support imbalances in generation.<sup>3</sup>

H.R. 4447 establishes an energy storage and microgrid grant and technical assistance program at DOE. The bill provides grants and assistance to rural electric cooperatives and

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<sup>1</sup> Congressional Research Service, *Electricity Storage: Applications, Issues, and Technologies* (Oct. 2019) (R45980).

<sup>2</sup> U.S. Energy Information Administration, *Batteries perform many different functions on the power grid* ([www.eia.gov/todayinenergy/detail.php?id=34432](http://www.eia.gov/todayinenergy/detail.php?id=34432)) (accessed Feb. 4, 2020).

<sup>3</sup> C2ES, *Microgrids* ([www.c2es.org/content/microgrids/](http://www.c2es.org/content/microgrids/)).

nonprofit entities, working with at least six rural electric cooperatives, and ensures that these communities have access to energy storage and microgrids that are powered by renewable energy.

### **III. COMMITTEE HEARINGS**

For the purposes of section 103(i) of H. Res. 6 of the 116<sup>th</sup> Congress, the following hearing was used to develop or consider H.R. 4447:

The Subcommittee on Energy held a hearing on February 12, 2020, entitled, “Saving Energy: Legislation to Improve Energy Efficiency and Storage.” The Subcommittee received testimony from:

- The Honorable Mark Menezes, Under Secretary of Energy, U.S. Department of Energy
- Kelly Speakes-Backman, Chief Executive Officer, Energy Storage Association
- Bryan Howard, Legislative Director, U.S. Green Building Council
- Julie Hiromoto, Principal, HKS, Inc., *on behalf of* the American Institute of Architects
- Lowell Unger, Senior Policy Advisor, American Council for an Energy-Efficient Economy
- Arn McIntyre, President, McIntyre Builders Inc., *on behalf of* the National Association of Home Builders
- Jennifer Schafer, Executive Director, Federal Performance Contracting Coalition

### **IV. COMMITTEE CONSIDERATION**

Representatives Tom O’Halloran (D-AZ) and Markwayne Mullin (R-OK), along with Reps. Ralph Norman (R-SC) and Conor Lamb (D-PA), introduced H.R. 4447, the “Expanding Access to Sustainable Energy Act of 2019”, on September 20, 2019, and the bill was referred to the Committee on Energy and Commerce. Subsequently, the bill was referred to the Subcommittee on Energy on September 23, 2020. The Subcommittee on Energy held a legislative hearing on H.R. 4447 on February 12, 2020.

On September 9, 2020, the full Committee on Energy and Commerce met in virtual open markup session, pursuant to notice, to consider the bill H.R. 4447, thereby discharging the Subcommittee on Energy from further consideration of the bill. During the markup of H.R. 4447 Rep. O’Halloran, on behalf of himself and Mr. Mullin, offered an amendment in the nature of a substitute (AINS) making technical and conforming changes to the underlying bill. The full Committee agreed to the O’Halloran AINS by a voice vote. At the conclusion of markup of the bill, Mr. Pallone, Chairman of the committee, moved that H.R. 4447 be ordered reported favorably to the House, amended. The Committee on Energy and Commerce agreed to the motion by a voice vote, a quorum being present.

### **V. COMMITTEE VOTES**

Clause 3(b) of rule XIII of the Rules of the House of Representatives requires the Committee to list each record vote on the motion to report legislation and amendments thereto. The Committee advises that there were no record votes taken on H.R. 4447, including the motion for final passage of the bill.

## **VI. OVERSIGHT FINDINGS**

Pursuant to clause 3(c)(1) of rule XIII and clause 2(b)(1) of rule X of the Rules of the House of Representatives, the oversight findings and recommendations of the Committee are reflected in the descriptive portion of the report.

## **VII. NEW BUDGET AUTHORITY, ENTITLEMENT AUTHORITY, AND TAX EXPENDITURES**

Pursuant to 3(c)(2) of rule XIII of the Rules of the House of Representatives, the Committee adopts as its own the estimate of new budget authority, entitlement authority, or tax expenditures or revenues contained in the cost estimate prepared by the Director of the Congressional Budget Office (CBO) pursuant to section 402 of the Congressional Budget Act of 1974.

The Committee has requested but not received from the Director of the Congressional Budget Office a statement as to whether this bill contains any new budget authority, spending authority, credit authority, or an increase or decrease in revenues or tax expenditures.

## **VIII. FEDERAL MANDATES STATEMENT**

The Committee adopts as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act.

## **IX. STATEMENT OF GENERAL PERFORMANCE GOALS AND OBJECTIVES**

Pursuant to clause 3(c)(4) of rule XIII, the general performance goal or objective of this legislation is to establish a program to provide grants and technical assistance for energy storage and microgrid projects to rural electric cooperatives and non-profit entities.

## **X. DUPLICATION OF FEDERAL PROGRAMS**

Pursuant to clause 3(c)(5) of rule XIII, no provision of H.R. 4447 is known to be duplicative of another Federal program, including any program that was included in a report to Congress pursuant to section 21 of Public Law 111–139 or the most recent Catalog of Federal Domestic Assistance.

## **XI. COMMITTEE COST ESTIMATE**

Pursuant to clause 3(d)(1) of rule XIII, the Committee adopts as its own the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974.

## **XII. EARMARKS, LIMITED TAX BENEFITS, AND LIMITED TARIFF BENEFITS**

Pursuant to clause 9(e), 9(f), and 9(g) of rule XXI, the Committee finds that H.R. 4447 contains no earmarks, limited tax benefits, or limited tariff benefits.

## **XIII. ADVISORY COMMITTEE STATEMENT**

No advisory committee within the meaning of section 5(b) of the Federal Advisory Committee Act was created by this legislation.

## **XIV. APPLICABILITY TO LEGISLATIVE BRANCH**

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act.

## **XV. SECTION-BY-SECTION ANALYSIS OF THE LEGISLATION**

### ***SECTION 1. SHORT TITLE.***

Section 1 provides that this Act may be cited as the “Expanding Access to Sustainable Energy Act of 2019”.

### ***SEC. 2. DEFINITIONS.***

Section 2 provides definitions for terms contained in this Act.

### ***SEC. 3. ENERGY STORAGE AND MICROGRID ASSISTANCE PROGRAM.***

Section 3 provides that the Secretary of Energy shall establish a program to provide grants, technical assistance, and disseminate information to eligible entities. The program should assist with identifying, evaluating, designing, and demonstrating energy storage and microgrid projects that utilize energy from renewable energy sources.

### ***SEC. 4. AUTHORIZATION OF APPROPRIATIONS.***

Section 4 authorizes \$5,000,000 to be appropriated to carry out the Act for each of fiscal years 2021 through 2025, and mandates that no more than 5 percent of the amount appropriated for each fiscal year shall be used for administrative expenses.

## **XVI. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED**

There are no changes to existing law made by the bill H.R. 4447.