# HOUSE . . . . . No. 4739

The Commonwealth of Massachusetts

HOUSE OF REPRESENTATIVES, July 11, 2018.

The committee on Ways and Means, to whom was referred the Bill to improve grid resiliency through energy storage (House, No. 4576), reports recommending that the same ought to pass with an amendment substituting therefor the accompanying bill (House, No. 4739).

For the committee,

JEFFREY SÁNCHEZ.

FILED ON: 7/11/2018

# HOUSE . . . . . No. 4739

## The Commonwealth of Massachusetts

**In the One Hundred and Ninetieth General Court**
**(2017-2018)**

An Act to improve grid resiliency through energy storage.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

SECTION 1. Chapter 23J of the General Laws is hereby amended by adding the following new section:-

Section 13. (a) There is hereby established and placed within the center an institute to be known as the energy storage innovation research institute, to be housed at a singular existing clean technology small business incubator, which serves multiple regions through multiple offices in the commonwealth.

(b) The institute shall: (i) promote energy storage innovation in the commonwealth; (ii) expand and maintain the energy storage ecosystem in the commonwealth; and (iii) help the commonwealth meet its energy storage and greenhouse gas emission reduction goals.

(b) The institute may develop recognition programs to promote and cultivate energy storage innovation. The institute may establish fees, tuitions or other financial charges for its programs. All monies appropriated to the institute, or received by the institute through additional grants, gifts, bequests or contracts shall be administered through the center.

(c) The institute shall:

(1) provide networking and leadership opportunities throughout multiple sectors to ensure a robust and active support network for energy storage companies at all stages;

(2) provide entry level research and testing equipment for energy storage innovation companies embarking on new technologies;

(3) act as a resource to energy storage companies looking to relocate to the commonwealth to build their company;

(4) promote the commonwealth as a leader in energy storage innovation nationally and globally through multiple channels, included but not limited to: trade shows, business competitions and at universities;

(5) work in collaboration with the commonwealth energy storage testing facility established in section 48 of chapter 75; and

(6) provide energy storage innovation policy recommendations to the commonwealth as requested.

SECTION 2. Chapter 75 of the General Laws is hereby amended by adding the following section:-

Section 48. (a) There shall be established a commonwealth energy storage testing facility that shall serve as a resource for companies developing energy storage systems and shall be located on a campus within the University of Massachusetts; provided however, that the facility shall: (1) be located within a gateway city; (2) be located near the Emerging Technologies and

Innovation Center; and (3) have access to academic resources necessary for civil, environmental and nuclear engineering.

(b) For the purposes of this section, an "energy storage system" shall mean a technology that is capable of absorbing energy, storing it for a period of time and thereafter dispatching the energy; provided, however, that an energy storage system shall: (i) reduce the emission of greenhouse gases; (ii) reduce demand for peak electrical generation; (iii) defer or substitute for an investment in generation, transmission or distribution assets; or (iv) improve the reliable operation of the electrical transmission or distribution grid; and provided further, that an energy storage system shall: (1) use mechanical, chemical or thermal processes to store energy that was generated for use at a later time; (2) store thermal energy for direct heating or cooling use at a later time in a manner that avoids the need to use electricity at that later time; (3) use mechanical, chemical or thermal processes to store energy generated from renewable resources for use at a later time; or (4) use mechanical, chemical or thermal processes to capture or harness waste electricity and to store the waste electricity generated from mechanical processes for delivery at a later time.

(c) The commonwealth energy storage testing facility shall:

(1) provide research and development, testing and product certification equipment for the creation of energy storage systems;

(2) conduct research, development and certification for new or modified technologies for energy storage systems that can be utilized by businesses, industries, and government;

(3) serve as a clearinghouse for the dissemination of information and data on existing and new energy storage technologies for the commonwealth and other companies and governmental entities; and

(4) provide expertise and assistance to public officials responsible for establishing government policy and regulations overseeing energy storage systems in an effort to meet statewide energy storage deployment goals.

(d) The commonwealth energy storage testing facility may charge a fee for its services.

SECTION 3. Chapter 164 of the General Laws is hereby amended by adding the following section:-

Section 146. (a) Electric distribution companies shall file an annual electric distribution system resiliency report with the department, which shall include heat maps that: (i) show the electric load on the electric distribution system, including electric loads during peak electricity demand time periods; (ii) highlight the most congested or constrained areas of the electric distribution system; and (iii) identify areas of the electric distribution system most vulnerable to outages due to high electricity demand, lack of local electric generating resources and extreme weather events.

(b) Electric distribution companies may hold a competitive solicitation for electric distribution system resiliency non-wires alternatives from third party developers. The non-wires alternatives solicitations shall:

(i) provide non-wires alternatives solutions to areas of the electrical grid that require transmission or distribution updates due to aging infrastructure, increased load or other resiliency issues identified in the resiliency report;

(ii) benefit a stressed or congested area of the electrical grid;

(iii) benefit the electrical grid in areas that are prone to severe weather damage; or

(iv) reduce greenhouse gas emissions.

(c) When determining a winning bid to the competitive solicitation for resiliency non-wires alternatives, the electric distribution companies shall consider monetary and non-monetary factors including, but not limited to:

(i) resiliency improvements;

(ii) reducing greenhouse gas emissions;

(iii) reducing peak demand;

(iv) reducing congestion in stressed areas of the grid; and

(v) benefits to low-income areas.

SECTION 4. The department of energy resources shall study the feasibility of a mobile battery storage system to serve as a mobile emergency relief system that can respond to extreme weather events or power outages. The goal of such a system would be to serve as a mobile emergency relief system that can respond to events including, but not limited to, extreme weather events or power outages, and to shave peak demand and lower distribution costs when not in use for emergency response purposes. The department of energy resources shall submit any

recommendations to the clerks of the house of representatives and senate on or before February 1, 2020.