

# **HOUSE . . . . . No. 4576**

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## The Commonwealth of Massachusetts

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HOUSE OF REPRESENTATIVES, June 7, 2018.

The committee on Telecommunications, Utilities and Energy to whom was referred the petition (accompanied by bill, House, No. 2600) of Thomas A. Golden, Jr. relative to the taxation of energy storage systems, reports recommending that the accompanying bill (House, No. 4576) ought to pass.

For the committee,

THOMAS A. GOLDEN, JR.

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**The Commonwealth of Massachusetts**

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

1           SECTION 1: Chapter 164 of the General Laws is hereby amended by inserting after  
2 section 145, as appearing in the 2016 Official Edition, the following section:

3           Section 146:

4           (a)    Electric distribution companies shall file an annual resiliency report with the  
5 Department of Public Utilities.

6           1.    The resiliency report shall include heat maps that: (i) show the load on the  
7 distribution system, (ii) highlight the most congested areas of the distribution system and (iii) are  
8 consistently updated annually and according to peak seasons.

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

11 i. Provide non-wires alternatives solutions to areas of the electrical grid that require  
12 transmission and/or distribution updates due to aging infrastructure, increased load, and/or  
13 resiliency issues identified in the resiliency report

14 ii. Benefit a stressed or congested area of the electrical grid

15 iii. Benefit the electrical grid in areas that are prone to severe weather damage

16 iv. Reduce greenhouse gas emissions

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

20 i. Resiliency improvements

21 ii. Reducing greenhouse gas emissions

22 iii. Reducing peak demand

23 iv. Reducing congestion in stressed areas of the grid

24 v. Benefits to low-income areas

25 SECTION 2: Notwithstanding any general or special law to the contrary, the Department  
26 of Energy Resources shall study the feasibility, administration, grid-resiliency benefits, peak-  
27 shaving benefits, and economic impact of a mobile battery storage system. The goal of such a  
28 system would be to serve as a mobile emergency relief system that can respond to events  
29 including but not limited to extreme weather events or power outages, and to shave peak demand  
30 and lower distribution costs when not in use for emergency response purposes. The Department

31 of Energy Resources shall submit any recommendations to the Clerks of the House of  
32 Representatives and Senate on or before February 1, 2020.

33 SECTION 3: Notwithstanding any general law to the contrary, there shall be established  
34 a Massachusetts Center for Clean Transportation, which shall be located upon a campus within  
35 the University of Massachusetts system. The Massachusetts Center for Clean Transportation  
36 shall be established in order to provide a platform for evaluating technologies, bolstering new  
37 companies, and fostering cutting-edge research focused on reducing the emissions and  
38 environmental impacts of transportation.

39 SECTION 4: Notwithstanding any general law to the contrary, the Massachusetts Clean  
40 Energy Center shall establish an Energy Storage Innovation Research Institute to be housed at a  
41 singular existing clean technology small business incubator which serves multiple regions  
42 through multiple offices in the Commonwealth.

43 a) The institute shall be tasked with: promoting energy storage innovation in the  
44 commonwealth, expanding and maintaining the energy storage ecosystem in the commonwealth  
45 and helping Massachusetts meet its energy storage and greenhouse gas emission reduction goals.

46 b) To achieve these goals the institute may develop recognition programs to promote and  
47 cultivate energy storage innovation. The Institute may establish fees, tuitions, or other financial  
48 charges for its programs. All monies appropriated to the Institute, or received by the institute  
49 through additional grants, gifts, bequests, or contracts shall be administered through the  
50 Massachusetts Clean Energy Center established in section 2 of chapter 23J.

51 c) Through such programs the Institute shall:

- 52           1.       Provide networking and leadership opportunities throughout multiple sectors to  
53 ensure a robust and active support network for energy storage companies at all stages;
- 54           2.       Provide entry level research and testing equipment for energy storage innovation  
55 companies embarking on new technologies;
- 56           3.       Act as a resource to energy storage companies looking to relocate to  
57 Massachusetts to build their company;
- 58           4.       Promote Massachusetts as a leader in energy storage innovation nationally and  
59 globally through multiple channels, included but not limited to: trade shows, business  
60 competitions and at universities;
- 61           5.       Work in collaboration with the Commonwealth Energy Storage Testing Facility  
62 as established in section 48 of Chapter 75 of the Massachusetts General Laws as amended; and
- 63           6.       Provide energy storage innovation policy recommendations to the commonwealth  
64 as requested.

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66           SECTION 5: Chapter 75 of the General Laws is hereby amended by inserting after  
67 section 47, the following section: -

68           Section 48:

69           (a) An “Energy Storage System” shall be defined as a technology that is capable of  
70 absorbing energy, storing it for a period of time and thereafter dispatching the energy; provided,  
71 however, that an energy storage system shall: (i) reduce the emission of greenhouse gases; (ii)

72 reduce demand for peak electrical generation; (iii) defer or substitute for an investment in  
73 generation, transmission or distribution assets; or (iv) improve the reliable operation of the  
74 electrical transmission or distribution grid; and provided further, that an energy storage system  
75 shall: (1) use mechanical, chemical or thermal processes to store energy that was generated for  
76 use at a later time; (2) store thermal energy for direct heating or cooling use at a later time in a  
77 manner that avoids the need to use electricity at that later time; (3) use mechanical, chemical or  
78 thermal processes to store energy generated from renewable resources for use at a later time; or  
79 (4) use mechanical, chemical or thermal processes to capture or harness waste electricity and to  
80 store the waste electricity generated from mechanical processes for delivery at a later time.

81 (b) There shall be established a Commonwealth Energy Storage Testing Facility that shall  
82 serve as a resource for companies developing energy storage systems.

83 (c) The Commonwealth Energy Storage Testing Facility shall be located upon a campus  
84 within the University of Massachusetts, as defined by section 1 of chapter 75 of the General  
85 Laws, that meets the following criteria: (1) located within a gateway city; (2) located near the  
86 Emerging Technologies and Innovation Center; and (3) has access to academic resources  
87 necessary for civil, environmental, and nuclear engineering.

88 (d) The purposes and responsibilities of the Commonwealth Energy Storage Testing  
89 Facility shall be to:

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

92 (2) Conduct research, development, and certification for new or modified technologies  
93 for energy storage systems that can be utilized by business, industry, and government;

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

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

100           (e) The Commonwealth Energy Storage Testing Facility shall be allowed to charge a fee  
101 for its services.