

**SENATE . . . . . No. 2115**

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**The Commonwealth of Massachusetts**

PRESENTED BY:

*Lydia Edwards*

*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:*

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act relative to the electrification of new and substantially remodeled or rehabilitated building.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	
<i>Lydia Edwards</i>	<i>Third Suffolk</i>	
<i>Michael O. Moore</i>	<i>Second Worcester</i>	<i>2/15/2023</i>

**SENATE . . . . . No. 2115**

By Ms. Edwards, a petition (accompanied by bill, Senate, No. 2115) of Lydia Edwards and Michael O. Moore for legislation relative to the electrification of new and substantially remodeled or rehabilitated building. Telecommunications, Utilities and Energy.

**The Commonwealth of Massachusetts**

**In the One Hundred and Ninety-Third General Court  
(2023-2024)**

An Act relative to the electrification of new and substantially remodeled or rehabilitated building.

*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 143 of the General Laws is hereby amended by inserting after  
2 section 96 the following section:-

3 Section 96A. (a) As used in this section the following words shall, unless the context  
4 clearly requires otherwise, have the following meanings:-

5 “Biolab”, a newly constructed building or substantially remodeled or rehabilitated  
6 building or group of buildings having, or designed to have, a laboratory for biological research.

7 “Carbon Dioxide Equivalent” or “CO2e”, greenhouse gas emissions, including but not  
8 limited to carbon dioxide, methane and nitrous oxide, which shall be calculated according to  
9 regional energy and greenhouse gas factors as set forth in the United States Environmental  
10 Protection Agency’s online tool for reporting and managing building energy data.

11 “Department”, the department of energy resources.

12           “Gross building floor area”, the floor area within the inside perimeter of the building’s  
13 exterior walls, without deduction for corridors, stairways, closets, the thickness of interior walls,  
14 columns or similar features.

15           “Hospital”, a newly constructed building or substantially remodeled or rehabilitated  
16 building or group of buildings having, or designed to have, an institution as defined in section 52  
17 of chapter 111.

18           “Newly constructed building”, a building that has never before been used or occupied for  
19 any purpose.

20           “Substantially remodeled or rehabilitated”, a renovation that affects 50 per cent or more  
21 of the gross building floor area.

22           (b) Except as provided in this section and notwithstanding any general or special law,  
23 code, appendix to any code, ordinance or bylaw or any rule or regulation to the contrary, all  
24 newly constructed commercial buildings and substantially remodeled or rehabilitated  
25 commercial buildings and newly constructed buildings and substantially remodeled or  
26 rehabilitated buildings containing a residential dwelling unit shall use electricity instead of fossil  
27 fuels for space heating and cooling; cooking; and clothes drying; and, in the case of hot water,  
28 including for pools and spas, shall use electricity or thermal solar.

29           (c) (1) A newly constructed or substantially remodeled or rehabilitated biolab or hospital,  
30 unless granted a waiver pursuant to this section, shall comply with the emissions standards set  
31 forth in this subsection.

32 (2) Any such biolab or hospital shall, not later than the year 2050, have net 0 CO<sub>2</sub>e  
33 emissions.

34 (3) Any such biolab shall require a heating, ventilation and air conditioning (HVAC)  
35 system with a first stage of heating that does not use on-site fossil fuel combustion and which has  
36 a minimum heating capacity of 5 British thermal units (Btu) per hour per gross square foot or  
37 equal to the building's design heating load, whichever is lower. Any additional stage of heating  
38 capacity above 5 Btu per hour per gross square foot may utilize on-site combustion, but only if  
39 the HVAC and building management systems are designed and programmed such that normal  
40 operation relies on the non-combustion system to serve all building heating loads as the first  
41 stage before using any on-site combustion heating systems to supplement in a subsequent stage.

42 (4) Any such hospital shall: (i) from the years 2025 to 2029 have CO<sub>2</sub>e emissions of no  
43 greater than 15.4 kilograms of CO<sub>2</sub>e per square foot per year; (ii) from the years 2030 to 2034  
44 have CO<sub>2</sub>e emissions of no greater than 10.0 kilograms of CO<sub>2</sub>e per square foot per year; (iii)  
45 from the years 2035 to 2039 have CO<sub>2</sub>e emissions of no greater than 7.4 kilograms of CO<sub>2</sub>e per  
46 square foot per year; (iv) from the years 2040 to 2044 have CO<sub>2</sub>e emissions of no greater than  
47 4.9 kilograms of CO<sub>2</sub>e per square foot per year; and (v) from the years 2045 to 2049 have CO<sub>2</sub>e  
48 emissions of no greater than 2.4 kilograms of CO<sub>2</sub>e per square foot per year.

49 (d) The Department shall promulgate regulations regarding implementation of and  
50 compliance with this section, including but not limited to the use of renewable energy credits for  
51 compliance purposes, and including but not limited to periodic updates of the 5 Btu per hour per  
52 gross square foot standard for biolabs.

53 (e) Nothing in this section shall prevent a municipality from adopting a bylaw or  
54 ordinance regarding the reporting and CO2e emissions reduction requirements for existing  
55 hospitals, biolabs or other facilities.

56 (f) The requirements of this section shall not apply to any of the following:

57 (i) freestanding cooking appliances that are not connected to the building's natural gas or  
58 propane infrastructure;

59 (ii) freestanding outdoor heating appliances that are not connected to the building's  
60 natural gas or propane infrastructure;

61 (iii) emergency generators, back-up and stand-by power;

62 (iv) appliances to produce potable or domestic hot water from centralized hot water  
63 systems in buildings with a gross building floor area of at least 10,000 square feet; provided, that  
64 the architect, engineer or general contractor on the project certifies by affidavit that no  
65 commercially available electric hot water heater exists that could meet the required hot water  
66 demand for less than 150 per cent of installation costs, compared to a fossil fuel hot water  
67 system.

68 (g) The department may grant a waiver from the provisions of this section in the event  
69 that compliance with this section makes a project impractical to implement or imposes  
70 extraordinary challenges. Waiver requests shall be supported by a detailed explanation of the  
71 justification for such request and by the applicant's proposal for limiting emissions to levels  
72 consistent with the goals specified in chapter 8 of the acts of 2021.

73           Waivers may be subject to reasonable conditions. Where possible, waivers shall be issued  
74 for specific portions of a project that are impractical to implement or impose extraordinary  
75 challenges, rather than for entire projects.

76           (h) By local bylaw or ordinance, a municipality may impose reasonable penalties for  
77 violations of this section.

78           SECTION 2. The requirements of this act shall take effect on January 1, 2025.