

SENATE No. 2144

The Commonwealth of Massachusetts

PRESENTED BY:

Jason M. Lewis

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 building energy and decarbonization.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	
<i>Jason M. Lewis</i>	<i>Fifth Middlesex</i>	
<i>James B. Eldridge</i>	<i>Middlesex and Worcester</i>	<i>3/6/2023</i>
<i>Rebecca L. Rausch</i>	<i>Norfolk, Worcester and Middlesex</i>	<i>7/6/2023</i>
<i>Manny Cruz</i>	<i>7th Essex</i>	<i>1/11/2024</i>

SENATE No. 2144

By Mr. Lewis, a petition (accompanied by bill, Senate, No. 2144) of Jason M. Lewis and James B. Eldridge for legislation relative to building energy and decarbonization. Telecommunications, Utilities and Energy.

[SIMILAR MATTER FILED IN PREVIOUS SESSION
SEE SENATE, NO. 2202 OF 2021-2022.]

The Commonwealth of Massachusetts

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

An Act relative to building energy and decarbonization.

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. Said Section 1 of chapter 23M is further amended by inserting the
2 following definitions:-

3 “District heating and cooling system”, a local system consisting of a central generation
4 source and network of pipes that use hot water, chilled water, or steam to provide space heating,
5 cooling and/or hot water to multiple buildings.

6 “Energy storage system”, a commercially available technology that is capable of
7 absorbing energy, storing it for a period of time and thereafter dispatching the energy; provided,
8 however, that an energy storage system shall (1) use mechanical, chemical or thermal processes
9 to store energy that was generated for use at a later time; (2) store thermal energy for direct

10 heating or cooling use at a later time in a manner that avoids the need to use electricity at that
11 later time; (3) use mechanical, chemical or thermal processes to store energy generated from
12 renewable resources for use at a later time; or (4) use mechanical, chemical or thermal processes
13 to capture or harness waste electricity and to store the waste electricity generated from
14 mechanical processes for delivery at a later time.

15 “Microgrid”, a group of interconnected loads and distributed energy sources within
16 clearly defined electrical boundaries that acts as a single controllable entity with respect to the
17 grid and that connects and disconnects from such grid to enable it to operate in both grid
18 connected and island mode.

19 SECTION 2. Subsection (c) of said section 21 of chapter 25 is hereby amended by
20 inserting before the last sentence the following:-

21 The council shall not approve plans that it determines do not demonstrate alignment with
22 Chapter 21N greenhouse gas emissions limits and sublimits during the three-year plan term.

23 SECTION 3. Section 22 of said chapter 25 of the General laws are hereby amended by
24 striking out subsection (b) and inserting in place thereof the following:-

25 (b) The council shall, as part of the approval process by the department, seek to maximize
26 net climate, environmental, equity, and economic benefits through energy efficiency, load
27 management, and non-combustion renewable energy resources and to achieve energy, capacity,
28 climate and environmental goals through a sustained and integrated statewide energy efficiency
29 effort. The council shall review and approve demand resource program plans and budgets, work
30 with program administrators in preparing energy resource assessments, determine the economic,
31 system reliability, climate and air quality benefits of efficiency, non-combustion renewable

32 energy, and load management resources, conduct and recommend relevant research, and
33 recommend long term efficiency, renewable energy, and load management goals to achieve
34 climate, environmental, and equity goals in a cost-effective manner. Approval of efficiency and
35 demand resource plans and budgets shall require a two-thirds majority vote. Approval shall not
36 be granted unless the council determines that program administrators have demonstrated the
37 plan's alignment with Chapter 21N greenhouse gas emissions limits and sublimits.

38 The council shall, as part of its review of plans, examine opportunities to offer joint
39 programs providing similar efficiency measures that save more than 1 fuel resource or to
40 coordinate programs targeted at saving more than one fuel resource. Any costs for joint programs
41 shall be allocated equitably among the efficiency programs. The council shall establish annually
42 increasing targets for serving populations traditionally underserved by the program including but
43 not limited to moderate-income ratepayers, renter ratepayers, ratepayers whose primary language
44 is not English, small business ratepayers and ratepayers in Environmental Justice communities.

45 SECTION 4. Section 2 of chapter 25a is amended by striking out the first sentence in the
46 second paragraph and inserting in place thereof:-

47 There shall be within the department 4 divisions: (i) a division of energy efficiency,
48 which shall work with the department of public utilities regarding energy efficiency programs;
49 (ii) a division of renewable and alternative energy development, which shall oversee and
50 coordinate activities that seek to maximize the installation of renewable and alternative energy
51 generating sources that will provide benefits to ratepayers, advance the production and use of
52 biofuels and other alternative fuels as the division may define by regulation, and administer the
53 renewable portfolio standard and the alternative portfolio standard; (iii) a division of building

54 energy and emissions reductions which shall oversee and coordinate activities that seek to
55 maximize building sector decarbonization; and (iv) a division of green communities, which shall
56 serve as the principal point of contact for municipalities and other governmental bodies
57 concerning all matters under the jurisdiction of the department of energy resources.

58 SECTION 5. Section 6 of said chapter 25A is hereby amended by inserting after clause
59 (14) the following:-

60 (15) Regulations adopted by this section shall be reviewed and updated in increments of
61 not less than three years and in alignment with the same cycle as the International Energy
62 Conservation Code; provided further that the department in consultation with the board of
63 building regulations and standards shall hold hearings to review such updates including not less
64 than 3 held in different counties of the commonwealth for each review or update cycle with
65 appropriate and reasonable advance notice to said communities.

66 SECTION 6. Section 10 of said chapter 25A is hereby amended by striking subsection
67 (b) in its entirety and inserting in place thereof the following new subsection:-

68 (b) The division shall establish a green communities program. The purpose of the
69 program shall be to provide technical and financial assistance, in the form of grants and loans, to
70 municipalities and other local governmental bodies that qualify as green communities and or
71 green plus communities under this section. These loans and grants shall be used to finance all or
72 a portion of the costs of studying, designing, constructing and implementing energy efficiency
73 and climate change mitigation activities, including but not limited to, energy conservation and
74 renewable energy measures and projects; procurement of energy management services;
75 installation of energy management systems; adoption of demand side reduction initiatives;

76 deployment of energy storage, microgrids, or district energy systems connected to renewable
77 energy generation; purchase of zero-emissions vehicles; installation of electric vehicle charging
78 equipment or infrastructure, or related technologies; coordination of residential or small business
79 clean energy outreach, technical assistance, or financing programs; and the adoption of energy
80 efficiency policies. They shall also be used to finance the siting and construction of renewable
81 and alternative energy projects on municipally-owned land.

82 SECTION 7. Said section 10 of said chapter 25A is hereby further amended by inserting
83 after subsection (c) the following new subsection:-

84 (c ½) To qualify as a green plus community, a municipality or other governmental body
85 shall: (1) file an application with the division in a form and manner to be prescribed by the
86 division; (2) establish a greenhouse gas emissions baseline inventory for residential, commercial
87 and industrial buildings sited within the municipality, which may also include transportation,
88 waste, and other sources of emissions within the municipality; (3) put in place a comprehensive
89 plan whose implementation begins within 1 year from the date of initial participation in the
90 program, designed to reduce the greenhouse gas emissions baseline inventory by a percentage
91 approved by the division that is not less than 20 per cent within 5 years of initial participation in
92 the program; (4) adopt the municipal opt-in specialized stretch energy code established in
93 subsection 14 of Section 6 of chapter 25A; and (5) fulfill qualifications subsection 2 through 6
94 inclusive of the green community program as described in section (c) or be served by a
95 municipal lighting plant.

96 Preference shall be given to those municipalities that include additional sources of
97 emissions within their greenhouse gas emissions baseline inventory. Not later than one year after

98 the adoption of this section, the division shall adopt a tracking system for community-wide
99 greenhouse gas emissions, to include but not be limited to the building, transportation, energy,
100 land use, and waste sectors, that can be used by municipalities. The secretary may waive these
101 requirements based on a written finding that due to unusual circumstances, a municipality cannot
102 reasonably meet all of the requirements and the municipality has committed to alternative
103 measures that advance the purposes of the green plus communities program as effectively as
104 adherence to the requirements.

105 SECTION 8. Said section 10 of said chapter 25A is hereby further amended in subsection
106 (d) by striking the figure “20,000,000” and inserting in place thereof “40,000,000 with not less
107 than \$10,000,000 going to green plus communities”.

108 SECTION 9. Said chapter 25A is hereby amended by adding after Section 20 the
109 following sections:-

110 Section 20. (a) For the purposes of this section the following words shall have the
111 following meanings:-

112 “building emissions”, greenhouse gas emissions as expressed in metric tons of carbon
113 dioxide equivalent emitted as a result of operating a covered building and calculated in
114 accordance with rules promulgated by the department.

115 “building emissions intensity”, for a covered building, the number obtained by dividing
116 the building emissions by the gross floor area for such building, expressed in metric tons of
117 carbon dioxide equivalent per square foot per year.

118 (b) The purpose of the building energy and emissions reduction division shall be to
119 establish and administer programs and regulations for assessing annual energy use in and
120 emissions from buildings to further the goal of achieving emissions limits and sublimits
121 established in Chapter 21N. The division shall collaborate with other department divisions, the
122 department of housing and economic development, MassDevelopment, Massachusetts Clean
123 Energy Center, the net zero energy building advisory council established in section 23 of this
124 chapter and other relevant stakeholders on the development of programs and regulations, as
125 appropriate. The division shall take all reasonable steps to inform the owners of buildings of their
126 obligations under this section in advance including but not limited to materials developed for
127 outreach and education made available on the division's website. Said materials shall be
128 available in English and in other languages commonly spoken in the commonwealth. Such
129 outreach shall include a list of city, state, federal, private and utility incentive programs related to
130 building energy reduction, renewable energy, or building retrofits for which buildings reasonably
131 could be eligible.

132 (c) The division shall promulgate regulations establishing annual carbon intensity limits
133 on building emissions or a building energy performance standard or a combination thereof for
134 covered buildings in alignment with emissions limits and sublimits established in Chapter 21N.
135 Covered buildings shall be established by the division and reflect a phased-in schedule that shall
136 begin no later than January 1, 2026 beginning with large buildings no smaller than 20,000 square
137 feet to be defined by the division and shall include all building types by 2028 and all buildings
138 by 2032. The division may include exemptions for small accessory buildings or structures with
139 no or minimal space conditioning, to be defined in regulations. Phases may be defined by, but
140 are not limited to being defined by, size and type, such as commercial and industrial properties,

141 residential buildings, and other specialized typologies. The building performance limits shall be
142 set for periods of not more than five years and emissions limits shall decrease over time at a pace
143 to at least align with emissions limits and sublimits established in Chapter 21N.

144 (d) The division shall promulgate regulations for alternative methods of compliance with
145 building emissions intensity limits, energy use performance standards or a combination thereof
146 as established by the division including but not limited to adjustments for the use of on-site
147 renewable energy generation, adjustments for special categories of buildings or for special use,
148 accommodations or support for buildings housing low- or moderate-income occupants, and
149 alternative compliance payments. Alternative compliance payments shall be established such that
150 low- and moderate-income households and small businesses are charged reduced amounts
151 proportionate with their ability to pay. The division shall also establish fines for noncompliance
152 which shall be higher than alternative compliance payments. Both alternative compliance
153 payments and fines shall be deposited into the building energy retrofit program trust fund
154 established in section 20 of this chapter.

155 (e) The division shall create and manage an online portal for the submission of required
156 data by building owners, including the building's baseline emissions and energy use for year one
157 of the program and annual reports on that data thereafter.

158 (f) The division shall establish an annual deadline for receiving reports from building
159 owners and a deadline extension or hardship waiver process for owners who, in the judgment of
160 the division, demonstrate cause for a deadline extension or hardship waiver.

161 (g) Except as otherwise provided in this statute or otherwise provided by regulation, after
162 a building is deemed a covered building, it shall not exceed the annual building performance
163 limits for such building as determined by the division.

164 (h) The division shall make building information and data available to the public on its
165 website. For each building, the information made available shall include, but is not limited to,
166 building identification information and building emissions and energy data.

167 The department shall utilize such practices as are necessary to prevent the public
168 disclosure of personal information regarding owners and tenants, and maintain a quality
169 assurance process to improve the accuracy and completeness of the available information. The
170 department shall provide owners with the opportunity to submit contextual information related to
171 data and shall disclose such information on its website upon request by the owner. The website
172 shall be made available in English and multiple other languages commonly spoken in the
173 commonwealth.

174 (i) The division shall prepare an annual report that shall be posted on the department's
175 website and filed with the house and senate committees on ways and means and the joint
176 committee on telecommunications, utilities and energy not later than December 31. The report
177 shall include, but is not limited to, analysis on implementation of, compliance with, and results
178 from the program including progress towards emissions limits and sublimits established in
179 Chapter 21N. The division shall make available to a regional planning agency, municipality or
180 other public agency requesting such information any data set forth in this section, utilizing such
181 practices as are necessary to prevent the public disclosure of personal information regarding
182 owners and tenants.

183 (j) The division shall promulgate regulations governing the building performance
184 program after holding not less than 3 hearings held in different counties of the commonwealth.

185 Section 21. (a) There shall be a grant and loan program within the division known as the
186 Building Energy and Emissions Retrofit Funding Program, hereafter referred to as the program,
187 for the purpose of encouraging and supporting building owners to invest in deep energy retrofits
188 and whole-building energy performance upgrades to their properties that reduce greenhouse gas
189 emissions, create healthier homes and buildings, and are in alignment with achieving the GWSA
190 limits and sublimits established under Chapter 21N. Eligible projects for funding shall include
191 pre-weatherization barrier mitigation, pre-electrification barrier mitigation, and renewable energy
192 systems, if part of a more comprehensive deep energy retrofit or whole-building energy
193 performance upgrade. Conversions from one fossil fuel system to another or additions of fossil
194 fuel systems or infrastructure shall not be funded by these programs.

195 The division shall develop the program in consultation with the net zero energy building
196 advisory council established in section 23 of this chapter, the Department of Housing and
197 Community Development, the Department of Public Utilities, the Department of Environmental
198 Protection, the Energy Efficiency Advisory Council, the Department of Public Health, and the
199 Massachusetts Clean Energy Center. Nothing in this section guarantees an individual or
200 corporation a right to the benefits provided in this section.

201 (b) The division shall design and implement the program, which shall include a
202 certification process to certify qualified expenses for a grant or loan under this section.
203 Applications for the program shall be reviewed and grants or loans shall be awarded on no less
204 than an annual basis.

205 (c) The division shall, (i) promote awareness of the program, including through
206 coordination with relevant trade groups, community-based organizations, nonprofits,
207 municipalities, regional planning agencies, and by integration in economic development
208 marketing campaigns; and (ii) adopt measurable goals, performance measures, and an audit
209 strategy to assess the utilization and performance of the program.

210 (d) The division shall prioritize regionally diverse investments in (i) property that is
211 located in an environmental justice community as defined in section 62 of chapter 30; (ii)
212 property that is low- or moderate-income or rental housing; (iii) property owned by
213 municipalities; and (iv) projects that improve public health outcomes.

214 (e) The incentives shall be funded, at least in part, by the building energy retrofit program
215 trust fund established in section 20 of chapter 25A. To the extent possible, the program shall seek
216 to leverage existing state and federal programs including, but not limited to, Massachusetts
217 School Building Authority and the Massachusetts Public Library Construction Program.

218 (f) The division shall promulgate rules, regulations and guidelines for the administration
219 and oversight of this chapter which shall include definitions of deep energy retrofit, pre-
220 weatherization barriers, and pre-electrification barriers and may allow for municipalities to
221 establish or continue their own municipal program so long as it meets or exceeds the greenhouse
222 gas emissions reductions of the Building Energy Retrofit Funding Program. The department shall
223 commence awarding funds no later than January 1, 2025.

224 Section 22. (a) The commissioner shall create and administer the building energy retrofit
225 program trust fund into which shall be deposited: (i) any revenues or other financing sources
226 directed to the fund by appropriation; (ii) bond revenues authorized by the general court and

227 designated to be credited to the fund; (iii) any income derived from the investment credited to the
228 fund; (iv) funds from public or private sources including, but not limited to, gifts, federal or
229 private grants, donations, rebates and settlements received by the commonwealth that are
230 designated to be credited to the fund; and (v) all other amounts credited or transferred into the
231 fund from any other source.

232 (b) There shall be established upon the books of the commonwealth a separate fund to be
233 known as the Building Energy Retrofit Trust Fund. There shall be credited to said fund all
234 amounts received through (i) any revenues or other financing sources directed to the fund by
235 appropriation; (ii) bond revenues authorized by the general court and designated to be credited to
236 the fund; (iii) any income derived from the investment credited to the fund; (iv) funds from
237 public or private sources including, but not limited to, gifts, federal or private grants, donations,
238 rebates and settlements received by the commonwealth that are designated to be credited to the
239 fund; and (v) all other amounts credited or transferred into the fund from any other source. All
240 amounts credited to the fund shall be held in trust and shall be available for expenditure, without
241 further appropriation, by the department for activities of the department related to section 18 and
242 section 19 of this chapter. Any unexpended balance in the fund at the close of a fiscal year shall
243 remain in the fund and shall be available for expenditure in the following fiscal year; provided
244 however, that the fund shall not be in deficit at the end of any state fiscal year.

245 (c) The operating and administrative expenses shall not exceed 5 per cent of the annual
246 total revenue expended from the fund.

247 (d) Annually, not later than December 1 of each year, the commissioner shall report on
248 the activities of the fund to the clerks of the house of representatives, the senate and to the house

249 and senate committees on ways and means, and the net zero energy building advisory council
250 established in section 23 of this chapter. The report shall include an accounting of expenditures
251 made from the fund with a description of the purpose of each expenditure, an accounting of
252 amounts credited to the fund and any unexpended balance remaining in the fund.

253 Section 23. (a) The commissioner shall establish a net zero energy building advisory
254 council which shall review and provide feedback on the implementation of programs under the
255 building energy and emissions performance division with a focus on supporting development of
256 net zero buildings in the commonwealth in alignment with the targets established in chapter 21N.
257 The council shall be chaired by the commissioner or a designee and members shall include, but
258 are not limited to: (i) The attorney general, or a designee; (ii) at least two residents of
259 environmental justice communities as defined in section 62 of chapter 30; (iii) at least two
260 certified minority-owned or women-owned small business enterprises that perform clean energy
261 services; (iv) one representative of the public institutions of higher education included in section
262 5 of chapter 15A; (v) one representative of the MassHire State Workforce Board; (vi) one
263 representative of the energy efficiency advisory council established in section 22 of chapter 25
264 who does not represent a state agency or utility that is otherwise seated on the council; (vii) one
265 representative of a building trade association; (viii) one representative of the labor community;
266 (ix) one residential architect; (x) one commercial architect; (xi) one building engineer; (xii) one
267 non-profit that specializes in clean energy efficiency research; (xiii) one representative of the
268 low-income energy affordability network; (xiv) two representatives of commonwealth cities and
269 towns, one rural and one suburban; (xv) one representative of a regional planning agency; and
270 (xvi) one expert in land use.

271 Non-voting members shall include the secretary of housing and community development
272 or their designee; the commissioner of the department of public health or their designee the
273 commissioner of the department of environmental protection or their designee; the CEO of
274 Massachusetts Clean Energy Center or their designee; a representative of an investor-owned
275 utility, and a representative of a municipal lighting plant or municipal light plant industry
276 association.

277 Interested parties shall apply to the commissioner for designation as members. There
278 shall be members from each county of the commonwealth represented on the council. In their
279 initial appointments, the commissioner shall designate one third of members to serve for one
280 year, one third to serve for a term of two years and the remaining third to serve for a term of
281 three years and their successors shall serve for terms of three years.

282 The advisory board may convene working groups. Such working groups may include
283 individuals external to the advisory board. The commissioner shall invite the appropriate federal,
284 state and local agencies and authorities to participate.

285 (b) The advisory council shall meet at least 4 times a year and shall hold at least 2 public
286 hearings each year. The council shall review and monitor the recommendations for expenditure
287 of grants and programs in the secretariat. In the event the council or members of the council
288 disapproves of any such recommendation it may file a report noting its objection with the
289 governor, the house and senate committees on ways and means and the joint committee on
290 environment, natural resources and agriculture.

291 (c) Not later than December 1 of each year, the Department shall report on the activities
292 of the council to the clerks of the house of representatives and the senate, to the house and senate

293 committees on ways and means and to the chairs of the joint committee on telecommunications,
294 utilities and energy.

295 SECTION 10. Subsection (o) of Section 94 of chapter 143 is hereby amended by adding
296 at the end:-

297 “If the energy provisions of the state building code are not updated within said one year
298 of any revision to the International Energy Conservation Code (IECC), the Board shall report on
299 the status of approval of the latest International Energy Conservation Code and steps being taken
300 to move towards expedient adoption. Reports shall be filed with the chairs of the joint committee
301 on telecommunication, utilities and energy, the joint committee on Consumer Protection and
302 Professional Licensure the clerk of the house of representatives, and the clerk of the senate no
303 later than 30 days beyond the one-year deadline described in this section, and again every 6
304 months, until the past due IECC provisions and any more stringent amendments are adopted.”

305 SECTION 11. The Department of Energy Resources, in consultation with Massachusetts
306 Clean Energy Center, the Board of Building Regulations and Standards and the secretary of
307 housing and economic development, shall issue a written report to the clerk of the house of
308 representatives, the clerk of the senate and the joint committee on telecommunications, utilities,
309 and energy within one year of adoption of this act which shall include, but is not limited to,
310 analysis on the feasibility and timing for adopting the following: (i) mass timber buildings taller
311 than five stories; (ii) reduction of embodied carbon; (iii) carbon storage in building materials;
312 (iv) modular building systems; and (v) healthy non-toxic building materials.

313 The report shall include recommendations for any legislation that may be required to
314 adopt these or other innovations in the commonwealth.

315 SECTION 12. Notwithstanding any special or general law, rule or regulation to the
316 contrary, not later than January 1, 2025, the opt-in specialized stretch energy code as developed
317 and promulgated under section 6 of chapter 25A shall be incorporated into the Stretch Energy
318 Code in Appendix 115AA of the Massachusetts building energy code. Upon such incorporation,
319 municipalities that previously adopted the opt-in specialized stretch energy code shall be part of
320 the Stretch Energy Code in Appendix 115AA of the Massachusetts building energy code with no
321 action required.

322 SECTION 13. Notwithstanding any special or general law, rule or regulation to the
323 contrary, not later than January 1, 2028, the state board of building regulations and standards
324 shall incorporate the Stretch Energy Code in Appendix 115AA of the Massachusetts building
325 energy code into the base energy provisions of the state building code issued by the state board
326 of building regulations under section 93 of chapter 143.