

SENATE . . . . . No. 9

The Commonwealth of Massachusetts

PRESENTED BY:

Michael J. Barrett

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 creating a next-generation roadmap for Massachusetts climate policy.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	
Michael J. Barrett	Third Middlesex	
Thomas A. Golden, Jr.	16th Middlesex	
Cynthia Stone Creem	First Middlesex and Norfolk	1/24/2021
Marc R. Pacheco	First Plymouth and Bristol	1/24/2021
Tommy Vitolo	15th Norfolk	1/24/2021
Michelle L. Ciccolo	15th Middlesex	1/24/2021
Mark C. Montigny	Second Bristol and Plymouth	1/24/2021
Tram T. Nguyen	18th Essex	1/24/2021
Denise C. Garlick	13th Norfolk	1/24/2021
Rebecca L. Rausch	Norfolk, Bristol and Middlesex	1/24/2021
Kenneth I. Gordon	21st Middlesex	1/25/2021

**SENATE . . . . . No. 9**

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By Mr. Barrett, a petition (accompanied by bill, Senate, No. 9) of Michael J. Barrett and Thomas A. Golden, Jr., for legislation to create a next-generation roadmap for Massachusetts climate policy. Temporary Ways and Means.

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[SIMILAR MATTER FILED IN PREVIOUS SESSION  
SEE SENATE, NO. 2995 OF 2019-2020.]

**The Commonwealth of Massachusetts**

\_\_\_\_\_  
**In the One Hundred and Ninety-Second General Court  
(2021-2022)**  
\_\_\_\_\_

An Act creating a next-generation roadmap for Massachusetts climate policy.

*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. Section 1 of chapter 21N of the General Laws, as appearing in the 2018  
2 Official Edition, is hereby amended by striking out the definition of “direct emissions” and  
3 inserting in place thereof the following definition:-

4           "Direct emissions", emissions from sources that are owned or operated, in whole or in  
5 part, by any person, entity or facility in the commonwealth including, but not limited to,  
6 emissions from any transportation vehicle, building, structure, distribution system or residential,  
7 commercial, institutional, industrial, waste management, agricultural or manufacturing process.

8 SECTION 2. Said section 1 of said chapter 21N, as so appearing, is hereby further  
9 amended by striking out the definition of “Greenhouse gas emissions source” and inserting in  
10 place thereof the following definition:-

11 "Greenhouse gas emissions source", a source, or category of sources, of greenhouse gas  
12 emissions with emissions that are at a level of significance, as determined by the secretary, such  
13 that its inclusion in the programs and initiatives established under this chapter will enable the  
14 secretary to effectively reduce greenhouse gas emissions and ensure compliance with the  
15 statewide greenhouse gas emissions limits and sublimits.

16 SECTION 3. Said section 1 of said section 21N, as so appearing, is hereby further  
17 amended by striking out the definition of “Indirect emissions” and inserting in place thereof the  
18 following definition:-

19 “Indirect emissions”, emissions associated with the consumption of any purchased  
20 electricity, fuel, steam and heating or cooling by a person, an entity or a facility in the  
21 commonwealth.

22 SECTION 4. Said section 1 of said section 21N, as so appearing, is hereby further  
23 amended by striking out the definition of “Market-based compliance mechanism” and inserting  
24 in place thereof the following 2 definitions:-

25 “Market-based compliance mechanism”, any form of market-based or priced compliance  
26 system imposed on sources or categories of sources of greenhouse gases, or any pricing  
27 mechanism imposed directly on greenhouse gas emissions sources or on their distribution or sale,  
28 designed to reduce emissions as required by this chapter, which shall include, but not be limited  
29 to: (i) a system of market-based declining annual aggregate emissions limitations for sources or

30 categories of sources that emit greenhouse gases; (ii) greenhouse gas emissions exchanges,  
31 banking, credits and other transactions governed by rules and protocols established by the  
32 secretary, the regional greenhouse gas initiative or other regional program that result in the same  
33 greenhouse gas emissions reduction, over the same time period, as direct compliance with a  
34 greenhouse gas emissions limit or emission reduction measure adopted pursuant to this chapter;  
35 or (iii) a system of charges or exactions imposed to reduce statewide greenhouse gas emissions,  
36 in whole or in part.

37 “Natural and working lands”, lands within the commonwealth that: (i) are actively used  
38 by an agricultural owner or operator for an agricultural operation that includes, but is not limited  
39 to, active engagement in farming or ranching; (ii) produce forest products; (iii) consist of  
40 forests, grasslands, freshwater and riparian systems, wetlands, coastal and estuarine areas,  
41 watersheds, wildlands or wildlife habitats; or (iv) are used for recreational purposes, including  
42 parks, urban and community forests, trails or other similar open space land.

43 SECTION 5. Subsection (a) of section 2 of said chapter 21N, as so appearing, is hereby  
44 amended by striking out the first sentence and inserting in place thereof the following sentence:-

45 The department shall monitor and regulate emissions of greenhouse gases with the goal  
46 of reducing those emissions in order to achieve greenhouse gas emissions limits and sublimits  
47 established by this chapter.

48 SECTION 6. Said section 2 of said chapter 21N, as so appearing, is hereby amended by  
49 striking out, in line 6, the word “regional”.

50 SECTION 7. Said section 2 of said chapter 21N, as so appearing, is hereby further  
51 amended by striking out, in lines 13 and 14, 18, 22, 24, and 28, each time they appear, the words  
52 “the regional” and inserting in place thereof, in each instance, the following word:- a.

53 SECTION 8. Section 3 of said chapter 21N, as so appearing, is hereby amended by  
54 striking out subsection (b) and inserting in place thereof the following subsection:-

55 (b) The secretary shall, in consultation with the department and the department of energy  
56 resources, adopt the following statewide greenhouse gas emissions limits: (i) an interim 2025  
57 statewide greenhouse gas emissions limit; (ii) an interim 2030 statewide greenhouse gas  
58 emissions limit; (iii) an interim 2035 statewide greenhouse gas emissions limit; (iv) an interim  
59 2040 statewide greenhouse gas emissions limit; (v) an interim 2045 statewide greenhouse gas  
60 emissions limit; and (vi) a 2050 statewide emissions limit that achieves at least net zero  
61 statewide greenhouse gas emissions; provided, however, that in no event shall the level of  
62 emissions in 2050 be higher than a level 85 per cent below the 1990 level. Each limit shall be  
63 accompanied by publication of a comprehensive, clear and specific roadmap plan to realize said  
64 limit.

65 SECTION 9. Said chapter 21N is hereby further amended by inserting after section 3 the  
66 following 2 sections:-

67 Section 3A. (a) The secretary shall, in consultation with the secretary of housing and  
68 economic development and the secretary of transportation, adopt sector-based statewide  
69 greenhouse gas emissions sublimits as components of each statewide greenhouse gas emissions  
70 limit adopted pursuant to subsection (b) of section 3 for the sectors of electric power,  
71 transportation, commercial and industrial heating and cooling, residential heating and cooling,

72 industrial processes, and natural gas distribution and service. In order to achieve the greenhouse  
73 gas emissions limits established by this chapter, the secretary may adopt sector-based statewide  
74 greenhouse gas emissions sublimits for any other sector or source the secretary may designate.

75 (b) Sector-based statewide greenhouse gas emissions sublimits for a given year shall not,  
76 in the aggregate, exceed the statewide greenhouse gas emissions limit for the year and shall be  
77 designed to maximize the ability of the commonwealth to meet the 2050 statewide greenhouse  
78 gas emissions limit established in subsection (b) of section 3.

79 Section 3B. Not later than March 1 of every third year of each plan approved under  
80 section 21 of chapter 25, the secretary shall set a goal, expressed in tons of carbon dioxide  
81 equivalent, for the succeeding plan's necessary contribution to meeting each statewide  
82 greenhouse gas emissions limit and sublimit adopted pursuant to this chapter.

83 SECTION 10. Said chapter 21N is hereby further amended by striking out sections 4 to  
84 6, inclusive, as appearing in the 2018 Official Edition, and inserting in place thereof the  
85 following 3 sections:-

86 Section 4. (a) The secretary shall adopt the 2020 statewide greenhouse gas emissions  
87 limit that shall be between 10 per cent and 25 per cent below the 1990 emissions level and a plan  
88 for achieving said reduction. The secretary shall consult with all state agencies and regional  
89 authorities with jurisdiction over sources of greenhouse gases on all elements of the emissions  
90 limits, sublimits, and roadmap plans required by this chapter, including, but not limited to,  
91 electrical generation, load based-standards or requirements, the provision of reliable and  
92 affordable electrical service and statewide fuel supplies. The 2025, 2030, 2035, 2040, 2045 and

93 2050 statewide greenhouse gas emissions limits and the accompanying roadmap plans for  
94 realizing the limits shall comply with the requirements of this section and section 5.

95 (b) The secretary shall consider all relevant information pertaining to greenhouse gas  
96 emissions reduction goals and programs in other states and nations.

97 (c) The secretary shall evaluate the total potential costs and economic and noneconomic  
98 benefits of various reduction measures to the economy, environment and public health, using the  
99 best available economic models, emissions estimation techniques and other scientific methods.

100 (d) The secretary shall take into account the relative contribution of each source or source  
101 category to statewide greenhouse gas emissions and may set a de minimis threshold of  
102 greenhouse gas emissions below which emissions reduction requirements shall not apply.

103 (e) The secretary shall identify opportunities for emissions reduction measures from all  
104 verifiable and enforceable voluntary actions.

105 (f) The secretary shall conduct public hearings on the proposed 2025, 2030, 2035, 2040,  
106 2045 and 2050 statewide greenhouse gas emissions limits and the accompanying roadmap plans  
107 for realizing the limits. The secretary shall conduct a portion of these workshops in regions that  
108 have the most significant exposure to air pollutants, including, but not limited to, communities  
109 with minority populations, communities with low-income populations, or both.

110 (g) Not more than 18 months after the last day of 2020, 2025, 2030, 2035, 2040, 2045,  
111 2050 and any other calendar year for which a statewide greenhouse gas emissions limit is  
112 adopted pursuant to statute or regulation, the secretary shall issue a statement in writing to the  
113 clerks of the house of representatives and the senate, the house and senate committees on ways

114 and means, the joint committee on telecommunications, utilities and energy and the joint  
115 committee on environment, natural resources and agriculture. The statement shall indicate,  
116 drawing upon the best available data and measurements, the degree of compliance achieved by  
117 the commonwealth with the statewide greenhouse gas emissions limit. The statement shall  
118 reasonably quantify the extent to which emissions exceeded or did not exceed the limit and shall  
119 consider the lessons to be learned from any success or failure to comply with said limit. If  
120 emissions exceeded the limit, the statement shall describe remedial steps that might be taken to  
121 offset the excess emissions and ensure compliance with the next upcoming limit adopted  
122 pursuant to statute or regulation.

123 (h) The interim 2030 statewide greenhouse gas emissions limit shall be at least 50 per  
124 cent below the 1990 level, and the interim 2040 statewide greenhouse gas emissions limit shall  
125 be at least 75 per cent below the 1990 level.

126 Section 5. To the extent practicable, the roadmap plans required by subsection (b) of  
127 section 3 for 2025, 2030, 2035, 2040 and 2045 shall be consistent with each other, cumulative in  
128 effect and constructed to realize the 2050 statewide greenhouse gas emissions limit imposed by  
129 said subsection (b) of said section 3. Each plan, including the 2050 plan, shall (i) address each  
130 sector subject to a statewide greenhouse gas emissions sublimit imposed by section 3A; (ii)  
131 indicate for each sector how, to what extent, and when the commonwealth will act to reduce its  
132 emissions in order to realize the 2050 statewide greenhouse gas emissions limit; (iii) consider  
133 whether regulations or other measures undertaken, including distribution of emissions  
134 allowances, are equitable and minimize costs and maximize the total benefits to the  
135 commonwealth and encourage greenhouse gas emissions reductions; (iv) consider whether  
136 activities undertaken pursuant to the regulations complement, and do not interfere with, efforts to

137 achieve and maintain federal and state ambient air quality standards and reduce toxic air  
138 contaminant emissions; (v) consider overall societal benefits, including reductions in other air  
139 pollutants, diversification of energy sources and other benefits to the economy, environment and  
140 public health; (vi) consider whether state actions minimize the administrative burden of  
141 implementing and complying with these plans and regulations; (vii) consider whether state  
142 actions minimize leakage; (viii) consider the significance of the contribution of each source or  
143 category of sources to statewide emissions of greenhouse gases; (ix) consider whether  
144 greenhouse gas emissions reductions achieved are real, permanent, quantifiable, verifiable, and  
145 enforceable; (x) quantify the emissions reductions to be realized due to the electric and gas  
146 energy efficiency programs established under sections 19 and 21 of chapter 25; (xi) set numerical  
147 benchmarks and track adoption within the commonwealth of emissions reduction products,  
148 solutions, and improvements used to achieve the statewide greenhouse gas emissions limits and  
149 sublimits, including, but not limited to, electric vehicles, electric vehicle charging stations, solar  
150 photovoltaic and solar thermal technologies, offshore wind facilities, the release of measurable  
151 greenhouse gases from and carbon sequestration by natural and working lands and the products  
152 derived from these lands to the maximum extent practicable, energy storage capacity, air-source  
153 and ground-source heat pumps and anaerobic digestion; (xii) summarize the steps taken by the  
154 commonwealth to improve or mitigate economic, environmental and public health impacts on  
155 low- or moderate-income individuals and environmental justice populations; (xiii) (A) contain a  
156 statewide baseline measurement and measure the current carbon flux on natural and working  
157 lands; (B) adopt statewide goals to reduce greenhouse gas emissions and increase carbon  
158 sequestration on natural and working lands; and (C) develop a natural and working lands plan  
159 that outlines actions to meet these statewide goals, including, but not limited to, land protection,

160 management and restoration and state and local legislation, laws and regulations, programs,  
161 grants, loans, incentives and public-private partnerships, and provide guidance and strategies for  
162 state agencies, authorities, municipalities, regional planning agencies, nonprofit organizations,  
163 landowners and operators; provided, however, that said plan shall be developed and informed by  
164 a stakeholder process and that the baseline, goal and plan shall be integrated into the inventory,  
165 baseline assessment, plan and reporting requirements pursuant to this chapter and shall be  
166 consistent with state climate change adaptation and resiliency policies; (xiv) include the results  
167 of quantitative modeling and analysis of the commonwealth's energy economy and greenhouse  
168 gas emissions in their state and regional context, including, but not limited to, the regional  
169 electric distribution and transmission grid; provided, however, that said modeling and analysis  
170 may be conducted in conjunction with other states or regional entities as part of an analysis of  
171 reducing regional emissions to a level consistent with this chapter; provided further, that the  
172 secretary is authorized to utilize back-cast methodology; (xv) publish the results of any modeling  
173 and analysis performed pursuant to this section and, to the maximum extent permitted by law,  
174 make available for public inspection and use the model, all model assumptions, and all input and  
175 output data; provided, that the secretary may protect from public disclosure, trade secrets,  
176 confidential, competitively sensitive or other proprietary information provided in the course of  
177 proceedings in the same manner as provided in section 5D of chapter 25; and (xvi) make  
178 recommendations for future policy action. Each roadmap plan shall be filed with the clerks of the  
179 house of representatives and the senate, the house and senate committees on ways and means, the  
180 joint committee on telecommunications, utilities and energy and the joint committee on  
181 environment, natural resources and agriculture.

182           Section 6. The secretary shall promulgate regulations regarding all sources or categories  
183 of sources that emit greenhouse gases in order to achieve the emissions limits and sublimits and  
184 implement the roadmap plans set forth in subsection (b) of section 3. Said regulations shall  
185 achieve required emissions reductions equitably and in a manner that protects low- and  
186 moderate-income persons and environmental justice populations.

187           SECTION 11. Subsection (a) of section 7 of said chapter 21N, as so appearing, is hereby  
188 amended by striking out, in line 6, the word “limit” and inserting in place thereof the following  
189 word:- limits.

190           SECTION 12. Section 9 of said chapter 21N, as so appearing, is hereby amended by  
191 striking out, in line 2, the word “electrical” and inserting in place thereof the following word:-  
192 electric.

193           SECTION 13. Section 9 of chapter 23J of the General Laws, as so appearing, is hereby  
194 amended by striking out, in line 33, the words “and (iii) by” and inserting in place thereof the  
195 following words:- (iii) funding research, design and evaluation of pilots to promote energy  
196 innovation; and (iv).

197           SECTION 14. Said chapter 23J is hereby further amended by adding the following  
198 section:-

199           Section 13. (a) There shall be within the center a clean energy equity workforce and  
200 market development program to provide workforce training, educational and professional  
201 development, job placement, startup opportunities and grants promoting participation in the  
202 commonwealth’s energy efficiency, clean energy, and clean heating and cooling industries to: (i)  
203 certified minority-owned and women-owned small business enterprises; (ii) individuals residing

204 within an environmental justice community; and (iii) current and former workers from the fossil  
205 fuel industry. The program shall: (i) identify the employment potential of the energy efficiency  
206 and clean energy industries and the skills and training needed for workers in those fields; (ii)  
207 maximize energy efficiency and clean energy employment opportunities for certified minority-  
208 owned and women-owned small business enterprises and individuals residing within an  
209 environmental justice community; (iii) identify barriers to deployment of clean energy and  
210 energy storage resources to certified minority-owned and women-owned small business  
211 enterprises; (iv) recommend near-term deployment targets consistent with the state's clean  
212 energy and climate change requirements and awarding incentives to deploy said resources; and  
213 (v) make recommendations to the general court for policies to promote employment growth and  
214 access to jobs in the clean energy industry.

215 (b) The department of public utilities shall annually transfer funds collected pursuant to  
216 section 19 of chapter 25 to the center for the purposes of implementing the clean energy equity  
217 workforce and market development program; provided, that the department shall transfer no less  
218 than \$12,000,000 no later than December 31 each year. Such transfer shall not reduce low-  
219 income program funds allocated pursuant to subsection (c) of said section 19 of said chapter 25.

220 SECTION 15. Chapter 25 of the General Laws is hereby amended by inserting after  
221 section 1 the following section:-

222 Section 1A. In discharging its responsibilities under this chapter and chapter 164, the  
223 department shall, with respect to itself and the entities it regulates, prioritize safety, security,  
224 reliability of service, affordability, equity and reductions in greenhouse gas emissions to meet  
225 statewide greenhouse gas emission limits and sublimits established pursuant to chapter 21N.

226 SECTION 16. Section 19 of said chapter 25, as appearing in the 2018 Official Edition, is  
227 hereby amended by inserting after the word “practicable”, in line 29, the following words:- ;  
228 provided, however, that when determining cost-effectiveness, the calculation of program benefits  
229 shall include calculations of the social value of greenhouse gas emissions reductions.

230 SECTION 17. Said section 19 of said chapter 25, as so appearing, is hereby further  
231 amended by inserting after the word “practicable”, in line 41, the following words:- ; provided,  
232 however, that when determining cost-effectiveness, the calculation of program benefits shall  
233 include calculations of the social value of greenhouse gas emissions reductions.

234 SECTION 18. Said section 19 of said chapter 25, as so appearing, is hereby further  
235 amended by inserting after the word “program”, in line 58, the following words:- ; provided,  
236 however, that when determining cost-effectiveness, the calculation of benefits shall include  
237 calculations of the social value of greenhouse gas emissions reductions.

238 SECTION 19. Said section 19 of said chapter 25, as so appearing, is hereby further  
239 amended by adding the following subsection:-

240 (d) Notwithstanding any provision of this section to the contrary, the department shall  
241 annually transfer, on or before December 31, not less than \$12,000,000 in funds collected  
242 pursuant to this section to the Massachusetts clean energy center for the clean energy equity  
243 workforce and market development program pursuant to subsection (b) of section 13 of chapter  
244 23J; provided, however, such transfer shall not reduce low-income program funds allocated  
245 pursuant to subsection (c).

246 SECTION 20. Section 21 of said chapter 25, as so appearing, is hereby amended by  
247 inserting after the word “supply”, in line 5, the following words:- ; provided, however, that when

248 determining cost-effectiveness, the calculation of benefits shall include calculations of the social  
249 value of greenhouse gas emissions reductions.

250 SECTION 21. Said section 21 of said chapter 25, as so appearing, is hereby further  
251 amended by inserting after the figure “22”, in line 17, the following words:- ; provided, however,  
252 that when determining cost-effectiveness, the calculation of benefits shall include calculations of  
253 the social value of greenhouse gas emissions reductions.

254 SECTION 22. Said section 21 of said chapter 25, as so appearing, is hereby further  
255 amended by inserting after the word “bodies”, in lines 20 and 21, the following words:- ;  
256 provided, however, that when determining cost-effectiveness, the calculation of benefits shall  
257 include calculations of the social value of greenhouse gas emissions reductions.

258 SECTION 23. Said section 21 of said chapter 25, as so appearing, is hereby further  
259 amended by inserting after the word “supply”, in line 25, the following words:- ; provided,  
260 however, that when determining cost-effectiveness, the calculation of benefits shall include  
261 calculations of the social value of greenhouse gas emissions reductions.

262 SECTION 24. Said section 21 of said chapter 25, as so appearing, is hereby further  
263 amended by striking out, in line 69, the words “and (ix)” and inserting in place thereof the  
264 following words:- (ix) an estimate of the social value of greenhouse gas emissions reductions  
265 that will result from the plan, including a numerical value of the plan’s contribution to meeting  
266 each statewide greenhouse gas emissions limit and sublimit set by statute or regulation, together  
267 with provisions for giving each value prominent display in communications and plan documents;  
268 and (x).

269 SECTION 25. Said section 21 of said chapter 25, as so appearing, is hereby further  
270 amended by striking out, in line 73, the word “reducing”, the second time it appears, and  
271 inserting in place thereof the following words:- greenhouse gas emissions or.

272 SECTION 26. Said section 21 of said chapter 25, as so appearing, is hereby further  
273 amended by inserting after the word “program”, in line 81, the first time it appears, the following  
274 words:- ; provided, however, that when determining cost-effectiveness, the calculation of  
275 program benefits shall include calculations of the social value of greenhouse gas emissions  
276 reductions.

277 SECTION 27. Said section 21 of said chapter 25, as so appearing, is hereby further  
278 amended by inserting after the word “accordingly”, in line 113, the following words:- ; provided,  
279 however, that when determining cost-effectiveness, the calculation of program benefits shall  
280 include calculations of the social value of greenhouse gas emissions reductions.

281 SECTION 28. Subsection (d) of said section 21 of said chapter 25, as so appearing, is  
282 hereby amended by adding the following 2 paragraphs:-

283 (4) The plans shall be constructed to meet or exceed the goal set by the secretary pursuant  
284 to section 3B of chapter 21N.

285 (5) Not later than 15 months after the conclusion of the final year of each plan, the  
286 department, drawing upon the most accurate and most complete data and measurements then  
287 available, shall issue a statement in writing to the clerks of the house of representatives and the  
288 senate, the house and senate committees on ways and means, the joint committee on  
289 telecommunications, utilities and energy and the joint committee on the environment, natural  
290 resources and agriculture, indicating the degree to which the activities undertaken pursuant to the

291 performance of each plan met the goal for the plan set by the secretary pursuant to section 3B of  
292 chapter 21N.

293 SECTION 29. Section 22 of said chapter 25, as so appearing, is hereby amended by  
294 inserting after the word “date”, in line 63, the following words:- , a quantification of the degree  
295 to which the activities undertaken pursuant to each plan contribute to meeting any and all  
296 greenhouse gas emission limits and sublimits imposed by statute or regulation.

297 SECTION 30. Said section 22 of said chapter 25, as so appearing, is hereby further  
298 amended by inserting after the word “year”, in line 69, the following words:- and a quantification  
299 of the degree to which the activities undertaken pursuant to each plan contribute to meeting any  
300 and all greenhouse gas emission limits and sublimits imposed by statute or regulation.

301 SECTION 31. Section 6 of chapter 25A of the General Laws, as so appearing, is hereby  
302 amended by striking out clauses (12) and (13) and inserting in place thereof the following 3  
303 clauses:-

304 (12) intervene and advocate on behalf of small commercial and industrial users before the  
305 department of public utilities in any dispute between such businesses and generation or  
306 distribution companies, as defined pursuant to section 1 of chapter 164;

307 (13) plan, develop, oversee and operate the commercial sustainable energy program, with  
308 the Massachusetts Development Finance Agency, in accordance with the provisions of chapter  
309 23M. In accordance with this section, the department shall approve each commercial PACE  
310 project prior to the issuance of a PACE bond under chapter 23M and in so doing shall consider  
311 whether the energy cost savings of the commercial energy improvements over the useful life of  
312 such improvements exceed the costs of such improvements; and

313 (14) develop and adopt, as an appendix to the state building code, in consultation with the  
314 board of building regulations and standards, a municipal opt-in specialized stretch energy code  
315 that includes, but is not limited to, a definition of net-zero building.

316 SECTION 32. Section 11F of said chapter 25A, as so appearing, is hereby amended by  
317 striking out, in line 18 and 19, the words “2029; and (5)” and inserting in place thereof the  
318 following words:- 2024; (5) an additional 3 per cent of sales each year thereafter until December  
319 31, 2029; and (6).

320 SECTION 33. Said chapter 25A is hereby further amended by inserting after section  
321 11F½ the following section:-

322 Section 11F3/4. (a) Each municipal lighting plant shall establish a greenhouse gas  
323 emissions standard, which shall be known as the “Municipal Lighting Plant GGES.”

324 (b) A Municipal Lighting Plant GGES shall set the minimum percentage of non-carbon  
325 emitting energy sold by each municipal lighting plant to all retail end-user customers purchasing  
326 electricity pursuant to rates established pursuant to section 58 of chapter 164 as follows: (i) 50  
327 per cent non-carbon emitting energy by 2030; (ii) 75 non-carbon emitting energy per cent by  
328 2040; and (iii) energy sales achieving net-zero greenhouse gas emissions by 2050.

329 (c) For the purposes of this section, “non-carbon emitting” shall mean:

330 (i) energy from facilities using the following generation technologies, but only to the  
331 extent that any renewable energy credits, emission free energy certificates or other evidentiary  
332 non-carbon emitting documentation associated therewith have not been sold, retired, claimed or  
333 otherwise represented by another party as part of electrical energy output or sales or used to

334 satisfy obligations in jurisdictions other than the commonwealth: (1) solar photovoltaic; (2) solar  
335 thermal electric; (3) hydroelectric, including imports into the New England wholesale electric  
336 market as administered by ISO New England Inc.; (4) nuclear; (5) marine or hydrokinetic  
337 energy; (6) geothermal energy; (7) landfill methane; (8) anaerobic digester gas; (9) wind energy;  
338 and (10) any other generation qualifying for renewable portfolio standards pursuant to section  
339 11F or the department of environmental protection's clean energy standard regulation pursuant to  
340 310 C.M.R. 7.75;

341 (ii) generation that has net lifecycle greenhouse gas emissions, over a 20-year life cycle,  
342 that yield at least a 50 per cent reduction of greenhouse gas emissions per unit of useful energy  
343 relative to the lifecycle greenhouse gas emissions from the aggregate use of the operation of a  
344 new combined cycle natural gas electric generating facility using the most efficient  
345 commercially-available technology as of the date of the statement of qualification application to  
346 the department of environmental protection for the portion of electricity delivered by the  
347 generation unit;

348 (iii) clean energy credits, such as renewable energy certificates, emission free energy  
349 certificates or other evidentiary non-carbon emitting documentation derived from each megawatt  
350 hour of generation from a resource, that are produced, documented or classified in the the New  
351 England Power Pool Generation Information System, or NEPOOL GIS, that have not otherwise  
352 been, nor will be, sold, retired, claimed or represented as part of electrical energy output or sales,  
353 or used to satisfy obligations in jurisdictions other than the commonwealth;

354 (iv) generation from resources otherwise determined by the department; or

355 (v) any combination of clauses (i) to (iv), inclusive.

356 (d) In satisfying the minimum percentages set forth in subsection (b), municipal lighting  
357 plants may either purchase or generate non-carbon emitting energy. Non-carbon emitting energy  
358 from resources using the types of technology set forth in this section, acquired via ownership  
359 interest or purchase pursuant to contracts executed prior to the effective date of this section, shall  
360 qualify in calculating the minimum percentages contained in subsection (b).

361 (e) A municipal lighting plant shall file an annual report with the department, using a  
362 form specified by the department, demonstrating compliance with this section. If a municipal  
363 lighting plant fails to comply with the requirements of this section, it shall make a one-time  
364 alternative compliance payment, to be known as the “Municipal Lighting Plant ACP” for the  
365 year of non-compliance, and on the anniversary of each year that said non-compliance continues  
366 thereafter, in the amount 0.25 times the Renewable Portfolio Standard ACP set forth in the  
367 department’s regulations at 225 C.M.R. 14.00 et seq. per kilowatt hour based on the amount of  
368 such deficiency, escalated annually by the Consumer Price Index, but in no event shall said ACP  
369 exceed \$0.010 per kilowatt hour. Such Municipal Lighting Plant ACP shall be deposited into a  
370 fund that shall be maintained and administered by the municipal light plant and such fund shall  
371 be used by the municipal light plant to fund greenhouse gas emissions reduction and related  
372 programs in its service territory.

373 SECTION 34. Clause (i) of subsection (c) of section 11F3/4 of said chapter 25A, as  
374 appearing in section 32, is hereby amended by striking out the words “and (10)” and inserting in  
375 place thereof, the following words:- (10) biomass fuel; and (11).

376 SECTION 35. Section 2 of chapter 25B of the General Laws, as appearing in the 2018  
377 Official Edition, is hereby amended by inserting after the definition of “Central furnace” the  
378 following 6 definitions:-

379 “Color rendering index” or “CRI”, the measure of the degree of color-shift objects  
380 undergo when illuminated by a light source as compared to the color of those same objects when  
381 illuminated by a reference source of comparable color temperatur“Commercial dishwasher”, a  
382 machine designed to clean and sanitize plates, pots, pans, glasses, cups, bowls, utensils, and trays  
383 by applying sprays of detergent solution (with or without blasting media granules) and a  
384 sanitizing rinse.

385 “Commercial fryer”, an appliance, including a cooking vessel, in which oil is placed to  
386 such a depth that the cooking food is essentially supported by displacement of the cooking fluid  
387 rather than by the bottom of the vessel and heat is delivered to the cooking fluid by means of an  
388 immersed electric element of band-wrapped vessel, such as electric fryers, or by heat transfer  
389 from gas burners through either the walls of the fryer or through tubes passing through the  
390 cooking fluid, such as gas fryers.

391 “Commercial hot-food holding cabinet”, a heated, fully-enclosed compartment with 1 or  
392 more solid or transparent doors designed to maintain the temperature of hot food that has been  
393 cooked using a separate appliance; provided, however, that a “commercial hot-food holding  
394 cabinet” shall not include heated glass merchandizing cabinets, drawer warmers or cook-and-  
395 hold appliances.

396 “Commercial oven” means a chamber designed for heating, roasting, or baking food by  
397 conduction, convection, radiation, and/or electromagnetic energy.

398           “Commercial steam cooker” or “compartment steamer”, a device with 1 or more food-  
399 steaming compartments in which the energy in the steam is transferred to the food by direct  
400 contact; provided, however, that “commercial steam cooker” or “compartment steamer” may  
401 include countertop models, wall-mounted models, and floor models mounted on a stand, pedestal  
402 or cabinet-style base.

403           SECTION 36. Said section 2 of said chapter 25B, as so appearing, is hereby further  
404 amended by inserting after the definition of “Compensation” the following 3 definitions:-

405           “Dual-flush effective flush volume”, the average flush volume of 2 reduced flushes and 1  
406 full flush.

407           “Dual-flush water closet”, a tank-type water closet incorporating a feature that allows the  
408 user to flush the water closet with either a reduced or a full volume of water.

409           “Electric vehicle supply equipment”, an electric component assembly or cluster of  
410 component assemblies designed specifically to charge batteries within electric vehicles by  
411 permitting the transfer of electric energy to a battery or other storage device in an electric  
412 vehicle.

413           SECTION 37. Said section 2 of said chapter 25B, as so appearing, is hereby further  
414 amended by inserting after the definition of “Electricity ratio (ER)” the following 2 definitions:-

415           “Faucet”, a lavatory faucet, kitchen faucet, metering faucet, public lavatory faucet or  
416 replacement aerator for a lavatory or kitchen faucet.

417           “Flow rate”, the rate of water flow of a plumbing fitting.

418 SECTION 38. Said section 2 of said chapter 25B, as so appearing, is hereby further  
419 amended by striking out the definition of “High-intensity discharge lamp”.

420 SECTION 39. Said section 2 of said chapter 25B, as so appearing, is hereby further  
421 amended by inserting after the definition of “F96T12 amp” the following 3 definitions:-

422 “General service lamp”, the same meaning as set forth in 10 CFR 430.2.

423 “Hand-held showerhead” means a showerhead that can be held or fixed in place for the  
424 purpose of spraying water onto a bather and that is connected to a flexible hose.

425 “High color rendering index fluorescent lamp”, a fluorescent lamp with a color rendering  
426 index of 87 or greater that is not a compact fluorescent lamp.

427 SECTION 40. Said section 2 of said chapter 25B, as so appearing, is hereby further  
428 amended by inserting after the definition of “Metal halide lamp fixture” the following  
429 definition:-

430 “Metering faucet”, a fitting that, when turned on, will gradually shut itself off over a  
431 period of several seconds.

432 SECTION 41. Said section 2 of said chapter 25B, as so appearing, is hereby further  
433 amended by inserting after the definition of “New appliance” the following 4 definitions:-

434 “On demand”, when the water cooler heats water as it is requested.

435 “Plumbing fitting”, a device that controls and guides the flow of water in a supply  
436 system.

437           “Plumbing fixture”, an exchangeable device, which connects to a plumbing system to  
438 deliver and drain away water and waste.

439           “Portable electric spa”, a factory-built electric spa or hot tub which may or may not  
440 include any combination of integral controls, water heating or water circulating equipment.

441           SECTION 42. Said section 2 of said chapter 25B, as so appearing, is hereby further  
442 amended by inserting after the definition of “Probe-start metal halide ballast” the following  
443 definition:-

444           “Public lavatory faucet”, a plumbing fitting intended to be installed in nonresidential  
445 bathrooms that are accessible to walk-in traffic.

446           SECTION 43. Said section 2 of said chapter 25B, as so appearing, is hereby further  
447 amended by inserting after the definition of “Refrigerator-freezer” the following definition:-

448           “Replacement aerator”, an aerator sold as a replacement, separate from the faucet to  
449 which it is intended to be attached.

450           SECTION 44. Said section 2 of said chapter 25B, as so appearing, is hereby further  
451 amended by inserting after the definition of “Residential furnace or boiler” the following 2  
452 definitions:-

453           “Residential ventilating fan”, a ceiling, wall-mounted, or remotely mounted in-line fan  
454 designed to be used in a bathroom or utility room, whose purpose is to move air from inside the  
455 building to the outdoors.

456           “Showerhead”, a device through which water is discharged for a shower bath and  
457 includes a handheld showerhead, but does not include a safety showerhead.

458 SECTION 45. Said section 2 of said chapter 25B, as so appearing, is hereby further  
459 amended by inserting after the definition of “Single-voltage external AC to DC power supply”  
460 the following 3 definitions:-

461 “Spray sprinkler body” the exterior case or shell of a sprinkler incorporating a means of  
462 connection to the piping system designed to convey water to a nozzle or orifice.

463 “Standby power”, the average power in standby mode, measured in watts.

464 “State-regulated general service lamp”, includes:

465 (1) Shatter-resistant incandescent lamps, 3-way incandescent lamps and high lumen  
466 output incandescent lamps rated at more than 2600 lumens or, in the case of a modified spectrum  
467 lamp, more than 1950 lumens, and less than or equal to 3,300 lumens.

468 (2) Incandescent reflector lamps that are:

469 (a) ER30, BR30, BR40, or ER40 lamps rated at 50 Watts or less;

470 (b) BR30, BR40, or ER40 lamps rated at 65 watts;

471 (c) R20 lamps rated at 45 watts or less.

472 (3) Incandescent lamps that are:

473 (a) T shape lamps rated at  $\leq 40$  Watts or  $\geq 10$  inches in length;

474 (b) B, BA, CA, F, G-16½, G-25, G-30 and S shape lamps;

475 (c) M-14 lamps rated at  $\leq 40$  Watts.

476 SECTION 46. Said section 2 of said chapter 25B, as so appearing, is hereby further  
477 amended by inserting after the definition of “State plumbing code” the following definition:-

478 “Storage-type”, thermally conditioned water that is stored in a tank in the water cooler  
479 and is available instantaneously, including, but not limited to, point of use, dry storage  
480 compartment and bottled water coolers.

481 SECTION 47. Said section 2 of said chapter 25B, as so appearing, is hereby further  
482 amended by inserting after the definition of “Transformer” the following 4 definitions:-

483 “Trough-type urinal”, a urinal designed for simultaneous use by 2 or more persons.

484 “Urinal”, a plumbing fixture that receives only liquid body waste and conveys the waste  
485 through a trap into a drainage system.

486 “Water closet”, a plumbing fixture with a water-containing receptor that receives liquid  
487 and solid body waste through an exposed integral trap into a drainage system.

488 “Water cooler”, a freestanding device that consumes energy to cool or heat potable water;  
489 provided however, that such device shall not be wall-mounted, under-sink or otherwise building  
490 integrated.

491 SECTION 48. Said section 2 of said chapter 25B, as so appearing, is hereby further  
492 amended by inserting after the definition of “Water heater” the following definition:-

493 “Water use”, the quantity of water flowing through a showerhead, faucet, water closet or  
494 urinal at point of use.

495 SECTION 49. Section 3 of said chapter 25B, as so appearing, is hereby amended by  
496 inserting after clause (j) the following 15 clauses:-

497 (k) commercial hot-food holding cabinets.

498 (l) computers and computer monitors.

499 (m) state-regulated general service lamps.

500 (n) high CRI fluorescent lamps.

501 (o) plumbing fittings.

502 (p) plumbing fixtures.

503 (q) portable electric spas.

504 (r) water coolers.

505 (s) residential ventilating fans.

506 (t) commercial ovens.

507 (u) commercial dishwashers.

508 (v) commercial fryers.

509 (w) commercial steam cookers.

510 (x) spray sprinkler bodies.

511 (y) electric vehicle supply equipment.

512 SECTION 50. Section 5 of said chapter 25B, as so appearing, is hereby amended by  
513 striking out, in line 24, the figure “(s)” and inserting in place thereof the following figure:- (y).

514 SECTION 51. The third paragraph of said section 5 of said chapter 25B, as so appearing,  
515 is hereby amended by adding the following 5 clauses:-

516 (6) Commercial hot-food holding cabinets shall meet the qualification criteria of the  
517 ENERGY STAR program product specifications for commercial hot-food holding cabinets,  
518 Version 2.0.

519 (7) Computers and computer monitors shall meet the requirements of section 1605.3 of  
520 Title 20 of the California Code of Regulations, as in effect on the effective date of this section, as  
521 measured in accordance with test methods prescribed in section 1604 of said Title 20 of the  
522 California Code of Regulations; provided, however, that The regulations shall define “computer”  
523 and “computer monitor” to have the same meaning as set forth in section 1602(v) of said Title 20  
524 of the California Code of Regulations; provided further, that the referenced portions of the  
525 California Code of Regulations shall be those adopted on or before the effective date of this  
526 section; and provided further, that the commissioner may amend the regulations so that the  
527 definitions of “computer” and “computer monitor” and the minimum efficiency standards for  
528 computers and computer monitors conform to subsequently adopted modifications to the  
529 referenced sections of the California Code of Regulations.

530 (8) State-regulated general service lamps shall meet or exceed a lamp efficacy of 45  
531 lumens per watt, when tested in accordance with the applicable federal test procedures for  
532 general service lamps, prescribed in Section 430.23 (gg) of Title 10 of the Code of Federal  
533 Regulations.

534 (9) High CRI, fluorescent lamps shall meet the minimum efficiency requirements  
535 contained in Section 430.32(n)(4) of Title 10 of the Code of Federal Regulations as in effect on  
536 January 3, 2019, when tested in accordance with the test procedure prescribed in Appendix R to  
537 Subpart B of Part 430 of Title 10 of the Code of Federal Regulations as in effect on January 3,  
538 2019.

539 (10) Plumbing fittings shall meet the following requirements:

540 (a) When tested in accordance with the flow rate test procedure prescribed in Appendix S  
541 to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations:

542 (I) the flow rate of lavatory faucets and replacement aerators shall not be greater than 1.5  
543 gallons per minute, hereafter referred to as gpm, at 60 pounds per square inch, hereafter referred  
544 to as psi;

545 (II) for sprayheads with independently controlled orifices and manual controls, the  
546 maximum flow rate of each orifice that manually turns on or off shall not exceed the maximum  
547 flow rate for a lavatory faucet;

548 (III) for sprayheads with collectively controlled orifices and manual controls, the  
549 maximum flow rate of a sprayhead that manually turns on or off shall be the product of: (i) the  
550 maximum flow rate for a lavatory faucet; and (ii) the number of component lavatories, rim space  
551 of the lavatory in inches [millimeters] divided by 20 inches [508 millimeters];

552 (IV) the flow rate of residential kitchen faucets and replacement aerators shall not be  
553 greater than 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi when tested in

554 accordance with the flow rate test procedure prescribed in Appendix S to Subpart B of Part 430  
555 of Title 10 of the Code of Federal Regulations;

556 (V) the flow rate of public lavatory faucets and replacement aerators shall not be greater  
557 than 0.5 gpm at 60 psi when tested in accordance with the flow rate test procedure prescribed in  
558 Appendix S to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations; and

559 (VI) the flow rate of showerheads shall not be greater than 2.0 gpm at 80 psi when tested  
560 in accordance with the flow rate test procedure prescribed in Appendix S to Subpart B of Part  
561 430 of Title 10 of the Code of Federal Regulations, effective on January 3, 2019.

562 (11) Plumbing fixtures shall meet the following requirements:

563 (a) The water consumption of urinals and water closets, other than those designed and  
564 marketed exclusively for use at prisons or mental health care facilities, shall be no greater than  
565 the values shown in items (b) through (d) , inclusive, when tested in accordance with the:

566 (i) Water consumption test prescribed in Appendix T to Subpart B of Part 430 of Title 10  
567 of the Code of Federal Regulations; and

568 (ii) Waste extraction test for water closets, section 7.9 of ASME A112.19.2/CSA B45.1-  
569 2018;

570 (b) Urinals shall have a maximum flush volume of 0.5 gallons per flush;

571 (c) Water closets, except for dual-flush tank-type water closets, shall have a maximum  
572 flush volume of 1.28 gallons per flush; and

573 (d) Dual-flush tank-type water closets shall have a maximum effective flush volume of  
574 1.28 gallons per flush.

575 (12) Portable electric spas shall meet the requirements of the American National Standard  
576 for Portable Electric Spa Energy Efficiency (ANSI/APSP/ICC-14-2019).

577 (13) Water coolers shall have on mode with no water draw energy consumption, a test  
578 that records the 24-hour energy consumption of a water cooler with no water drawn during the  
579 test period, less than or equal to the following, as measured in accordance with the test criteria  
580 prescribed in Version 2.0 of the ENERGY STAR program product specifications for water  
581 coolers:

582 (a) 0.16 kilowatt-hours per day for cold-only and cook-and-cold units;

583 (b) 0.87 kilowatt-hours per day for hot-and-cold units—storage type; and

584 (c) 0.18 kilowatt-hours per day for hot and cold units—on demand.

585 (14) Residential ventilating fans shall meet the qualification criteria of the ENERGY  
586 STAR Program Requirements Product Specification for Residential Ventilating Fans, Version  
587 4.1.

588 (15) Commercial ovens included in the scope of the ENERGY STAR Program  
589 Requirements Product Specification for Commercial Ovens, Version 2.2, shall meet the  
590 qualification criteria of that specification.

591 (16) Commercial dishwashers included in the scope of the ENERGY STAR Program  
592 Requirements Product Specification for Commercial Dishwashers, Version 2.0, shall meet the  
593 qualification criteria of that specification.

594 (17) Commercial fryers included in the scope of the ENERGY STAR Program  
595 Requirements Product Specification for Commercial Fryers, Version 2.0, shall meet the  
596 qualification criteria of that specification.

597 (18) Commercial steam cookers shall meet the requirements of the ENERGY STAR  
598 Program Requirements Product Specification for Commercial Steam Cookers, Version 1.2.

599 (19) Spray sprinkler bodies that are not specifically excluded from the scope of the U.S.  
600 Environmental Protection Agency's WaterSense Specification for Spray Sprinkler Bodies,  
601 Version 1.0, shall include an integral pressure regulator and shall meet the water efficiency and  
602 performance criteria and other requirements of that specification.

603 (20) Electric vehicle supply equipment included in the scope of the ENERGY STAR  
604 Program Requirements Product Specification for Electric Vehicle Supply Equipment, Version  
605 1.0 (Rev. Apr-2017), shall meet the qualification criteria of that specification.

606 SECTION 52. Said section 5 of said chapter 25B, as so appearing, is hereby further  
607 amended by inserting after the fourth paragraph the following paragraph:-

608 No new, commercial dishwasher, commercial fryer, commercial hot-food holding  
609 cabinet, commercial oven, commercial steam cooker, computer or computer monitor, electric  
610 vehicle supply equipment, faucet, high CRI fluorescent lamp, portable electric spa, residential  
611 ventilating fan, showerhead, spray sprinkler body, urinal, water closet or water cooler shall be  
612 sold or offered for sale, lease or rent in the commonwealth unless the efficiency of the new  
613 product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to  
614 this section. No state-regulated general service lamp shall be sold or offered for sale in the

615 commonwealth unless the efficiency of the new product meets or exceeds the efficiency  
616 standards provided in this section.

617 SECTION 53. Section 9 of said chapter 25B, as so appearing, is hereby amended by  
618 inserting after the first paragraph the following paragraph:-

619 If any of the energy or water conservation standards issued or approved for publication  
620 by the Office of the United States Secretary of Energy pursuant to the Energy Policy and  
621 Conservation Act, 10 C.F.R. §§ 430-431, were withdrawn, repealed or otherwise voided between  
622 January 1, 2018, and January 21, 2021, the minimum energy or water efficiency level permitted  
623 for products previously subject to federal energy or water conservation standards shall be the  
624 previously applicable federal standards and no such product may be sold or offered for sale in the  
625 state unless it meets or exceeds such standards.

626 SECTION 54. Chapter 29 of the General Laws is hereby amended by inserting after  
627 section 2KKKKK the following section:-

628 Section 2LLLLL. There is hereby established and set up on the books of the  
629 commonwealth an expendable trust to be known as the low-income services solar program. The  
630 secretary of energy and environmental affairs shall establish a grant program to provide solar  
631 energy technology to non-profit organizations offering services including, but not limited to,  
632 food security, homelessness and emergency shelter; provided, that any such grant shall be  
633 expended for solar energy technology at the principal place of the non-profit organization's  
634 operations or at any location or site that has a primary or secondary function to provide benefits  
635 or services, including, but not limited to, satellite operations space or affiliated organization  
636 locations; provided further, that 100 per cent of the solar energy produced by said technology

637 will benefit the awarded non-profit organization. The amounts credited to the trust shall be  
638 available for expenditure, subject to appropriation, not to exceed \$500,000 in a fiscal year, for  
639 the costs associated with purchasing and installing solar energy generating equipment for non-  
640 profit organizations that meet criteria set forth by the secretary; provided, that not less than 10  
641 grants shall be awarded per fiscal year; provided further, that no grant amount shall exceed  
642 \$50,000; and provided further, that grants shall be awarded in geographically diverse areas of the  
643 commonwealth. The executive office of energy and environmental affairs shall annually submit a  
644 report on disbursements of the trust, including, but not limited to, grant awardees and amounts  
645 awarded, to the clerks of the house and senate and the joint committee on telecommunications,  
646 utilities and energy not later than December 31.

647 SECTION 55. Section 62 of chapter 30 of the General Laws, as appearing in the 2018  
648 Official Edition, is hereby amended by striking out the words “sixty-one to sixty-two H” and  
649 inserting in place thereof the following figures:- 61 to 62L.

650 SECTION 56. Said section 62 of said chapter 30, as so appearing, is hereby amended by  
651 inserting after the definition of “Agency” the following 5 definitions:-

652 "Environmental benefits", the access to clean natural resources, including air, water  
653 resources, open space, constructed playgrounds and other outdoor recreational facilities and  
654 venues, clean renewable energy sources, environmental enforcement, training and funding  
655 disbursed or administered by the executive office of energy and environmental affairs.

656 “Environmental burdens”, any destruction, damage or impairment of natural resources  
657 that is not insignificant, resulting from intentional or reasonably foreseeable causes, including  
658 but not limited to, air pollution, water pollution, improper sewage disposal, dumping of solid

659 wastes and other noxious substances, excessive noise, activities that limit access to natural  
660 resources and constructed outdoor recreational facilities and venues, inadequate remediation of  
661 pollution, reduction of ground water levels, impairment of water quality, increased flooding or  
662 storm water flows, and damage to inland waterways and waterbodies, wetlands, marine shores  
663 and waters, forests, open spaces, and playgrounds from private industrial, commercial or  
664 government operations or other activity that contaminates or alters the quality of the environment  
665 and poses a risk to public health.

666 "Environmental justice population", a neighborhood that meets 1 or more of the  
667 following criteria: (i) the annual median household income is not more than 65 per cent of the  
668 statewide annual median household income; (ii) minorities comprise 40 per cent or more of the  
669 population; (iii) 25 per cent or more of households lack English language proficiency; or (iv)  
670 minorities comprise 25 per cent or more of the population and the annual median household  
671 income of the municipality in which the neighborhood is located does not exceed 150 per cent of  
672 the statewide annual median household income; provided, however, that for a neighborhood that  
673 does not meet said criteria, but a geographic portion of that neighborhood meets at least 1  
674 criterion, the secretary may designate that geographic portion as an environmental justice  
675 population upon the petition of at least 10 residents of the geographic portion of that  
676 neighborhood meeting any such criteria; provided further, that the secretary may determine that a  
677 neighborhood, including any geographic portion thereof, shall not be designated an  
678 environmental justice population upon finding that: (A) the annual median household income of  
679 that neighborhood is greater than 125 per cent of the statewide median household income; (B) a  
680 majority of persons age 25 and older in that neighborhood have a college education; (C) the  
681 neighborhood does not bear an unfair burden of environmental pollution; and (D) the

682 neighborhood has more than limited access to natural resources, including open spaces and water  
683 resources, playgrounds and other constructed outdoor recreational facilities and venues.

684 “Environmental justice principles”, principles that support protection from environmental  
685 pollution and the ability to live in and enjoy a clean and healthy environment, regardless of race,  
686 color, income, class, handicap, gender identity, sexual orientation, national origin, ethnicity or  
687 ancestry, religious belief or English language proficiency, which includes: (i) the meaningful  
688 involvement of all people with respect to the development, implementation and enforcement of  
689 environmental laws, regulations and policies, including climate change policies; and (ii) the  
690 equitable distribution of energy and environmental benefits and environmental burdens.

691 "Neighborhood," a census block group as defined by the United States Census Bureau,  
692 excluding people who live in college dormitories and people who are under formally authorized,  
693 supervised care or custody, including federal, state or county prisons.

694 SECTION 57. The third paragraph of section 62B of said chapter 30, as so appearing, is  
695 hereby amended by striking out the first sentence and inserting in place thereof the following  
696 sentence:-

697 An environmental impact report shall contain: (i) statements describing the nature and  
698 extent of the proposed project and its environmental and public health impact as result of any  
699 development, alteration and operation of the project; (ii) studies to evaluate said impacts; (iii) all  
700 measures being utilized to minimize any anticipated environment and public health damage; (iv)  
701 any adverse short-term and long-term environmental and public health consequences that cannot  
702 be avoided should the project be undertaken; and (v) reasonable alternatives to the proposed  
703 project and their environmental consequences.

704 SECTION 58. Said section 62B of said chapter 30, as so appearing, is hereby further  
705 amended by adding the following paragraph:-

706 An environmental impact report shall be required for any project that is likely to cause  
707 damage to the environment that is not insignificant and is located within a distance of 1 mile of  
708 an environmental justice population; provided, that for a project that impacts air quality, such  
709 environmental impact report shall be required if the project is likely to cause damage to the  
710 environment that is not insignificant and is located within a distance of 5 miles of an  
711 environmental justice population. Said report shall contain statements about the results of an  
712 assessment of any existing unfair or inequitable environmental burden and related public health  
713 consequences impacting the environmental justice population from any prior or current private,  
714 industrial, commercial, state, or municipal operation or project that has damaged the  
715 environment. The required assessment shall conform to the standards and guidelines established  
716 by the secretary. If the assessment indicates an environmental justice population is subject to an  
717 existing unfair or inequitable environmental burden or related health consequence the report shall  
718 identify any: (i) environmental and public health impact from the proposed project that would  
719 likely result in a disproportionate adverse effect on such population; and (ii) potential impact or  
720 consequence from the proposed project that would increase or reduce the effects of climate  
721 change on the environmental justice population. The secretary may require that an assessment be  
722 performed at any stage of the review process.

723 SECTION 59. Section 62E of said chapter 30, as so appearing, is hereby amended by  
724 adding the following paragraph:-

725 No agency shall exempt from an environmental impact report any project that is located  
726 in a neighborhood that has an environmental justice population and is reasonably likely to cause  
727 damage to the environment, as defined in section 61. The provisions of this paragraph shall not  
728 apply to emergency actions essential to avoid or eliminate a threat to public health or safety or a  
729 threat to any natural resource undertaken in compliance with section 62F.

730 SECTION 60. Said chapter 30 is hereby further amended by inserting after section 62I  
731 the following 3 sections:-

732 Section 62J. To enable the public to assess the impact of proposed projects that affect  
733 their environment, health and safety through the project review process established under  
734 sections 61 through 62J, inclusive, the secretary shall provide opportunities for meaningful  
735 public involvement.

736 For any proposed project that requires the filing of an environmental notification form,  
737 the proponent of the project shall indicate on the document whether an environmental justice  
738 population that lacks English language proficiency within a designated geographical area is  
739 reasonably likely to be affected negatively by the project.

740 If a proposed project is significant and affects an environmental justice population, the  
741 secretary shall require additional measures to improve public participation by the environmental  
742 justice population. Such measures shall include, as appropriate: (i) making public notices,  
743 environmental notification forms, environmental impact reports, and other key documents related  
744 to the secretary's review and decisions of a project review available in English and any other  
745 language spoken by a significant number of the affected environmental justice population; (ii)  
746 providing translation services at public meetings for a significant portion of an affected

747 environmental justice population that lacks English proficiency in the project's designated  
748 geographic area; (iii) requiring public meetings be held in accessible locations that are near  
749 public transportation; (iv) providing appropriate information about the project review procedure  
750 for the proposed project; and (v) where feasible, establishing a local repository for project review  
751 documents, notices and decisions.

752         The secretary of energy and environmental affairs may require such additional measures  
753 as appropriate for non-significant projects, or to improve participation opportunities for persons  
754 in an environmental justice population that lack English language proficiency and do not speak a  
755 dominant language spoken by such population.

756         As used in this section, the term designated geographic area shall mean an environmental  
757 justice population located within a distance of 1 mile of a project, unless the project affects air  
758 quality then the distance from such project shall be increased to within 5 miles of an  
759 environmental justice population.

760         Section 62K. The secretary shall consider the environmental justice principles, as defined  
761 in section 62, in making any policy or determination, or taking any action relating to a project  
762 review, undertaken pursuant to sections 61 through 62J, inclusive, to reduce the potential for  
763 unfair or inequitable effects upon an environmental justice population.

764         To further the environmental justice principles the secretary shall direct its agencies,  
765 including the departments, divisions, boards and offices under the secretary's control and  
766 authority, to consider the environmental justice principles in making any policy, determination or  
767 taking any other action related to a project review, or in undertaking any project pursuant to said

768 sections 61 through 62J, inclusive, and related regulations that is likely to affect environmental  
769 justice populations.

770 In addition, the secretary shall establish standards and guidelines for the implementation,  
771 administration and periodic review of environmental justice principles by the executive office of  
772 energy and environmental affairs and its agencies.

773 Section 62L. There shall be an environmental justice council to advise and provide  
774 recommendations to the secretary of energy and environmental affairs on relevant policies and  
775 standards to achieve the environmental justice principles. The council shall consist of not less  
776 than 9, but not more than 15, members appointed by the governor, who shall designate a chair.  
777 Members may be removed without cause, by the governor. All members shall serve without  
778 compensation.

779 The secretary of energy and environmental affairs shall consult with the environmental  
780 justice council before making any substantial adoptions, revisions or amendments to any  
781 regulation related to the definition of environmental justice population as defined in section 62.

782 The environmental justice council shall conduct a comprehensive analysis by not later  
783 than July 31, 2022, and every fifth year thereafter, to ensure the definition of environmental  
784 justice population achieves the objectives of the environmental justice principles, pursuant to the  
785 definitions of environmental justice population and environmental justice principles contained in  
786 section 62. The analysis shall include, but not be limited to, an evaluation of this definition as  
787 compared to the demographics of environmental justice populations in the commonwealth. As  
788 part of the analysis, said council shall provide advice and make recommendations to the  
789 secretary on any necessary changes to the percentage thresholds included in this definition and

790 any related regulation. The secretary shall consider the recommendations of the council  
791 regarding any proposed changes to the percentage thresholds under this definition; provided,  
792 however, that such changes are needed to achieve and promote the environmental justice  
793 principles as defined under said section 62. Proposed regulations shall be adopted only after the  
794 approval of the council by a majority vote in the affirmative of those members so voting.

795 The environmental justice council may recommend and provide advice to the secretary  
796 on proposed substantial legislative or regulatory changes related to this definition at any  
797 time prior to conducting a comprehensive analysis.

798 SECTION 61. Section 5 of chapter 59 of the General Laws, as appearing in the 2018  
799 Official Edition, is hereby amended by striking out clause Forty-fifth and inserting in place  
800 thereof the following clause:-

801 Forty-fifth, An owned or leased solar powered system, wind powered system or a solar or  
802 wind powered system that is co-located with an energy storage system, as defined in section 1 of  
803 chapter 164, that is: (i) capable of producing not more than 125 per cent of the annual electricity  
804 needs of the real property upon which it is located; provided, however, that the real property  
805 shall include both contiguous or non-contiguous real property within the same municipality in  
806 which there is a common ownership interest; (ii) a solar or wind powered system or a solar or  
807 wind powered system that is co-located with energy storage that is equal to or less than 25  
808 kilowatts or less in capacity, provided that the capacity of the system is verified by department of  
809 energy resources incentive program documentation or electric distribution company permission  
810 to operate documentation; or (iii) a solar or wind powered system or energy storage system, or a  
811 combination therein, that has entered into an agreement for payment in lieu of taxes associated

812 with the system with the municipality where the system is located. The exemption under this  
813 clause shall be allowed for a period of 20 years; provided, however, that upon a written  
814 agreement between the owner of the solar or wind powered system and the municipality where  
815 the system is located, an exemption with a period greater than 20 years may be allowed.

816 For purposes of this clause, an agreement for payment in lieu of taxes associated with the  
817 system shall include all personal property taxes on the system and any real property taxes  
818 attributable to the system and those taxes associated with the land on which the system is  
819 located, provided the land and the system are in common ownership. In cases in which the  
820 system and land are not in common ownership, only the personal property taxes attributable to  
821 the system shall be included in the agreement. A municipality, acting through its authorized  
822 officer, may execute an agreement for the payment in lieu of taxes with the owner of a solar,  
823 wind or storage powered system in the municipality where the solar or wind powered system is  
824 located.

825 This clause shall not apply to: (i) solar powered systems developed under section 1A of  
826 said chapter 164 or (ii) solar, wind, or energy storage systems otherwise owned by distribution or  
827 electric companies as defined under said section 1 of said chapter 164.

828 SECTION 62. Said section 5 of said chapter 59, as so appearing, is hereby further  
829 amended by inserting after clause Forty-fifth A the following clause:-

830 Forty-fifth B, Any qualified fuel cell powered system, the construction of which was  
831 commenced after January 1, 2020, that is capable of producing not more than 125 per cent of the  
832 annual energy needs of the real property upon which it is located. All other qualified fuel cell  
833 powered systems shall be taxable under the same conditions provided in clause Forty-fifth. For

834 the purposes of this clause, “qualified fuel cell powered system” shall mean an integrated system  
835 comprised of a fuel cell stack assembly and associated components that converts fuel into  
836 electricity without combustion and is being utilized as the primary or auxiliary power system for  
837 the real property upon which it is located, which shall include contiguous or non-contiguous real  
838 property owned or leased by the owner, or in which the owner otherwise holds an interest.

839 SECTION 63. Subsection (b) of section 38H of said chapter 59, as so appearing, is  
840 hereby amended by inserting after the word “thereof”, in line 91, the following words:- ;  
841 provided, however, that for the purposes of this subsection, a generation facility shall not include  
842 a facility that generates electricity through solar or wind power, nor shall it include a facility that  
843 generates electricity by a qualified fuel cell powered system, as defined in clause Forty-fifth B of  
844 section 5; and provided further, that a facility that generates electricity through solar or wind may  
845 execute an agreement for the payment in lieu of taxes under clause Forty-fifth of said section 5.

846 SECTION 64. Section 93 of chapter 143 of the General Laws, as so appearing, is hereby  
847 amended by striking out, in line 6, the word “eleven” and inserting in place thereof the following  
848 figure:- 15.

849 SECTION 65. Said section 93 of said chapter 143, as so appearing, is hereby further  
850 amended by striking out, in line 8, the word “both” and inserting in place thereof the following  
851 words:- 1 of whom shall be the commissioner of energy resources or a designee and all 3.

852 SECTION 66. Said section 93 of said chapter 143, as so appearing, is hereby further  
853 amended by striking out, in line 9, the word “nine” and inserting in place thereof the following  
854 figure:- 12.

855 SECTION 67. Said section 93 of said chapter 143, as so appearing, is hereby further  
856 amended by inserting after the word “department”, in line 17, the following words:- , 1 of whom  
857 shall be an expert in commercial building energy efficiency, 1 of whom shall be an expert in  
858 residential building energy efficiency, 1 of whom shall be an expert in advanced building  
859 technology.

860 SECTION 68. Said section 93 of chapter 143, as so appearing, is hereby further amended  
861 by inserting after the word “reappointment”, in lines 26 and 27, the following words:- for a  
862 second term, but shall not serve more than 10 total years.

863 SECTION 69. Said section 93 of chapter 143, as so appearing, is hereby further amended  
864 by inserting after the word “years”, in line 37, the following words:- or more than 4 years total.

865 SECTION 70. The second paragraph of said section 93 of said chapter 143, as so  
866 appearing, is hereby amended by adding the following sentence:- The board shall keep detailed  
867 and accurate minutes of its meetings and shall publish such minutes within 30 days of each  
868 meeting.

869 SECTION 71. Said section 93 of said chapter 143, as so appearing, is hereby further  
870 amended by inserting after the word “designee”, in line 46, the following words:- , in  
871 consultation with the commissioner of energy resources,

872 SECTION 72. Section 94 of said chapter 143, as so appearing, is hereby amended by  
873 striking out, in lines 110 to 113, inclusive, the words “as part of the state building code, together  
874 with any more stringent energy-efficiency provisions that the board, in consultation with the  
875 department of energy resources, concludes are warranted” and inserting in place thereof the

876 following words:- and any amendments thereto as part of the state building code, in consultation  
877 with the department of energy resources.

878 SECTION 73. Section 96 of said chapter 143, as so appearing, is hereby amended by  
879 inserting, in line 7, after the word “to” the following words:- , the specialized stretch energy code  
880 developed and adopted by the department of energy resources.

881 SECTION 74. Section 97 of said chapter 143, as so appearing, is hereby amended by  
882 striking out, in line 22, the words “a reasonable time” and inserting in place thereof the following  
883 words:- 45 days.

884 SECTION 75. Section 185 of chapter 149 of the General Laws, as so appearing, is hereby  
885 amended by inserting after the definition of “public body” the following definition:-

886 (3½) “Public utility employer,” a gas and electricity public utility provider.

887 SECTION 76. Said section 185 of said chapter 149, as so appearing, is hereby further  
888 amended by inserting after the word “employer”, in lines 4, 20, 24, 29, 32, 32 to 33, 33, 42, 43,  
889 57, 61, 79, 84, 88, 89, 97, 99 and 103, each time it appears, the following words:- or public  
890 utility employer.

891 SECTION 77. Section 1A of chapter 164 of the General Laws, as so appearing, is hereby  
892 amended by adding the following subsection:-

893 (g) Municipalities, including those with environmental justice populations, at high risk  
894 from the effects of climate change may approve 1 or more solar energy projects owned and  
895 operated by an electric or gas distribution company constructing, owning and operating  
896 generation facilities on land owned within the municipality, which is paired, where feasible, with

897 energy storage facilities designed to improve community climate adaptation and resiliency or  
898 contribute to the commonwealth meeting its carbon emissions limits established in section 3 of  
899 chapter 21N. Prior to project approval under this section, electric and gas distribution companies  
900 shall conduct an outreach program to promote the development of solar energy projects in  
901 environmental justice communities and to create program goals, including, but not limited to, job  
902 creation, peak demand reduction and system resiliency. Municipalities with environmental  
903 justice populations shall receive a preference for participation in such projects.

904 For the purposes of this section, a municipality at high risk from the effects of climate  
905 change shall mean a city or town that can demonstrate to the department current or future  
906 significant changes to its population, land use or local economy resulting from changes in  
907 climate. Nothing in this section shall have the effect of, overriding, modifying, or terminating  
908 any applicable requirements for local zoning and permitting by a municipality.

909 Notwithstanding sections 1B to 1H, inclusive, electric and gas distribution companies  
910 may be eligible to assist a municipality at high risk from the effects of climate change in  
911 furthering its climate adaptation and resiliency goals by constructing, owning and operating solar  
912 generation facilities paired, where feasible, with energy storage facilities on land owned by the  
913 electric or gas distribution company within a municipality, including those with environmental  
914 justice populations, at no cost to the municipality; provided, that such facilities may receive  
915 department approval for cost recovery. Such company shall not construct, own or operate new  
916 facilities equaling more than 10 per cent of the total installed megawatt capacity of solar  
917 generation facilities in the commonwealth as of July 31, 2020.

918 Projects undertaken on behalf of a municipality for construction of utility-owned solar  
919 facilities shall be exempt from the prohibition on utility-owned generation, subject to review and  
920 approval by the department of public utilities. The department may review municipal petitions  
921 for development of utility-owned solar facilities and may allow cost recovery upon a showing  
922 that a site-specific development would provide environmental or climate change benefits to the  
923 community, municipality or the commonwealth, or a combination thereof, warranting a site-  
924 specific exemption and that the costs of the project are reasonable.

925 Affirmation of support by a municipality shall be presented to the department by an  
926 electric or gas distribution company in any petition for pre-approval of cost recovery for a solar  
927 energy generating facility and energy storage facility, where deemed feasible, and the department  
928 shall determine whether the proposal is consistent with the commonwealth's energy policies,  
929 contributes to the climate change resiliency of the host municipality and mitigates peak energy  
930 demand. In approving any such proposal, the department shall: (i) provide the criteria applied in  
931 reviewing the proposal; (ii) provide the evidence provided in support of the proposal and relied  
932 on by the department in making its decision; and (iii) identify the specific contributions to the  
933 commonwealth's energy policies that will be attributable to the proposed facility and  
934 demonstrate the analytical foundation for the department's approval of utility owned solar  
935 facilities.

936 For purposes of this subsection, "environmental justice population" shall have the same  
937 meaning as provided in section 62 of chapter 30.

938 The department may adopt such rules and regulations as may be necessary to implement  
939 this subsection.

940 SECTION 78. Paragraph (8) of section 1F of said chapter 164, as so appearing, is hereby  
941 amended by adding the following subparagraph:-

942 (g) The department shall ensure that all written complaints under this section received  
943 from customers and the public regarding gas providers are investigated and a response to the  
944 complainant provided in a timely manner. The department shall establish a publicly accessible  
945 database which shall, to the greatest extent possible and incorporating customer privacy  
946 concerns, contain all complaints received, noting the category of complaint, the date it was  
947 received, the steps taken to address it and that date it was resolved.

948 SECTION 79. Section 1J of said chapter 164, as so appearing, is hereby amended by  
949 striking out, in line 5, the figure "250,000" and inserting in place thereof the following figure:-  
950 500,000.

951 SECTION 80. Said section 1J of said chapter 164, as so appearing, is hereby further  
952 amended by striking out, in line 8, the figure "20,000,000" and inserting in place thereof the  
953 following figure:- 50,000,000.

954 SECTION 81. Section 105A of said chapter 164, as so appearing, is hereby amended by  
955 striking out, in lines 21 to 23, inclusive, the words "as specified in 49 U.S.C. section 60122(a)(1)  
956 or any successor statute enacted into federal law for the same purposes as said section  
957 60122(a)(1)" and inserting in place thereof the following words:- of not more than \$500,000 for  
958 each violation; provided, however, that the maximum civil penalty under this section for a  
959 related series of violations shall be \$10,000,000; and provided further, that the dollar limits in  
960 this paragraph shall be doubled if the department determines that the violator has engaged in 1 or

961 more similar violations in the 3 years preceding the violation. A separate violation occurs for  
962 each day the violation continues.

963 SECTION 82. Section 138 of said chapter 164, as so appearing, is hereby amended by  
964 inserting after the word “less”, in line 37, the following words:- ; provided, however, that a  
965 “Class I net metering facility” of a municipality or other governmental entity may have a  
966 generating capacity of less than or equal to 60 kilowatts per unit.

967 SECTION 83. Said section 138 of said chapter 164, as so appearing, is hereby further  
968 amended by striking out, in line 120, the figure “II” and inserting in place thereof the following  
969 figures:- I, II.

970 SECTION 84. Paragraph (1) of subsection (b<sup>1/2</sup>) of section 139 of said chapter 164, as so  
971 appearing, is hereby amended by striking out the third sentence and inserting in place thereof the  
972 following sentence:- A solar net metering facility may designate customers of any distribution  
973 company located in the commonwealth to receive such credits in amounts attributed by the solar  
974 net metering facility.

975 SECTION 85. Subsection (i) of said section 139 of said chapter 164, as so appearing, is  
976 hereby amended by adding the following sentence:- A Class II net metering facility or Class III  
977 net metering facility with an executed interconnection agreement with a distribution company on  
978 or after January 1, 2021 shall be exempt from the aggregate net metering capacity of facilities  
979 that are not net metering facilities of a municipality or other governmental entity under  
980 subsection (f), and may net meter and accrue Class II or Class III net metering credits if it is  
981 generating renewable energy and serves on-site load, other than parasitic or non-station load;  
982 provided, that any credits accrued in excess of its annual electricity consumption for the period

983 running from April through the following March shall be credited or paid out for such excess  
984 credits at the utility's avoided cost rate.

985 SECTION 86. Section 144 of said chapter 164, as so appearing, is hereby amended by  
986 adding the following 2 subsections:-

987 (g) The department shall establish requirements for the maintenance, timely updating,  
988 accuracy, and security of gas distribution company maps and records.

989 (h) Disruptions in the provision of electronic data, including but not limited to, maps and  
990 records relevant to inspections, maintenance, repairs, and construction to its in-house workforce  
991 and contractors, lasting more than 30 minutes to field personnel and field contractors shall be  
992 incorporated as a metric in the department's service quality indicators for local distribution  
993 companies.

994 SECTION 87. Section 145 of said chapter 164, as so appearing, is hereby amended by  
995 striking out subsection (b) and inserting in place thereof the following subsection:-

996 (b) A gas company shall file with the department a plan to address aging or leaking  
997 natural gas infrastructure within the commonwealth and the leak rate on the gas company's  
998 natural gas infrastructure in the interest of public safety and reducing lost and unaccounted for  
999 natural gas through a reduction in natural gas system leaks. Each company's gas infrastructure  
1000 plan shall include interim targets for the department's review. The department shall review these  
1001 interim targets to ensure each gas company is meeting the appropriate pace to reduce the leak  
1002 rate on and to replace the gas company's natural gas infrastructure in a safe and timely manner.  
1003 The interim targets shall be for periods of not more than 6 years or at the conclusion of 2  
1004 complete 3-year walking survey cycles conducted by the gas company. The gas companies shall

1005 incorporate these interim targets into timelines for removing all leak-prone infrastructure filed  
1006 pursuant to subsection (c) and may update them based on overall progress. The department may  
1007 levy a penalty against any gas company that fails to meet its interim target in an amount up to  
1008 and including the equivalent of 2.5 per cent of such gas company's transmission and distribution  
1009 service revenues for the previous calendar year.

1010 SECTION 88. Said section 145 of said chapter 164, as so appearing, is hereby further  
1011 amended by striking out, in line 33, the words “and (vi)” and inserting in place thereof the  
1012 following words:- (vi) the relocations, where practical, of a meter located inside of a structure to  
1013 the outside of said structure for the purpose of improving public safety; and (vii).

1014 SECTION 89. The second paragraph of subsection (c) of said section 145 of said chapter  
1015 164, as so appearing, is hereby amended by striking out the first sentence and inserting in place  
1016 thereof the following sentence:-

1017 As part of each plan filed under this section, a gas company shall include a timeline for  
1018 removing all leak-prone infrastructure on an accelerated basis specifying an annual replacement  
1019 pace and program end date with a target end date of: (i) not more than 20 years from the filing of  
1020 a gas company's initial plan; or (ii) a reasonable target end date considering the allowable  
1021 recovery cap established pursuant to subsection (f).

1022 SECTION 90. Section 16 of chapter 298 of the acts of 2008 is hereby amended by  
1023 striking out the words “, and shall expire on December 31, 2020”.

1024 SECTION 91. The fourth sentence of subsection (b) of section 83C of chapter 169 of the  
1025 acts of 2008, as appearing in section 12 of chapter 188 of the acts of 2016, is hereby amended by  
1026 striking out the figure “1,600” and inserting in place thereof the following figure:- 4,000.

1027 SECTION 92. The fifth sentence of said subsection (b) of said section 83C of said  
1028 chapter 169, as amended by chapter 48 of the acts of 2019, is hereby amended by striking out the  
1029 figure “24”, as appearing in section 12 of chapter 188 of the acts of 2016, and inserting in place  
1030 thereof the following figure:- 18.

1031 SECTION 93. The sixth sentence of said subsection (b) of said section 83C of said  
1032 chapter 169, as appearing in said section 12 of said chapter 188 of the acts of 2016, is hereby  
1033 further amended by inserting after the word “resources” the following words:- and the executive  
1034 office of housing and economic development.

1035 SECTION 94. Notwithstanding any general or special law, rule or regulation to the  
1036 contrary, when initiating a regulatory process for any new solar incentive program developed by  
1037 the department of energy resources pursuant to section 11 of chapter 75 of the acts of 2016 or  
1038 any other general or special law or other authority, the department shall to the greatest extent  
1039 feasible: (i) provide equitable access to all Massachusetts ratepayers, including low-income  
1040 ratepayers; (ii) address solar energy access and affordability for low-income communities; (iii)  
1041 include effective consumer protection provisions; and (iv) ensure that information about the  
1042 program and its benefits are provided in a readily accessible manner to all ratepayers, including  
1043 non-English speaking communities. The department shall consult with a diverse range of  
1044 stakeholders to inform the design of any such solar incentive program, including low-income  
1045 ratepayers and organizations representing their interests.

1046 SECTION 95. Notwithstanding any general or special law to the contrary, the department  
1047 of energy resources may require distribution companies to jointly and competitively solicit and  
1048 procure proposals for offshore wind energy transmission sufficient to deliver energy generation

1049 procured pursuant to subsection (b) of section 83C of chapter 169 of the acts of 2008 from  
1050 designated wind energy areas for which a federal lease was issued on or after January 1, 2012,  
1051 that may be developed independent of such offshore wind energy generation; provided further,  
1052 that such transmission service shall be made available for use by more than 1 wind energy  
1053 generation project and shall not exceed the generation capacity authorized by this section; and  
1054 provided further, that any selection of offshore wind energy transmission shall be the most cost-  
1055 effective mechanism for procuring reliable, low-cost offshore wind energy transmission service  
1056 for ratepayers.

1057           SECTION 96. Notwithstanding any general or special law to the contrary, the  
1058 department of energy resources and department of public utilities shall amend any rules,  
1059 regulations, and tariffs to permit the owner of any new solar facility, including any solar energy  
1060 generating source, that qualifies for programs pursuant to section 11F of chapter 25A of the  
1061 General Laws and application regulations that achieves commercial operation on or after January  
1062 1, 2021 to: (i) receive credits for any electricity generated by a solar facility that exceeds the  
1063 owner's usage during a billing period, with such credits to be credited to a solar facility owner's  
1064 customer account with the relevant distribution company, and carried forward from month to  
1065 month; (ii) designate customers of the same distribution company, regardless of which ISO-NE  
1066 load zone the customers are located in, to receive such credits in amounts attributed by the solar  
1067 facility, with such credits applicable to any portion or all of a designated customer's electric bill;  
1068 and (iii) direct the distribution company to purchase all or a portion of any credits produced by a  
1069 solar facility at the rates provided for in the applicable statute, regulation, or tariff without  
1070 discount, fee, or penalty. This section shall not apply to solar net metering facilities.

1071 SECTION 97. Notwithstanding clause forty-fifth of section 5 of chapter 59 of the  
1072 General Laws, the owner of a solar or wind powered system and the municipality in which the  
1073 system is located shall not be required by sections 61 and 63 to amend, modify or renegotiate an  
1074 existing payment in lieu of tax agreement that was entered into or executed before the effective  
1075 date of this act.

1076 SECTION 98. Notwithstanding sections sections 61 and 63, a solar or wind system  
1077 determined to be exempt under clause Forty-fifth of section 5 of chapter 59 of the General Laws  
1078 prior to the effective date of this act and that has not executed a payment in lieu of taxes  
1079 agreement with the municipality in which such system is located shall remain exempt; provided,  
1080 however, that the system produces less than 150 per cent of the annual electricity needs of the  
1081 real property on which it is located.

1082 SECTION 99. The department of public utilities may, upon application of a gas company  
1083 as defined in section 1 of chapter 164 of the General Laws, authorize 1 or more pilot projects for  
1084 the development of utility-scale renewable thermal energy. Such application shall be filed with  
1085 the department on or before January 1, 2023. The department may, under a pilot, approve  
1086 recovery of costs for projects situated in the commonwealth that demonstrate the costs and  
1087 benefits of: (i) utility-scale renewable thermal energy sources, systems or technologies capable  
1088 of substituting for fossil-based natural gas; or (ii) utility-scale renewable thermal energy  
1089 replacements for, or alternative uses of, infrastructure constructed originally to generate, transmit  
1090 or distribute fossil-based natural gas; provided, however, that such substitute renewable thermal  
1091 energy sources, systems or technologies, and such replacements or alternative uses, have a  
1092 reasonable likelihood of facilitating substantial reductions in greenhouse gas emissions that  
1093 satisfy the mandates of greenhouse gas reductions set forth in chapter 21N of the General Laws;

1094 and provided further, that the pilots shall not include the blending of other fuels with fossil-based  
1095 natural gas. The department may, within such a pilot, permit a gas company to bill for thermal  
1096 energy. The department shall ensure transparency and validity of the outcomes of the pilot  
1097 projects through a third-party evaluation and report by the department of energy resources. In  
1098 determining whether to approve a pilot project, the department shall consider the reasonableness  
1099 of the size, scope and scale of the pilot project and related budget and whether the benefits of the  
1100 proposed pilot justify the proposed cost to both participating and non-participating customers;  
1101 provided, however, that the calculation of benefits shall include calculations of the social value  
1102 of greenhouse gas emissions reductions. The department may promulgate rules or regulations to  
1103 implement this section.

1104           SECTION 100. The Massachusetts clean energy technology center shall administer a heat  
1105 pump market development program to fund and offer training, which shall include, but not be  
1106 limited to, heating oil dealers, for the purpose of expanding markets for space and water heating  
1107 using efficient heat pump technology. The Massachusetts clean energy technology center may  
1108 draw upon the Massachusetts Renewable Energy Trust Fund, established in section 9 of chapter  
1109 23J of the General Laws, for such purpose if sufficient funds are available. The Massachusetts  
1110 clean energy technology center may stop offering such program after January 1, 2026.

1111           SECTION 101. To develop the specialized stretch energy code required by section 6 of  
1112 chapter 25A of the General Laws, the department of energy resources shall: (i) hold not less than  
1113 5 public hearings in geographically diverse locations throughout the commonwealth that shall  
1114 represent the distinguishing characteristics of rural, suburban and urban households, 1 of which  
1115 shall be held in an underserved community or community with a high percentage of low-income  
1116 households; and (ii) consider the development of a tiered implementation plan for the adoption of

1117 the stretch energy code including, but not limited to, phasing in requirements based on building  
1118 type or uses. The specialized stretch energy code required by said section 6 of said chapter 25A  
1119 shall be developed, adopted and incorporated as an appendix to the state building code not later  
1120 than 1 year after the passage of this act.

1121 SECTION 102. The executive office of energy and environmental affairs and its various  
1122 agencies and departments shall conduct a study within 2 years of the effective date of this act  
1123 that shall include, but not be limited to: (i), an analysis of greenhouse gas emissions generated  
1124 and projected to be generated by combustion within the commonwealth of the various categories  
1125 and classes of biomass fuels; (ii) the public health consequences of said combustion for affected  
1126 populations, together with estimations of the cumulative greenhouse gas emissions and (iii)  
1127 public health impacts of said combustion. To inform the design and conduct of said study, the  
1128 executive office shall hold not less than 3 public hearings.

1129 SECTION 103. The department of public utilities shall establish rules and regulations by  
1130 which the qualifications of contractors shall be evaluated. Contractors who wish to be eligible to  
1131 receive contracts with a gas company to perform gas work shall be required to register with the  
1132 department and provide all required documentation to meet certification requirements, as set by  
1133 the department, to the department on an annual basis.

1134 SECTION 104. The department of public utilities shall promulgate and implement the  
1135 regulations required pursuant to subsection (g) of section 144 of chapter 164 of the General  
1136 Laws.

1137 SECTION 105. The department of revenue, in consultation with the department of energy  
1138 resources, shall issue guidance for municipalities and solar, wind and energy storage system

1139 owners that shall include, but not be limited to: (i) assessment of solar, wind and energy storage  
1140 systems; (ii) standardization of agreement terms; and (iii) where feasible, standardization of tax  
1141 policy when agreements for payments in lieu of taxes are not in place. The guidance shall be  
1142 issued not more than 9 months after the effective date of this act.

1143 SECTION 106. Notwithstanding section 3B of chapter 21N of the General Laws, the  
1144 secretary of energy and environmental affairs shall set the first goal required by said section 3B  
1145 of said chapter 21N not later than April 15, 2021.

1146 SECTION 107. The 2025 and 2030 statewide greenhouse gas emission interim limits  
1147 and sublimits required by subsection (b) of section 3 and section 3A of chapter 21N of the  
1148 General Laws, and the 2030 emissions reduction roadmap plan required by said section 3 of said  
1149 chapter 21N shall be adopted and published not later than January 1, 2022.

1150 SECTION 108. The 2035 statewide greenhouse gas emissions interim limit and sublimits  
1151 required by subsection (b) of section 3 and section 3A of chapter 21N of the General Laws, and  
1152 the 2035 emissions reduction roadmap plan required by said section 3 of said chapter 21N, shall  
1153 be adopted and published not later than January 1, 2028.

1154 SECTION 109. The 2040 statewide greenhouse gas emissions interim limit and sublimits  
1155 required by subsection (b) of section 3 and section 3A of chapter 21N of the General Laws, and  
1156 the 2040 emissions reduction roadmap plan required by said section 3 of said chapter 21N, shall  
1157 be adopted and published not later than January 1, 2033.

1158 SECTION 110. The 2045 statewide greenhouse gas emissions interim limit and sublimits  
1159 required by subsection (b) of section 3 and section 3A of chapter 21N of the General Laws, and

1160 the 2045 emissions reduction roadmap plan required by said section 3 of said chapter 21N, shall  
1161 be adopted and published not later than January 1, 2038.

1162 SECTION 111. The 2050 sector-based emissions sublimits required by section 3A of  
1163 chapter 21N of the General Laws and the emissions reduction plan required by subsection (b) of  
1164 section 3 of said chapter 21N to realize the 2050 limit and sublimits shall be adopted and  
1165 published not later than January 1, 2023; provided, however, that the sublimits and plan shall be  
1166 subject to revision and improvement by emissions reduction sublimits and plans adopted and  
1167 published for 2030, 2035, 2040 and 2045.

1168 SECTION 112. Section 34 shall take effect on January 1, 2026.

1169 SECTION 113. Section 52 shall take effect on January 1, 2022.

1170 SECTION 114. Sections 61, 62, 63, 97, and 98 shall take effect 90 days from the passage  
1171 of this act.